ENA MEMBER DISTRIBUTION PRICING REFORM - ROAD MAPS

This document contains the pricing reform roadmaps of ENA members as at 1 April 2017. Click on the company name below to skip directly to individual roadmap, or use the bookmarks.

Alpine Energy
Aurora
Buller
Centralines
Counties Power
Eastland
Electra
Electricity Invercargill
EA Networks
Horizon
Mainpower
Marlborough Lines
Nelson
Network Tasman
Network Waitaki
Northpower
Orion
OtagoNet
Powerco
Power Company
Scanpower
The Lines Company
Top Energy
Unison
Vector
Waipa
WEL Wellington
Westpower

Alpine Energy Limited
31-35 Meadows Road, Washdyke
P.O.Box 530, Timaru, New Zealand
Telephone: (03) 687 4300
Fascimile: (03) 684 8261
email: mailbox@alpineenergy.co.nz

SJC: AXH
38/4,35/17

31 March 2017

Electricity Authority
Carl Hansen
Chief Executive
Level 7, ASB Bank Tower
2 Hunter Street
WELLINGTON

Email: christina.hammond@ea.govt.nz

Dear Carl

Distribution Pricing

Thank you for your letter of 18 October 2016 in which you requested that by 31 March 2017 electricity distribution businesses (EDBs) publish and provide to the Electricity Authority (EA) a roadmap outlining their plans for cost reflective pricing. I am not responding to your request by publishing a roadmap. I am of the view that our prices are already cost reflective; thereby making the publication of a roadmap a reactive rather than proactive response. I feel that your request is better answered by me sharing with you how:

(i) our current prices are cost reflective; and
(ii) we use appropriate and effective engagement with our stakeholders to inform our thinking.

Our current prices are cost reflective

Current prices for our load groups are based on what assets consumers use at their connection rather than on who the customer is. At a high level our load groups can be broken into six types:

- LOW – single phase residential connection that uses less than 9,000 kWh per annum
- 015 – single phase (i.e., 15 kw installed capacity)
- 360 – three phase (i.e., 45 kw installed capacity)
- ASS – installed capacity greater than 45 kw with accumulation metering
- TOU400 – connection with 400kVA and smart metering
- TOU11 – high voltage connection

In essence which load group a customer belongs to is based on the configuration at the individual connection point (ICP). The prices charged to each load group are based on the costs to serve each load group. The costs to serve are based on the assets that are used by that load group. For example, an ICP that is in the TOU11 pays for high voltage assets only as they do not use low voltage assets.

I could go into a lot of detail about our pricing in this letter. However I feel that it is better that you read our 2017 Pricing Methodology. For your convenience I have included a copy of our methodology. A copy can also be found on our website[1].

Low user regulations muddies the water

Unfortunately, our prices are not without cross subsidisation due to the requirement to offer low user tariffs. Under recovery of costs from those consumers in our LOW load groups (which is approximately 16% of our total consumer base) is spread across the other load groups.

I acknowledge that economic purists would say that the very existence of cross subsidisation means that our prices are not strictly 'cost reflective'. However, I am of the view that, as the need to have lower user tariffs is a regulatory one, we cannot completely eliminate[2] the cross subsidisation element from our pricing through self-lead price changes rather, a legislative change is needed. Therefore we can, within the confines of current legislation, deem our prices to be 'cost reflective'.

Appropriate and effective engagement is the key to answering how our prices should evolve

How should our prices evolve is a hard question for us to answer at this time as we have yet to engage with our stakeholders on that question. Our stakeholders are wide and varied. As are their views, needs and wants, which at times can be in conflict. Our stakeholders, in no particular order, include:

- traders
- consumers (both large and small)
- shareholders (who are also our consumers)
- the wider community of South Canterbury
- regulators (i.e., EA, Commerce Commission, WorkSafe)
- New Zealand inc. as a whole.

We are of the view that appropriate and effective stakeholder engagement is paramount to answering the price evolution question. Engagement should be proactive, rather than

[1] www.alpineenergy.co.nz

[2] We acknowledge that the EA has published its view that demand changes are 'variable' charges and accordingly we could look to applying demand charges to our LOW load groups to reduce the cross subsidisation. This is an approach that we will look to engage stakeholders on in the future. However, we are of the view that some cross subsidisation would continue to exist as long as the regulation remains in place.

reactive, and planned and managed carefully so as the feedback we receive appropriately and effectively informs our thinking.

The danger in creating a reactive roadmap, at this time, is that our current cost reflective pricing becomes less so as a result of pushing through price change that is driven by the interests of only the few of our more vocal stakeholders.

How will stakeholders know that we have started our engagement?

Engagement would be pointless if it were not available to stakeholders in the public forum. Accordingly, at the appropriate time, we will publish our engagement strategy, processes and outcomes on our website. We will also contact some stakeholders directly (e.g., traders, large consumers, consumer interest groups, and of course the regulators).

We are likely to use consumer surveys to engage with our mass market consumers (i.e., consumers in the LOW to TOU400 load groups). As you are aware, engaging with consumers directly has been a matter of contention with some traders. We will look to take traders' concerns into account when constructing our surveys and intend to take ERANZ up on its kind offer to help us draft our survey(s) and create our engagement strategy.

We consider the EA to be a key stakeholder and accordingly we look forward to engaging with you when we embark on our journey. I am sure your feedback will be helpful to us forming our thinking around distribution pricing.

Closing comments

I hope that you have found my response to your request helpful. We are happy to discuss our pricing with stakeholders at any time and should the EA, or interested persons, have any questions about our pricing please contact Sara Carter, General Manager – Commercial and Regulatory at sara.carter@alpineenergy.co.nz or 03 687 4300 in the first instance.

Yours sincerely

Michael Boorer
Acting Chief Executive Officer

Future Pricing Roadmap Checklist

EDB : *Aurora Energy Limited*

Roadmap Stages	Activities	Timeline
		2017 H1 · 2017 H2 · 2018 H1 · 2018 H2 · 2019 H1 · 2019 H2 · 2020 · 2021 · 2022 · 2023 · 2024 · 2025
1. Initiate pricing reform		
Communicate	Prepare and publish future pricing roadmap, include reasoning and and why it's important	X
Problem Identification & Discovery	Justification and early modelling	→ X
Define overall objectives for reform	Set overall goals including target dates or date ranges	→ X
Develop strategy to deliver reform	Develop ideas on how to go ahead (including long list of future pricing options if available)	→ X
Identify challenges	eg, resourcing implications, billing systems, EIEP1 file formats, AMI penetration and technology, accessing data	→ X
Establish high level plan	Gain commitment to reform, agree plan, allocate resources	→ X
Consult retailers	Socialise ideas & plans with retailers	→ X
Gather basic data for analytics	What do we need to know to progress reform? (eg. AMI penetration? Moving from GXP to ICP billing? Survey customers	→ X
Define pathway	Prepare final strategic pricing plan (including target dates)	→ X
Alignment across EDBs	Compare plan with other EDB's, form coalitions	→ X
2. Regulatory enablers		
Form of price control	Change in form of price control from Weighted Average Price Cap to Revenue Cap	X
3. Plan changes in more detail		
Develop detailed plans, including:	Identify issues/prepare detailed pricing reform plans	
- regulatory compliance	Check plan meets regulatory expectations	→ X
- data analysis to assess customer impacts	Narrow down preferred options and test market impacts	→ X
- implementation and transition arrangements	Identify what will drive success	→ X
- feedback loops and issues resolution	Develop processes to account for stakeholder views and review against target dates. Participate in ENA processes to provide stakeholders with single point of contact	→ X
- communication	Educate customers and retailers about change	→ X
4. Manage roll out of new pricing options		
Develop transition strategies	Incentivise and manage take-up over time for retailers and customers	→ X
Adopt risk management approach	Identify and manage risks to markets, customers, EDBs *(eg political and financial risks)*	→ X
Review progress and make adjustments	Actively consider progress towards outcomes over time	→ X
Ongoing customer interactions	Monitor customer responses and manage as required	→ X

Plan for the Adoption of Efficient Distribution Price Structures

Prepared By:

Buller Electricity Limited

Robertson Street

Westport

Date: 31 March 2017

Buller Electricity Limited
Robertson Street
Westport 7825
New Zealand

PO Box 243
Westport 7866
New Zealand

T +64 3 788 8171
F +64 3 788 8191
E info@bullernetwork.co.nz
W www.bullerelectricity.co.nz

Distributors to publish plans for adopting efficient distribution pricing

The Electricity Authority has identified the adoption of efficient distribution pricing – which is cost-reflective and serviced-based – as a key area of importance to promote the efficient operation of the New Zealand electricity industry for the long-term benefit of consumers. Electricity industry participants and stakeholders agree that distribution pricing needs to be reviewed to ensure that the structures being employed are fit for purpose and suitable for the widespread introduction of new evolving technologies in the distribution sector. An industry-led approach to distribution pricing reform has been initiated, and as part of this the Electricity Authority has requested that Distributors publish their plans for adopting efficient pricing prior to 1 April 2017, and report on the progress made towards achieving more efficient pricing on a 6-monthly basis. This document fulfils the Electricity Authority's expectations and demonstrates Buller Electricity's (BEL's) commitment to review our pricing and undertake pricing reform where appropriate.

As part of this process the industry needs the Electricity Authority to complete their review of the distribution pricing principles and information disclosure guidelines, which we believe are due in 2017. The results of this are important to us in order to ensure we clearly understand the Electricity Authority's requirements and expectations. Similarly, the Electricity Authority needs to reconsider its position on other regulatory mechanisms which are likely to have an impact of the adoption of efficient distribution pricing – such as the low fixed charge tariff option for domestic consumers – and provide further clarification or implement appropriate changes.

Cost-reflective service-based distribution pricing

The introduction of evolving technologies such as PV solar generation, energy storage systems, LED lighting, smart meters with data handling capabilities, advanced demand response, and electric vehicles has significant implications for the electricity industry and consumers. The electricity related services consumers make use of, and their decisions to adopt evolving technologies, are influenced by the cost of electricity and the relative benefits which they provide. To ensure that electricity infrastructure is being used efficiently, and the investment decisions being made are in the long-term benefit of all consumers and the wider economy, it is necessary for electricity pricing structures to be put in place which accurately signal the costs to consumers of the services they use. This is referred to as cost-reflective service-based pricing and encourages the consumer to make decisions that bring long-term benefit.

Industry-led work currently in progress

Industry-led work is currently being undertaken in relation to distribution pricing by the Electricity Networks Association (ENA) in consultation with organisations including the Electricity Authority and the Electricity Retailers Association of New Zealand (ERANZ). It is BEL's expectation that this work stream will make significant progress over the next 12 months towards the development of guidelines and standards for the development/implementation of appropriate distribution pricing structures. As these guidelines and standards will most likely have a significant bearing on BEL's distribution pricing implementation plan, we are of the view that until this work is closer to completion, it is pre-mature to develop and commit to detailed implementation plans.

BEL will be closely following the ENA's and other industry-led work, providing input and feedback where appropriate. We will also seek to engage with our stakeholders including Retailers, industry experts, and our consumers once the industry understanding of the issues and available options matures, and clear paths for the development of appropriate distribution pricing structures are established. BEL is of the view that a certain level of distribution price structure standardisation across the industry would be advantageous in terms of limiting the implementation costs/complexities of new distribution pricing strategies. This issue has been clearly highlighted by ERANZ as being an important step the industry needs to take. BEL is in favour of aligning our practices with those adopted by other distributors, and until industry standardisation information becomes available, it is prudent to take up the role of interested observer/engager rather than an early adopter.

Indicative timeframes for the introduction of efficient distribution pricing

As BEL is a very small rural network, with limited growth and a relatively slow uptake of evolving technologies, the immediate need to implement pricing reform is unlikely to be as strong compared with high growth urban centres. At this early stage BEL is of the view that the best option for us is to adopt a measured approach to reform where we can learn from the early adopters, and make the best use of industry experience as the understanding of distribution pricing develops and matures.

BEL considers the indicative time frames and milestones listed below to be representative of a realistic implementation plan for efficient distribution pricing:

- **Preparation & Planning 2017–2018**
  - Industry-led development of pricing guidelines and standardisation of practices
  - Electricity Authority review of the distribution pricing principles and associated guidelines published
  - Comparison of BEL's existing pricing methodology with the distribution pricing principles and determine areas where reform is necessary
  - Establishment of BEL's decision making framework
  - Formulation of options for pricing methodologies and strategy's
  - Stakeholder engagement plan developed
  - Preparation of stakeholder consultation documents
  - Stakeholder engagement process
  - Finalisation of long-term pricing strategy

- **Implementation & Transition 2019–2021**
  - Completion of implementation plans
  - Communication with retailers and consumers on new pricing strategy implementation plans
  - Adjust strategies and implementation plans if required
  - Launch new pricing options
  - Transition consumers to new pricing options as per implementation plan

- **Future 2022–26**
  - Widespread adoption of new technologies
  - Removal of legacy pricing options
  - Review of pricing strategy and consideration of next steps

BEL has limited expertise and resources available for the development of efficient pricing structures, and as a result we intend to make use of consultants to advise us and help conduct this work where appropriate. We also intend to make extensive use of the industry-led work currently underway to develop distribution pricing guidelines and standards. This will limit the amount of preparatory and consultation work we will need to do ourselves.

Concluding comments

BEL is looking forward to working with our stakeholders in the development and implementation of distribution pricing structures which are fit for purpose and facilitate the best outcomes for consumers and the wider economy. It is important that we consult with our consumers and stakeholders to ensure that any change to our pricing meets the needs of the majority now and into the future. BEL also looks forward to meeting the Electricity Authority's requirements for transparent reporting and introducing more efficient distribution pricing structures during this period of industry reform.

CENTRALINES
LIMITED

ROADMAP TO PRICING REFORM

THE NEED FOR REFORM AND OUR PROCESS FOR CHANGE

Centralines, along with other distributors, has a goal of reforming distribution prices so that they are more reflective of the costs and services different consumers receive.

The current structure of distribution prices is not sustainable. Without change, residential electricity bills could rise 10 percent in the next 10 years (1). Change is required to ensure New Zealanders do not pay more for using electricity in the long-term, and to give consumers greater control over their energy bills.

This plan has been prepared to give consumers and the Electricity Authority an indication of Cenralines' intended approach to pricing reform. It covers the following key areas:

- The current situation: Centralines, distribution pricing and the electricity industry environment
- The need for change: the issue with current distribution price structures
- Process for change
- Customer consultation
- Indicative timeframes

There are different options for setting more cost-reflective prices, which we want to test with consumers. Along with distributors, a range of stakeholders – government, retailers and customer advocates – are actively participating in this pricing reform process. We recognise that close collaboration and alignment across stakeholders, especially with consumers and retailers, will be important for distribution pricing reform to be successful.

(1) *Electricity Authority, Signposting the Future*

THE CURRENT SITUATION: CENTRALINES, DISTRIBUTION PRICING AND THE ELECTRICITY INDUSTRY

About Centralines

Centralines is one of 29 distribution companies in New Zealand. It distributes electricity to customers across the Central Hawke's Bay region. The Centralines network has over $54 million worth of assets, is 1,700km in length, and supplies around 8,500 connection points. Centralines is owned by the CHB Consumer Power Trust on behalf of the consumers in Central Hawke's Bay.

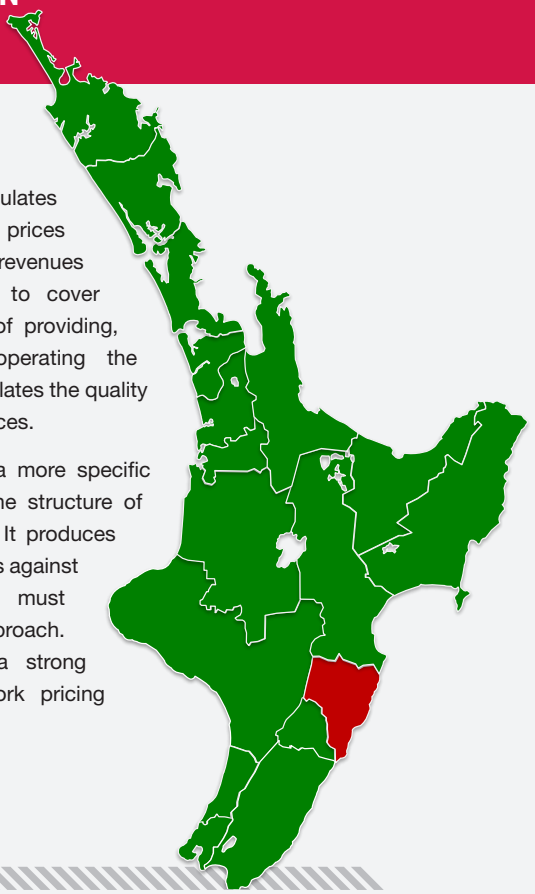
Centralines is responsible for distributing electricity from Transpower's national grid to electricity consumers. Advances in new technology are likely to result in Centralines distributing electricity generated by consumers within the network.

As the only supplier of network services in our regions, Centralines is regulated by:

- The Commerce Commission (Commission) under Part 4 of the Commerce Act 1986, and
- The Electricity Authority (Authority) under the Electricity Industry Act 2010 and other regulations.

The Commission regulates Centralines' overall prices to make sure that revenues are only sufficient to cover Centralines' costs of providing, maintaining and operating the network. It also regulates the quality of Centralines' services.

The Authority has a more specific role in regulating the structure of Centralines' prices. It produces a set of requirements against which Centralines' must justify its pricing approach. The Authority is a strong supporter of network pricing reform.



Current distribution price Structures

When we are talking about distribution pricing reform, we are referring to just the delivery component of a household's electricity bill.

For a typical residential consumer, distribution charges (Centralines charges) are just over a third of an electricity bill. Electricity retailers pay Centralines charges so consumers don't often see our prices. Retailers bill consumers, bundling all the components of the electricity services together into the one bill, including our pricing, generation costs, GST, retail and metering costs.

Distribution prices cover the costs of the local distribution network (Centralines network) and our share of using the national grid for transmission (Transpower).

Network prices are made up of:

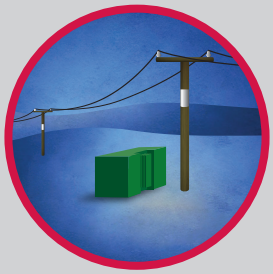
- A fixed daily price of 15 cents a day for a low user or $1.15 for a standard user, and
- A flat variable charge (ranging from 4.2c/kWh for controlled hot water to 14.5 c/kWh for anytime uncontrolled use).

Centralines also has a number of different price categories to reflect the fact some customers use energy in different ways to the average customer – such as controlled loads, night rates and day rates, and time-of-use prices.

THE ELECTRICITY MARKET

GENERATORS

TRANSMISSION



CENTRALINES/ DISTRIBUTION

CONSUMER

RETAILER

The Retailer is responsible for billing consumers and tend to bundle all the components of the electricity services together, including network pricing, generation, GST, retailer costs and the costs of metering.

Centralines distribution prices cover the cost of both transmission (Transpower's costs) and distribution. Our prices/profits are regulated by Commerce Commission and Electricity Authority.

Average national distribution charges (including Transpower's costs)

For every $100 of a residential electricity bill

30.5	GENERATION
26.2	DISTRIBUTION
13.0	GST
9.9	TRANSMISSION
16.2	RETAIL
3.4	METERING

The basis for current distribution prices

The total energy used by a consumer over a specified timeframe (usually a month) is the current basis for distribution charges. However, this basis bears only a weak relation to the costs and services Centralines provides to residential consumers.

The two major drivers of Centralines' distribution costs are the:

- location of consumers in relation to Transpower's transmission grid; and
- size of peak demands or the greatest demand on our network at any one time – the time of day that people are taking the most electricity from our network.

At all times, Centralines' network must be capable of meeting the electricity needs of all consumers.

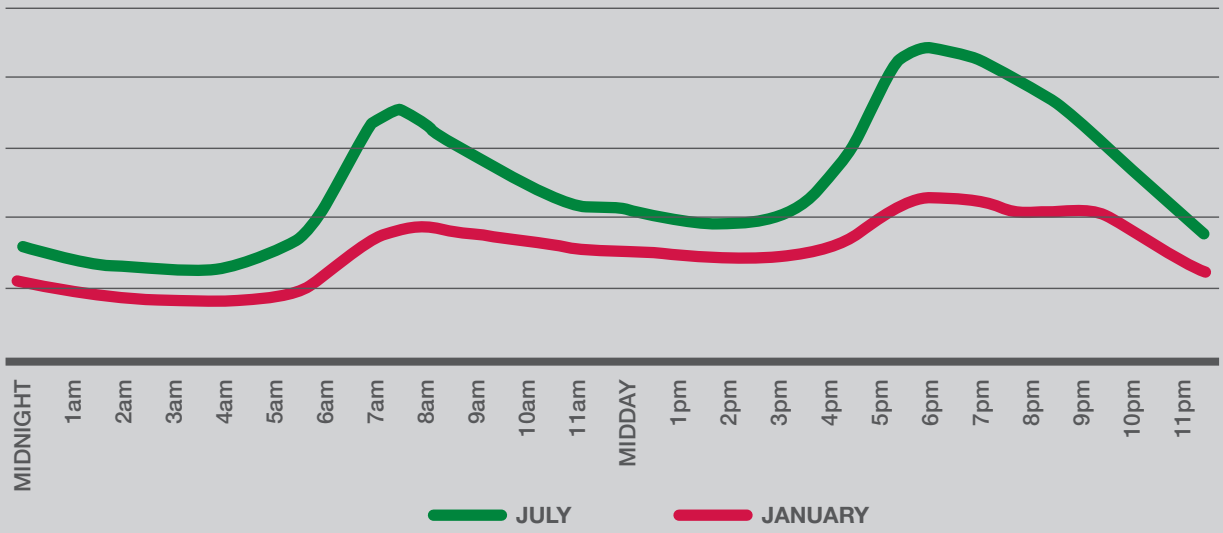
While current network prices are easy for consumers to understand, they do not show consumers the value of using the network at different times of the day.

It is not the amount of electricity delivered that determines the cost of providing the network service (which prices are currently structured around). It's the capacity and infrastructure required to meet consumers' peak demands based on where they live that drives network costs. Centralines' network experiences similar levels of peak demand in both the winter and the summer due to irrigation in the summer offsetting reduced demand from the heating on cold winter days.

Network demand is typically the highest on cold, wet, winter evenings when people have high heating requirements. The more electricity people use at the same time, the more power lines and electrical infrastructure needed.

RESIDENTIAL DEMAND

How households typically use power during the day.



With the emergence of new technologies — solar panels, electric vehicles, battery panels, smart metering to name a few — consumers now have more choice and control around how they use energy.

While the opportunities presented by these technologies are exciting, they also lead to market distortions for both consumers and distributors under current distribution pricing arrangements and create adverse impacts.

These adverse impacts include some consumers paying more than their fair share of network prices and, conversely, some paying less. It also results in artificially stimulating technology uptake in some cases and slowing it down in others.

Importantly, consumers now need to face price signals that more clearly relate to underlying costs. Independent studies show that if distribution price structures stay as they are now, consumers who rely solely on the distribution network to get electricity could see an increase in their distribution charges of 10 percent in the next five years and up to 30 percent in the next 10 years *(2)*.

A recent report by Concept Consulting has found that the cost of these distortions will fall most heavily on New Zealand's lowest income earners. For these consumers an average bill increase of around $100 per year is expected, with rises of $350 per year or more in some cases. *(3)*

(2) Electricity Authority, Signposting the Future

(3) Concept Consulting, March 2017: New Technologies Study - Part 3: Social impacts

Service based, cost-reflective pricing will promote fairness and choice

More cost-reflective, service-based prices that Centralines plans to move towards will promote fairness between customers and help customers make better decisions about the true value of different technology choices.

Ultimately, over the longer term, if prices relate well to the underlying costs then behavioural changes by individual customers should reduce pressure on Centralines and other network businesses to invest in the equipment to upgrade capacity.

Historically, distribution price structures have been constrained by simple metering technologies. Until recently, meters could only measure the total electricity used (consumption) over one or two months.

However, the installation and rollout of smart meters means the technology to measure electricity use at different times of the day is available now. This enables new pricing approaches that align the price consumers pay with the services they buy.

How electricity prices are structured affects how consumers respond to these opportunities. Increases in electricity use at peak demand times would require Centralines to increase network capacity. Distributors must build and maintain a network to support the delivery of electricity at peak demand. Price signals to reflect the cost of this increased demand will avoid inefficient and costly investment for both distributors and customers. For example:

- The network evening peak could increase with the rise of electric vehicle charging after work. A price change to signal the higher costs of supplying at peak times would aim to reward consumers for recharging at off-peak times — such as overnight as opposed to straight after work — when prices would be lower.
- The highest network peak demand occurs during the winter evenings, a time when solar systems do not help to reduce the peak. There is no change in solar customers need for network support. To avoid those without solar subsidising those who have installed solar, the costs of building and maintaining the network demand must be shared fairly among all electricity users. Prices that reflect peak demand would give customers considering solar the opportunity to make decisions that reflect the change in Centralines' costs, rather than costs being shifted to other consumers through higher charges.

In the short-term, pricing reform will not deliver higher profits or revenues to network businesses like Centralines – some prices will go up, but others will go down to offset this.

In the long-term, we expect that pricing reform will improve use of the existing network and take pressure off upgrading the network to meet higher peak demands. Network prices will be lower than they otherwise would be, because of lower investment requirements.

Why do we need to change price structures?

Customers face increasing choices about electricity use

- prices need to signal the value or costs of those choices.

PRICING REFORM: CENTRALINES' MOVE TOWARDS SERVICE-BASED, COST-REFLECTIVE PRICES

Our goal

Centralines' goal with pricing reform is to introduce distribution network prices that are more reflective of actual network costs and the services that customers receive. Distribution pricing is also key to ensuring the technological advancements in the electricity industry evolve efficiently and without distortion to investment and consumption decisions.

There are different approaches to establishing more cost-reflective, service-based prices, each with their advantages and disadvantages.

Centralines recognises that it will take some time for consumers to understand what the changes mean and therefore a transition path may be required to smooth the impacts on consumers over time.

Pricing structures need to reflect costs, ensuring:

- Smarter energy use – it is not just about how much energy is used, but also when it is used.
- Fairness – removing cross-subsidies between consumers in the short-term.
- Consumer choice — facilitating options around the use of existing and new technologies
- Efficient investment – clear signals from the market on electricity use at different times of the day allows distributors to plan and operate their network more efficiently.
- Lower prices – reduced investment in network capacity would benefit consumers with lower prices over time due to consumption decisions that reduce pressure on the network at peak times. *(4)*
- Sustainable distribution networks — to support the new energy future.

