# ROADMAP TO PRICING REFORM UPDATE

## - APRIL 2021

## INTRODUCTION

Centralines distributes electricity to businesses and homes across the Central Hawke's Bay region for electricity retailers who bundle Centralines' charges to end consumers' bills. Centralines is owned by the Central Hawke's Bay Power Consumers' Trust. The Trust holds the shares on behalf of the consumers connected to Centralines' network in Central Hawke's Bay.

Centralines, along with other distributors, has a goal of reforming distribution prices so that they are more reflective of the costs incurred and services provided to different consumers. The industry recognises that current distributor pricing structures are no longer sustainable. Without change residential electricity bills could rise 10 percent in the next ten years[1]. Prices need to fairly reflect the true costs of the services distributors provide to consumers. Legacy approaches are not effective at signaling to consumers the costs and benefits of consuming at different times, or in evaluating different technology options.

In 2017, the Electricity Authority requested distributors to publish "Pricing Roadmaps", to set out the process and timeframes of how they will reform their distribution prices. Since we published our initial roadmap, there has been greater focus across the electricity distribution sector towards a collective approach to pricing reform. While Centralines will ultimately make its own choice on future pricing – in consultation with retailers and our consumers – we believe close industry collaboration, through the Electricity Networks Association (ENA) will result in fairer, consistent and more sustainable future pricing for all electricity consumers across New Zealand.

[1] *Electricity Authority, Signposting the Future*

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

Traditionally distributors have a pricing structure, where consumers pay a flat amount per kWh for distribution, regardless of what time of day or night or season they use it (peak or off-peak). It is the peak demand that strains networks and brings forward the need for distributors to invest. Changing technology, without price reform, is likely to magnify this demand at peak times as there would be no incentive to use electricity at off-peak times.

Currently our network prices are made up of:

*Flat Rate Pricing*

- A fixed price of 15 cents a day for a low user or $1.15 for a standard user, and
- Variable charges based on total energy use.

*Pricing based on the time of use (TOU)*

- A fixed price of 15 cents a day for a low user or $1.15 for a standard user
- Variable charges that are higher during peak times, reduced when not at peak hours and low during the very inactive parts of the day.

Centralines also has a number of different price options to reflect the fact some customers use energy in different ways to the average customer (i.e., controlled loads, night rates and day rates).

The majority of residential connections are priced on traditional flat rate pricing, over 95%, even though TOU pricing can offer some consumers price reductions by taking advantage of current consumption patterns or by moving consumption into lower priced periods. A key contributor to moving to TOU pricing is the availability of appropriate price plans from retailers. Without these the consumer will see no direct benefit.

Centralines is a predominantly rural, sparsely populated network with small urban areas. This means there is little opportunity to take advantage of high density economies of scale. There has been some residential growth mainly at the northern end of the region around Otane, Waipawa and Waipukurau which can result in localised investment decisions being required. While there is little general constraint at present, and therefore no immediate desire to strengthen the signal to move consumption away from peak periods, the levels of growth will require continued consideration. Options exist for strengthening the Peak / Off-peak signal or of mandating TOU pricing to encourage positive consumer involvement in shifting load. Other considerations within the network characteristics may involve more emaphasis on commercial connections to manage load.

Centralines reviews its prices annually to meet company, industry, legislative and regulatory requirements. In 2019, the Electricity Authority finalised and published its Distribution Pricing Principles and the accompanying scorecard framework. The Authority's principles are a set of requirements by which Centralines must justify its pricing approach. Our Pricing Methodology Disclosure published in March 2021 reflects these principles.

In 2016, Centralines implemented a technology specific pricing approach for consumers who had solar. The reason behind the price change was to protect vulnerable consumers on our network from cost-shifting from consumers installing solar. Consumers with solar still have the same need for the electricity network. The poles, wires or transformers that Centralines uses to supply consumers with solar are still needed when the sun is not shining, or where solar cannot provide the whole demand the consumer's household requires. However, because of reduced consumption these consumers were no longer paying a fair share for the provision of the network, which means people who are unable to afford or chose not to have solar panels are subsidising their use. Currently there are less than 150 residential consumers with solar installed out of Centralines' total 6,200 residential connections. While the number of consumers with solar installed remains relatively low (approximately 2%), establishing the appropriate pricing signals is informative as well as cost reflective.

While the opportunities presented by new technologies such as solar, batteries and EVs are exciting, they also lead to market distortions for both consumers and distributors under traditional 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.

Distributors are also currently limited by the low fixed charge (LFC) regulations which exacerbates inefficient price signals to consumers, and causes some unintended cost shifting. The primary intention of the LFC when it was introduced was to help encourage energy efficiency and latterly for low income consumers. However, in reality they are poorly targeted at a type of household that is not necessarily in energy hardship (e.g., small number of individuals living in a residence, or a new house that is very energy efficient), rather than households with energy poverty (large family or high use households, a house that is poorly insulated, or where appliances are not energy efficient).

