



# Counties Energy

## Electricity Distribution Business Pricing Methodology Disclosure

1 April 2022 to 31 March 2023

Pursuant to Electricity Information Disclosure  
Information for compliance with Part 2.4:  
Disclosure of pricing and related information



Energy  
Reimagined



# Contents

<b>1.0</b>	<b>Introduction</b>	<b>4</b>	<b>8.0</b>	<b>Pricing for non-standard contracts</b>	<b>18</b>
1.1	Context	4	8.1	Approach to setting prices for non-standard contracts	18
1.2	Overview of Counties Energy	4	8.2	Pricing for distributed generation	18
<b>2.0</b>	<b>Regulatory context</b>	<b>6</b>	<b>9.0</b>	<b>Pricing reform roadmap</b>	<b>20</b>
2.1	Information disclosure requirements	6	9.1	Pricing reform progress to date	20
2.2	Distribution pricing principles	6	9.2	Updated capital contribution policy	22
2.3	Low user regulations	6	9.3	Introduction of peak/off-peak pricing	22
2.4	Electricity Industry Participation Code 2010 (Code)	7	9.4	Rebalancing fixed and variable prices	22
<b>3.0</b>	<b>Strategic pricing drivers</b>	<b>8</b>	9.5	Injection charge for all excess generation injected into the network	23
3.1	Urban growth	8	9.6	Standardised pricing structure that is closely aligned with the pricing guidelines	23
3.2	Rural and remote areas	9	9.7	Congestion pricing	24
3.3	Different pricing implications for our urban and remote network areas	9	9.8	Ongoing improvements	24
3.4	Reliability investments	9	9.9	Future options	24
3.5	Customer survey	9			
3.6	Annual discount payment	9			
<b>4.0</b>	<b>Pricing strategy</b>	<b>10</b>		<b>Appendix</b>	<b>26</b>
4.1	Supporting the pricing strategy implementation	10		Appendix A: Map of the Counties Energy territory	26
<b>5.0</b>	<b>Methodology</b>	<b>12</b>		Appendix B: Electricity Authority pricing principles	27
5.1	Target revenue	12		Appendix C: Alignment to the Electricity Authority's pricing principles	29
<b>6.0</b>	<b>Cost allocation</b>	<b>13</b>		Appendix D: Definitions	34
6.1	Asset cost allocation	14			
6.2	Allocation to customer groups	14			
6.3	Revenue allocated to customer groups	15			
<b>7.0</b>	<b>Counties Energy pricing from 1 April 2022</b>	<b>16</b>			
7.1	Customer impact	16			





# 1.0 Introduction

## 1.1 Context

This document outlines Counties Energy Limited's (Counties Energy/the Company) pricing methodology for setting its pricing structure and prices for the period 1 April 2022 to 31 March 2023. It outlines Counties Energy's regulatory context, network cost drivers, pricing strategy and the regulatory context in which the prices are set.

Customers are central to every aspect of Counties Energy's operations and, with this front of mind at all times, Counties Energy's overall pricing strategy continues to be to keep its prices as low as possible. This is evidenced by Counties Energy paying rebates of approximately 15% of every customer's total annual line charge as an annual discount.

## 1.2 Overview of Counties Energy

Counties Energy owns, manages and operates an electricity distribution network spanning diverse areas in South Auckland, North Waikato and Hauraki district areas. The network has a system length of 3,418km, covering an area of approximately 2,250km<sup>2</sup>. The part within the Auckland Council boundaries covers 830km<sup>2</sup> (37%) of the Counties Energy network, the part within Waikato District extends to 1,340km<sup>2</sup> (60%), and the remaining 80km<sup>2</sup> (3%) lies within the Hauraki District.

Counties Energy receives power from the national grid at the Bombay and Glenbrook Grid Exit Points (GXPs) and then transports that power to customers via nine zone substations and an extensive network of lines, cables, transformers and other equipment. The number of customers served by the network (active ICPs) is approximately 46,369, the maximum coincident system demand is approximately 129.3MW and annual delivered energy, after losses, is 643GWh.

Like most network infrastructure companies, Counties Energy's distribution assets are dispersed over a large area and are highly interdependent. The area serviced is diverse, with a mix of towns, rural land and remote farmland. Added into this mix is significant residential, commercial and industrial growth being experienced in the area, particularly between Papakura and Pukekohe, and in Pokeno. Supplying these newly urbanised areas, from a predominantly rural electricity network, is both an engineering and financial challenge.