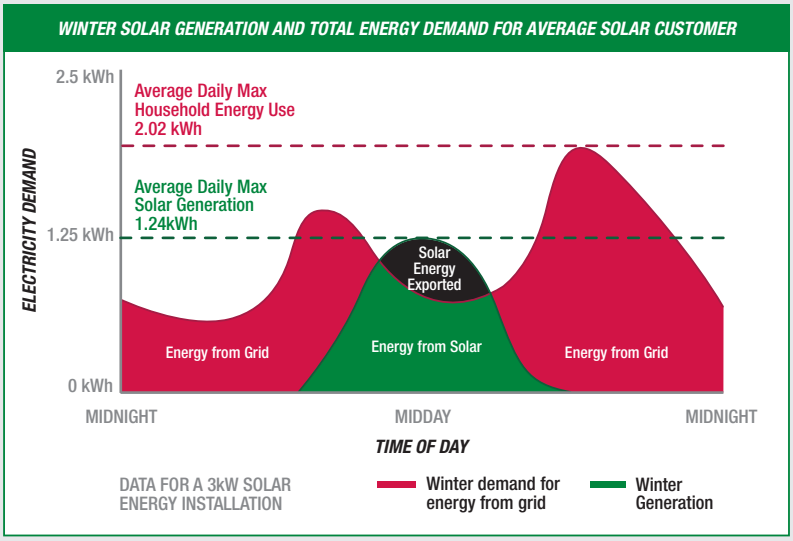
(4) By providing better choices to customers about the service they want the Electricity Authority believes prices would be 10% lower in five years and 30% in ten years

Price changes to date

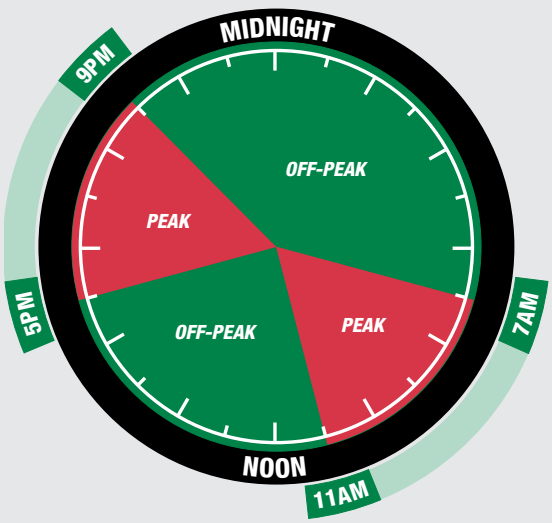
Centralines has already made progress in introducing more cost-reflective, service-based price offerings, though the large majority of our customers are still on legacy pricing options.

1. **Distributed generation/solar price category.** In April 2016, Centralines introduced a distributed generation (DG) price category for residential consumers installing solar after that date. This is because customers with solar still have the same need for the electricity network. The poles, wires or transformers that Centralines uses to supply customers with solar are still needed when the sun is not shining. However, because of reduced consumption these customers were no longer paying a fair share for the provision of the network. Had Centralines not introduced this new price category, prices to consumers without solar would have risen.
2. **Optional time-of-use (TOU) pricing.** In April 2017, Centralines improved its TOU price offering, by raising the difference between off-peak and peak prices (providing a greater reward for customers who are flexible with their use). We also extended eligibility to this price category for customers installing solar.

Customers with solar still have the same need for the network at peak times.



TOU pricing rewards consumers for using electricity at times when demand on the network is lowest (off-peak).



New distribution pricing options under consideration

The Electricity Networks Association (ENA) released the paper "New Pricing Options for Electricity Distributors" in November 2016 for discussion. The final paper will be a useful resource and will provide Centralines with technical guidance on cost-reflective pricing structures.

The ENA is encouraging distributors to consult with consumers and their communities to understand consumer preferences in designing alternative pricing structures, which Centralines is undertaking.

We agree with the following generally accepted principles and features of service-based pricing. Centralines future distribution pricing will be:

- Cost-reflective - fair and free of inefficiencies and cross-subsidies between consumers as far as possible.
- Service-based - reflect the services being provided.
- Actionable - provide price signals that consumers can choose to respond to.
- Durable/effective in the long-term - independent of market, technology and policy changes.
- Compliant - meet regulatory requirements.
- Simple - transparent and easy to understand.
- Stable and predictable – avoid volatility. (5)

(5) *The Electricity Networks Association (ENA) New Pricing Options for Electricity Distributors in November 2016*

From these principles, five network pricing types were identified that could be used either on their own or in combination to meet consumer and industry needs in the future. Centralines will be exploring these options with consumers and retailers to determine its future network pricing:

- TOU consumption - prices that vary depending on the time of consumption. Centralines currently has this option available.
- Installed capacity – a charge for having a certain capacity installed and available at a connection point (agreed maximum demand).
- Booked or "nominated" capacity - is the size of the fuse agreed between the distributor and the consumer (agreed maximum demand level at a consumer's household).
- Customer peak demand - consumer's maximum demand at any time often referred to as anytime maximum demand (AMD) prices.
- Network peak demand - charges are based on the network demand peaks rather than the demand peaks of individual connections.

The ENA paper recognises that distributors all face different circumstances and therefore there is no recommendation of specific types of pricing over others. The ENA anticipates that a "second phase" of pricing change may evolve, providing locational and dynamic pricing in response to new market developments.

From a practical perspective, implementation of new pricing structures will need to be supported by the industry's billing and data management systems, and smart meters. (6)

(6) *Feedback from retailers and distributors suggest the capabilities in these areas are still a work in progress that consideration will have to be given too.*

CUSTOMER CONSULTATION WILL INFORM OUR FUTURE PRICING

Consideration of the consumer perspective when implementing successful service-based pricing is key. It is important Centralines understands and incorporates into distribution pricing changes customer perspectives and motivations.

The Electricity Authority has produced 'Guidelines for consulting on distributor tariff structure changes', which Centralines will be adhering to as it undertakes its customer consultation. They guide distributors on the scope, approach and process of consultation on price structure changes. Key features include the following:

- The distributor must approach the matter with an open mind, and be prepared to change or even start a process afresh.
- There are no universal requirements on the form of consultation, and any type of interaction (whether oral or written) that allows adequate expression and consideration of views will be sufficient.
- Consultation must be allowed enough time, with genuine effort.
- Consultation involves the statement of a proposal not yet finally decided on, listening to what others should say, considering their responses, and then deciding what to do.

Importantly, the form and method of consultation undertaken must foster mutual trust between the consumer and the distributor.

There are valuable lessons to take from the move towards cost-reflective pricing in Australia, along with behavioural response research that has been undertaken. Centralines will also be using these findings to help inform and shape future network pricing.

Next steps

As noted, Centralines has already taken some steps to deploy more cost-reflective, service-based distribution pricing options. Our analysis, does however, indicate that time of use pricing is only weakly cost-reflective, because it is still based on total customer consumption, rather than measures of peak usage. We would like to explore with consumers and other stakeholders, the merits of stronger price signals and how these could be packaged.

Initially, to initiate customer understanding, and respond to queries of why pricing changes are needed, Centralines' intended plan is to ensure wide customer distribution of information. A communications plan is underway. Included as tactics in this plan are:

- Dedicated email to interested participants to distribute future pricing information.
- Brochures and use of printed material.
- A section on Centralines' website.
- Local community events to provide direct interaction with customers.

If necessary, Centralines will also consider the potential benefits of conducting real-world trials of different approaches with a limited group of consumers to validate findings of consumer research.

TIMELINE FOR PRICING REFORM

ACTIVITY	TIMEFRAME
Develop specific pricing options and consultation materials	**April 2017 to November 2017**
Undertake customer consultation	**December 2017 to April 2018**
Develop preferred pricing option	**May 2018**
Make decisions on implementation timetable, including need for small-scale trials	**June 2018 to December 2018**

Based on Centralines' analysis to date, pricing reform will likely result in material shifts in consumers' bills. Consumers that have low throughput (kWh), but high peak requirements (kW) - meaning they do not use much electricity overall, but when they do use the network it is at a relatively high rate - would face increased network delivery charges. As a result, there is reasonable likelihood that a multi-year transition period will be required to smooth the impact of pricing reform.

Due to the Commission's regulatory requirements associated with price restructuring, Centralines' expectation is that substantive pricing reform is unlikely to commence until the year beginning 1 April, 2020.

CONTACT

For further information regarding this document, please contact: ***future.pricing@centralines.co.nz***

CENTRALINES
LIMITED

Website:
www.centralines.co.nz

Phone:
(06) 858 7770

Fax:
(06) 858 6601

Postal Address:
PO Box 59
Waipukurau 4200

Physical Address:
2 Peel Street
Waipukurau 4242

2.3 Consumer value and cost reflective pricing

Counties Power's capital and operating expenditure is continuing to grow as its network expands at a time when average usage per consumer is decreasing. The combination of Counties Power's current volume based pricing, and the fact it has chosen not to increase its own distribution costs to its consumers for 3 years in an endeavour to improve consumer value, means that revenue per consumer is also decreasing. As with any electricity lines company, however, most of the company's costs of providing distribution network access are fixed and are associated with building and maintaining infrastructure that can meet peak demand; the variable component is driven by the consumer's peak demand and associated transmission charges (along with retail costs). While consumer volume is decreasing the consumer peak is increasing and this creates a mismatch between revenue received and costs incurred. Counties Power's current lines charges to its consumers are not directly cost-reflective.

The Company believes that moving to a more cost reflective structure will enable consumer choice and control, while aligning ourselves with retailers in order to send clear price signals to consumers that incentivise efficient use of the network and which, ideally, enable the retailer to procure energy at the lowest possible cost to the consumer. This would reduce long term cost of energy to consumers by avoiding inefficient and unnecessary investment in transmission and distribution networks and in maximising procurement of efficient and renewable energy. As a consequence, in 2014 Counties Power introduced smart tariffs that provided peak, off-peak and shoulder pricing options for residential and business customers.

In 2016 the Electricity Authority (EA) advised lines companies like Counties Power that they are to introduce pricing that better reflects the underlying costs of the business, and that they must publish their approach to achieving cost reflective pricing – which Counties Power has chosen to do in its AMP. Having already launched cost reflective prices for services such as inspections and new connections in FY17, the Company is now working with the EA, the Commerce Commission and the 17 retailers who trade on the network to create a roadmap for the improving the adoption of cost reflective prices that will be valued by consumers, and will send efficient signals that support superior value and reduced cost.

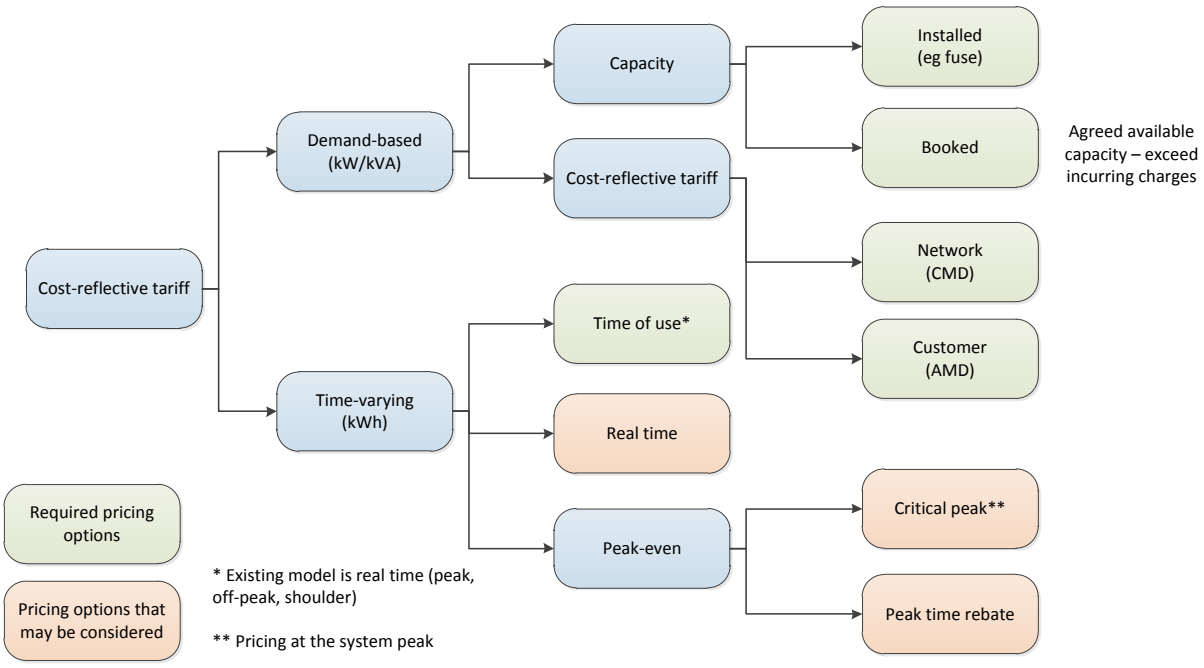
As a result, Counties Power is trialling new tariff structures that will encourage uptake of new electricity tariffs – in an industry leading pilot price in concert with a few participating retailers and consumers – provide 'all you can eat' consumption at other times. However, the EA has shown no inclination to support any review of the low fixed tariff to homes, which has the effect of preventing retailers and distributors from implementing truly cost reflective pricing. Given the LFC was originally launched as an energy efficiency incentive that is now having the effect of suppressing efficiency improvement, it is a curious position for a regulator to take. By being able to send appropriate cost reflective pricing signals, Counties Power can reduce some of its variable operating costs, as well as soften peak demand growth which then requires capital investment to address system constraints. Retailers, under the same scenario, can also maximise their use of low cost renewable supply.

The EA is also proposing fundamental changes to the way in which Transposer charges for the national grid which aims to be more cost reflective, however is forecast to have a significant increase in costs payable by Counties Power, and in turn, the consumers of Counties Power.

In 2017 the Company will continue to work with its retailers and the regulator to model and understand alternatives to the LFC and pan-industry options for cost-reflective pricing that incentivise efficiency, but do not see those in energy poverty or without choice in their supply chain continuing to subsidise those who do, as is the case with the current LFC. In parts of the Counties Power region, we can see that higher income families living in newer, energy efficient homes who are benefiting from the LFC are being subsidised by lower income families in older – often rented – accommodation and that is particularly affecting those with larger families. Those who can least afford it are subsidising those who already have choice. Counties Power strongly believes its consumers will benefit significantly from a removal of the LFC regulations and will be working pan-sector to achieve this.

The path to cost reflecting pricing

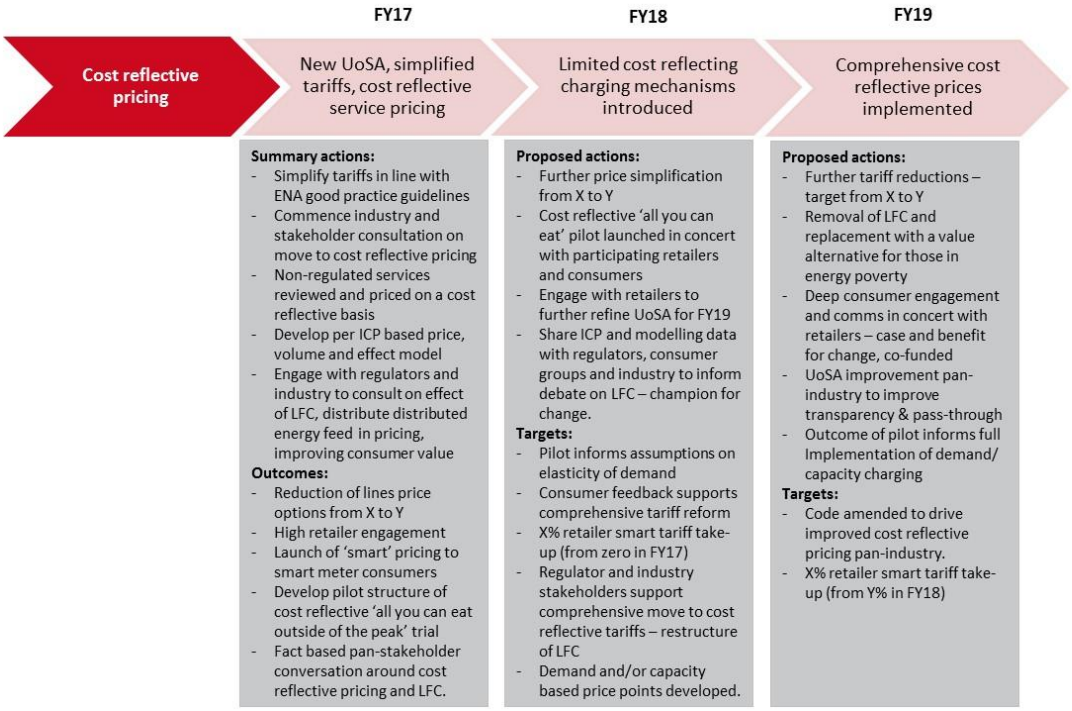
Along with fellow ENA members and myriad key industry and consumer stakeholders, Counties Power has considered a number of options for how costs can be reflected to consumers to effect efficient price signalling. High level options considered are summarised below:



The Company is part way through a three year transformation of its consumer prices towards cost reflective frameworks. In achieving our goals, we are reliant upon open dialogue between stakeholders regarding the benefits and consumer value associated with this move, and in particular

in changing the inefficient and unfair restrictions of the LFC to enable fairer pricing and the opportunity of greater control over costs for consumers. Early engagement with ENA members and retailers in making progress in this area an aligning efforts to ensure genuine value and transparency is achieved for consumers has been positive.

The high level approach for Counties Power as it enters the FY18 period is shown below, in an excerpt from the Company's FY17-19 strategic plan:



Proposed changes in the coming year

In FY18 Counties Power and at least one of its retailers will launch the 'all you can eat plus the peak' tariff to a limited number of consumers in its pilot trial of truly cost reflective pricing. Additionally, the Company has aligned its pricing structure to good practice guidelines issues by the ENA (following consultation with electricity retailers), meaning further simplification of pricing structure and refinement to the 'smart tariffs' for consumers with smart meters. Further improvements and simplification will be implemented in FY19 along with, it is hoped, a more comprehensive suite of cost reflective demand or capacity based prices. However, engagement and support of retailers during FY18 is vital for Counties Power to effect change that is visible to consumers (and valued by them) so the FY17 pilot tariff – and ongoing industry analysis of the inefficiencies and unfairness driven by the LRC – will heavily inform price structure in FY19.

Eastland
Network

Network Pricing Reform

Workplan 2017 – 2020

March 2017

Contents

1 Summary 3

2 Introduction & Purpose 4

A. Planning & Preparation 5

B. Build Capability 6

C. Communications & Collaboration 7

D. Test & Review 9

E. Implementation 10

1 Summary

This work plan provides the details of the project for pricing reform for Eastland Network that is intended to be undertaken over the next three years to 1 April 2020. The plan sets out the various sections and streams of work that will be required and undertaken over the course of the project and also provides an indication of resourcing, timing and milestones.

The project has been divided into five key areas of work, Planning & preparation, Building Capability, Consultation and Collaboration followed by Testing & Review and Implementation. The timing relates to financial years ending 31 March.

	Activity	Objective	Timing	Expected Costs
A	Planning & Preparation	Prepare project plan/s Project & budget approvals Review business capability	2017 Q1 – Q3	$0
B	Build Capability	Build the capability (processes & systems) of the business to deliver pricing reform.	2017 Q2 – 2018 Q2	$230k
C	Consultation & Collaboration	Engage with stakeholders and other distributors to gauge response to pricing reform.	2017 Q2 – 2020 Q4	$65k
D	Test & Review	Check and test pricing meets required criteria		$30k
E	Implementation	Implementation of new pricing	2018 Q4 – 2020 Q2	$0k - $1,050k

Timeline of Expected Costs

2017/18	2018/19	2019/20	2020/21	Total
$200k	$70k	$1,095k	$10k	$1,375k

2 Introduction & Purpose

This is the initial plan developed to progress the reform of pricing for Eastland Network. This plan will be approved by management and board as an internal planning document against which progress can be measured. This plan will be reviewed and updated where necessary on a regular basis.

The tables below indicate key milestones or deliverables over the course of the project. However, on a project such as this, there are multiple paths a project can take depending on the results of research, decisions made and new information. Consequently the milestones or deliverables may change as the project progresses. Any changes to deliverables and milestones will be clearly communicated during project updates.

The expected outcome of this pricing reform project is to implement pricing that meets the following criteria

A. Planning & Preparation

The Planning and Preparation actions are required to ensure that outcomes, process, timelines, resources and budgets are agreed and approved. In this stage we will develop the fundamental outline and basis for the project including reasons and core principles that will guide decisions and actions throughout the project.

Project	Description	Expected completion	Resources	Budget
High Level Plan	Prepare high level plan.	2017, Q4	Internal	$0
Internal detailed project plan	Detailed project plan outlining expected outcomes & objectives, key tasks, milestones, resources, & budgets	2018, Q1	Internal	$0

B. Build Capability

This stage is to ensure that the business is enabled and ready to deliver advanced pricing to consumers via retailers. The aim is to review current processes and systems and develop solutions for any issues that arise from the review. The Cost of Supply Model was reviewed in 2017 and there is an established need to develop a model more suited to cost reflective pricing approaches.

Project	Description	Timeline	Resources	Budget
Build New CoSM	Develop and build new CoSM to enable the calculation and analysis of advanced pricing tools	2018 Q1 – Q2	Internal & External	$30k
Review of processes and systems	Review of Processes and systems to determine suitability and capability for delivering pricing reform	2018 Q1 – Q2	Internal & External	$150k
Process & Systems	Develop new processes, where required	2018 Q3 – Q4	Internal	$0
	Investigation and selection of new systems if required	2018 Q3 – 2019 Q1	Internal	$0 - $50k

C. Communications & Collaboration

Communications and collaboration will play a key part in determining the success of the project and is therefore a specific section to ensure that these key activities are given the priority necessary. Communications & collaborations activities will be carried out throughout the project and will cover a broad range of activities across a wide range of stakeholders and interested parties.

Project	Description	Timeline	Resources	Budget
Consultations & Communications strategies	Develop consultation and communications strategy to enable a transparent process. Include progress reporting to stakeholders	2018 Q2 – Q3	Internal	$0
Cost of Supply Model	Share/collaborate CoSM model with other EDBs and seek feedback for refinement of model	2018 Q4 – 2019 Q1	Internal	$0
Consumer awareness, education & discussion stimulation	Consumer education on pricing reform, why the need for it and how could they benefit	2018 Q4 – 2020 Q3	Internal & External	$30k
Retailer engagement	Actively seek retailer views on pricing reform	2018 Q4 – 2020 Q3	Internal	$0
Regulator engagement	Seek regulator response to proposed pricing	2019 Q2	Internal	$0
Communicate, collaborate and share progress & issues with other EDBs	Actively seek opportunities to engage with other distributors	2018 Q1 – 2021 Q3	Internal	$5k (travel)

Communicate final pricing decision	Communication of final pricing reform decisions to key stakeholders	2020 Q1	Internal/External	$30k

D. Test & Review

The key objective of this stage is to review how the proposed pricing aligns with the key objectives and considers the feedback provided from retailers, consumers, regulators and other stakeholders.

Project	Description	Timeline	Resources	Budget
Pricing trials & feedback	Test proposed pricing changes with customers and retailers. Seek feedback and identify issues	2019 Q1 – 2019 Q1	Internal and External	$20k
Test compliance	Check proposed pricing is fully compliant with regulations. Adjust if necessary	2019 Q2 – Q3	Internal	$0
Check pricing against key objectives	Check pricing meets key objectives and adjust if necessary.	2019 Q2 – Q3	Internal	$0
Post implementation review with stakeholders	Survey stakeholders post implementation.	2021 Q1	Internal and External	$10k

E. Implementation

The implementation section of the plan is about putting into place all the work carried out in the previous sections. A transition strategy has been included as it is likely that new prices will need to be transitioned over time as residential smart meters are rolled out through the region and customers adjust to the change.

Project	Description	Timeline	Resources	Budget
Transition strategy	Develop transition strategy for implementation	2019 Q3 – 2019 Q4	Internal	$0
Transition Strategy implementation	Implement transition strategy	2020 Q3	Internal	$0
Implementation of new processes (If required)	Implement new processes as developed in capability stage.	2020 Q4	Internal & External	$50k
Implementation of new systems (if required)	Implement new systems as determined in capability stage	2019 Q2 – 2020 Q4	Internal & External	$1.0m

Electra's pricing strategy

Context; Electricity use and delivery options will continue to change

Over the past 10 years energy consumption has been declining as improvements in buildings and appliances require less energy to deliver the comforts and conveniences of electricity consumers. This is true internationally as well as throughout New Zealand.

Technological innovation and the adoption of new products for networks and customers will improve reliability, customer service and customer convenience.

Countering these benefits, new types of connections to networks and customer installations such as batteries and Electric Vehicle chargers, have been flagged by Energy Safety as representing new hazards that are not yet well managed by standards and codes.

We have been considering how best to evolve our electricity network, our products and charges to accommodate customer requirements.

The use of alternative energy sources (such as solar photovoltaic generation and battery storage) is expected to increase. Our experience to date has been that uptake is modest, though our planning analysis now includes faster uptake scenarios, such that the network we provide and the prices we charge, are appropriate for the future needs of consumers.

The Electricity Authority continues to promote the provision of cost reflective distribution price options. Electra supports this initiative and together with other Distribution Businesses via the Electricity Networks Association, have been liaising with Retailers to develop common approaches to make cost reflective distribution pricing available and visible to end customers within the overall retail price options.

Pricing principles

In the above context we have developed four pricing principles that we will use to guide the development of Electra’s pricing strategy and the implementation of pricing changes over the coming years.

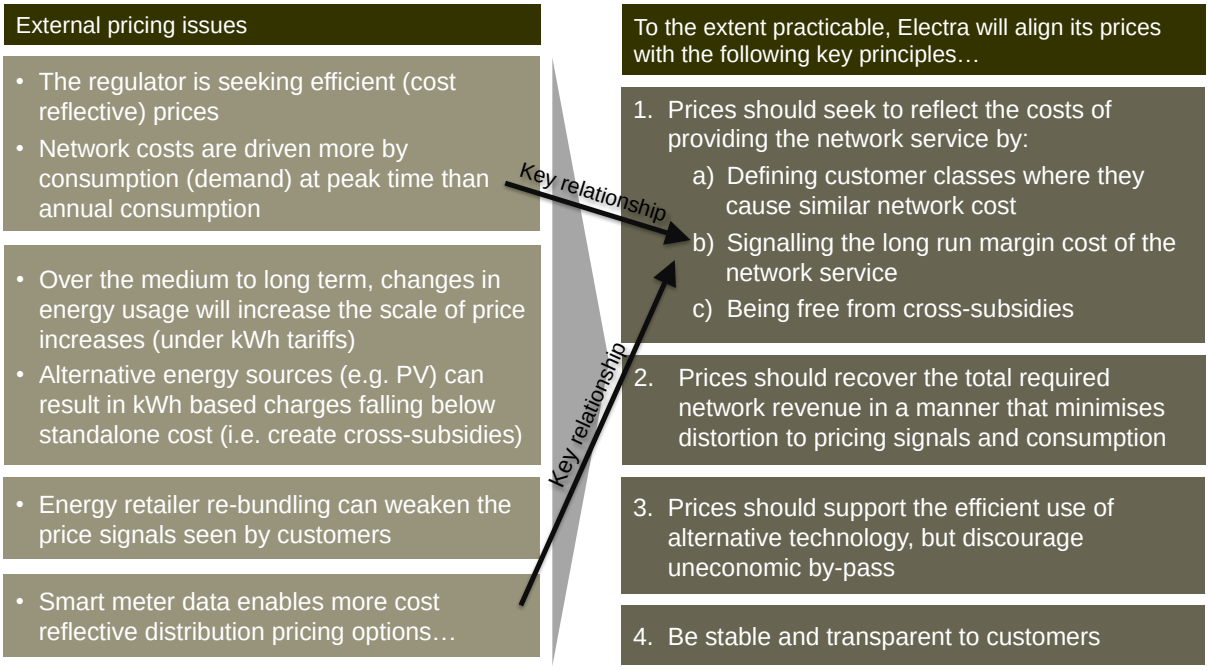


Figure 3: Electra's pricing principles

We have developed our pricing strategy to guide the evolution of our prices

Our distribution pricing strategy flows from the context of change and efficient pricing principles described in the two previous sections. Our strategy is formed to guide the evolution of our prices in a manner that:

- Implements Electra's pricing principles;
- Is consistent with Electra's corporate pricing objectives; and,
- Responds to the external issues; namely the uptake of alternative energy sources and technologies that deliver improved customer experience.

Balancing these factors will enable Electra to evolve its prices to respond and adjust to anticipated changes in electricity production, exchange and consumption, while continuing to deliver a high level of service to customers within the evolving regulatory framework.