The Government has accepted a recommendation for the phasing out of the LFC Regulations. However, a plan for the staged phase-out has not yet been confirmed there are ongoing discussions being conducted and Centralines is hopeful that reform will occur in the near future.

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

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. While the overall Centralines network has high levels of network demand in both winter and summer this is driven by two very distinct behaviour patterns. Winter peaks are driven by the same types of demand that apply throughout much of New Zealand, residential early evening activity. The summer peaks are a result of a significant level of horticulture / agriculture irrigation. Understanding and reflecting the costs of residential consumers during winter remains a strong requirement in developing residential pricing.

Evolving technology in the energy sector is transforming the way consumers are using electricity. Technology is providing consumers with more choices and control:

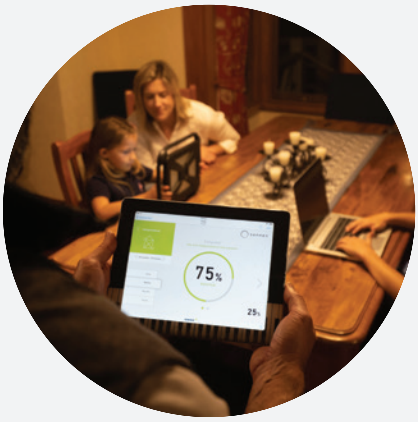
- Greater energy source choices - for example, solar photovoltaic.
- New uses – increasing EV uptake.
- Control of energy use and cost with the increasing consumer access to energy management capabilities - smart metering offers the ability for pricing to align with consumer demand, and battery storage allows consumers to react to pricing signals.

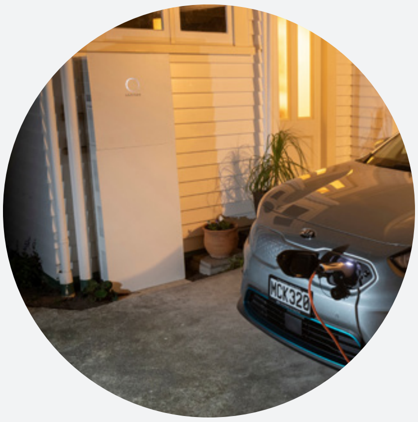
Pricing reform has an important role to ensure optimal outcomes are delivered to consumers in the context of these new technologies.

There is broad industry agreement by regulators, policy makers and industry stakeholders that price reform is needed to ensure efficient price signals for sound decisions about network use, network investment and network alternatives. If there is no change, a number of poor outcomes are likely:

- Overinvestment by consumers in technologies to avoid network charges
- The shifting of costs onto other consumers
- Unnecessary network investments
- Under utilisation of spare network capacity
- Exposing distributors to the commercial risks, where community assets will suffer.

A key concern is that consumers who do not have access to new technologies will face increasing network costs as they subsidise others who do. By signalling network costs to consumers, there is an incentive for efficient consumption and investment decisions by consumers (i.e., rewards for automated load management, like using the timer on the dishwasher, and charging the EV in the middle of the night), which in turn supports efficient network investment.





## PRICING STRATEGY

Centralines does not anticipate significant growth overall in the next five to ten years. Accordingly, Centralines does not have a strong requirement to use prices to influence consumer behaviour. In the context of the capacity available on the network, Centralines' strategic intention is principally to ensure:

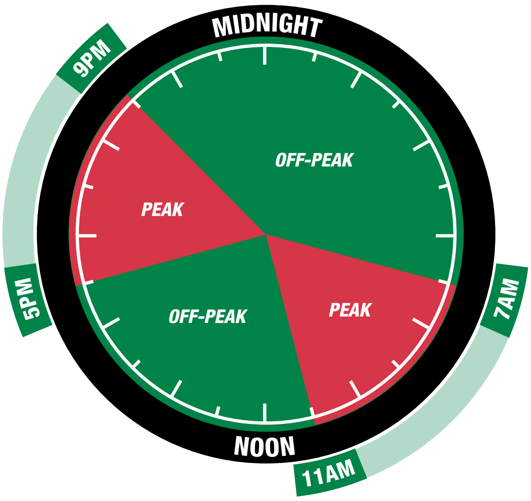
- Prices are set in a way that does not create undue signals for consumers to change their use of the network; and
- Equity between consumers.

Cost reflective pricing for Centralines is therefore to emphasise the use of fixed charges and other pricing approaches that have limited impact on consumption decisions.

Centralines also recognises that there may be longer term benefits to encouraging low-value discretionary loads to be shifted to off-peak times. The increasing penetration of EVs may place pressure on parts of the network in the future, especially if consumers choose to recharge their vehicles at peak times. Centralines intends to monitor pricing approaches used by other EDBs to determine an optimal pricing approach to encourage off-peak pricing.