Electra's Pricing Roadmap

Electra will continue to progressively introduce service-oriented and cost-reflective pricing that fairly recovers the full cost of the network from all customers that use the network

To achieve this strategy, Electra has…

1. Changed to price option naming to align with Electricity Network Association guidelines
2. Implemented a low and medium user time-of-use option.
3. Implemented a low fixed charge daily use charge associated with the time of use option

And will…

4. Consolidate time-of-use price options
5. Discontinue the low fixed charge associated with uncontrolled consumption

6. Update the cost of supply model and commensurately adjust the long run marginal cost for the network.

To develop plans to…

7. Seek to recover the long run marginal cost from the variable charge of the price.
8. Introduce a demand and/or capacity service charge across all customer groups.
9. Continue to transparently explain Electra's service-oriented prices.
10. Monitor the uptake of alternative energy sources and advance or defer the timing as necessary.

Our pricing strategy is consistent with Electra's statement of corporate intent

Electra's pricing strategy must be consistent with the Statement of Corporate Intent (SCI) that defines the overall direction and performance expectations for Electra. We developed a series of corporate pricing objectives (refer to Appendix Two for further details) based on the SCI.

Strategic implications for prices from 1 April 2017

The key change that will be seen by customers from 1 April 2017 will be:

- The introduction of a new low fixed daily use charge associated with Time-of-use consumption price option

Implications for prices in subsequent years

The key changes that could be seen in subsequent years are:

- The adjusted price options developed from a new cost of supply model, which will include an assessment of our long-run marginal cost;
- Improve the attractiveness of time-of-use price options for customers who can shift their peak demand to periods when the grid and generation has greater available capacity;
- The consolidation of Electra's pricing options;
- The introduction of a demand and/or capacity charge component.

Electricity Invercargill Ltd
www.eil.co.nz

PRICING ROADMAP

OVERVIEW

Solar, batteries, electric vehicles and other technologies can provide major benefits to customers but only if pricing structures reflect the gains they offer. Current distribution pricing which is 50% based on consumption, runs the risk of slowing the uptake of electric vehicles, LEDs and encouraging the uptake of solar. Over-rewarding owners of solar panels runs the risk of pushing costs onto other households not taking them up. These are some of the drivers Electricity Invercargill Limited has for reviewing its current distribution pricing options.

This pricing roadmap sets out Electricity Invercargill Limited's current plans with respect to possible future pricing changes. This is primarily in response to the expectations set by the Electricity Authority that distributors should set out their plans for any such changes.

It is important to note that no decisions have been made on any changes.

The Authority's expectations are as follows:

We will continue to facilitate the industry-led approach and intend to:

- *Monitor and report on distributor progress towards adopting efficient distribution price structures.*
- *Review the current distribution pricing principles and associated information disclosure guidelines and consult on any proposed changes.*
- *Assess alignment of distributor prices against the distribution pricing principles (each year from April 2018).*

We expect industry participants to continue to progress their work. Specifically, our expectations are that:

- *The Electricity Networks association (ENA) will continue to lead the development of more efficient pricing. We note the ENA will shortly release its New Pricing Options for Electricity Distributors consultation paper.*
- *Before 1 April 2017, each distributor will have published its plan for introducing efficient pricing. The purpose of setting a timeframe is to encourage distributors to communicate their intentions and to make progress. Information that we would expect to see in these plans includes:*
- *a clear outline of the process each distributor will adopt, including the nature of their planned consultation with retailers and consumers*
- *a timeline with the key milestones*
- *resourcing implications, including how resources will be allocated to the process of moving towards efficient pricing structures.*

Submissions on the ENA paper referred to closed in December 2016 and those submissions will be reviewed by distributors over the next few months. It is too early to say how that will influence any changes that we make, but it is an important input to the process.

251 Racecourse Road ■ PO Box 88 ■ Invercargill 9840
Phone 03 211 1899 ■ Fax 03 211 1875 ■ New Zealand

PROCESS AND CONSULTATION

Electricity Invercargill Limited is currently rolling out Smart meters to replace the existing legacy meters, the roll out is programmed to be completed by the end of 2019. We see the meter roll out as a key first step in the process of assessing the future pricing options available for consideration, due to additional data these meters provide.

We consider that retailers remain the key stakeholders. However, the sorts of changes contemplated by the distribution pricing review, and some of the options considered by the ENA paper, potentially represent a fundamental shift in approach, with potentially significant impacts across the customer base. For that reason we will be undertaking consumer consultation.

Having established initial consumer views and considered the data available from the smart meters, these will then form the sorts of options for change that we develop. We anticipate multiple rounds of stakeholder consultation.

In any consultation we will use the Authority's consultation guidance as a key reference.

TIMELINE

Because the size of the task is not yet known, we do not yet have a detailed timeline and milestones. However, we believe the following are key considerations:

- Completion of the smart meter roll out, due for completion at the end of 2019.
- Negotiating the supply of the smart meter data with retailers.
- Enhancements to our existing ICP management and billing systems, currently at the scoping stage.
- Changes to regulation under Part 4 of the Commerce Act that will apply to the next Default Price Path reset – that is, from 1 April 2020. Of particular relevance is the change in the form of control from a weighted average price cap to a revenue cap.
- The final form of the Transmission Pricing Methodology (TPM) guidelines issued by the Authority, and how this manifests in the actual TPM developed by Transpower. We doubt the latter will be effective before April 2020, and it could be a year or two (from now) before the form and implications of the new TPM are sufficiently well developed for their impact on our own pricing development to be clear.
- The Authority's review of the distribution pricing principles, currently scheduled for May-June 2017.
- The Authority's recent changes to Part 6 of the Code (relating to the avoided cost of transmission) which, in Electricity Invercargill Limited's case, come into effect from 1 April 2018.
- Potential changes to the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004, which currently require distributors to offer residential customers a pricing option with a fixed charge of no more than 15 cents per day. We see the current regulation as a barrier to developing new innovative pricing options.
- The extent of necessary consultation could be considerable.

- The knowledge that many other distributors will be making pricing changes at the same time. We need to keep abreast of these wider developments.

RESOURCING

Electricity Invercargill Limited has an agency arrangement with PowerNet limited for the operation of the network. Any additional resourcing would be met by PowerNet.

Additional resourcing may be required in the following areas:

- Internal or external resource for the retailer and consumer consultations.
- External consultant has been engaged to review the current ICP database management system and billing platforms.
- External consultant to help in the evaluation and development of preferred pricing options.
- Additional resources for the distribution billing team with a potential change to ICP based billing approaches.
- Educating and communicating with consumers during the transition phase to the new pricing options.

There are also possible opportunities for the ENA to coordinate and support some activities.

Taken together, all of these considerations suggest that we are unlikely to implement material changes to our pricing before April 2020, although we may decide on what the changes are somewhat earlier than that. Depending on the magnitude of the changes, they may be phased in over a number of years.

EA networks
connecting our community

Office 22 JB Cullen Drive
Ashburton Business Estate
Ashburton 7772
New Zealand

Postal Private Bag 802
Ashburton 7740
New Zealand

Telephone 03 307 9800
Facsimile 03 307 9801
Email enquiries@eanetworks.co.nz
Web www.eanetworks.co.nz

Mr Carl Hansen
Chief Executive Officer
Electricity Authority
PO Box 10041
Wellington
6143

27 March 2017

Dear Mr Hansen

Distribution Pricing – roadmap for adopting efficient pricing

The Electricity Authority (the Authority) has requested that EA Networks and other lines businesses publish a roadmap relating to adoption of efficient pricing. The Authority has specifically requested that distributors *"plan and then commit to a clear timeframe under which they will reform their pricing structures."* The Authority requires these plans to be published and made public.

The purpose of this letter is to outline our views on this subject by giving context to our current pricing structure, our general view on distribution pricing and detail our plans regarding price reform that the Authority is seeking (as best we can at this time).

We trust that the Authority recognises the industry is faced with significant uncertainty in the pricing space at this time, specifically in relation to transmission pricing reform and the Low User Fixed Charge (LUFC). These two matters make committing to any formal/detailed plan at this time very challenging.

Context

EA Networks has six customer segments/load groups (refer to the summary of existing tariffs appended). Within these segments there are currently just over 30 specific tariffs available. These range from fixed type charges (e.g. $ per kilowatt per day) through to volumetric (variable) based charges (e.g. $ per kilowatt hour - kWh). All customers are on some form of fixed charge with a variable charge also applied in some situations (e.g. the typical residential customer will have an underlying capacity charge (fixed) combined with a volumetric charge (kWh) whilst irrigation customers have only a fixed charge available to them).

Total line revenues including transmission charges are derived across our portfolio based on the following approximate proportion and value:

Fixed/capacity type charges	50%	$20.4 million
Variable type charges	50%	$20.4 million

Note that when transmission costs are removed the proportion of fixed charging increases to ~55%.

Fixed charges are derived almost entirely from five customer segments (in particular Irrigation that is charged by applying a fixed daily rate that represents $16.3 million of the fixed total above). The remaining tariff group (General) accounts for all variable revenue but also contributes just over $1.0 million of fixed revenue.

Broadly speaking, we believe fixed/capacity style charges that relate to the underlying assets required to serve the specific customer segment are the most cost reflective method for establishing distribution pricing. Consequently, we are of the opinion that five of our six customer segments have methodologies and prices that are cost reflective by design. Consequently, at this time, we see no reason to plan any 'reform' of the tariffs within these customer segments. We do acknowledge that variable charging (e.g. kilowatt hour – kWh as found in tariffs within our General customer segment) is not an appropriate method for distribution businesses given our fixed cost nature. As such we see a need to review the General customer segment that currently derives ~95% of its revenue from variable charges.

It is worth noting that whilst much of the revenue from the General segment is based on variable usage, that usage is difficult to avoid and is easily forecastable. As such, at this time it is of no real consequence whether the charging mechanism is variable or fixed – but with the potential adoption of mass-market solar and battery combinations in the future this approach is not durable.

Our current tariff design is based on feedback from our connected customers and aims to deliver, as far as possible, their requirements. Bi-annually we survey our connected customer base seeking feedback on myriad aspects of our business, including pricing. This is an important source of information for our business (and pricing) development. In addition to this, our pricing team is in regular (almost daily) contact with connected customers across our region and consequently have a very good sense for what expectations are in relation to pricing and tariff design. Feedback from connected customers is critical and to-date we have found the survey and regular direct contact with connected customers to be highly effective in achieving this. For example, irrigation customers overwhelmingly prefer fixed charges to be applied across a 12-month period, despite their usage only occurring for less than half of a year – spreading the cost over a financial year and providing stability being of importance to them. This customer feedback shaped the design of that tariff.

We comment on this customer feedback as it is critical in tariff design but can be at odds with other aspects, such as cost reflectivity. The Authority, we hope, must acknowledge that pure/theoretical cost reflective tariff design must inherently be balanced with the needs of our connected customers and the wider market and societal challenges. These factors must be incorporated into any tariff design. There is an implicit trade-off that will necessarily occur.

Our views on distribution pricing

We agree that distribution prices should be cost reflective and service based, as far as practicable, being balanced against other principles such as simplicity, equity and stability (aspects of pricing that our connected customers tell us are of utmost importance to them) as well as market and societal demands.

The Authority's request suggests that our (EA Networks) tariffs and prices are not cost reflective and need fundamental "reform". We hold the view that our current tariff structure, on balance and when considered in the context of the current regulatory environment, is cost reflective. However, we do acknowledge that variable (volumetric) pricing is not appropriate for our business, and as can be seen in our context, a significant proportion of our revenue is derived from volume based charges within one customer segment - General. There are two significant contributing factors that have shaped the design of this segment (and others); the Low User Fixed Charge (LUFC) and the prevailing Transmission Pricing Methodology (TPM).

It is important to know that a significant impediment to our desire to be more cost reflective, and indeed plan for any change, is the LUFC. We understand that this is under review but we need to stress

the importance of this when being asked to detail plans for pricing reform. In order to meet the current requirements of the LUFC regulations, and to provide simplicity to our connected customers, we have necessarily had to create an artificially low daily fixed charge tariff (charged at $0.15 per day per connection). This has formed the foundation of our 'General' tariff group and shaped the design of that segment that you see today (see our published Pricing Methodology for specific details).

We find it challenging to be asked by the Authority to provide a plan to "reform" our pricing to be more cost reflective when the current regulations require us to deliver a LUFC to connected customers that by its very nature has no relationship to cost. By regulatory design we must deliver pricing that isn't as cost reflective as it could be, or fall foul of those regulations. Until the LUFC issue is resolved it is impossible to deliver truly cost reflective prices and further, until we know the future plans for this specific regulation we cannot design with certainty durable tariffs and related prices.

Our connected customers tell us that stability in prices (ergo tariff design) is essential to them – we do not desire to undertake change based on current regulations that we know are under review and could drive further change to our pricing approach if they too were to change.

Pricing reform uncertainty is driven further by the current Transmission Pricing Methodology review that the Authority is undertaking. Our current transmission pass-through design is effective and we believe works well, delivering a pass-through to customers that reflects their contribution to our transmission charge. With change in the next three years likely, until it is known *how* transmission costs will be allocated to EA Networks and the detailed methodology known, developing our own pass-through is not possible and nor can we plan for it, except to wait. We believe that our connected customers would rather we wait for the dust to settle on these matters prior to embarking on change – this promotes the customer desire for price stability which, regardless of the Authorities view on this, remains a key customer requirement for us to deliver.

Despite these fundamental drivers of uncertainty, there are aspects of our own charges that we believe can be reviewed and likely addressed that will go some way to delivering cost reflective pricing within the context of the current regulatory environment.

Indicative plan to review tariff design

With more than 50% of our current revenue derived from fixed type charges that largely reflect their related underlying cost drivers, we do not believe fundamental pricing reform is necessary on our network. Also, as noted above, five of our six customer groups have pricing that is fixed and largely reflects the nature of those assets required to deliver required capacities. For EA Networks, the customer segment/tariff group that we believe requires review and likely amendment is the 'General' customer segment.

Whilst this is the segment entirely affected by the LUFC, we would like to address, insofar as possible, those aspects of the charges we can control. In particular, we believe it is important to review the balance of fixed versus variable charging which currently is heavily skewed toward variable charging.

We will embark on a process of discovery and information gathering during the next financial year (FY2017/18). The purpose of this is to gain specific insights regarding the different tariff/pricing options that could be applied, take feedback from our connected customers and retailers, and importantly provide time to (we hope) get more specific detail on the LUFC and transmission pricing methodology.

It is too early to provide a specific plan regarding this, and we believe it would be inappropriate to do so. In our view, only when we have formulated a detailed plan for change can that plan be published

and made public. Until then we can only state that a project is now underway to review the General tariff group. As specific detail crystallises we can then make public any future plans and provide details of potential scenarios and impacts to connected customers. It is likely that this review will ultimately encompass our entire tariff portfolio given the inter-related nature of these products – as more is known more will be shared and published.

Summary

EA Networks tariff and pricing structure is largely based on fixed rates with five of the six customer segments/load groups charged based entirely on some form of 'fixed' charge. Fixed charges account for more than half of our total distribution revenue (excluding transmission). These charges are designed to recover the cost of the underlying assets needed to supply the required capacity to the relevant customer segment/load group and therefore we believe they are presently cost reflective - especially when balanced against the current regulatory environment (as affects pricing) and feedback regarding the requirements of our connected customers. However, the General customer segment does have a significant proportion of revenue derived from variable/volume based pricing. It is therefore appropriate to review this customer segment and consider the likely need to migrate these into a form of fixed charge. This review will occur during the 2017/18 financial year with details of any formal plans to change made public when we feel it is appropriate.

We concur with the Authorities desire to see distribution pricing that is cost reflective. Ensuring that our tariff and pricing portfolio remains so is an ongoing programme of review, which for us, is business as usual. We will continue to engage with our stakeholders on this matter throughout the next financial year with a view to publishing a formal plan, once established, that details any plans for change.

Please feel free to contact Jeremy Adamson, Commercial Manager, EA Networks on: 03-307-9855 or email: jadamson@eanetworks.co.nz in relation to this matter.

Yours sincerely

Jeremy Adamson
Commercial Manager

Appendix

Existing Tariff Design and Comment

Our tariff structure appropriately segments customers into groups that share similar load profiles and usage requirements (including underlying supporting assets). Each segment is charged at rates that broadly reflect the assets required to enable distribution of electricity to them – this being the best proxy for cost reflective pricing.

Customer segment/tariff name	Comment
1. General (residential, commercial and light industrial)	The General load group is segmented based on capacity (e.g. single phase less than 30 Amps through to three phase greater than 160 Amps). There are five sub-segments for different capacities required by customers. Customers in the General segment are charged a fixed rate ($ per connection per day) as well as a volumetric charge ($ per kilowatt hour). The fixed daily rate increases with capacity (size) to reflect the higher costs associated with assets needed to supply higher capacities. Customers may choose capacities that meet their needs within this segment. *The General tariff will be specifically reviewed during the 2017/18 financial year since it carries the largest proportion of volumetric/usage based pricing.*
2. Irrigation	Irrigation load customers are charged based on capacity installed ($ per kilowatt per day). Since 2013, any irrigation load exceeding 20 kilowatts is required to be on the irrigation load group tariff (below that level customers may choose between General (see above) or Irrigation). This charging approach is critical to recover costs due to the significant investment in fixed assets required to supply the required capacities in the rural area.
3. Industrial	Industrial users are charged based on Anytime Maximum Demand ($ per kilovolt ampere per day).

4. Large Users	Large users have bespoke supply contracts that charge for the specific nature of the assets and services required to deliver to that customer. Currently we have four Large Users. All Large User supply contracts are based on fixed daily charges recovering the cost of associated assets required.
5. Generation	Generation customers have bespoke contracts that charge for the specific nature of the assets and services required to deliver to that customer (same as Large Users). Currently we have four Generation customers. All Generation supply contracts are based on fixed daily charges recovering the cost of incremental assets required.
6. Street Lighting	Street Lighting is for supply of electricity to the Local Authority owned street light assets. This is charged based on a fixed rate - $ per fitting per day. This reflects the nature of the underlying assets required to supply capacity to street lights across the region.

More detailed information regarding our tariff design and charges can be found in our publicly available Pricing Methodology and related Pricing Schedule, both available on our website.

Horizon Networks

Future Pricing Roadmap

The electricity industry in general is entering an exciting period of growth driven by the reducing costs of solar photovoltaic, battery storage and electric vehicle which will transform how we price for our services going forward. Horizon Networks is in a unique position to facilitate the penetration and growth of these emerging technologies and as such we are going to review the way we set our prices going forward.

In accordance with the expectations set out by the Electricity Authority, Horizon Networks will be undertaking a review of future pricing structures in order to provide greater transparency that allows for improved consumer choice. In addition, future pricing structures will be transparent, fit-for-purpose in order to be workable for Retailers to pass on our charges as we intend to customers, and better reflect our costs to operate, maintain and invest in the network such that we are able to meet consumers' needs.

Over the next few years we will be undertaking a variety of work streams that will need to be supported by the various stakeholders within the industry in particular the Retailers as we progress through this process. There are a number of considerations and prospective changes that we need to investigate, analyse, assess and then consult with you as our stakeholders to determine the best roadmap so as to continue our journey together for the supply of electricity line services.

Some of the considerations for us as part of this review include (but not limited to) the following -

1. The impact of the changing use of grid-supplied electricity due to emerging technologies, such as solar photovoltaic, battery storage, and electric vehicles.

2. The changes in the Commerce Commission's price-quality regulation, with effect from 1 April 2020.

3. The changes in Transpower's transmission pricing methodology, expected to be implemented from 1 April 2020.

4. The Electricity Authority's review of the distribution pricing principles currently scheduled for July-August 2017.

5. The Electricity Authority's guidance on how it will interpret aspects of the low fixed charge regulations which may allow wider use of capacity-based pricing.

6. The Electricity Authority's views on disclosures relating to distributors participating and providing value added services to consumers.

Because the size of the task is not yet known, given the significant number of stakeholders involved, we are publishing a high level overview of Horizon Network's Future Pricing Review Road Map as follows. It is intended that we will report on a periodic basis as we progress with these plans.

Horizon Networks Future Pricing Roadmap

Roadmap Stages	Activities	Timeline (calendar year)				Resource requirements
		2017 Q2	2017 Q3	2017 Q4	2018 onwards	
1. Initiate pricing reform						
Discovery	Undertake, early modelling	X				EDB
Define overall objectives for reform	Set overall goals	X				EDB
Develop strategy to deliver reform	Develop ideas on how to go ahead	X				EDB
Communicate	Prepare and publish future pricing roadmap		X			EDB / Retailers
Identify challenges	eg, Consider billing systems, smart meter tech, accessing data, cost-benefit analysis		X			EDB / Retailers
Establish high level plan	Gain commitment to reform, agree plan, allocate resources		X			EDB
Gather basic data	Survey customers, market analytics, consult peers		X			EDB / Coalition
Consult retailers	Socialise ideas & plans with retailers		X			EDB / Retailers
Define pathway	Prepare final strategic pricing plan			X		EDB
Alignment	Compare plan with other EDB's, form coalitions			X		
2. Plan changes in more detail						
Develop detailed plans, including:	Identify issues/prepare detailed pricing reform plans					EDB
- customer interactions	Establish research program and focus groups				X	EDB / Retailers
- pricing trials to test ideas	Conduct in-market testing				X	EDB
- data analysis to assess customer impacts	Narrow down preferred options and test market impacts				X	EDB
- implementation and transition arrangements	Identify what will drive success				X	EDB
- feedback loops and issues resolution	Develop processes to account for stakeholder views				X	EDB / Retailers
- communication	Educate customers about change				X	EDB / Retailers
- regulatory compliance	Check plan meets regulatory expectations				X	EDB
- system changes					X	EDB
3. Go Live					X	EDB / Retailers
4. Manage roll out of new pricing options						
Develop transition strategies	Incentivise and manage take-up over time				X	EDB
Adopt risk management approach	Identify and manage risks to markets, customers, EDBs				X	EDB
Review progress and make adjustments	Actively consider progress towards outcomes over time				X	EDB
Ongoing customer interactions	Monitor customer responses and manage as required				X	EDB / Retailers

mainpower

An overview of the future of network pricing

Most of us use electricity every day to make our lives easier and more comfortable. In New Zealand, around 80% of our electricity generation comes from renewable sources like sun, wind and water. It's the bit in between boiling a kettle and the generation of electricity that involves us.

We are your local electricity lines company, responsible for delivering and maintaining a safe, secure and reliable power supply to the North Canterbury and Kaikoura region. Simply put, we look after the 'poles and wires' that deliver electricity to our region's homes, businesses, schools and communities.

Managing our network of 4,996 kilometres of overhead lines and underground cables as well as associated electricity infrastructure is a team of dedicated staff who do an all-round great job for our local communities.

Consumer Ownership

The MainPower Trust holds the ownership of MainPower New Zealand Limited on behalf of qualifying customers. Consumer ownership of MainPower entitles qualifying customers to a share of profit. Once a customer* is connected to the MainPower network, that customer is issued with a redeemable preference share (also called a rebate share) in MainPower through which they receive a rebate or 'pay back' which is credited on each monthly electricity bill. MainPower also provides profit distribution in the form of funding for community initiatives, which is administered through MainPower's sponsorship programme.

*Customers previously connected to the Kaiapoi Electricity Network and builders' temporary supply are not deemed qualifying customers under the Trust Deed.

4,996

kilometres of overhead lines and underground cables

Our network covers

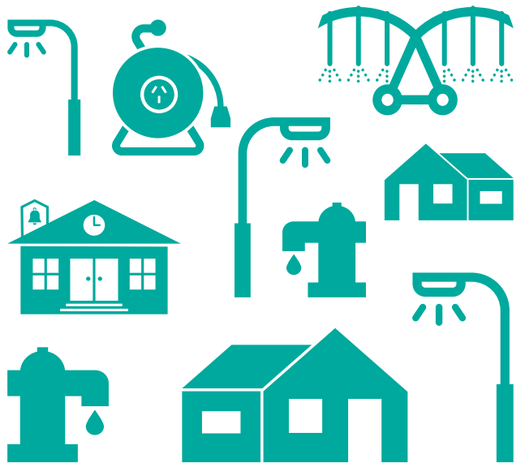
11,180

square kilometres

Our customers

MainPower provides distribution line services (poles and wires which deliver electricity to homes and businesses) to a population of over 65,000 people in the North Canterbury and Kaikoura region. Approximately 76% of our customer base is residential, with the majority of the remaining being small commercial, farming or irrigation customers.

Within our network we have two pricing regions and six standard customer groups.



Pricing region

- MainPower region
- Kaiapoi region (customers previously connected to the Kaiapoi Electricity Network)

Customer groups

Residential: the customer's connection is for a private dwelling intended for occupation mainly as a place of residence, not normally used for any business activity.

Non-residential and large users: treated as a separate customer group to recognise the different connection load usage profiles.

Lighting: established to recognise the night-time only usage profile and dedicated assets attributable to lighting connections.

Irrigation: added in response to significant growth in irrigation in North Canterbury. Recognises the unique summer demand peaking load profile of these customers and incentivises efficient utilisation of available capacity in the network.

Council pumping: recognises their high peak load but less frequent use.

Temporary supply: recognises the need for temporary supply connections (e.g. related to construction) as well as the additional costs associated with servicing this group.

Your electricity bill

As your local distribution company, MainPower charges 'line charges' to cover the cost of delivering electricity to homes and businesses. This is passed onto electricity retailers who send you your electricity bill. MainPower doesn't sell electricity or set the final price you pay for it – your retailer does that. We determine our target revenue to ensure it will be sufficient to cover the operating and capital costs necessary to deliver electricity to the region. This covers everything from administration costs through to network maintenance and transmission charges. Transmission costs are a direct pass through of those charges levied on MainPower by Transpower. Pricing or 'tariffs' are set to recover cost allocations to each customer group and pricing option, using forecast volumes and current pricing structures.

GENERATION

Generators produce electricity. Around 30% of your electricity bill goes towards the cost of generating the electricity you use.

TRANSMISSION

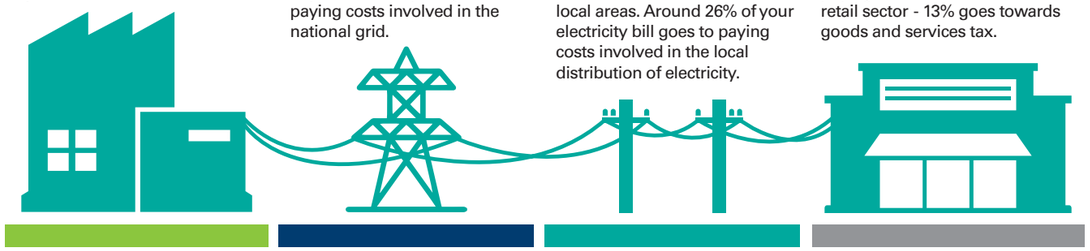
Transpower is the state-owned enterprise responsible for transmitting electricity produced by generators. Around 10% of your electricity bill goes to paying costs involved in the national grid.

DISTRIBUTION

MainPower is one of 29 electricity distributors or lines companies in New Zealand, responsible for the power lines and distribution networks in local areas. Around 26% of your electricity bill goes to paying costs involved in the local distribution of electricity.

RETAILER

Retailers sell electricity to residential and business customers. Around 30% of your electricity bill goes to paying costs involved in the retail sector - 13% goes towards goods and services tax.



What's changing?

MainPower is currently reviewing its approach to electricity line charges which has remained unchanged since 1998.

The past 12 months have been a period of significant change for our organisation as we prepare the business to respond to the game-changing potential of emerging technologies, like solar photovoltaics (PV) and battery storage. These technologies give our customers greater choice on how they produce, store and consume electricity. The opportunity and impact on our core business as an electricity distributor is significant.

Basically, our customers are changing the way they use the network, so we need to reconsider the way we charge for our services.

The Electricity Authority, the independent Crown entity responsible for the operation of the electricity market in New Zealand, also believes that pricing of distribution services (or 'line charges') needs to change to maximise the benefits of emerging technologies for consumers.

What do we hope to achieve?

MainPower's ownership structure means that our organisational goals need to benefit the Kaikoura, Hurunui and Waimakariri communities. Our challenge is how we can continue to provide our customers with solutions by adopting new energy supply technology while still providing customers with value for money through simple and transparent pricing.

The electricity distribution network has provided a reliable and secure supply of electricity for many years. New technologies like solar PV mean customers can now generate their own electricity and in some cases, export any excess solar electricity back to the grid. Current distribution pricing means those customers without access to alternate energy sources like solar, would pay more for the same service which isn't fair or equitable.

The future of network pricing. What does success look like?

Customers and Community

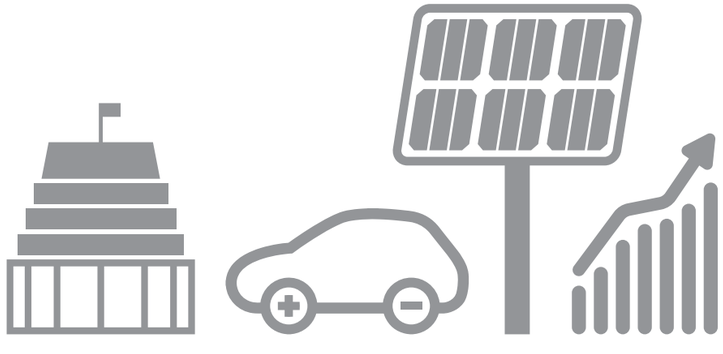
- Customers and the community are engaged in planning and decision making.
- We develop a pricing structure that is transparent and concise; and
- Accommodates the evolving needs of customers and the community while encouraging economic activity.

Government and Industry

- Pricing is cost reflective (both the structure and the level), except where legal/ regulatory requirements and community considerations dictate.
- The pricing structure aligns with common approaches adopted by the distribution sector (to the greatest extent practicable) taking into account ENA (Electricity Networks' Association) and EA (Electricity Authority) guidance.
- The pricing structure is compliant with all applicable regulations and provides a rate of return within the regulatory thresholds.
- We involve retailers and regulators in planning and decision making.

Sustainability

- The pricing structure maintains the long term financial sustainability of the network.
- The pricing structure is simple to administer.
- Pricing facilitates a stable and efficient transition towards the adoption of future energy related technologies e.g. PVs, electric vehicles and energy efficiency improvements.
- The pricing structure supports customer choice and their ability to manage their consumption.



A summary of what's happening

2015–2016

Defined overall pricing objectives and started consultation with customers

2016–2017

Developed pricing options and further consultation with customers and stakeholders

2018–2019

Implementing pricing change and ongoing communication with customers and stakeholders

Our pricing reform journey

Timing is indicative and subject to review. MainPower's pricing reform journey will be updated on a six monthly basis.

Stages	Activities	Completed	2017				2018				2019				2020			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1. DISCOVERY																		
Define overall objectives	Goals outlined in this document	X																
Develop strategy to deliver	High level options identified	X																
Establish high level plan	Gain commitment for reform	X																
Gather basic data	Stream 1, 2, 3A of engagement	X																
Identify refinements to current structure	Including simplification of structure and balance between fixed and variable charges			X														
Stakeholder engagement	Engagement with Board about pricing options and pathway			X														
Consult with retailers	Ongoing engagement with retailers regarding refinements and long term structure			X														
Define pathway	Prepare final strategic pricing plan			X														
Internal capability	Review internal resources eg, analytical capability and arrange training as necessary			X	X													
Consult with retailers	Engagement with retailers on changes to be made in 2018-19 pricing year				X	X												
Internal capability	Review billing systems capability and identify options for upgrades if required					X												
2. DESIGN																		
Develop detailed plan, including:	Prepare detailed pricing reform plans			X														
Identify priorities for reform	Review current knowledge, set timelines and establish plans for each pricing group			X														
Identify challenges and implement plan to address	Known issues- metering configuration, AMI penetration, availability of data				X													
Consultation and engagement	Confirm consultation plan and implement stream 3				X													
Pricing trials to test ideas	Identify options for trial and discuss with customers				X													
Data analysis to assess impacts	Narrow down preferred options and test market impacts				X													
Communication with customers	Formulate plan for communicating with customers					X												
Implementation and transition arrangements	Plan for implementation of changes					X												
Feedback loops and issues resolution	Develop processes to account for stakeholder views					X												
Adopt a risk management approach	Identify and manage risks					X												
Repeat stage 2 for other pricing groups	Timing for other pricing groups dependent on findings from stage 1							X										
3. IMPLEMENTATION																		
Implement change	Introduction of pricing						X											
Notification to retailers	Engagement with retailers on 2018-19 changes						X											
Manage transition	Incentivise and manage take-up over time						X											
Adopt risk management approach	Continue to identify and manage risks						X											
Review progress and make adjustments	Actively consider progress towards outcomes over time																	
Ongoing customer interactions	Monitor customer responses																	
Develop review mechanism										X								
Repeat stage 3 for other pricing groups	Timing for other pricing groups dependent on findings from stage 1															X		

Customer and stakeholder engagement is key

To deliver a fair and equitable pricing approach, it is necessary to seek the involvement of our customers and other stakeholders in planning and decision making. As part of our future pricing journey, we plan to engage with customers and the community to ensure that their feedback informs the way in which pricing structures are set.

It is also important that once the pricing approach has been determined, we adequately educate customers' so that they have confidence in our approach and it meets their wants, needs and expectations.

A transition and communication plan will be presented prior to implementation, setting how the new pricing structure will be introduced and communicated to customers and stakeholders.

Engagement and consultation activity

	Stream 1	Stream 2	Stream 3	Stream 3		Stream 3
			Phase A	**Phase B**		**Phase C**
Focus	Touchpoint expectations and service preferences	Supply expectations and preferences	Quantify needs and preferences	Understand needs and preferences		Test/consult on changes
Broad Coverage	Operational level preferences for service interaction between MainPower and its customers	Understand and prioritise customer needs and preferences regarding supply	Broad topics around tariff knowledge and behaviour as well as adoption of new technologies	Greater understanding about perceived benefits and negatives of various tariff options in eyes of customers		Final test of tariff option/s. Make sure we haven't misinterpreted feedback
Target Audience	Representative sample of customers	Representative sample of customers	Residential, Small Medium Enterprises, rural customers	Residential, Small Medium Enterprises, representative groups	Large users, electricity retailers, rural customers	Residential, Small Medium Enterprises, representative groups
Status	Completed June 2015	Completed November 2015	Completed April 2016	To be completed	Completed May 2016	To be completed

Appendix

MainPower Price Consultation Summary

MainPower is one of 29 electricity distribution businesses in New Zealand that are required to comply with Electricity Authority and Commerce Commission rules governing how prices are set. These rules require electricity distribution businesses to consult with their communities and customers regarding pricing methodologies. In April 2016, MainPower completed stage one of a consultation project with its community on various possible pricing structures. The survey proved highly valuable in enabling MainPower to gain an indication of which pricing approaches might better meet the needs of customers and the community at large. Here are some of the key findings of that research.

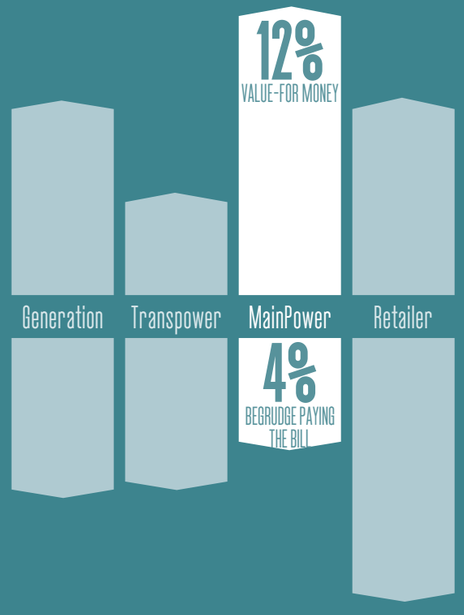
Survey sample

1446 PARTICIPANTS

94% RESIDENTIAL **6%** BUSINESS

12,829 customers were asked to participate in an online survey about price structures and 1446 responded providing a margin or error of +/-2.5%.

Attitudes to power bill



More customers think that MainPower is value-for-money than other suppliers in the supply chain. Fewer customers begrudge paying the MainPower bill that the other suppliers bills.

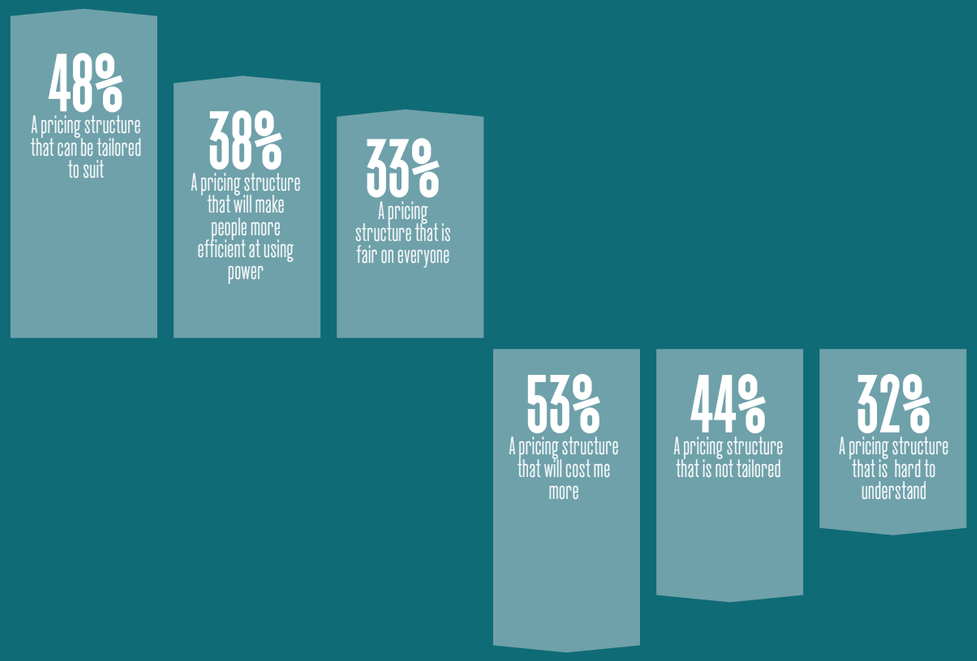
Price Structures

- **Fixed Price:** Customers are charged the same daily charge for use of the network, irrespective of the volume of electricity they use or the time that they use it.
- **Volume:** Customers are charged on the amount of electricity they use, irrespective of when they use it.
- **Time Of Use:** Customers are charged a different rate at different times of the day. This typically means you pay less during off-peak times and more during peak times.
- **Peak Consumption:** Customers are charged based on their maximum level of electricity consumption on any day of their billing cycle regardless of what they use on days where they did not reach this maximum.

What is your preferred price structure?

Residential customers with higher monthly bills preferred Fixed Price and Time Of Use more than Volume and Peak Consumption. Residents with lower monthly bills preferred Volume and Time Of Use more than the other two options. Peak Consumption is the least preferred option and Volume and Time Of Use are the most preferred.

Key benefits sought and downsides to avoid in a price structure



The key benefit nearly half of respondents are looking for is a tailored* approach, followed by a price structure that supports efficiency and fairness. The main downsides customers want to avoid from a pricing structure are electricity costing more, followed by a structure that is not tailored and hard to understand. Customers were least concerned about others benefiting more than themselves, although 15% do want fairness for all.

How does each pricing structure stack up against the other?

EASIEST TO UNDERSTAND	SEEMS FAIR	IS MOST APPEALING	WILL USE LESS POWER
88% Time Of Use	74% Volume	57% Volume	34% Volume
WILL USE MORE POWER	**WILL COST MORE**	**WILL SAVE ME MONEY**	**LIKE PRICE STRUCTURE**
16% Fixed Price	51% Peak	35% Time Of Use	45% Volume

Volume pricing is seen as offering the greatest benefits to customers, including being seen as fair, appealing, likely to result in more efficient use of power, and the most liked. Time Of Use pricing stood out for the benefits of being easy to understand and appealing because it is likely to save the customer money. Peak Consumption and Fixed Price structures are viewed less desirable as customers see them as likely to result in higher power use and costing the consumer more money.

Comments

Based on the comments section in the survey, customers want a price structure that will work best for their living circumstances and will save them money. Secondary is a desire for fairness. Peak Consumption is regarded as the least fair option and Volume as the most fair, followed by Fixed Price. Time Of Use was considered an antiquated approach by many, and an inconvenience in terms of trying to find ways to adjust ones living to benefit from it. People requested that the price structures be kept simple and easy to understand, so that they could find ways to save money. There was also a desire to have bespoke pricing, or to be able to tailor a pricing structure to suit an individual household by using a combination of all four pricing methods. The ultimate goal for most people seems to be to find ways to reduce their power bill, without having to cook dinner at 3am, or live in a cold house over winter.

There were strong themes around social good and quite a number of comments about people on low incomes huddled in front of heaters to stay warm while power companies profit. There were equally as many comments about the cost of electricity, and how the price 'just keeps going up'.

When weighing up all the comments, Peak Consumption is by far the least desirable pricing structure and also the least understood, and Volume seems to nudge out in front of Fixed Price as the most preferred approach.

CARTE BLANCHE

mainpower nz

Need more information?

Phone 03 311 8300 or 0800 TellMP (0800 835 567)
Email feedback@mainpower.co.nz
Or visit www.mainpower.co.nz

Have your say

If you would like to have your say, contact corpcomms@mainpower.co.nz and we can let you know what consultation we currently have open.

mainpower

Version 1.4 01.03.17

5. Pricing Roadmap Plans for Pricing Reform

5.1 Background to Roadmap for Pricing Reform

The Electricity Authority, (Authority) has requested all electricity lines businesses (ELBs) of which Marlborough Lines (MLL) is one, provide a "roadmap" or high level plan for reform of their pricing for electricity distribution services.

MLL agrees with the Authority that pricing for distribution services which is heavily reliant on consumption based charges (c/kWh) and/or fixed daily charges ($/day/installation) is not generally cost reflective or service based. This is because the amount charged for the services provided does not reflect the requirements a consumer places on the network and that the costs of providing supply are generally fixed.

Currently the majority of ELBs, including Marlborough Lines, use a two part pricing structure with fixed daily charges and consumption based charges for residential customers. The majority of connections on the Marlborough network do not have time of use or smart meters.

The Authority considers that if the Distributors provide more cost reflective pricing, then consumers will be able to make more efficient investment decisions, particularly with respect to solar generation and eventually battery storage technologies.

Marlborough Lines agrees with the Authority that it is important to ensure that pricing is fair to all consumers. Therefore it is desirable to avoid a situation where customers who can afford to install solar panels reduce the price they pay for distribution services to such an extent it transfers some of the costs of providing a supply to them onto other network consumers.

The transfer of costs from one group of customers to another, those with solar generation to those without, is particularly undesirable where it is likely to negatively impact vulnerable customers. It is acknowledged that currently energy costs are really challenging for some people connected to the Network and these customers may typically be less likely to install solar generation[7].

5.2 Looking to the Future

MLL considers there is a lot of uncertainty around the future cost and benefits of emerging technologies and how these will be taken up by consumers.

As well as the declining costs for photovoltaic panels there are currently Government sponsored initiatives to encourage the uptake of electric vehicles. Furthermore a solar generation system can be supplemented by battery storage which is also declining in cost. Peer to peer trading of electricity is already being trialled in Auckland.[8]

[7] Internationally some jurisdictions define "fuel poverty" thresholds and offer subsidies or financial support to vulnerable consumers who are unable to manage their energy costs, https://www.energy-uk.org.uk/policy/fuel-poverty.html
[8] https://www.nbr.co.nz/article/trial-peer-peer-energy-trading-system-start-auckland-december-b-193770

The adoption of these new technologies by consumers will change the way Distributors operate. A network may facilitate electricity flow from one customer to another. Distributors may also provide infrastructure and specific pricing for electric vehicles, and those consumers should have the ability to shift their load to respond to price signals and prevent inefficient network investment.

It important that, where possible, new pricing approaches are introduced before too many consumers make decisions based on old pricing models. If current pricing models encourage inefficient investments or discourage uptake of technologies, where there are benefits available, the costs of providing distribution services will be higher than they would otherwise.

As well as uncertainty around the emerging technologies, distributors are also facing uncertainty around how the cost of the national grid, transmission charges, will be recovered from users in the future[9]. It is important that new pricing models are durable and not introduced and then changed again within a short time period.

5.3 Approaches to Cost Recovery

There are many ways to recover the costs of a network. Section 4 of this document sets out the expected revenue by consumer group and compares this with an allocation of network costs based on Marlborough Lines' current view of an appropriate cost allocation methodology.

No one approach to allocating the cost of owning and operating a network between customers is perfect.

Marlborough Lines considers that within the electricity industry there are anomalies in pricing caused by Government policy factors which are beyond the control of network companies. These anomalies include the Low Fixed Charge Regulations and the uncertainty around the flexibility for distributors to set prices at different levels based on the geographical location of consumers.

Our current approach to pricing leads to cost sharing between customer classes, and cost sharing between urban and rural, especially remote rural customers. These customers typically gained supply at a time when government regulation mandated that uneconomic consumers be provided with a grid supply.

5.4 Marlborough Unique Network Characteristics

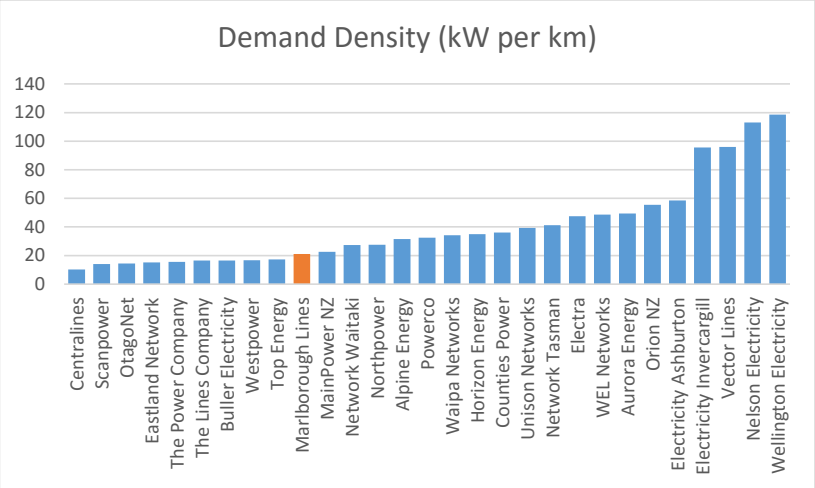
All 29 ELBs have some particular and unique characteristics. However when considering the path to pricing reform for MLL it is important to acknowledge that currently the impact of the 278 residential solar connections on the network is considerably less than either the unprofitable nature of providing supply to uneconomic areas such as the Marlborough Sounds or the impact of the low user fixed charges provided to 33% of residential customers and potentially 56%.

As explained later in this report, currently only 43% of consumers in Marlborough have smart meters which restricts the rate of change to pricing format.

[9] The Electricity Authority has a significant programme of work looking at changing the pricing methodology for the recovery of transmission costs: www.ea.govt.nz/development/work-programme/pricing-cost-allocation/transmission-pricing-review.

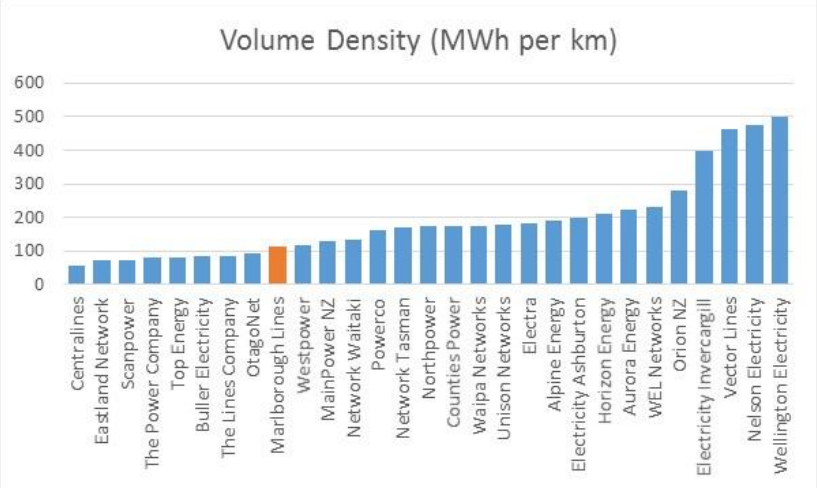
The following figures outline some key metrics for service intensity for ELB's in New Zealand. Overall they highlight the provincial nature of the Marlborough Network. In all four service intensity metrics Marlborough Lines is less than the average and median of the sample comprising all 29 ELBs in New Zealand. A low service intensity is generally expected to indicate higher costs of providing distribution services.

Figure 14: Demand Density



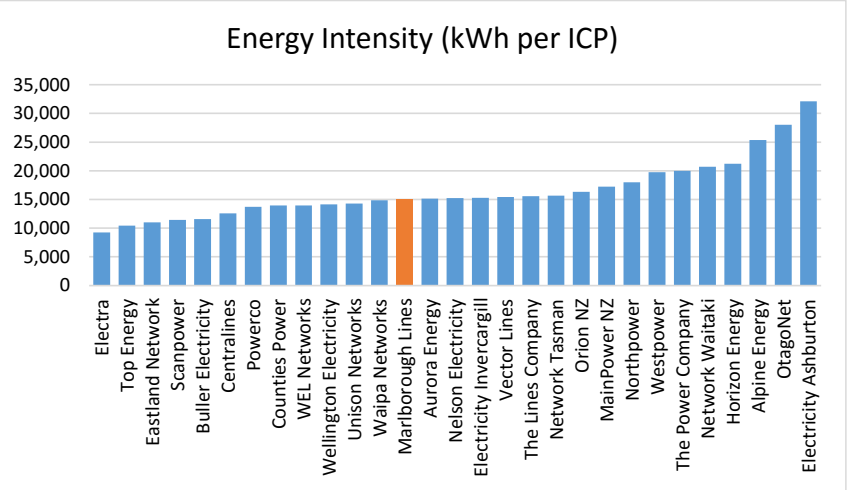
Average	40.3
Median	32.5
Marlborough Lines	21
Rank	20/29

Figure 15: Volume Density



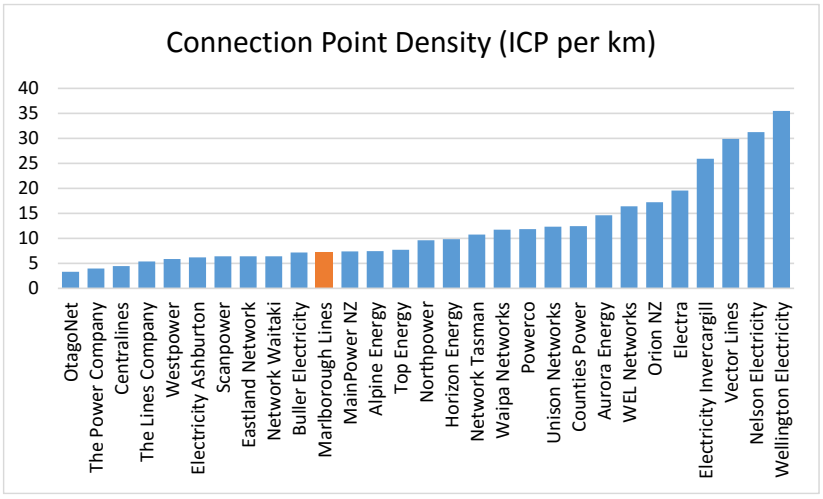
Average	189.3
Median	173.2
Marlborough Lines	111.4
Rank	21/29

Figure 16: Energy Intensity



Average	16,465
Median	15,242
Marlborough Lines	15,150
Rank	17/29

Figure 17: Connection Point Density



Average	12.2
Median	9.6
Marlborough Lines	7.4
Rank	19/29

Further analysis of the Marlborough network highlight the significant differences between remote and non-remote areas. In remote areas there are approximately two ICPs per kilometre of line.

The following table looks at the energy intensity of customers in remote and non-remote areas of the Marlborough network[10].

[10] The overall network score of 15,087 is slightly different from the information disclosed for the year to 31 March 2016 as it is based on a 12 month period that differs from the Disclosure year.

Figure 18: Energy Intensity Remote/Non remote Residential Consumer Segments

	No. of Connections	GWh /year	kWh/ICP
All Consumers			
Non-Remote areas	22,989	370	16,095
Remote areas	2,344	12	5,203
Total Consumers	**25,333**	**382**	**15,087**
Residential Consumers			
Non-Remote areas	19,375	138	7,111
Remote areas	2,067	8	3,955
Total Residential Consumers	**21,442**	**146**	**6,806**

The Marlborough Network extends out through the Marlborough Sounds and up the Awatere and other east coast valleys. Some of the lines servicing these remote areas were built in accord with Government legislation of the day which required construction of such lines. Many of these lines have never been economic.

The elimination of cost sharing would result in the cost of supply to some customers in remote areas becoming prohibitive. As customers drop off the network in remote areas, and Marlborough Lines continues to provide services to remaining customers, the costs for others increases.

From the perspective of a consumer, Marlborough Lines and the national economic good, it makes little sense for a customer to be driven from the Marlborough Lines Network through the implementation of high charges when the Marlborough Lines network is in a good state of repair and the cost of providing an alternative standalone supply is upwards of $50k per consumer.

These issues will need to be very carefully examined as the assets serving remote areas come to the end of their useful life and require replacement. The high capital cost of replacing the reticulation in remote areas[11] together with the reducing cost of non-grid alternatives and continuance of supply obligations present some real challenges.

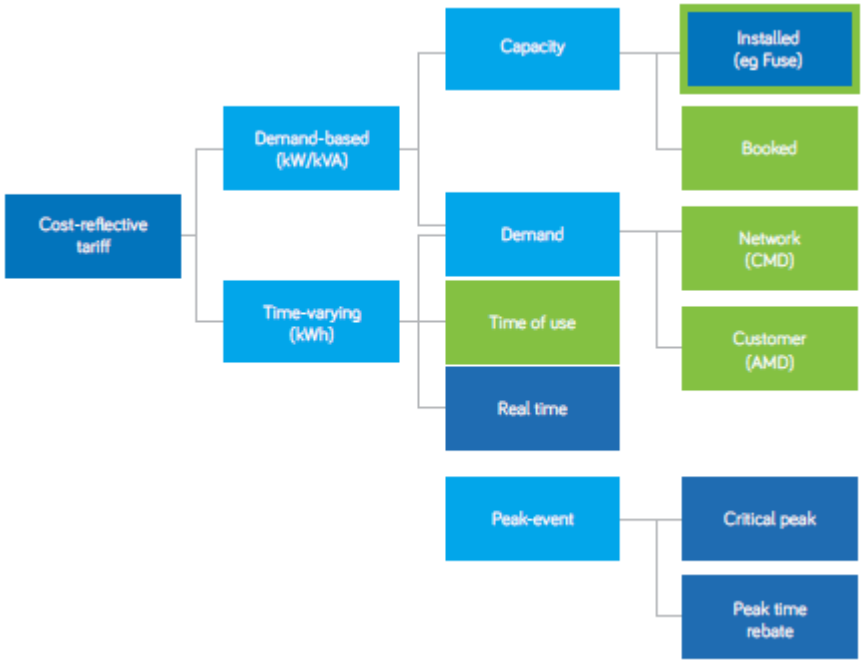
As well as relatively low service intensity, Marlborough also has a distinct lack of diversity in commercial and industrial load. The region has a high concentration of grape growing and processing, both of which have relatively low load factors and coincident load profiles - a further contributing factor to a relatively high cost of providing supply.

[11] The cost of replacing remote area assets is increasing a result of a number of factors including higher thresholds for good environmental practices and health and safety requirements.