Centralines' commercial pricing options are relatively cost reflective in their current form. There has been growth in irrigation-focused connections in the last ten years and while this growth has tapered off there remains potential for continued increases.

## PRICING OPTIONS




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

It is important that prices signal the economic cost of the service provided. The price options Centralines is considering:

- Mandatory Time-of-Use (TOU) pricing, which means paying less to use the network when it is not as busy and more when it is busy.

Because TOU approaches are still based on the amount of electricity used, not the capacity required to meet demands, Centralines believes this is the best transitional option.

In the longer term, once there is clarity on the LFC, the other price options that may need to be considered include.

- Capacity pricing where a consumer nominates an agreed maximum of electricity supply at any one time; and
- Demand pricing, which means charging based on a consumer's highest hours of use over, for example, the previous month

Retailers will package our prices together with the cost of electricity in different ways. Our distribution charges account for around a third of consumers' overall electricity bills. Changes to our prices relate only to that portion of those bills.

Consumer research already conducted by the ENA with UMR Research has shown consumers value simplicity in pricing and don't want to think too much about their electricity pricing options[2]. Centralines is continuing to undertake modelling of the above options to assess the bill impacts at the consumer group level, taking into account the need for simplicity and accessibility for any options decided upon.

Retailer and consumer engagement will continue to progress to understand consumer acceptance of different options in our network areas, how further consumer engagement can progress, and how options can be practically implemented.

*[2]Electricity Authority, Signposting the Future*

## PRICING REFORM SO FAR

It is important that there is broad industry development to ensure there is review and assessment of practical implementation issues and impacts of any price changes. Centralines has been actively involved at an industry level in the reform process, including:

- Contributing to working groups and reviewing the economic and consumer benefits of new pricing options.
- Joint distributor and retailer working group, which considered how retailers and distributors can constructively work together on consumer communications through respective industry groups (Electricity Retailers' Association of New Zealand (ERANZ) and ENA).
- Active involvement in an industry working group that has been developing several pricing options. The identified options have been tested on a large sample of anonymised consumption information to assess the impacts on different consumers of different pricing arrangements (e.g., TOU, demand charges etc). It was found that some pricing approaches would have very material impacts on some consumers' bills – both up and down, but revenue neutral overall. The options analysis will be used to inform Centralines pricing reform plans, including the types of prices we may offer and transition plans from current approaches.

Internally Centralines commenced its pricing reform project in early 2019 to identify a new structure for residential electricity prices and implementation timetable. As part of the reform process, we are:

- Monitoring the adoption and impact of the two cost-reflective and service-based pricing structures Centralines had already introduced:
  - the distributed generation/solar price category (introduced April 2016) and,
  - our improved optional TOU pricing (introduced April 2017).

  Uptake for both pricing structures continues to remain low. Most consumers are still on legacy pricing options.
- Modelling opportunities that the anticipated change in LFC regulations will provide. The current expectations are that regulatory reform could commence from April 2022, and therefore that will be the first opportunity to implement a change in fixed charges.
- Investigating technology-specific price plans that would fairly price new technology such as EVs so that any increased uptake could be evaluated by consumers transparently.
- Analysing the learnings and application of industry group outcomes at a local level. The options analysis will be used to inform Centralines pricing reform plans, including the types of prices we may offer and transition plans from current approaches.
- Modelling price options to assess the impact on consumer groups.
- Engaging with our consumers via an external provider to assist us to understand our consumers and the impact of reform on them. This started in early 2020 with the results used to assist in price plan evolution from April 2021.
- Meeting with Retailers to understand practical implementation considerations.

We continue to focus our activity on:

- Actively contributing resources, leadership and capability to industry working groups.
- Advocating for strategic, sustainable, and consistent pricing change that genuinely delivers on Centralines' and industry goals. Avoiding change for the sake of change.
- Applying best practice thinking to our local network, leveraging industry insights to determine how it can best be applied to Centralines' network and customers.

Centralines expectation is that substantive pricing reform is unlikely to commence until reform of the LFC regulations has been confirmed and implementation begins. We believe a long-term communication strategy is needed through any transition period and beyond to raise awareness and engage consumers in the change process. In addition, practical operational issues have been highlighted by the industry, including: billing and data management systems and technical implementation. Without a transitional plan these issues will impact on the effectiveness of what is trying to be achieved, durable and stable price structures.

## YOUR FEEDBACK IS IMPORTANT TO US

Your feedback is important to us as we consider the best way forward for distribution pricing. With the shift towards greater industry coordination we will ensure there are regular updates. As mentioned, we intend to conduct Centralines-specific consumer research.  We will post notifications on our website when opportunities to have your say emerge.  In the meantime, we welcome any comments or suggestions regarding this Pricing Roadmap Plan.

## CONTACT

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