5.5 Current Industry Thinking on Pricing Options

The Electricity Network Association published a discussion paper on future distribution pricing issues in September 2016. The paper focussed on four main types of pricing plans that could address some of the issues faced by the industry. These four options are highlighted in green in the figure below[12]:

Figure 19: Future Pricing Options



The four pricing options are:

1. Nominated (booked capacity) pricing that reflects the capacity that a consumer prefers.
2. Network Demand prices reflect demand levels at network peak times.
3. Customer Demand prices reflect demand at customer peak times.
4. Time of Use is consumer-based pricing (kWh) that varies at different times of the day.

A number of submissions on the ENA discussion paper have been received. Many retailers indicated that using fused based capacity pricing was their least favoured option. More retailers supported Time of Use pricing in principle but varied considerably on the details such as whether it was a coordinated structure nationwide or would vary according to distributor's individual peak demand periods.

One of the major retailers on the Marlborough network submitted that they favoured demand pricing. However demand pricing requires installation of more advanced metering infrastructure which is not widespread on the Marlborough network at this stage.

[12] From ENA Pricing Guidelines for Electricity Distributors - A handbook for pricing practitioners, Consultation Draft September 2016 Page 41. Available of Electricity Network Association website.

It is salient that typically MLL's cost of providing supply to consumers are largely fixed and not time dependent. MLL's network is generally not capacity constrained and the imposition of time of use charging would not necessarily result in cost reflective pricing.

5.6 Low Penetration of Advance Meter Infrastructure (AMI)

The Marlborough Network has a relatively low penetration of advanced meters, often referred to as "smart meters". The Network currently has 43% of its connections with AMI compared to a national average of around 75%.

These advanced meters record more detailed information, similar to that available from the metering generally installed at large commercial and industrial customer premises. Whereas legacy metering only provides a total of units used during each period. AMI may also have additional functionality such as remote reading and disconnection services.

Three out of the four pricing options examined in the ENA's future pricing option review required the more detailed information only able to be provided by AMI. Furthermore a legacy meter rather than a smart meter is installed for most of the new connections in Marlborough. This limits MLL's options to test new pricing plans on a subset of customers being comprised of new installations.

The Company considers that there will be a relatively significant number of connections where AMI is unlikely to replace legacy metering due to difficult terrain, high access costs, low consumption and poor cell phone coverage. New pricing structures therefore will somehow need to accommodate non AMI connections.

5.7 Low Fixed Charges

The low fixed charge regulations were mandated by the previous government for political reasons and were totally unrelated to the cost of supply.

25% of our residential customers are ineligible for low fixed charge plans by virtue of the exemptions Marlborough Lines holds.

Currently 33% of residential customers connected to the Marlborough network are on low user fixed charge plans[13]. A further 23% use less than 8,000 units and would face lower costs on these plans.

The Authority has published some guidelines on the Low Fixed Charge regulations which suggest that distributors may have more flexibility within the regulations but this is yet to be proven in practice. MLL consider there are potential issues with capacity pricing based on installed fusing of residential customers.

The installation of solar panels will result in more customers consuming less than 8,000 units per year and therefore benefitting from paying less on a low fixed charge plan.

[13] Approximately 9% of the consumers currently on MLL's LFC plans, (3% of the total residential consumers), actually use more than 8,000kWh.

So long as the low fixed charge anomaly exists together with the urban / remote rural cost sharing, which again is essentially being dictated by government policy, it is difficult to move towards totally cost reflective pricing.

5.8 Cost Reflective Elements in Current Pricing

Marlborough Lines agrees with the Authority that further moves to cost reflective pricing will be ultimately beneficial. Within the limitations imposed by government criteria Marlborough Lines has sought to relate its pricing to the costs of supply within its customer groups.

The table below summarises the percentage of revenues expected to be received for the year to 31 March 2017 for each of the four consumer groups on the Marlborough network.

Figure 20: Revenue by Charge Type

	Residential	Irrigation	General	Large Commercial Industriral	All Consumers
Fixed Daily Charges	35%			2%	16%
Unit based charges	65%	34%	53%	21%	49%
Capacity charges	0%	60%	45%	60%	30%
Demand Charges	0%			15%	4%
Other e.g. Power factor	0%	6%	3%	1%	1%
Total	100%	100%	100%	100%	100%

With the exception of the residential consumer group, a significant proportion of revenue is already obtained through capacity charges.

With respect to the residential consumer group, Marlborough Lines has taken a number of significant steps to make its pricing relatively cost reflective compared with many of its peer ELB's.

The following steps have been taken which increase the cost reflectivity of Marlborough Lines prices for residential consumers:

- Consumers in remote areas do not receive discounts on line charges.
- MLL has obtained an exemption so it is not required to offer low fixed charge plans to consumers in areas deemed remote on the network.
- MLL has obtained an exemption so it is not required to offer low fixed charge plans to consumers with capacity greater than 15kVA.
- MLL does not offer a low fixed charge plans to non-residential consumers.
- MLL maintains a dual plan structure rather than setting fixed charges at 15 cents per days for all residential consumers.
- Fixed daily charges are at least somewhat capacity based, with a higher dollars per day charged for consumers with capacity greater than a normal single phase residential connection.
- A basic time of use structure is in place with a controlled night rate offered.

- A lower unit rate applies to units supplied on a controlled basis, (able to be interrupted), which allows the network to manage peak loads and reduce the network investment required.

5.9 PV Impact Still Small

The likely increase in small scale generation and inefficient investment decisions if variable pricing components dominate pricing structures, were key areas of focus in the Authority's discussion paper on Emerging Technologies, released in November 2015.[14]

On the Marlborough network the number of installations with PV has increased in recent years. However the impact on distribution charges from 278 consumers with PV is still a relatively small distortion compared with the impact of the LFC Regulations and the cost of providing supply to consumers in remote areas.

The Marlborough region has high sunshine hours. Despite this favourable climate consumers are unlikely to rely on their own solar generation for all their electricity needs. Therefore these consumers are likely to stay connected to the network and use it to receive power as well as exporting their excess generation for use by other consumers.

The company's view is that a reliable alternative non-grid electricity system will also likely include diesel generators as well as batteries, notwithstanding Marlborough's high incidences of sunshine.

Marlborough Lines is cognisant of the public and regulatory responses to Unison's introduction of a distribution pricing plan specific to consumers who had installed PV.

5.10 Cost Reflectivity Trade-offs with Transaction Costs

Marlborough Lines has also sought to structure its pricing within categories commonly used in the electricity industry. This simplifies billing by retailers and facilitates retailers selling electricity over the Marlborough Lines network. Currently there are some 16 retailers trading electricity over Marlborough Lines' network and it is important to ensure that any change in network pricing does not inhibit retail competition.

Over past years we have received positive feedback from retailers when refining our pricing structures and reducing the number of plans offered. Paradoxically simplification of pricing systems inherently results in a divergence from cost-reflective pricing.

Stability of network pricing is also considered important not only in the interests of consumers but in terms of the commercial interests of the Company and satisfaction of political interests. The only network in New Zealand to move to pricing principally based on capacity has attracted an inordinate amount of criticism to the extent it has been a diversion to its business operations.

[14] EA Distribution Pricing Implications of Evolving Technologies Consultation Paper, 3 November 2015.

5.11 A Cautious Approach Proposed Initially Targeting Incremental Improvements

As a provincial network with some unique issues MLL feels that it is essential to stay well informed on industry initiatives with respect to pricing reform for mass market customers.

MLL has a strong commitment to customer engagement and considers it is imperative that appropriate levels of information are provided and widespread consultation is undertaken before embarking on significant changes. Our interaction with customers tells us they want stability of pricing.

We remain committed to making incremental improvements in our current structures and this will ultimately make the transition to new arrangements smoother.

We have already identified that the distinction between some small business and residential connections is becoming increasingly blurred and this has implications on the enforceability of rules that set out eligibility of consumers for particular groups.

In all cases where significant reform of pricing is undertaken there will be winners and losers. As outlined above, there are a number of factors which need to be taken into account. Ultimately the views of the majority of consumers need to be considered.

The results of pricing reform need to ensure that the greater good of the majority of consumers is taken into account provided that no particular consumer or group of consumers is unduly penalised.

5.12 Vegetation Levy

The company sees an opportunity to address the high cost of vegetation maintenance on the Marlborough Network. There is the potential to target the recovery of these costs from those who benefit from extensive vegetation management.

Marlborough Lines believes it is appropriate to consider a vegetation levy for consumers in areas where vegetation management cost are disproportionate to the costs in other areas of the network such as the Marlborough Sounds. By way of example a levy in the order of $500 per annum would provide a million dollars per annum which is approximately 50% of the costs Marlborough Lines incurs on an annual basis to keep trees and vegetation clear of the lines.

The intensive vegetation management required is not only in the interests of the reliability of the electricity supply but also to discharge Marlborough Lines' legislative responsibilities relative to minimising the risk of fire.

5.13 Conclusion

It is the view of Marlborough Lines that until a number of the factors outlined above are addressed it is inappropriate to move to a completely cost-reflective methodology in recovery of network company costs.

Ideally it would be Marlborough Lines' intent to progressively increase charges relative to consumers' capacity and reduce charges based on kWh consumed. We cannot go to more sophisticated pricing for residential consumers until the incidence of smart meter installations increases beyond the current 43%.

However until the regulated low user fixed charge is eliminated further increases in fixed charges may well result in continued customer migration to low user fixed charge plans.

As a responsible network company Marlborough Lines will continue to monitor the situation relative to pricing to ensure that its charges satisfy the greater good of the majority of the consumers without imposing unduly punitive costs on individuals or customer categories.

Marlborough Lines' current network prices will remain unchanged from 1 April 2017. Prior to implementation any move towards fully cost-reflective pricing will be carefully evaluated from all perspectives including economic, social and political before effecting significant change.

It is Marlborough Lines' intent to work with its consumers, the Government and its regulatory agencies to establish a way forward which will, to the maximum extent possible, satisfy the interests of all stakeholders.

Marlborough Lines has previously sought to engage with the Electricity Authority and the Government in respect of pricing and remains committed to doing so in the future.

Nelson Electricity Limited
Pricing Methodology Disclosure

For the period beginning 1 April 2017

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

Future Pricing Roadmap Checklist EDB : *Nelson Electricity Limited*

Roadmap Stages	Activities	Timeline														Resource requirements
		2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 H1	2018 H2	2019 H1	2019 H2	2020	2021	2022	2023	2024	2025	
1. Initiate pricing reform																
Problem Identification & Discovery	Justification and early modelling	X														NEL
Define overall objectives for reform	Set overall goals including target dates or date ranges	X														NEL / ENA / Shareholders
Develop strategy to deliver reform	Develop ideas on how to go ahead (including long list of future pricing options if available)	X														NEL / ENA / Shareholders
Communicate	Prepare and publish future pricing roadmap, include reasoning and and why it's important	X														NEL
Identify challenges	eg, resourcing implications, billing systems, EIEP1 file formats, AMI penetration and technology,	X														NEL - New Billing System
Consult retailers	Socialise ideas & plans with retailers		→	X												NEL / ENA
Establish high level plan	Gain commitment to reform, agree plan, allocate resources		→	X												NEL
Gather basic data for analytics	What do we need to know to progress reform? (eg. AMI penetration? Survey customers?)		→		X											NEL / ENA / Shareholders
Define pathway	Prepare final strategic pricing plan (including target dates)		→		X											NEL / ENA / Shareholders
Alignment across EDBs	Compare plan with other EDB's, form coalitions			→		X										NEL / ENA / Shareholders
2. Plan changes in more detail																
Develop detailed plans, including:	Identify issues/prepare detailed pricing reform plans				→	→	X									NEL / ENA / Shareholders
- customer interactions	Establish research program and focus groups (retailer + end-user)				→	→	X									NEL / ENA / Shareholders
- pricing trials to test ideas	Conduct in-market testing, examine impact on customer groups				→	→	X									NEL / ENA / Shareholders
- data analysis to assess customer impacts	Narrow down preferred options and test market impacts				→	→	→	X								NEL / ENA / Shareholders
- implementation and transition arrangements	Identify what will drive success				→	→	→	X								NEL / ENA / Shareholders
- feedback loops and issues resolution	Develop processes to account for stakeholder views and review against target dates. Participate in ENA				→	→	→	X								NEL / ENA / Shareholders
- communication	Educate customers and retailers about change				→	→	→	→	X							NEL / ENA / Shareholders
- regulatory compliance	Check plan meets regulatory expectations				→	→	→	→	X							NEL / ENA / Shareholders
3. Manage roll out of new pricing options																
Develop transition strategies	Incentivise and manage take-up over time for retailers and customers					→	→	→	X							NEL / ENA / Shareholders
Adopt risk management approach	Identify and manage risks to markets, customers, EDBs *(eg political and financial risks)*					→	→	→	→	→	→	→	X			NEL / ENA / Shareholders
Implement New Pricing	Introduce the new pricing options								→	X						NEL
Review progress and make adjustments	Actively consider progress towards outcomes over time						→	→	→	→	→	→	X			NEL
Ongoing customer interactions	Monitor customer responses and manage as required						→	→	→	→	→	→	X			NEL

Network Tasman 2017 pricing review and roadmap

April 2017

A review of the structure of our pricing has been established by the Network Tasman (NT) board as a priority for the company. It is apparent that consumers in the Tasman region have relatively high levels of interest in emerging technologies and we have been actively investigating how to best support our consumers in their technology choices through improving network price structures.

The deployment of advanced metering is underway in our region with penetration currently at around 60% of connections on our network. As deployment of advanced metering continues, it will provide opportunities for more sophisticated forms of pricing, such as demand pricing, which have to date been limited to large connections that have TOU metering (Group 3).

NT is of the view that a key area of focus in the context of moving towards cost-reflective pricing is to work through the practicalities around implementation of demand pricing structures as these have not yet been successfully used on a widespread basis for mass-market connections through ICP-billing. In our view this will require a coordinated effort by distributors, retailers and regulators as well as engagement with consumers. The timing around development and implementation is uncertain, however we set out below our expectations of what we are aiming to achieve in the near term as well as high-level plans for the longer term.

Our current pricing structure

Although NT's pricing structure for large connections is reasonably sophisticated and cost-reflective, the least alignment between prices on one hand and services and costs of provision is in respect of small connections (15 kVA). The following table provides an overview of our current pricing and the key issues identified for review for each of the three key load groups.

Connection category	Number of connections	Existing NTL pricing structure	Issues identified for review
Group 3: connections with capacity of 150kVA or more (Large commercial)	154	TOU metering is required for these connections. This has enabled relatively sophisticated pricing structures to be in place for some time. Pricing to these connections is a combination of: (1) an Anytime Maximum Demand (AMD) price; (2) a Regional Coincident Peak Demand (RCPD) price; and (3) a seasonal day/night kWh consumption price.	Review of pricing for these connections is anticipated to be limited to refinements to enhance this pricing structure, such as reviewing the weighting of each price component. When there is further clarity regarding the future structure of Transpower's prices, NT will need to review the relevance of the RCPD price component which is used to pass through transmission charges as well as recover a portion of distribution prices.
Group 2: Connections with capacity from 20kVA up to 150kVA (80% of Group 2 connections are small and medium sized businesses, and the remaining 20% are residential connections)	≈ 2,700	Pricing to these connections includes: (1) a capacity price ($/kVA/day) which applies to the installed (fused) capacity of the connection; and (2) a kWh consumption price, including anytime (uncontrolled), day/night and controlled options. Currently the capacity component of the price accounts for 25% of revenue for this group of connections.	The appropriate weighting of the capacity component and a means of transition towards that will be examined. TOU pricing – eg, review time periods of day/night and whether a peak/off-peak/shoulder approach would be preferable. LFC requirements – NT currently has a set of LFC prices for 20kVA residential connections with usage of less than 8000 and another for 40kVA connections. There are 37 connections on the 20 kVA LFC plan and 2 on the 40 kVA LFC plan. We intend to review whether these are required in light of the LFC Guidelines published by the EA. When there is sufficient penetration of advanced meters AMD is a possible alternative to installed fuse capacity.
Group 1: Connections with a nominal capacity of 15kVA (Residential, holiday homes and a number of small businesses)	≈ 36,000	All connections in this category (>90% of NT's ICPs) face a fixed daily price of 15 cents and a kWh consumption price, including anytime (uncontrolled), day/night and controlled hot water options. The fixed daily price component accounts for around 10% of revenue for this group of connections. NT's pricing does not differentiate between the end use of the connection (eg, residential vs business etc).	TOU pricing – eg, review time periods of day/night and whether a peak/off-peak/shoulder approach would be preferable. We will also consider the price differential between day/night (or peak/off-peak) and the differential between controlled and uncontrolled prices. Investigate incorporating a demand or capacity component to reduce reliance on kWh charges/reflect the services provided. Review whether to introduce a standard plan for connections that consume greater than 8000kWh or are not a primary residence.

Network Tasman distribution pricing review timeframe

Over the past 2 years, NT has conducted a significant amount of research on possible pricing structures for mass market consumers. This has included:

- research on international approaches to cost-reflective pricing;
- identification and analysis of key pricing structures;
- analysis of combinations of pricing structures;
- analysis of ways in which discounts could be more cost-reflective;
- an initial survey of consumers' views on pricing;
- participation in DPWG and ENA initiatives to explore future pricing options; and
- working through the responses provided by interested parties on the ENA's future pricing options discussion paper.

Most recently we have begun examining samples of advanced meter data to better understand the distribution of individual ICP demands as part of an examination of capacity pricing and demand options.

It has become increasingly apparent that although capacity and/or demand options provide a significant opportunity to move towards pricing that is more cost-reflective and better reflects the services provided to end consumers, there are a range of implementation issues to be worked through for application to mass-market connections. To be successful, it seems likely that there will need to be a coordinated approach across the sector to determine a way forward. There is little precedent for a successful implementation of demand pricing on a widespread basis under ICP billing. It is therefore crucial to work through the practicalities of how demand or capacity prices would be implemented, how the change would be conveyed to consumers and what the end impact on consumers in likely to be (taking both a short- and long-term view).

Submissions by retailers on the ENA's discussion paper on future pricing options identified a range of implementation issues that would need to be addressed. The Lines Company's review of its pricing also identified key implementation challenges associated with demand charges which provide crucial learnings for other distributors.[1]

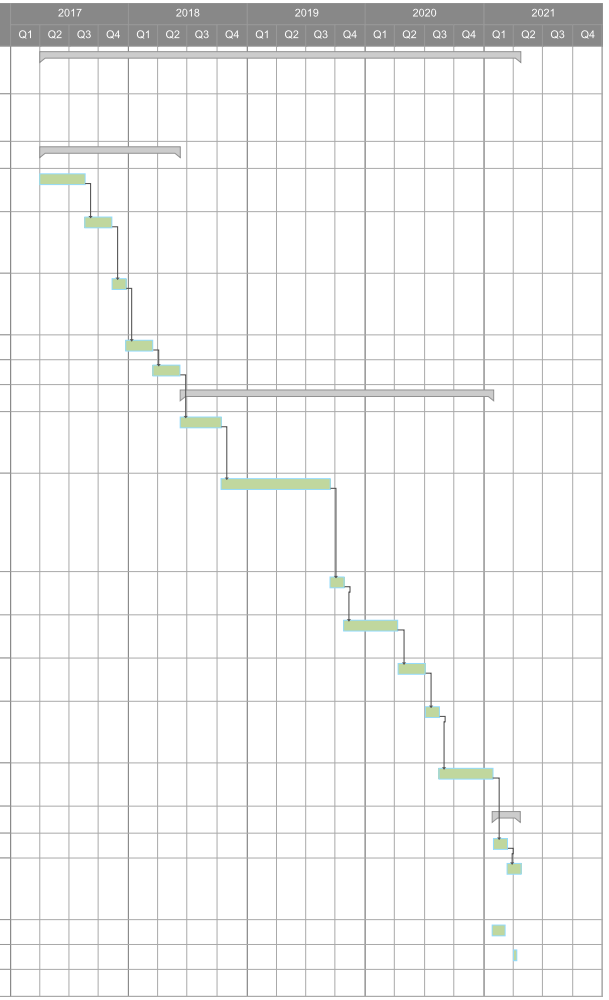
Given the above considerations, NT has identified two streams of work. The first is to review our existing pricing with the goal of simplification, standardisation and improving price signals that are already in place. The second is to continue to work with other EDBs regionally, the ENA, retailers and consumers to identify a demand or capacity pricing structure that would be practical. The table below sets out the time plan that we are working to for the first workstream. The timeframe around the second workstream is uncertain given that it will involve significant collaboration with other parties and that it is unclear what pricing structure would ultimately be selected and what would be involved with its implementation.

---

[1] Although NT does not direct bill mass-market consumers, implementation of demand pricing could still result in similar outcomes for consumers to the extent that pricing structures are passed through by at least some retailers.

	2017 Apr-Jun	2017 Jul-Sep	2017 Oct-Dec	2018 Jan-Mar	2018 Apr-Jun	Jul 2018 and beyond
Workstream 1: Simplifying and improving existing pricing						
NT analysis to identify possible simplification and improvements to existing price signals						
Consumer focus groups						
Review price cost model/cost allocations						
Initial engagement with retailers regarding possible changes						
NT analysis of billing/metering/data implications						
NT consumer impact analysis						
Consultation with retailers regarding proposed changes						
Board approval sought						
Confirmation to retailers of changes						
Implementation of changes						
Workstream 2: Investigating demand and capacity pricing options and developing long-term strategy						
Consumer focus groups/engage with key consumer representatives						
Participate in ENA initiatives on future pricing						
Develop long-term strategy						

	Task Name	Activities	Resource requirements
1	NETWORK WAITAKI FUTURE SERVICE-BASED PRICING ROADMAP STAGES		
2	MONITOR ENA/EA GUIDANCE TO BE CONSISTENT IN APPROACH WHERE PRACTICABLE	Continuous comparison and alignment where possible with other EDBs	
3	DETERMINING FUTURE PRICE STRUCTURES		
4	Analyse current price structures and impacts	During the first year NWL to review the existing ToU structures and the impacts thereof currently in view of NWL circumstances.	NWL & Expert Advice
5	Identify preferred Price Structures	Initial thinking on cost-reflective & service-based price structures: ToU and fixed/demand prices for small to medium consumers. Large consumers with smart meters = Installed contractual capacity + Demand	NWL & Expert Advice
6	Identify challenges with preferred Price Structures	Challenges potentially include: Data access, Billing System, AMI penetration, regulatory compliance, data privacy issues, System upgrade resourcing, stakeholder education	NWL & metering & billing expert advice
7	Identify measures to overcome challenges of preferred price structures	Consider all measures such as opt-in pricing approach, direct billing, surveys	
8	Review Cost of Supply & Allocation methodology	Review cost of supply & allocation model based on identified price structures	NWL & Electricity Expert modeller
9	CONSULTATION / COMMUNICATION		
10	Communication with stakeholders to inform them of NWL's process	Development of Communication strategy. Letters to NWL stakeholders to inform them of the thinking & intended communication process around new price structures	NWL & Communication expert
11	Consultation on preferred price structures	- Detailed outline of proposed price structures to stakeholders + stakeholder survey - Receipt and consideration of comments - Amendments to price structures where required - Communication of revisions to stakeholders	NWL
12	Prepare necessary documentation for trial run	Liaise with stakeholders and agree on process to do a trial run of revised price structures	NWL
13	Trialling of new price structures	Executing the trialling of new price structures with a selected sample of stakeholders	NWL
14	Analyse results of trials	Detailed analysis to determine the impact of the price structures post the trial run on stakeholders, revenue, systems	NWL & Billing, metering & systems experts
15	Make changes to price structures where necessary	Post the analysis of the potential impact it might probably be necessary to make changes to price structures. Communicate any changes to stakeholders with reasons	NWL & Expert Advice
16	Communication of reformed price structures for implementation - 1 April 2021	Communication in line with communication strategy well ahead of implementation	NWL & Survey expert & stakeholders
17	ROLL-OUT OF REFORMED PRICE STRUCTURES		
18	Develop risk mitigation strategy	Consider all risks and if deem necessary develop a risk mitigation strategy	NWL
19	Develop transition strategy	Especially if an opt-in approach is followed initially it will be necessary to develop a transition strategy to incentivise stakeholders to move to new price structures	NWL
20	Notification of price structures to customers in line with regulatory requirements		NWL
21	Implementation		NWL
22	ONGOING MONITORING		NWL



Future Distribution Pricing Roadmap

Northpower Limited

Roadmap Stages	Activities	Possible Timeline													Resource requirements
		2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 H1	2018 H2	2019 H1	2019 H2	2020	2021	2022	2023	2024	2025	
1. Initiate pricing reform																
Problem Identification & discovery	Justification and early modelling			X												
Define overall objectives for reform	Set overall goals including target dates or date ranges			X												
Develop strategy to deliver reform	Develop ideas on how to go ahead (including long list of future pricing options if available)	X														
Communicate	Prepare and publish future pricing roadmap, include reasoning and and why it's important	X														
Identify challenges	Resourcing implications, billing systems, EIEP1 file formats, AMI penetration and technology, accessing data				X											
Consult retailers	Socialise ideas & plans with retailers				X											
Establish high level plan	Gain commitment to reform, agree plan, allocate resources					X										
Gather basic data for analytics	What do we need to know to progress reform?			X												
Define pathway	Prepare final strategic pricing plan (including target dates)					X										
Alignment across EDBs	Compare plan with other EDB's, form coalitions					X										
2. Plan changes in more detail																
Develop detailed plans, including:	Identify issues/prepare detailed pricing reform plans							X								
- customer interactions	Establish research program and focus groups (retailer + end-user)							X								
- pricing trials to test ideas	Conduct in-market testing, examine impact on customer groups							X								
- data analysis to assess customer impacts	Narrow down preferred options and test market impacts								X							
- implementation and transition arrangements	Identify what will drive success								X							
- feedback loops and issues resolution	Develop processes to account for stakeholder views and review against target dates. Participate in ENA processes to provide stakeholders with single point of contact								X							
- communication	Educate customers and retailers about change									X						
- regulatory compliance	Check plan meets regulatory expectations									X						
3. Manage roll out of new pricing options																
Implement changes	Publish the new pricing options and the implementation plan										X					
Develop transition strategies	Incentivise and manage take-up over time for retailers and customers										X					
Adopt risk management approach	Identify and manage risks to markets, customers, EDBs *(eg political and financial risks)*										X					
Review progress and make adjustments	Actively consider progress towards outcomes over time										X					
Ongoing customer interactions	Monitor customer responses and manage as required										X					

Appendix C - Possible future pricing changes

This appendix expands on the discussion in sections 2.8, 3.2 and appendix B above and sets out Orion's current plans with respect to possible future pricing changes. This is primarily in response to the expectations set by the Authority that distributors should set out their plans for any such changes by 1 April 2017. We believe this methodology document is the best place for these plans to be set out.

It is important to note that no decisions have been made on any changes.

The Authority's expectations were explained and set out in November 2016 as follows:[1]

> *We will continue to facilitate the industry-led approach and intend to:*
>
> - *Monitor and report on distributor progress towards adopting efficient distribution price structures.*
> - *Review the current distribution pricing principles and associated information disclosure guidelines and consult on any proposed changes.*
> - *Assess alignment of distributor prices a against the distribution pricing principles (each year from April 2018).*
>
> *We expect industry participants to continue to progress their work.*
>
> *Specifically, our expectations are that:*
>
> - *The ENA will continue to lead the development of more efficient pricing. We note the ENA will shortly release its New Pricing Options for Electricity Distributors consultation paper.*
> - *Before 1 April 2017, each distributor will have published its plan for introducing efficient pricing. The purpose of setting a timeframe is to encourage distributors to communicate their intentions and to make progress. Information that we would expect to see in these plans*
> - *includes:*
>   - *a clear outline of the process each distributor will adopt, including the nature of their planned consultation with retailers and consumers*
>   - *a timeline with the key milestones*
>   - *resourcing implications, including how resources will be allocated to the process of moving towards efficient pricing structures.*

Submissions on the ENA (Electricity Networks Association) paper[2] referred to closed in December 2016 and those submissions will be reviewed by distributors over the next few months. It is too early to say how that will influence any changes that we make, but it is an important input to the process.

---

[1] See: http://www.ea.govt.nz/development/work-programme/evolving-tech-business/distributionpricing-review/development/next-steps-in-distribution-pricing-review/.

[2] Available at: http://ena.org.nz/wp-content/uploads/2016/11/New-Pricing-Options-technicaldiscussion-paper.pdf.

Process

In terms of process, normally our annual pricing changes are relatively routine, and we would normally consult primarily with retailers. We consider that retailers remain the key stakeholders. However, the sorts of changes contemplated by the Authority, and some of the options considered by the ENA paper, potentially represent a fundamental shift in approach, with potentially significant impacts across the customer base. For that reason, we believe we must undertake consumer consultation.

Having established initial consumer views, these will then inform the sorts of options for change that we develop. We anticipate multiple rounds of stakeholder consultation. In any consultation, we will use the Authority's consultation guidance as a key reference.[3]

Timeline

Because the size of the task is not yet known, we do not yet have a detailed timeline and milestones. However, we believe the following are key considerations:

- Changes to regulation under Part 4 of the Commerce Act that will apply to the next DPP reset – that is, from 1 April 2020. Of particular relevance is change in the form of control from a weighted average price cap to a revenue cap.
- The final form of the TPM guidelines issued by the Authority, and how this manifests in the actual TPM developed by Transpower. We doubt the latter will be effective before April 2020, and it could be a year or two (from now) before the form and implications of the new TPM are sufficiently well developed for their impact on our own pricing development to be clear.
- The Authority's review of the distribution pricing principles, currently scheduled for May-June 2017.
- The Authority's recent changes to Part 6 of the Code (relating to the avoided cost of transmission) which, in Orion's case, come into effect from 1 October 2019.
- The extent of necessary consultation could be considerable.
- The knowledge that many other distributors will be making pricing changes at the same time. We need to keep abreast of these wider developments.

Resourcing

There are two key resourcing considerations:

- The relatively narrow consideration of how the pricing consultation and development is resourced. At this stage, we expect this to be largely internal, although there may be some use of third parties for consumer consultation, and for external peer review. There are also possible opportunities for the ENA to coordinate and support some activities. Availability of internal resources will be influenced by other Authority work streams, for example its decisions on a default distributor agreement.
- The wider consideration of how broader business impacts are accommodated. Some possible pricing developments would likely require the development of new business

[3] http://www.ea.govt.nz/dmsdocument/13342

processes and systems, with attendant time and costs. The materiality of such costs could raise the issue of how they can be recovered under Part 4.

Taken together, all of these considerations suggest that we are unlikely to implement material changes to our pricing before April 2020, although we may decide on what the changes are somewhat earlier than that. Depending on the magnitude of the changes, they may be phased in over a number of years.

Our current and emerging views on pricing reform

While it is too early to say what sort of changes we will make to our pricing, we are able to provide our current and emerging views.

As we see it, the Authority's principal concern with current distribution pricing is that it is too much consumption (kWh) based. As a consequence, customers may be over-investing in technologies that reduce consumption, such as solar photo-voltaic panels. This is because they see value in reducing consumption when the retail price is, say, 25 cents per kilowatt-hour while the actual economic saving is typically less than 10 cents per kilowatt-hour.

As discussed in appendix B above, a significant proportion (roughly half) of Orion's revenue comes from consumption based charges, although these are 'TOU', not flat rate. We have this charge structure for a number of reasons, but a key one is compliance with the low fixed charge (LFC) regulations. [4] The Authority's recent guidance on how it will assess compliance with the regulations is a significant and helpful development here.

However, our analysis so far shows that certain types of capacity charge that may be deemed to be variable by the Authority, have very similar customer impacts as higher fixed charges would. It may also be that customers see capacity charges as essentially fixed no matter how the regulations are interpreted. We remain concerned that implementing changes that the Authority deems to be compliant will, in response to public pressure, lead to the regulations being changed so that they become non-compliant with the pricing changes then needing to be reversed. We would therefore look to MBIE to confirm that the Authority's guidance is consistent with the intent and purpose of the LFC regulations before making such changes. Even better would be for MBIE to do a thorough review of the regulations to see if they are still fit for purpose in a fast-changing world.

More generally though, there is some risk that a focus on capacity, even if accepted by customers, has undesirable side-effects, such as:

- Customers may seek to reduce their capacity when no supply cost reduction results from their doing so. This is not in principle different to the Authority's concern about consumer response to consumption-based pricing. The nature of electricity networks is that there is very significant diversity in electrical loadings for most types of customers. For example, the average anytime maximum demand (AMD) of residential customers on the Orion network is (at 7 to 8kW) 3 to 4 times greater than their average coincident

[4] This discussion focusses on our 'general' connections category which encompasses all residential customers as well as most small and medium sized businesses.

maximum demand (CMD) of 2 to 3kW. [5] This high diversity factor allows transmission and distribution networks to be built largely based on CMD, while still being able to support much higher AMDs close to connections. In fact, higher AMDs can support lower CMDs as well by enabling greater use of energy off-peak. This already happens with customers on "day/night" pricing.

- It may lead customers to believe they have a 'right' to whatever the nominated capacity is, when the upstream networks, which are, efficiently, built to support CMD, cannot handle this. This is an area where the telecommunications / broadband analogy falls down. With telecommunications, higher coincident demands can be managed via reductions in connection speed for all. The electrical equivalent is voltage, which for regulatory and safety reasons cannot be reduced materially. (The analogy is also poor as telecommunications providers are not required to offer a continuous set of offers of connection speeds. The Authority's LFC guidance implies that distributors are.)

These are not reasons to not make changes, just examples of why caution is needed.

As well as the Authority's concerns about consumption-based charges, retailers [6] have for many years expressed concerns about the other key component of our pricing, the peak demand component. This component uses a demand measure based on coincident demands during our dynamically signaled peak periods, which occur in winter. It involves estimation and wash-ups, and, to the extent that retailers rebundle it into consumption-based prices it involves some risk. Any move away from this form of pricing that addresses retailer concerns is likely to compromise economic efficiency. We will thus be particularly interested in the Authority's review of the pricing principles as they address the trade-off between efficiency and simplicity. We note Castalia in its 2013 report specifically identified that the principles do require consideration of trade-offs in their application, but that, as currently written, the principles provide little guidance in this area.

The Authority's TPM work is also relevant. While, under the latest proposal, much of the detail is to be left to Transpower, it is clear that the Authority sees that the majority of transmission charges should be either unavoidable or difficult to avoid. While this is fairly orthodox network economics in relation to recovery of common cost elements, it is difficult to see how it squares with the low fixed charge guidelines. The guidelines state that: "A capacity charge that varies according to the amount of electricity a consumer expects to consume is a variable charge."[7] By contrast, the proposed TPM guidelines state:

> *…to the extent that it can be economically achieved, [the TPM should] be designed such that a customer's residual charge will not change as a result of the customer's actions or the actions of another party other than Transpower, such that it does not create incentives*

[5] This analysis uses interval data from a sample of around 2,200 (out of around 160,000) residential connections. These demands are averages measured over the half-hour intervals. Instantaneous maximum demands would usually materially exceed - and by definition cannot be less than - these values.

[6] Not all retailers have the same views, but we consider it is accurate to say this this is the predominant view among retailers, both the large and established and the new entrants.

[7] See "Variable charges under the low fixed charge Regulations: Guidelines", at http://www.ea.govt.nz/dmsdocument/21123, para 2.18, p7.

> *or opportunities for designated transmission customers to inefficiently avoid the residual charge.*[8]

Oakley Greenwood, for the Authority, put it another way in its further comments on the TPM cost benefit analysis:

> *For such reduction or loss in allocative efficiency to occur implies that distribution businesses would structure their tariffs so that their now fixed transmission costs are recovered from customers via a variable charge. Our view is that pricing in this way would be inconsistent with economic theory. This also may make little commercial sense, if it exposes that business to volumetric risk (because its marginal prices differ to its marginal costs). In short, the outcome "conceived" is not a direct function of the wealth transfer per se, but rather a function of the (inefficient) tariff structures that are assumed to be adopted by the distribution business in response to that wealth transfer.*[9]

In other words, the cost-benefit case for the TPM changes depends, in part, on distributors being able to price in a way that regulation prohibits, at least for most residential customers.

In summary, then, we see that consistency of regulatory messages and approaches is essential if distributors are to move pricing in the expected direction and for the long-term benefit of consumers.

[8] See Appendix E – Proposed guidelines - to the latest TPM consultation paper, clause 32 (d).

[9] See Appendix B – Responses to issues raised on CBA - to the latest TPM consultation paper, p 37.

Figure 3: Powerco's pricing reform roadmap.

Stage	Activities	Timeline									
		2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 H1	2018 H2	2019 H1	2019 H2	2020	2021
1. Initiate pricing reform											
Discovery	Undertake, early modelling	X									
Define overall objectives for reform	Set overall goals	X									
Develop strategy to deliver reform	Develop ideas on how to go ahead	X									
Communicate	Prepare and publish future pricing roadmap	X									
Identify challenges	Consider systems, smart meter tech, accessing data, CBA	X									
Establish high level plan	Gain commitment to reform, agree plan, allocate resources	→	X								
Gather basic data	Survey customers, market analytics, consult peers	→	→	X							
Consult retailers	Socialise ideas & plans with retailers	→	→	X							
Define pathway	Prepare final strategic pricing plan		→	→	X						
Alignment	Compare plan with other EDB's, form coalitions				→	X					
2. Plan changes in more detail											
Customer interactions	Establish research program and focus groups		→	→	→	X					
Pricing trials to test ideas	Conduct in-market testing		→	→	→	X					
Data analysis to assess customer impacts	Narrow down preferred options and test market impacts			→	→	→	X				
Implementation and transition arrangements	Identify what will drive success			→	→	→	X				
Feedback loops and issues resolution	Develop processes to account for stakeholder views			→	→	→	X				
Communication	Educate customers about change					→	→	X			
Regulatory compliance	Check plan meets regulatory expectations					→	→	X			
3. Enabling Infrastrucure											
System capability review		→	X								
Gap analysis			→	X							
System improvements / updates to support transition					⇢	⇢	⇢	⇢	⇢	⇢	X
ICP management system					→	→	→	X			
Consumption submission manager						→	→	→	X		
Billing and reconciliation system							→	→	→	→	X
4. Manage roll out of new pricing options											
Develop transition strategies	Incentivise and manage take-up over time		→	→	X						
TOU pricing trial - stage 2 (Eastern region)	Further TOU trial based on learnings and feedback from stage 1		→	→	X						
Review progress and make adjustments	Actively consider progress towards outcomes over time				→	X					
Implement TOU pricing (Eastern region)	Formerly implement TOU pricing across Eastern region					→	X				
GXP to ICP transition (Western region)	Transition from GXP to ICP based pricing (Western region)							→	→	→	X
Implement TOU pricing (Western region)	Formerly implement TOU pricing across Western region							→	→	→	X
Ongoing customer interactions	Monitor customer responses and manage as required						→	→	→	→	X

PRICING ROADMAP

OVERVIEW

Solar, batteries, electric vehicles and other technologies can provide major benefits to customers but only if pricing structures reflect the gains they offer. Current distribution pricing which is 50% based on consumption, runs the risk of slowing the uptake of electric vehicles, LEDs and encouraging the uptake of solar. Over-rewarding owners of solar panels runs the risk of pushing costs onto other households not taking them up. These are some of the drivers The Power Company has for reviewing its current distribution pricing options.

This pricing roadmap sets out The Power Company Limited's current plans with respect to possible future pricing changes. This is primarily in response to the expectations set by the Electricity Authority that distributors should set out their plans for any such changes.

It is important to note that no decisions have been made on any changes.

The Authority's expectations are as follows:

We will continue to facilitate the industry-led approach and intend to:

- *Monitor and report on distributor progress towards adopting efficient distribution price structures.*
- *Review the current distribution pricing principles and associated information disclosure guidelines and consult on any proposed changes.*
- *Assess alignment of distributor prices against the distribution pricing principles (each year from April 2018).*

We expect industry participants to continue to progress their work. Specifically, our expectations are that:

- *The Electricity Networks association (ENA) will continue to lead the development of more efficient pricing. We note the ENA will shortly release its New Pricing Options for Electricity Distributors consultation paper.*
- *Before 1 April 2017, each distributor will have published its plan for introducing efficient pricing. The purpose of setting a timeframe is to encourage distributors to communicate their intentions and to make progress. Information that we would expect to see in these plans includes:*
- *a clear outline of the process each distributor will adopt, including the nature of their planned consultation with retailers and consumers*
- *a timeline with the key milestones*
- *resourcing implications, including how resources will be allocated to the process of moving towards efficient pricing structures.*

Submissions on the ENA paper referred to closed in December 2016 and those submissions will be reviewed by distributors over the next few months. It is too early to say how that will influence any changes that we make, but it is an important input to the process.

PROCESS AND CONSULTATION

The Power Company Limited is currently rolling out Smart meters to replace the existing legacy meters, the roll out is programmed to be completed by the end of 2019. We see the meter roll out as a key first step in the process of assessing the future pricing options available for consideration, due to additional data these meters provide.

We consider that retailers remain the key stakeholders. However, the sorts of changes contemplated by the distribution pricing review, and some of the options considered by the ENA paper, potentially represent a fundamental shift in approach, with potentially significant impacts across the customer base. For that reason we will be undertaking consumer consultation.

Having established initial consumer views and considered the data available from the smart meters, these will then form the sorts of options for change that we develop. We anticipate multiple rounds of stakeholder consultation.

In any consultation we will use the Authority's consultation guidance as a key reference.

TIMELINE

Because the size of the task is not yet known, we do not yet have a detailed timeline and milestones. However, we believe the following are key considerations:

- Completion of the smart meter roll out, due for completion at the end of 2019.
- Negotiating the supply of the smart meter data with retailers.
- Enhancements to our existing ICP management and billing systems, currently at the scoping stage.
- The final form of the Transmission Pricing Methodology (TPM) guidelines issued by the Authority, and how this manifests in the actual TPM developed by Transpower. We doubt the latter will be effective before April 2020, and it could be a year or two (from now) before the form and implications of the new TPM are sufficiently well developed for their impact on our own pricing development to be clear.
- The Authority's review of the distribution pricing principles, currently scheduled for May-June 2017.
- The Authority's recent changes to Part 6 of the Code (relating to the avoided cost of transmission) which, in The Power Company Limited's case, come into effect from 1 April 2018.
- Potential changes to the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004, which currently require distributors to offer residential customers a pricing option with a fixed charge of no more than 15 cents per day. We see the current regulation as a barrier to developing new innovative pricing options.
- The extent of necessary consultation could be considerable.
- The knowledge that many other distributors will be making pricing changes at the same time. We need to keep abreast of these wider developments.

RESOURCING

The Power Company Limited has an agency arrangement with PowerNet limited for the operation of the network. Any additional resourcing would be met by PowerNet.

Additional resourcing may be required in the following areas:

- Internal or external resource for the retailer and consumer consultations.
- External consultant has been engaged to review the current ICP database management system and billing platforms.
- External consultant to help in the evaluation and development of preferred pricing options.
- Additional resources for the distribution billing team with a potential change to ICP based billing approaches.
- Educating and communicating with consumers during the transition phase to the new pricing options.

There are also possible opportunities for the ENA to coordinate and support some activities.

Taken together, all of these considerations suggest that we are unlikely to implement material changes to our pricing before April 2020, although we may decide on what the changes are somewhat earlier than that. Depending on the magnitude of the changes, they may be phased in over a number of years.

Scanpower Limited

Plan for Transition to Service-Based and Cost-Reflective Distribution Pricing Structures

Published – 28th March 2017

Introduction

1. The purpose of this document is to describe Scanpower's project plan for reviewing the structure of its network pricing structures, and over time, transitioning to a more service-based and cost-reflective set of charges.

2. This work is being undertaken as part of an industry-led initiative being facilitated by the Electricity Authority (EA) and Electricity Networks Association (ENA).

3. The EA has requested that all electricity lines companies publish their plan for introducing efficient pricing by 1 April 2017. This plan has been uploaded to the Information Disclosures[1] section of Scanpower's website prior to the date.

4. Key elements of the plan described herein include:

   - An overview of current network pricing and the perceived issues that have prompted this review.

   - A high-level summary of the project plan, including a description of the phases of the project lifecycle and itemisation of work streams / key tasks.

   - Corresponding time frames and milestone dates.

   - A discussion of project resourcing requirements and how these will be met.

5. Scanpower intends to report its progress against this plan on a six-monthly basis.

[1] http://www.scanpower.co.nz/corporate-information-disclosures

Overview of Current Pricing and Associated Issues

6. Scanpower's network charges make up approximately one third of our connected customers' retail electricity bills. Our charges comprise a transmission component (being costs passed through from national grid operator Transpower) and a distribution component (Scanpower's charges for delivering electricity over our network). We invoice our charges to electricity retailers on an aggregated basis, and these are passed on to customers via their power individual accounts.

7. Our network pricing is made up of a fixed daily charge (based on customer categories) and a variable charge based on the amount of electricity customers use. The electricity used is recorded using meters and is measured in kilowatt hours (kWh).

8. For residential customers / house holds, the fixed daily network charge component is limited by regulation to 15 cents per day. Correspondingly, in the residential sector, only 6% of Scanpower's revenue comes from these fixed charges, and the remaining 94% from variable, volume based charges[2].

9. The structure of Scanpower's network charges is based on legacy market conditions, and were designed at a time when the company operated as an integrated distributor / retailer (pre-1998). Since that time, the structure has not changed and it is now becoming evident that a review of it would be desirable.

10. Key issues with the current pricing structure are as follows:

    - Network charges do not reflect the services that Scanpower provides to customers.

    - Revenue is largely recovered on a variable basis, whereas the costs incurred by Scanpower are predominantly fixed.

    These shortcomings have the potential to distort consumer investment and consumption decisions. Over time this is likely to result in outcomes that are contrary to the interests of New Zealand consumers, and the economy as a whole.

[2] Across all customer sectors (i.e. including commercial and industrial customers) 16% of revenue is derived from fixed charges, and 84% from variable, volume based charges.

11. In regard to the services provided by Scanpower, the Electricity Authority has identified the following three services that distributors provide[3]:

- Transporting electricity to a customer's premises at a certain level of quality (e.g. voltage) and reliability.

- Keeping a certain amount of network capacity available for the customer to use at the "flick of a switch" whenever they want.

- Acting on customers' behalf to manage their use of the distribution network (e.g. remote control of water heating load).

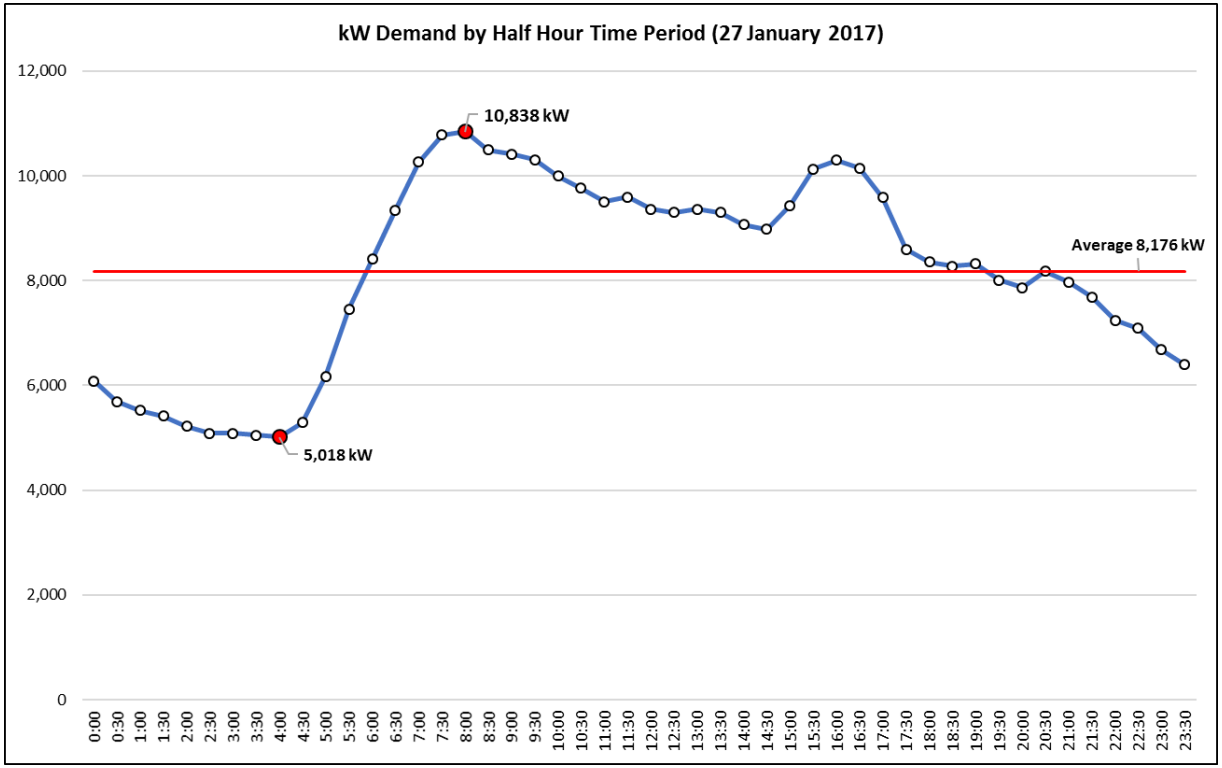
These are in contrast to the delivery of a metered quantity of electricity over, say, a one month period which is the "service" that current network pricing largely reflects.

12. As to the costs of providing the actual services, they are not accurately reflected by the existing volumetric / "per kWh" pricing structure. What drives Scanpower's costs is how much electricity is used at once ("peak demand") rather than how many units of electricity are delivered in total over a given period. The network must be designed and built to ensure that consumers' demand for electricity can be met at peak times. The graph below shows network demand in Dannevirke, by half hour time period for a given day (27th January 2017).

13. As is evident, over the course of the day, the network peak of 10,838 kW occurs between 8:00am and 8:30am. This contrasts with the low point over the day of 5,018 kW between 4:00am and 4:30am. The low / high point range is more than 100%.

14. It is this peak demand that drives Scanpower's costs and more closely reflects the service that the company provides. Existing pricing structures do not signal either of these points.

[3] Electricity Authority (3 November 2015*) Implications of evolving technologies for pricing of distribution services – Consultation Paper*, page D.



15. Taking these factors into account, Scanpower, as part of an industry lead process (affecting all lines companies), now intends to establish a project with the objective of transitioning to a network pricing structure that:

- Is service-based (i.e. reflects the services provided).
- Is cost-reflective (i.e. aligned with the drivers of Scanpower's cost structure).
- Does not distort customer investment and consumption decision making.

- Is complementary to evolving energy technologies (to the extent that we can foresee).

16. In undertaking this project, Scanpower is mindful of seeking a pricing outcome that:

- Can be readily understood and acted on by customers (assuming it is passed through).
- Results in a transition that minimises price shocks.
- Is cost effective in terms of data gathering and billing.
- Minimises any duplication of hardware (e.g. meters) installed at customer premises.

Scanpower Project Plan

17. Scanpower's current project plan is summarised below. It is necessarily high level at this stage, pending completion of the initiation and detailed planning phases of the project life cycle. Key milestones include:

- Project initiation, definition and scoping completed by 31 March 2018.
- Detailed project planning completed and socialised by 31 March 2019.
- Project implementation completed by 31 March 2021.

18. Scanpower will review progress to plan, and update timeframes accordingly, on an ongoing basis and report any changes six-monthly.

Project Initiation	**Key Tasks**	**Timing**
Problem identification & scoping	*Project justification and scope setting*	**1 April 2017**
Define project objectives	*Set overall goals including target dates or date ranges*	
Project strategy & options	*Develop ideas and options for project direction (e.g. possible pricing options)*	
Initial stakeholder communications	*Publish future pricing roadmap, include reasoning and why it's important*	
Identify challenges / dependencies	*AMI penetration, resources, data availability etc.*	
Establish high level plan	*Gain commitment to reform, agree plan, allocate resources*	
Data gathering	*Where are the gaps in existing knowledge?*	
Define pathway	*Prepare final strategic pricing plan (including target dates)*	
Alignment across EDBs	*Compare plan with other EDB's, form coalitions*	
Deliverable / milestone	***Project is defined, understood and communicated.***	**31 March 2018**
Project Planning	**Key Tasks**	**Timing**
Develop project plans, including:		**1 April 2018**
- customer interactions	*Establish research program and focus groups (retailer + end-user)*	
- pricing trials to test ideas	*Conduct in-market testing, examine impact on customer groups*	
- data analysis to assess customer impacts	*Narrow down preferred options and test market impacts*	
- implementation / transition arrangements	*Identify what will drive success*	
- feedback loops and issues resolution	*Develop processes to account for stakeholder views*	
- communication	*Educate customers and retailers about change*	
- regulatory compliance	*Check plan meets regulatory expectations*	
Deliverable / milestone	***Project plan is in place, socialised and meets expectations / objectives.***	**31 March 2019**
Project Implementation	**Key Tasks**	**Timing**
Proceed with implementation plan.	*Commence full market roll-out*	**1 April 2019**
Adopt risk management approach	*Identify and manage risks to markets, customers, EDBs*	
Review progress and make adjustments	*Actively consider progress towards outcomes over time*	
Ongoing customer interactions	*Monitor customer responses and manage as required*	
Deliverable / milestone	***Project implementation is completed.***	**31 March 2021**

Project Resourcing

19. Through the Project Initiation phase, Scanpower believes it has adequate, existing internal resources to meet requirements. Resourcing demands will be ameliorated by the ability to participate in, and leverage off, work undertaken by the ENA Pricing Working Group and through collaborative work undertaken by sub-groups of companies.

20. Beyond this stage, exact resourcing requirements will become more apparent nearer the time. However, it is anticipated that additional resources will be required in particular in the areas of customer consultation and education. If the implementation phase necessitates the deployment of new hardware (or changes to existing hardware) at customer premises, this is another area that will require additional project specific resource.

The Lines Company Limited
King Street East, Te Kuiti
PO Box 281, Te Kuiti 3941
Tel: 07 878 0600 Fax: 07 878 7024
www.thelinescompany.co.nz

17 May 2017

Electricity Authority
Carl Hansen
Chief Executive
Level 7, ASB Bank Tower
2 Hunter Street
PO Box 10041
WELLINGTON 6143

By email: christina.hammond@ea.govt.nz

Dear Carl

Distribution Pricing

Thank you for your letter dated 18 October 2016 to my predecessor.

In your letter, you requested that distributors publish a plan outlining their plan for introducing efficient pricing. You note that this expectation is consistent with the ENA's intention to encourage its members to publish their individual roadmaps or implementation timeframes as part of their existing suite of publications.

As you are aware, The Electricity Authority (Authority) announced in August 2016 that it would review the load control and pricing practices of The Lines Company (TLC), focusing on the interaction between those practices, the incentives they place on consumers and the outcomes they influence. We understand that the report of this review is pending release.

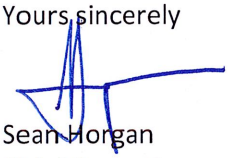
In addition, on 6 September 2016, the TLC Board commenced an independent review of the service-based pricing approach that TLC currently has in place. After 10 years of the current methodology being applied, it was felt that a full substantive review was warranted to provide a positive plan going forward for future pricing decisions. The TLC Board issued the Terms of Reference for the review and are available on our website[i].

The terms of reference clearly set out pricing history, the objectives, scope, options, the engagement process and timeline – culminating in the release of the final report in March 2017[ii].

We have now engaged with the community again to talk through the findings of the review and the consequences of changing to the recommended system. The Board have retained Roger Sutton to head the community consultation process over the March to May 2017 period.

TLC will publish a plan or roadmap at the conclusion of community consultation process once the TLC Board have decided on any change in design parameters and the timetable to do so.

Yours sincerely



Sean Horgan
Chief Executive

---

[i] http://www.thelinescompany.co.nz/media/tlc-terms-of-reference-pricing-review-06-sep-2016_final.pdf
[ii] http://www.thelinescompany.co.nz/media/review-with-board-statement.pdf

Future Pricing Roadmap

EDB : *Top Energy Limited*

Roadmap Stages	Activities	Timeline (Pricing Years)					
		2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
1. Initiate pricing reform							
Problem Identification & Discovery	Justification and early modelling	X					
Define overall objectives for reform	Set overall goals including target dates or date ranges	X					
Develop strategy to deliver reform	Develop ideas on how to go ahead (including long list of future pricing options if available)	X					
Communicate	Prepare and publish future pricing roadmap, include reasoning and and why it's important	X					
Identify challenges	eg, resourcing implications, billing systems, EIEP1 file formats, AMI penetration and technology, accessing data	X					
Consult retailers	Socialise ideas & plans with retailers	→	X				
Establish high level plan	Gain commitment to reform, agree plan, allocate resources	→	X				
Gather basic data for analytics	What do we need to know to progress reform (eg. AMI penetration, customer groups)	→	X				
Define pathway	Prepare final strategic pricing plan (including target dates)	→	X				
Alignment across EDBs	Compare with other EDB's, form coalitions where appropriate	→	→	X			
2. Plan changes in more detail							
Develop detailed plans, including:	Identify issues/prepare detailed pricing reform plans		→	X			
- customer interactions	Establish program and focus groups (retailer + end-user)		→	X			
- data analysis to assess customer impacts	Narrow down preferred options and test market impacts (where applicable)		→	X			
- implementation and transition arrangements	Identify what will drive success		→	X			
- feedback loops and issues resolution	Develop processes to account for stakeholder views and review against target dates.		→	X			
- communication	Educate customers and retailers about change			→	X		
- regulatory compliance	Check plan meets regulatory expectations	→	→	→	X		
3. Manage roll out of new pricing options							
Develop transition strategies	Incentivise and manage take-up over time for retailers and customers			→	X		
Adopt risk management approach	Identify and manage risks to markets, customers, EDBs *(eg political and financial risks)*				→	→	→
Review progress and make adjustments	Actively consider progress towards outcomes over time				→	→	→
Ongoing customer interactions	Monitor customer responses and manage as required				→	→	→

Resources to deliver the above roadmap will be internally driven by Top Energy Limited

ROADMAP TO PRICING REFORM

THE NEED FOR REFORM AND OUR PROCESS FOR CHANGE

Unison, along with other distributors, has a goal of reforming distribution prices so that they are more reflective of the costs and services different consumers receive.

The current structure of distribution prices is not sustainable. Without change, residential electricity bills could rise 10 percent in the next 10 years (1). Change is required to ensure New Zealanders do not pay more for using electricity in the long-term, and to give consumers greater control over their energy bills.

This plan has been prepared to give consumers and the Electricity Authority an indication of Unison's intended approach to pricing reform. It covers the following key areas:

- The current situation: Unison, distribution pricing and the electricity industry environment
- The need for change: the issue with current distribution price structures
- Process for change
- Customer consultation
- Indicative timeframes

There are different options for setting more cost-reflective prices, which we want to test with consumers. Along with distributors, a range of stakeholders – government, retailers and customer advocates – are actively participating in this pricing reform process. We recognise that close collaboration and alignment across stakeholders, especially with consumers and retailers, will be important for distribution pricing reform to be successful.

(1) *Electricity Authority, Signposting the Future*

THE CURRENT SITUATION: UNISON, DISTRIBUTION PRICING AND THE ELECTRICITY INDUSTRY

About Unison

Unison is one of 29 distribution companies in New Zealand. Unison distributes electricity to customers across the Hawke's Bay, Rotorua and Taupo regions with more than 15 retailers operating on the network. The Unison network has over $550m worth of assets, is 9,000km in length, and supplies around 110,600 connection points, making Unison the fifth largest distributor in New Zealand.

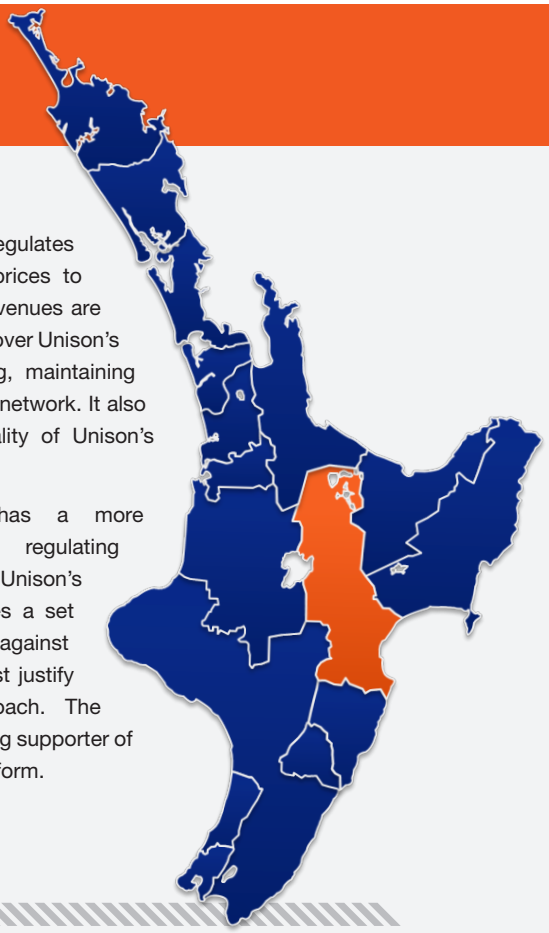
Unison is responsible for distributing electricity from Transpower's national grid to electricity consumers. Increasingly, Unison also distributes electricity generated by consumers within the network.

As the only supplier of network services in our regions, Unison is regulated by:

- The Commerce Commission (Commission) under Part 4 of the Commerce Act 1986, and
- The Electricity Authority (Authority) under the Electricity Industry Act 2010 and other regulations.

The Commission regulates Unison's overall prices to make sure that revenues are only sufficient to cover Unison's costs of providing, maintaining and operating the network. It also regulates the quality of Unison's services.

The Authority has a more specific role in regulating the structure of Unison's prices. It produces a set of requirements against which Unison must justify its pricing approach. The Authority is a strong supporter of network pricing reform.



Current Distribution Price Structures

When we are talking about distribution pricing reform, we are referring to just the delivery component of a household's electricity bill.

For a typical residential consumer, distribution charges (Unison's charges) are just over a third of an electricity bill. Electricity retailers pay Unison's charges so consumers do not often see our prices. Retailers bill consumers, bundling all the components of the electricity services together into the one bill, including our pricing, generation costs, GST, retail and metering costs.

Distribution prices cover the costs of the local distribution network (Unison's network) and our share of using the national grid for transmission (Transpower).

Network prices are made up of:

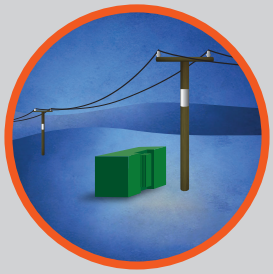
- A fixed daily price of 15 cents a day for a low user or $1.15 for a standard user, and
- A flat variable charge (ranging from 4.2c/kWh for controlled hot water to 14.5 c/kWh for anytime uncontrolled use).

Unison also has a number of different price categories to reflect the fact some customers use energy in different ways to the average customer – such as controlled loads, night rates and day rates, and time-of-use prices.

THE ELECTRICITY MARKET

GENERATORS

TRANSMISSION



UNISON/ DISTRIBUTION

CONSUMER

RETAILER

The Retailer is responsible for billing consumers and tend to bundle all the components of the electricity services together, including network pricing, generation, GST, retail costs and the costs of metering.

Unison's distribution prices cover the cost of both transmission (Transpower's costs) and distribution. Our prices/profits are regulated by Commerce Commission and Electricity Authority.

Average national distribution charges (including Transpower's costs)

For every $100 of a residential electricity bill

30.5	GENERATION
26.2	DISTRIBUTION
13.0	GST
9.9	TRANSMISSION
16.2	RETAIL
3.4c	METERING

The basis for current distribution prices

The total energy used by a consumer over a specified timeframe (usually a month) is the current basis for distribution charges. However, this basis bears only a weak relation to the costs and services Unison provides to residential consumers.

The two major drivers of Unison's distribution costs are the:

- location of consumers in relation to Transpower's transmission grid; and
- size of peak demands or the greatest demand on our network at any one time – the time of day that people are taking the most electricity from our network.

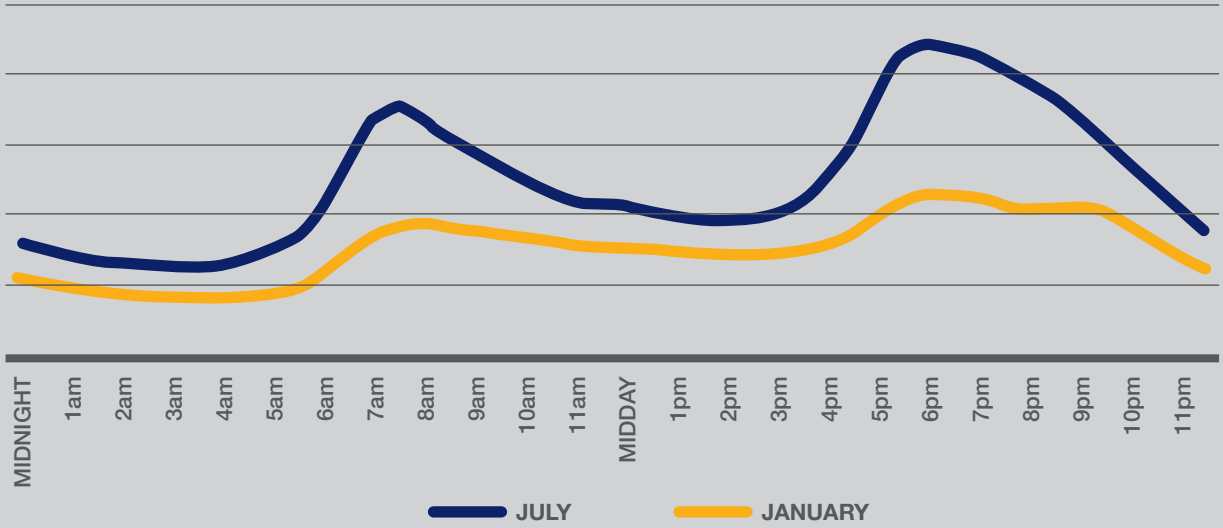
At all times, Unison's network must be capable of meeting the electricity needs of all consumers.

While current network prices are easy for consumers to understand, they do not show consumers the value of using the network at different times of the day.

It is not the amount of electricity delivered that determines the cost of providing the network service (which prices are currently structured around). It's the capacity and infrastructure required to meet consumers' peak demands based on where they live that drives network costs. Network demand is typically the highest on cold, wet, winter evenings when people have high heating requirements. The more electricity people use at the same time, the more power lines and electrical infrastructure is needed.

RESIDENTIAL DEMAND

How households typically use power during the day.



With the emergence of new technologies — solar panels, electric vehicles, battery panels, smart metering to name a few — consumers now have more choice and control around how they use energy.

While the opportunities presented by these technologies are exciting, they also lead to market distortions for both consumers and distributors under current distribution pricing arrangements and create adverse impacts.

These adverse impacts include some consumers paying more than their fair share of network prices and, conversely, some paying less. It also results in artificially stimulating technology uptake in some cases and slowing it down in others.

Importantly, consumers now need to face price signals that more clearly relate to underlying costs. Independent studies show that if distribution price structures stay as they are now, consumers who rely solely on the distribution network to get electricity could see an increase in their distribution charges of 10 percent in the next five years and up to 30 percent in the next 10 years. *(2)*

A recent report by Concept Consulting has found that the cost of these distortions will fall most heavily on New Zealand's poorest consumers.

For these consumers an average bill increase of around $100 per year is expected, with rises of $350 per year or more in some cases. *(3)*

(2) Electricity Authority, Signposting the Future

(3) Concept Consulting, March 2017: New Technologies Study - Part 3: Social impacts

Service based, cost-reflective pricing will promote fairness and choice

Unison plans to move towards more cost-reflective, service-based prices. This will promote fairness between customers and help customers make better decisions based on the true value of different technology choices.

Ultimately, over the longer term, if prices relate well to the underlying costs then behavioural changes by individual customers should reduce pressure on Unison and other network businesses to invest in the equipment to upgrade capacity.

Historically, distribution price structures have been constrained by simple metering technologies. Until recently, meters could only measure the total electricity used (consumption) over one or two months.

However, the installation and rollout of smart meters means the technology to measure electricity use at different times of the day is available now. This enables new pricing approaches that align the price consumers pay with the services they buy.

How electricity prices are structured affects how consumers respond to these opportunities. Increases in electricity use at peak demand times would require Unison to increase network capacity. Distributors must build and maintain a network to support the delivery of electricity at peak demand. Price signals to reflect the cost of this increased demand will avoid inefficient and costly investment for both distributors and customers. For example:

- The network evening peak could increase with the rise of electric vehicle charging after work. A price change to signal the higher costs of supplying at peak times would aim to reward consumers for recharging at off-peak times — such as overnight as opposed to straight after work — when prices would be lower.
- The highest network peak demand occurs during the winter evenings, a time when solar systems do not help to reduce the peak. There is no change in solar customers need for network support. To avoid those without solar subsidising those who have installed solar, the costs of building and maintaining the network demand must be shared fairly among all electricity users. Prices that reflect peak demand would give customers considering solar to make decisions that reflect the change in Unison's costs, rather than costs being shifted to other consumers through higher charges.

In the short-term, pricing reform will not deliver higher profits or revenues to network businesses like Unison – some prices will go up, but others will go down to offset this.

In the long-term, we expect that pricing reform will improve use of the existing network and take pressure off upgrading the network to meet higher peak demands. Network prices will be lower than they otherwise would be, because of lower investment requirements.

Why do we need to change price structures?

Customers face increasing choices about electricity use

- prices need to signal the value or costs of those choices.

PRICING REFORM: UNISON'S MOVE TOWARDS SERVICE-BASED, COST-REFLECTIVE PRICES

Our goal

Unison's goal with pricing reform is to introduce distribution network prices that are more reflective of actual network costs and the services that customers receive. Distribution pricing is also key to ensuring the technological advancements in the electricity industry evolve efficiently and without distortion to investment and consumption decisions.

There are different approaches to establishing more cost-reflective, service-based prices, each with their advantages and disadvantages.

Unison recognises that it will take some time for consumers to understand what the changes mean and therefore a transition path may be required to smooth the impacts on consumers over time.

Pricing structures need to reflect costs, ensuring:

- Smarter energy use – it is not just about how much energy is used, but also when it is used.
- Fairness - removing cross-subsidies between consumers in the short-term.
- Consumer choice - facilitating options around the use of existing and new technologies
- Efficient investment - clear signals from the market on electricity use at different times of the day allows distributors to plan and operate their network more efficiently.
- Lower prices - reduced investment in network capacity will benefit consumers with lower prices over time due to consumption decisions that reduce pressure on the network at peak times. *(4)*
- Sustainable distribution networks - to support the new energy future.

(4) By providing better choices to customers about the service they want the Electricity Authority believes prices would be 10% lower in five years and 30% in ten years

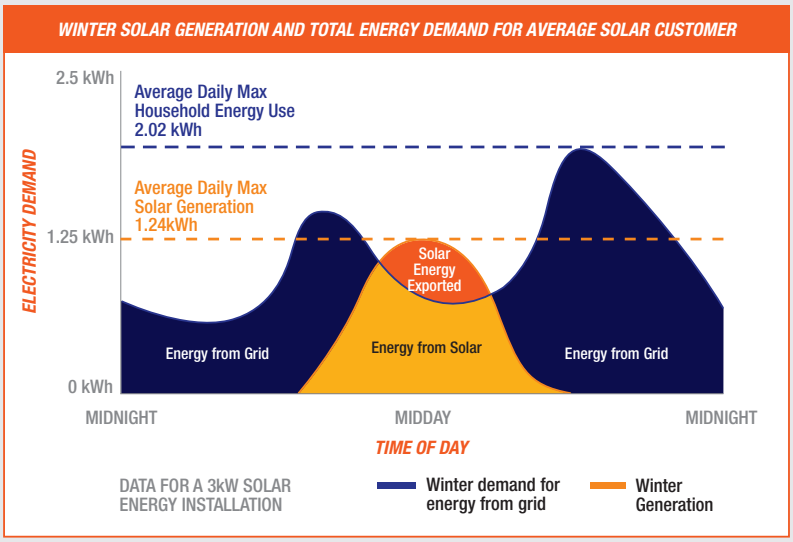
Price changes to date

Unison has already made progress in introducing more cost-reflective, service-based price offerings, though the large majority of our customers are still on legacy pricing options.

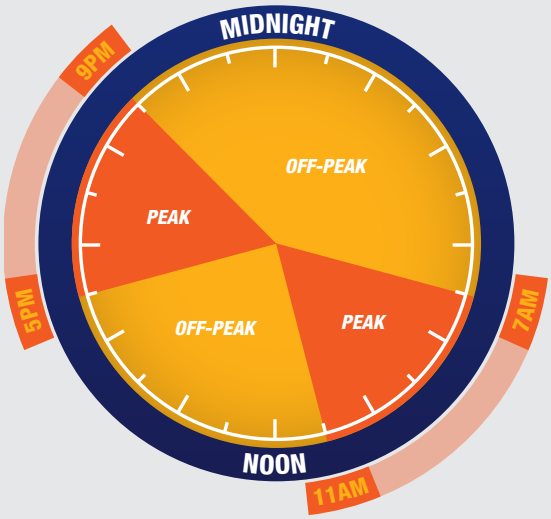
Key changes:

- **Distributed generation/solar price category**. In April 2016, Unison introduced a distributed generation (DG) price category for residential consumers installing solar after that date. This is because customers with solar still have the same need for the electricity network. The poles, wires or transformers that Unison uses to supply customers with solar are still needed when the sun is not shining. However, because of reduced consumption these customers were no longer paying a fair share for the provision of the network. Had Unison not introduced this new price category, prices to consumers without solar would have risen.
- **Optional time-of-use (TOU) pricing.** In April 2017, Unison improved its TOU price offering, by raising the difference between off-peak and peak prices (providing a greater reward for customers who are flexible with their use). We also extended eligibility to this price category for customers installing solar.

Customers with solar still have the same need for the network at peak times.



TOU pricing rewards consumers for using electricity at times when demand on the network is lowest (off-peak).



New distribution pricing options under consideration

The Electricity Networks Association (ENA) released the paper "New Pricing Options for Electricity Distributors" in November 2016 for discussion. The final paper will be a useful resource and will provide Unison with technical guidance on cost-reflective pricing structures.

The ENA are encouraging distributors to consult with consumers and their communities to understand consumer preferences in designing alternative pricing structures, which Unison is undertaking.

We agree with the following generally accepted principles and features of service-based pricing. Unison's future distribution pricing will be:

- Cost-reflective – fair and free of inefficiencies and cross-subsidies between consumers as far as possible.
- Service-based – reflect the services being provided.
- Actionable – provide price signals that consumers can choose to respond to.
- Durable/effective in the long term – independent of market, technology and policy changes.
- Compliant – meet regulatory requirements.
- Simple – transparent and easy to understand.
- Stable and predictable – avoid volatility. *(5)*

(5) The Electricity Networks Association (ENA) New Pricing Options for Electricity Distributors in November 2016

From these principles, five network pricing types were identified that could be used either on their own or in combination to meet consumer and industry needs in the future. Unison will be exploring these options with consumers and retailers to determine its future network pricing:

- TOU consumption - prices that vary depending on the time of consumption. Unison currently has this option available.
- Installed capacity – a charge for having a certain capacity installed and available at a connection point (agreed maximum demand).
- Booked or "nominated" capacity - is the size of the fuse agreed between the distributor and the consumer (agreed maximum demand level at a consumer's household).
- Customer peak demand - consumer's maximum demand at any time often referred to as anytime maximum demand (AMD) prices.
- Network peak demand - charges are based on the network demand peaks rather than the demand peaks of individual connections.

The ENA paper recognises that distributors all face different circumstances and therefore there is no recommendation of specific types of pricing over others. The ENA anticipates that a "second phase" of pricing change may evolve, providing locational and dynamic pricing in response to new market developments.

From a practical perspective, implementation of new pricing structures will need to be supported by the industry's billing and data management systems, and smart metering. *(6)*

(6) Feedback from retailers and distributors suggest the capabilities in these areas are still a work in progress that consideration will have to be given too.

Consideration of the consumer perspective when implementing successful service-based pricing is key. It is important Unison understands and incorporates into distribution pricing changes customer perspectives and motivations.

The Electricity Authority has produced 'Guidelines for consulting on distributor tariff structure changes', which Unison will be adhering to as it undertakes its customer consultation. They guide distributors on the scope, approach and process of consultation on price structure changes. Key features include the following:

- The distributor must approach the matter with an open mind, and be prepared to change or even start a process afresh.
- There are no universal requirements on the form of consultation, and any type of interaction (whether oral or written) that allows adequate expression and consideration of views will be sufficient.
- Consultation must be allowed enough time, with genuine effort.
- Consultation involves the statement of a proposal not yet finally decided on, listening to what others should say, considering their responses, and then deciding what to do.

Importantly, the form and method of consultation undertaken must foster mutual trust between the consumer and the distributor.

There are valuable lessons to take from the move towards cost-reflective pricing in Australia, along with behavioural response research that has been undertaken. Unison will also be using these findings to help inform and shape future network pricing.

Next steps

As noted, Unison has already taken some steps to deploy more cost-reflective, service-based distribution pricing options. Our analysis, does however, indicate that time of use pricing is only weakly cost-reflective, because it is still based on total customer consumption, rather than measures of peak usage. We would like to explore with consumers and other stakeholders, the merits of stronger price signals and how these could be packaged.

Initially, to initiate customer understanding, and respond to queries of why pricing changes are needed, Unison's intended plan is to ensure wide customer distribution of information. A detailed communications plan is underway. Some aspects of the plan are:

- Dedicated email to interested participants to distribute future pricing information.
- Brochures and use of printed material.
- A comprehensive section on our website or a campaign website providing pricing scenarios and responses to queries.
- Participation at local community events and creating our own 'drop-in' sessions to provide direct interaction with customers.
- Customer research via focus groups and online surveys.

From these initial customer engagement steps, Unison intends to form focus groups, where individuals can provide feedback on pricing options and consultation material.

If necessary, Unison will also consider the potential benefits of conducting real-world trials of different approaches with a limited group of consumers to validate findings of consumer research.

TIMELINE FOR PRICING REFORM

ACTIVITY	TIMEFRAME
Develop specific pricing options and consultation materials	**April 2017 to November 2017**
Undertake customer consultation	**December 2017 to April 2018**
Develop preferred pricing option	**May 2018**
Make decisions on implementation timetable, including need for small-scale trials	**June 2018 to December 2018**

Based on Unison's analysis to date, pricing reform will likely result in material shifts in consumers' bills. Consumers that have low through-put (kWh), but high peak requirements (kW) - meaning they don't use much electricity overall, but when they do use the network it is at a relatively high rate - would face increased network delivery charges. As a result, there is reasonable likelihood that a multi-year transition period will be required to smooth the impact of pricing reform.

Due to the Commission's regulatory requirements associated with price restructuring, Unison's expectation is that substantive pricing reform is unlikely to commence until the year beginning 1 April, 2020.

CONTACT

For further information regarding this document, please contact: ***future.pricing@unison.co.nz***

unison

Facebook:
www.facebook.com/UnisonNetworks

Twitter:
www.twitter.com/UnisonNetworks

Website:
www.unison.co.nz

LinkedIn:
www.linkedin.com/UnisonNetworks

Postal Address:
Unison
1101 Omahu Road
Hastings
Hawke's Bay 4175

PLAN FOR CUSTOMER-LED PRICING

Vector's helping to create a new energy future, in which pricing plays an important role. Vector is engaging with customers to ensure we deliver the pricing plans they want.

There is a danger that changes to pricing structures will satisfy economic theory but not customers (eg. complexity vs simplicity, predictability vs variability).

Pricing reform must have a high level of customer engagement and this is what Vector is committed to doing, including consultation with our 75% customer trust owner, Entrust.

Our plan is a living document and will evolve over time as we learn from our customers.

WE ARE WELL UNDERWAY WITH OUR CUSTOMER ENGAGEMENT

Our customer pricing engagement over the last two years shows:

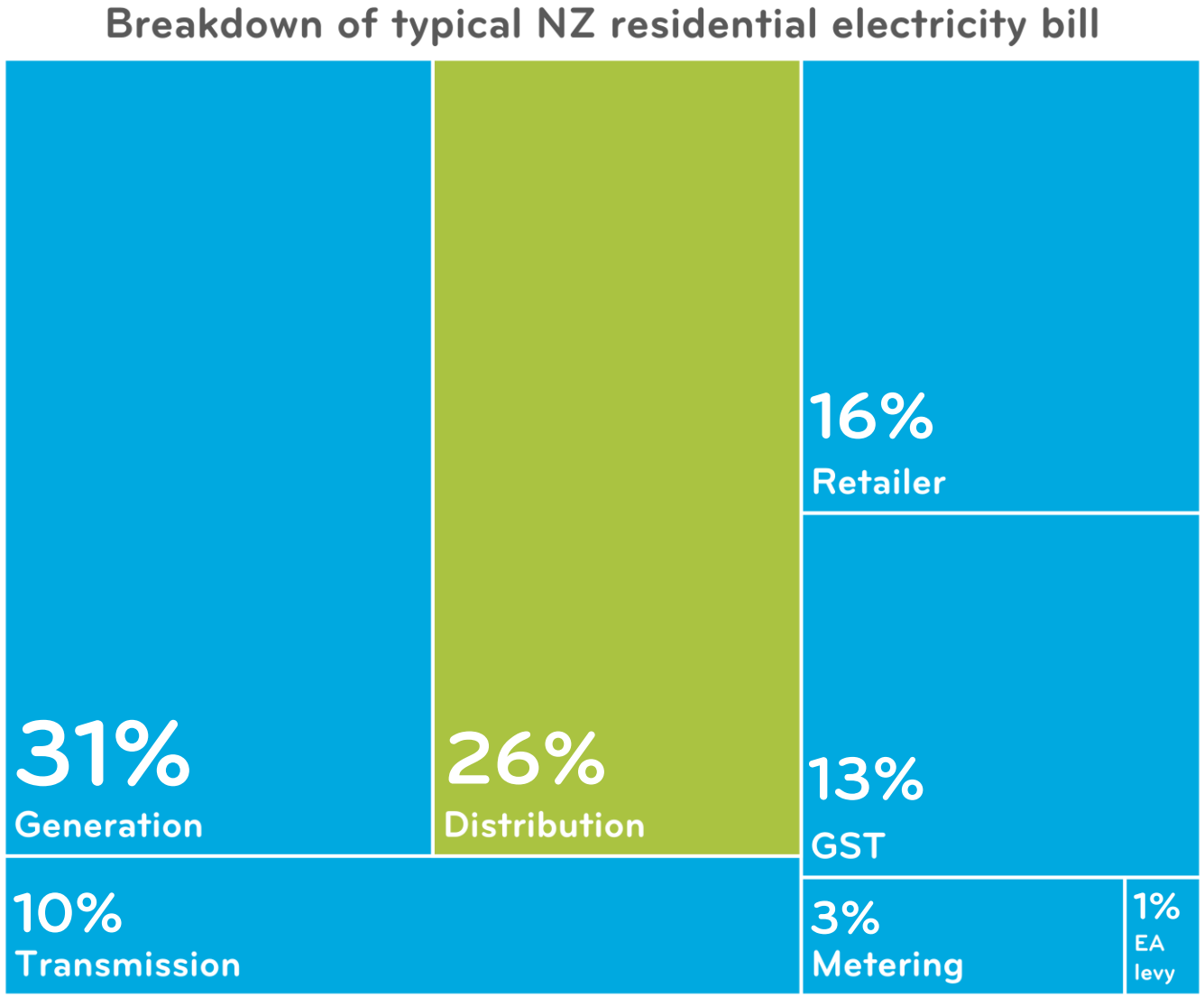
- Customer preferences are varied (i.e. they want choice)
- Many customers are engaged with electricity pricing, albeit briefly
- 80% of customers preferred new pricing plans concepts over current pricing
- Real interest in the potential for technology to help manage their energy needs

Our customer pricing engagement programme is well progressed but there's a lot more work to do.

BILL BREAKDOWN

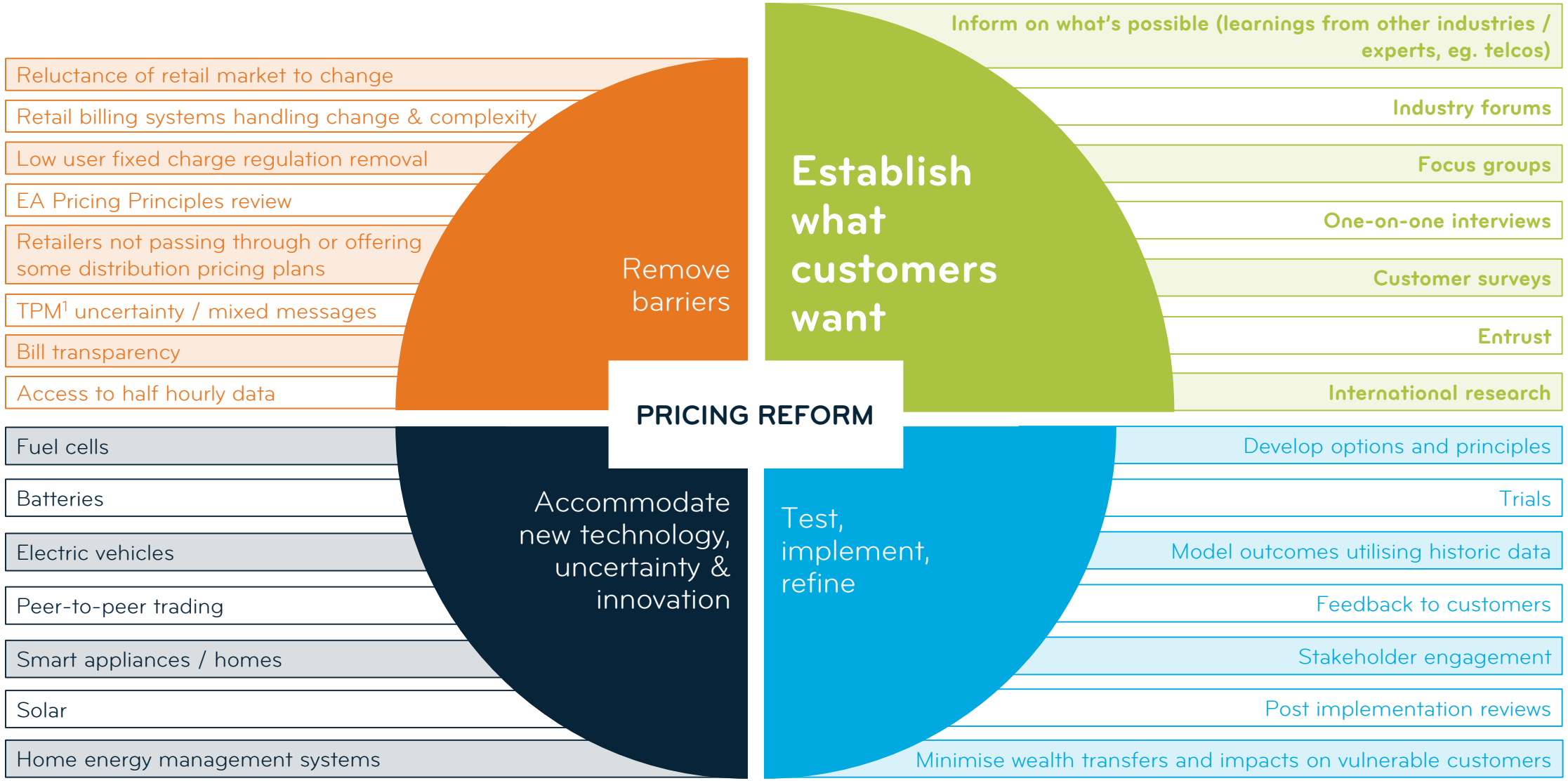
Distribution pricing makes up a relatively small portion of a customer's total electricity bill – around one-quarter. In Auckland, that's about $39/month.

The Electricity Authority has placed much attention on distribution pricing reform but it is important to recognise the limited extent to which reform of a quarter of the bill (on its own) can benefit customers.



Source: Electricity Authority

THERE'S SIGNIFICANT COMPLEXITY IN A REVIEW OF PRICES



[1] Transmission Pricing Methodology

TIMELINE

2011

- **Time of use price plan introduced**

2012-15

- **Customer engagement surveys commence**
- **Time of use price plan refined**
  Poor uptake from retailers

2016

- **Vector Customer Advisory Board engaged on pricing reform** [INT]
- **Advocate for revenue cap and sensible TPM outcomes** [INT]
- **Analysis of customer behaviours from half hourly data** [INT]

2017

- **First customer *pricing* engagement survey completed** [INT]
- **Engaged international pricing experts** [EXT]
- **Socialisation of pricing plan possibilities, here** [INT, EXT]

2018 and beyond

- **Looking at ways to better inform and engage with customers** [INT]
- **Active in trying to remove barriers such as retailer pass through of our price signals** [INT]
- **Leverage experts and international research / studies** [EXT]
- **Further customer surveys and focus groups** [INT]
- **Develop & analyse options** [INT]
- **Trial / test (eg. suitability of time of use pricing for all residential customers)** [INT, EXT]
- **Refine options** [INT]

Continuous engagement with customers

Inform stakeholders

Resourcing legend:
[INT] = internally-resourced
[EXT] = externally-resourced

WAIPA PRICING ROADMAP

This webpage is to be considered the primary and current resource for our Pricing Roadmap.

OVERVIEW

Waipa Networks is currently transitioning from legacy price plans to more more cost-reflective pricing and has chosen the 'Time of Use' approach where peak/shoulder/off-peak time periods have different prices applicable. We have chosen this approach over other methods as we believe it is the easiest for customers to understand given their familiarity with the cents/unit energy pricing. Customers can therefore understand the benefits of shifting or reducing peak electricity usage and those benefits are immediately realised through savings on the electricity bill (assuming the Electricity Retailer has provided the customer a time of use Retail plan that aligns with our time periods and price signalling).

Advanced Uncontrolled (peak/shoulder/off-peak) is largely optional, but became compulsory for all new connections and connections with Distributed Generation from 1 April 2017. Our reason for this is to encourage those that (for example) are building new houses or investing in solar power to make efficient decisions in terms of electrical wiring, appliances and energy management.

By 1 April 2019 we intend to phase out existing legacy price plans other than Controlled and Night Only.

The following shows the transition timetable. The timetable will be reviewed annually in consultation with Electricity Retailers.

Effective Date	Detail
1 April 2016 *(Completed)*	Advanced Uncontrolled plan introduced. Available to all ICPs with Advanced Metering. Compulsory for all existing ICPs with Time of Use (HHR) metering. Generation Export plan introduced. Compulsory for all ICPs with Distributed Generation. Existing Day/Night plan (WAx6 and WAx7) closed to new ICPs.
1 April 2017	Advanced Uncontrolled plan compulsory for all ICPs with Distributed Generation. Existing Uncontrolled plans (WAx2) closed – No ICPs may change to this plan. New requirements around 400V Capacity Contract. Existing Day/Night plan eliminated. New BTS price plan created for use during construction phase only.
1 April 2019	All ICPs still on Uncontrolled move to Advanced Uncontrolled. All ICPs still on All Inclusive/single register will move to a new Advanced All Inclusive plan. Remaining legacy tariffs excluding Controlled and Night Only eliminated.

CONSULTATION

Waipa Networks began consultation with Electricity Retailers in 2015 prior to the introduction of new pricing on 1 April 2016. As a result of their valuable feedback, our timetable was modified to allow time for metering and billing systems to be upgraded.

We also consulted with the Electricity Authority around the need for new Register Content Codes for our Peak/Off-Peak/Shoulder time periods. The EA sent these out for consultation and they were approved in March 2016.

Electricity Retailers were also consulted late in 2016 and a new BTS price plan was introduced to the timetable.

Waipa Network's consultation with electricity customers has been mindful of the fact that we have an interposed relationship with them and that pricing is ultimately determined by their Electricity Retailer. The Price Categories and lines pricing are effectively signals only to the Electricity Retailer and they are not required to pass these signals on to the customer. Our focus has therefore been on consultation with the Retailers, while keeping customers informed of progress and signalling where lines pricing is going and therefore Retail pricing is *likely* to go if the Retailers reflect this.

Waipa Networks has provided all customers with newsletters (March 2016 and March 2017) announcing our move to more cost reflective pricing, our reasons for doing so, and our progress to date. We have also published information on our website.

Waipa Networks is also engaging with customers through our membership of the Electricity Networks Association's Consumer Engagement Working Group. A significant part of the Group's work is around consumer engagement in relation to future pricing options.

While Waipa Networks is further progressed than other Distributors in relation to the new pricing options, we recognise that the emergence and uptake of new technologies such as solar generation, electric vehicles and battery storage requires us to continue to consult with and inform stakeholders at each stage of our journey.

RESOURCING

Waipa Networks does not anticipate the need for additional resources to transition to Time of Use (Peak/Off-Peak/Shoulder) pricing.

Our communication mediums include our customer service staff, customer newsletters, our website, and social media.

Our billing systems are under review however no additional costs for Waipa Networks are anticipated with the move to Time of Use pricing. Some additional costs are anticipated for Retailers whose AMI rollout plans would need to be brought forward to accommodate our pricing implementation timetable.

PRICING METHODOLOGY DISCLOSURE 2017/18

23 February 2017

13.1. Changes to the Pricing Strategy

Various changes were made; the changes and reasons are detailed below:

1. Removal of reference to signalled in advance
    a. signalling in advance (other than the regulatory timeframes) may create perverse effects which are not desirable. WEL, through its Pricing Strategy, will take into account the impacts on customers of any changes and also through pricing principle (d) “transparent, stable and provide certainty”.

2. Removal of reference to introduced gradually
    a. introducing a change gradually may not be possible due to differing circumstances . WEL will take into account the impacts on customers of any changes and also on stakeholders through pricing principle (c), responsive to stakeholder requirements and circumstances.

3. Removal of reference to stakeholder support
    a. whilst stakeholder support is highly desirable it should not be a necessity for WEL to make pricing decisions. WEL believes this is covered through our consultation process with retailers on any structural changes and WEL also covers elements of this through pricing principle (c), responsive to stakeholder requirements and circumstances.

4. Removal of reference to predictable and stable
    a. predictable and stable are covered through WEL’s commitment to pricing principle (d) transparent, stable and provide certainty.

5. Addition of reference to customer engagement and education
    a. WEL plans to engage more with customers on pricing and pricing design including education of customers on pricing.

6. Addition of reference to new technologies
    a. new technologies could impact WEL’s network, pricing design should endeavour to enhance their efficiency and cost reflective of their utilisation on the network.

13.2. Key Objectives of WEL's Pricing Strategy

Key objectives of WEL's Pricing Strategy are listed below; these objectives are consistent with the pricing principles.

1. **Cost reflective pricing**: ensure that pricing and pricing design reflect the cost drivers of supply e.g. increase the utilisation of capacity, time of use or demand based charges over time subject to public education and communication plans. This is consistent with signalling the economic cost of service provision (principle a);
2. **Clear pricing structure**: pricing should be simple and easy to understand by customers. This is consistent with transparent pricing (principle d);
3. **Customer focus**: engagement with customers including education on pricing and pricing plans, management of price shocks in the transition to new price structures. This is consistent with having regard to the impact of price structure changes on customers (principle e); and
4. **Incentivise efficient adoption of new technologies**: pricing and price structures should encourage the efficient adoption of new technologies. This is consistent with signalling the economic cost of service provision (principle a).

13.3. Road Map – Future Pricing for Residential, Generation and SSDG customers

Work undertaken to date

On 1 April 2016 WEL implemented mandatory TOU pricing for new ICP's on Residential, General and SSDG price plans, referred to as 'Smart Pricing'. WEL's Smart Pricing consists of 3 parts (Peak, Shoulder and Off-Peak) with peak timeframes aligning to WEL's system peak times.

With the recent publications from the EA (Variable charges under the low fixed charge Regulations) and ENA (New Pricing Options for Electricity Distributors) WEL has started a further piece of work around the future price structure of Residential, General and SSDG customers.

In September 2016 WEL engaged with Retailers on potential future pricing options (detailed in the ENA's New Pricing Options for Electricity Distributors) for Residential, General and SSDG customers. This was to gather initial retailer opinion on the options, system capabilities, transition strategies and associated customer communications.

Upcoming Work

WEL is undertaking customer focus groups on the future pricing options in March 2017 to gain their feedback. WEL will then refine our potential future pricing option(s). Further consultation with retailers will occur to gain their feedback on our future pricing option(s).

A high level overview of WEL's Road Map can be found below in Table 7.

Table 7 WEL Future Pricing Road Map

Stages	Activities	Timeline (Calendar Year)					Resource Requirements
		2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 onwards	
Initial investigation							
Customer Consultation	Customer Focus Groups on potential future pricing options	x					EDB/Professional Research Firm
Initial pricing	Prioritising future pricing option(s) based on customer focus groups feedback and retailer feedback sought in September 2016		x				EDB
Identify challenges	Billing Systems, AMI penetration, data		x				EDB
Analytics	Analysis of potential customer impacts, risk management		x				EDB
Retailer Consultation	Preliminary Retailer Consultation, discussion of participant and potential customer impacts, system limitations, transition strategies, mitigation strategies		x				EDB/Retailers
Detailed Future Pricing Work							
Detail plan	After preliminary feedback, detail what future pricing WEL are looking to implement, customer impacts, transition strategies, challenges and how to overcome, desired timeframes			x			EDB
Retailer Consultation	Retailer Consultation, more focussed discussion based on more refined WEL future pricing including participant and potential customer impacts, system limitations, transition strategies, mitigation strategies				x		EDB/Retailers
Analytics	Analysis and consideration of feedback received, risk management				x		EDB
Finalisation of Future Pricing							
Release of Future Pricing	Dependant on stakeholder feedback WEL will release the final future pricing plan, including specific implementation dates and transition strategies that will form part of the release.				x		EDB
Communication	Develop Communication Plan with retailers on future pricing and customer education					x	EDB/Retailers
Monitor	Review and monitor progress and usage profiles					x	EDB
On-going communication	Review and monitor stakeholder feedback					x	EDB

14. Consultation

14.1. Customer Consultation

WEL has a strong customer focus as it is owned 100% by the WEL Energy Trust, on behalf of the community. In addition to the WEL Energy Trust representing the views and interests of customers, WEL regularly consults with major customers and periodically (biennially) conducts surveys of customers' expectations on its pricing and quality of service. The survey results are a key input into both WEL's Asset Management Plan (AMP) and our Pricing Methodology.

A key finding from the most recent customer survey undertaken in June 2015 was that the majority of the customers (99%) are satisfied with the current level of reliability of supply. Only a small number (22%) of customers would like to see further improvement in reliability of supply with relatively few (8% of that 22%) being prepared to pay slightly more.

WEL is undertaking customer focus groups during March 2017 to discuss potential future pricing options for Residential, SSDG and General customers. Information gained from these focus groups will help form future pricing work.

14.2. Retailer Consultation

Clause 12A.7 of the Code requires WEL to consult with traders prior to making a change to its price structure. WEL consulted retailers on its proposed price structure changes in September-December 2016.

The Code does not specify when consultation must commence or how long it should take, but the Electricity Authority has prepared *Guidelines for Consulting on Distributor Tariff Structure Changes* (2012) that set out a recommended approach. WEL was guided by this document in determining its process. Key features of our process consistent with the guidelines were:

- WEL provided opportunities for both oral and written feedback on its proposals, presenting the proposal in a workshop in September 2016, and in a written consultation paper.
- Two weeks were allowed for feedback on the proposals, and a timeline for the process was provided to all retailers with key dates.
- WEL outlined the rationale for its proposed price design changes including the extent to which they were consistent with the Electricity Authority's pricing principles both in the workshop and the written consultation paper.
- WEL approached the consultation with an open mind, prepared to make changes to its proposed price structure.

Feedback was received from several retailers. The feedback was generally supportive of all the proposals. WEL also took the opportunity to have an open discussion on a range of potential future pricing options for Residential, SSDG and General customer price categories. Retailer feedback, along with customer feedback will help form future pricing work.

WEL released its final price schedule effective from 1 April 2017 to retailers in December 2016. This is consistent with pricing principle (d) by promoting transparency and certainty for stakeholders.

Future Pricing Roadmap

1 April 2017

1. Introduction

Wellington Electricity owns and operates the electricity distribution network in the Wellington region, covering Wellington, Porirua, Lower and Upper Hutt cities, and delivers electricity to more than 165,000 homes and businesses. Wellington Electricity recovers the cost of owning, renewing, extending and maintaining the network through a combination of standard (published) and non-standard prices for lines function services. Wellington Electricity's price changes are determined by Part 4 of the Commerce Act as administered by the Commerce Commission. These prices are then packaged and passed onto consumers by their energy retailer.

Wellington Electricity intends to continue moving towards fully cost-reflective pricing by introducing price signals that clearly identify time periods when the network has capacity for more demand and when it does not. This should be a significant help to enabling new technologies and for customers and ourselves to derive mutual benefits from new technology investment. Designing and implementing clear cost reflective prices will send the right signals to consumers to reduce peak demand. This has the benefit of avoiding the need for expensive electricity network reinforcement expenditure necessary to support increasing peak demand, keeping prices lower than they otherwise would be.

Appendix 1 shows Wellington Electricity's broad plan for future pricing ("future pricing roadmap"). This is published at the request of the Electricity Authority. The future pricing roadmap explains the activities that are expected to occur for pricing reform, together with the anticipated timeframes for these activities.

2. Critical success factors

There are a number of critical success factors that will support the positive adoption by consumers and retailers of the pricing reforms.

2.1. Stakeholder engagement and consultation

Stakeholder engagement and consultation is crucial to the success of pricing reform. Wellington Electricity has ongoing consultation with retailers and other stakeholders to ensure that the need for pricing reform is well understood and that various pricing options are thoroughly considered. Going forward (either indirectly through retailers or directly by Wellington Electricity in conjunction with Retailers), this consultation will include end consumers to ensure those who pay the bill have a strong input into future pricing structures.

Wellington Electricity believe it is important for consumers to understand how they are able to achieve cost savings and/or avoid future cost increases, to improve the value they

receive from our network assets, by managing their demand so that the network is used more efficiently.

We will continue to consider the best methods for this engagement and note that other distributors in other countries have developed effective web education tools to assist consumer communication and understanding.

2.2. Industry Alignment

Wellington Electricity believe that it is important that distribution price signals are passed through to end consumers, rather than repackaged by retailers which dilutes the price signal. We will work with the Electricity Authority and retailers to achieve this goal.

Wellington Electricity is also working with other distributors, including through the Electricity Networks Association and the Distribution Pricing Working Group to ensure that wherever possible our pricing reforms are consistent with other Distributors so that retailers receive an industry efficiency through consistent pricing plans across the country.

2.3. System changes

Traditionally residential consumer prices have consisted of a fixed daily charge and a variable consumption charge which is a fixed cost per unit consumed. The introduction of cost reflective pricing will require more data (e.g. demand and/or consumption separated by time period or other time of use information), which may require significant changes to current metering and billing systems. These requirements need to be determined and may vary depending on the final pricing structures. There could be significant costs associated with this, which will require additional funding and Wellington Electricity will request this through Commerce Commission allowances.

2.4. Regulatory Environment

Cost reflective pricing reforms are currently limited by regulatory constraints including the Electricity (Low Fixed Tariff Option for Domestic Consumers) Regulations and the weighted average price cap. A revenue cap, which is expected to be in place by 1 April 2020, is an important dependency for Wellington Electricity to implement the change to a cost reflective pricing structure.

2.5. Electric Vehicles

The increasing availability of affordable electric vehicles (EVs) has the potential to significantly increase their usage of the electricity distribution network.

Wellington Electricity has introduced time of use pricing for customers with EVs, with a cheaper night price option (EVNITE) applying from 9pm to 7am. The aim of this pricing is to support EV uptake in Wellington and also to encourage the charging of EVs during off-peak periods. From 1 April 2017, Wellington Electricity is introducing a demand charge period for the EV tariff (EVDMND), which will work in conjunction with the EVNITE price option and signal to customers to avoid the network peak demand period

between 5pm to 9pm in favour of the cheaper night period from 9pm to 7am for EV recharging. Wellington Electricity look forward to work with retailers on the implementation of this tariff and how it can be managed to deliver satisfactory outcomes for distributors, retailers and consumers with electric vehicles.

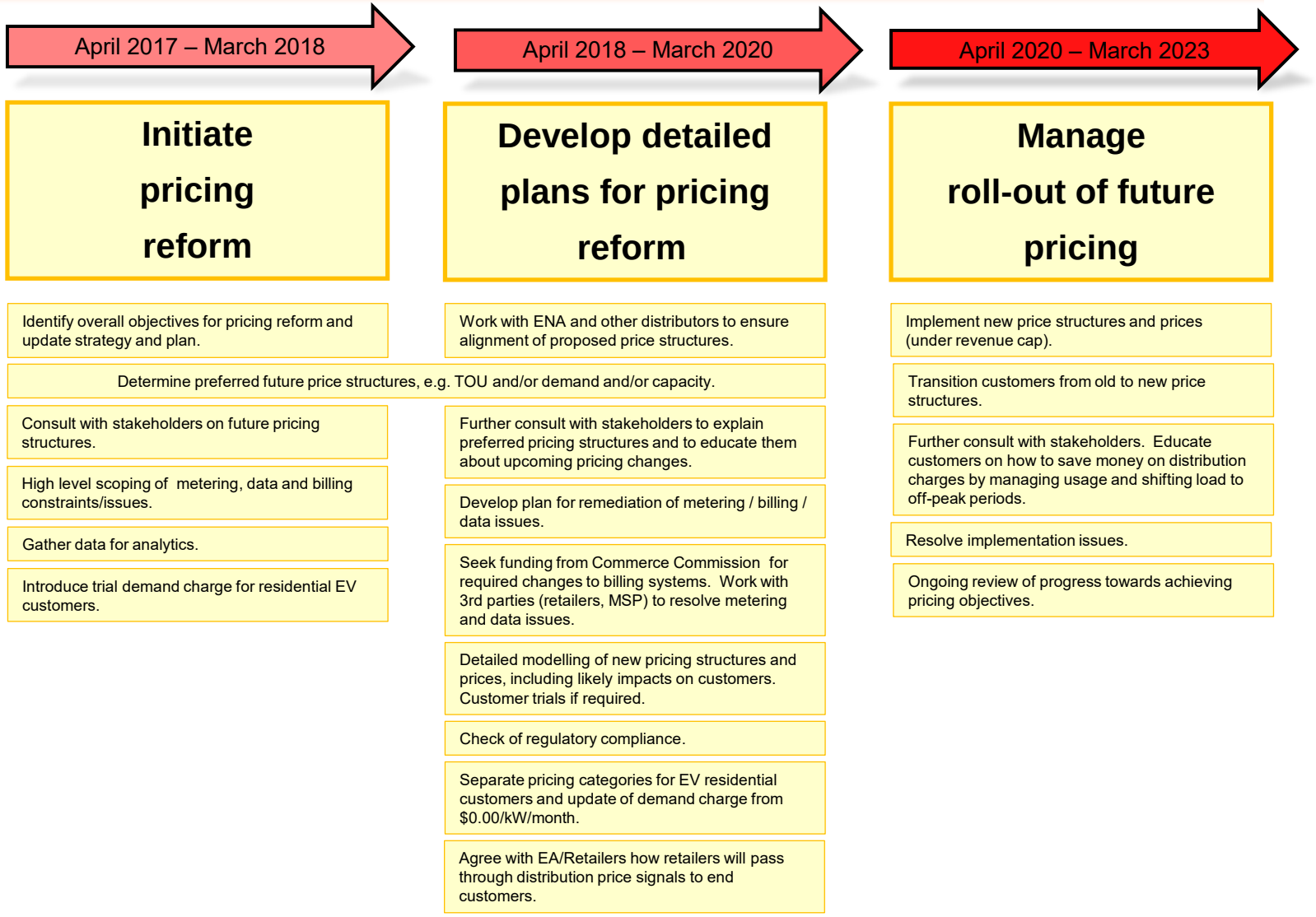
Wellington Electricity intends to further evaluate pricing options for EV owners as part of its pricing roadmap work.

3. Feedback

We welcome any comments or suggestions regarding this Future Pricing Roadmap. Feedback can be provided to WE_CustomerService@welectricity.co.nz

Appendix 1

Future Pricing Roadmap



Future Pricing Workplan

EDB : Westpower Ltd

Roadmap Stages	Activities	Apr-17	Jun-17	Sep-17	Dec-17	Mar-18	Jun-18	Sep-18	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19	Mar-20	Jun-20	Sep-20	Dec-20	Resource
1. Initiate pricing reform																		
Engage with West Coast Electric Power Trust	Inform Trustees of the potential for a significant change in the tariff, seek their guidance on what they see as being important in terms of outcome.		X															
Engage with Retailers	Discuss specific retailer issues including their ability to Implement new pricing options		X															As Above
Issue RFP with defined scope for delivery of analysis of appropriate pricng options	Develop an RFP that will ensure independent view of the options that will suit the Westpower environment, including allocating costs to consumer groups (some in house work), ranking different baskets of options, modelling the impacts of those options on those consumers, recommending a preferred option with reasons. Transition issues to be considered on a broad basis.																	CEO, GM Assets, Finance Manager. Might delegate to Temp resource if FM in Audit process
Analyse the RFP responses and select a service provider	Determine selection approach by reference to price and non price attributes			X														CEO, GM Assets, Finance Manager
Appoint service provider and commence work					X													As Above
Report received from service provider	Report complete with recommended option and discussion of transition issues.				X													Consultant
2. Initiate and complete detailed consultation with customers																		
Engage with identified medium sized consumer representatives (e.g. Federated Farmers)	Discuss principles of upcoming changes with larger group consumer reps on the principles assocoiated with cost reflectuive pricing and explain the type of approach we will be taking to determining new pricing. Use this as a means of illiciting some early points of interest for specific groups.		X															
Run Pricing Trials	Develop pricing database to enable modelling of prices. Understand the impacts of proposed price changes across consumer groups. Run alternative options to compare to status quo and recommended option					X												IT/External/Temp Support under supervision of GM Assets and Finance Mngr (CEO)
Develop consultation process	Develop consultation process including who to conuslt with and providing outline of proposed pricing philosophy, options available to consumers, impacts of pricing decsions/options, transitional provisions						X											CEO, GM Assets, Finance Manager.Possible Temp Resource .
Customer Interactions	Commence consultation with selected consumer groups							X										CEO, GM Assets, Finance Manager.Possible Temp Resource .
Feedback Analysis	Review feedback against proposed options										X							As Above
Communicate Final Distribution Pricing Decisions	Publicly Notify final decisions/ Directly Notify Retailers											X						As Above
3. Manage roll out of new pricing options																		
Engage with Software house and regulator for introduction of new charges	Establish new charges in pricing/charging software (this will have a large $$$ attached to it)												X					GM Assets Finance Manager and Finance Staff
Engage with Retailers for introduction of new charges	Roll out charges to retailers for implementation at start of new FY													X				As Above