To meet the growth being experienced and forecasted, Counties Energy has made substantial capacity and technology investments in its network over the last decade. This has included investing in a 110kV sub-transmission network and the deployment of smart meters to 97% of mass-market customers. In addition, Counties Energy recently commissioned the Pokeno 40MW 110kV substation and commenced construction of the Barber Road 40MW 110kV substation. Once the Barber Road substation is commissioned work will commence on the Drury South 40MW 110kV substation. Three further substations are also planned with land being purchased to enable these substations to be rapidly constructed if required.

The need to meet the demands of Auckland, as the country's largest city rapidly expands south, provides the Company with the impetus and commitment to fund the infrastructure required to support this growth, while also maximising utilisation of the existing high voltage network and finding affordable, efficient, sustainable and clever solutions.

A key pricing tool for funding the infrastructure to support the growth has been Counties Energy's capital contribution charges. At the same time, the introduction of a peak demand signal, that encourages off-peak consumption, is key to maximising utilisation of existing network assets through delaying the investment of new infrastructure capacity required to meet Counties Energy's increasing peak demand. Delaying these investments causes greater utilisation of existing substations, transmission lines and high voltage distribution feeders driven by both new connections and the growth of the uptake of electric vehicles (EVs).

Counties Energy has a passionate and dedicated team committed to delivering service safely to all communities on the network, and to continuing to provide quality service to existing and new customers across both the rural and urban network. To do this, the company must invest wisely in core network and also in future-technology that will service the community's needs and give customers a smarter, more intuitive and sustainable network. Working with customers, Counties Energy is diversifying into emerging technologies, ensuring its network and community is at the forefront of enhanced energy solutions.



Counties Energy is leading the charge in developing cutting-edge solutions in distributed generation, batteries and EV technology to ensure it can power the region now and for future generations. The company cares about its community, its customers and its people, and about safeguarding and growing its community's investment.

Counties Energy is 100% owned by the Counties Energy Trust, which holds the shares on behalf of all Counties Energy's customers. As a customer-owned entity, Counties Energy has exempt status from the Commerce Commission default price-quality path, which sets a cap on distribution revenue. However, Counties Energy is required to submit various forms of information disclosure to regulatory authorities, which provides these bodies with clear oversight of the Company's activities.



# 2.0 Regulatory context

## 2.1 Information disclosure requirements

The Commerce Commission regulates electricity distribution businesses (distributors) under Part 4 of the Commerce Act 1986 because they are natural monopolies in the areas in which they operate. This includes Counties Energy.

Some distributors are subject to price-quality regulation. Counties Energy is not because it is customer-owned (being 100% owned by the Counties Energy Trust).

Counties Energy, in common with all other distributors, is subject to information disclosure regulation. This is under the Electricity Distribution Information Disclosure Determination 2012 (ID Determination). The ID Determination is published on the Commerce Commission's website<sup>1</sup>.

The ID Determination requires Counties Energy to publish certain information annually. One such requirement is that Counties Energy publish its pricing methodology, which is what this document is (clauses 2.4.1 to 2.4.5 of the ID Determination). The pricing methodology must:

- Describe the methodology used to calculate prices;
- Describe any changes in prices and target revenues;
- Explain the approach taken with respect to pricing in non-standard contracts and distributed generation; and
- Explain whether, and if so how, Counties Energy has sought the views of customers, including their expectations in terms of price and quality, and reflected those views in calculating prices.

## 2.2 Distribution pricing principles

Counties Energy's pricing methodology must also include information about the consistency of the pricing methodology with the distribution pricing principles published by the Electricity Authority. The distribution pricing principles are published on the Electricity Authority's website<sup>2</sup>. The Electricity Authority updated the distribution pricing principles in 2019 with the aim of encouraging more efficient distribution pricing.

The distribution pricing principles do not require particular distribution prices – distributors have discretion as to exactly how they structure and calculate their prices. However, Counties Energy does take the distribution pricing principles into account in designing its prices, and the Electricity Authority assesses how distributors' pricing methodologies are performing against the principles in annual scorecards. The scorecards for 2021 are published on the Electricity Authority's website<sup>3</sup>. In preparing this pricing methodology, Counties Energy has taken on board feedback the Electricity Authority provided on its 2021-2022 pricing methodology.

## 2.3 Low user regulations

Counties Energy must make available low user prices under the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004 (LFC Regulations).

The key requirements of the LFC Regulations are:

- Counties Energy must offer a daily fixed charge to residential customers of no more than \$0.30 per day (ex GST); and
- a residential customer on the low daily fixed charge should pay no more than a residential customer on a comparable alternative plan at an annual consumption of 8,000kWh.

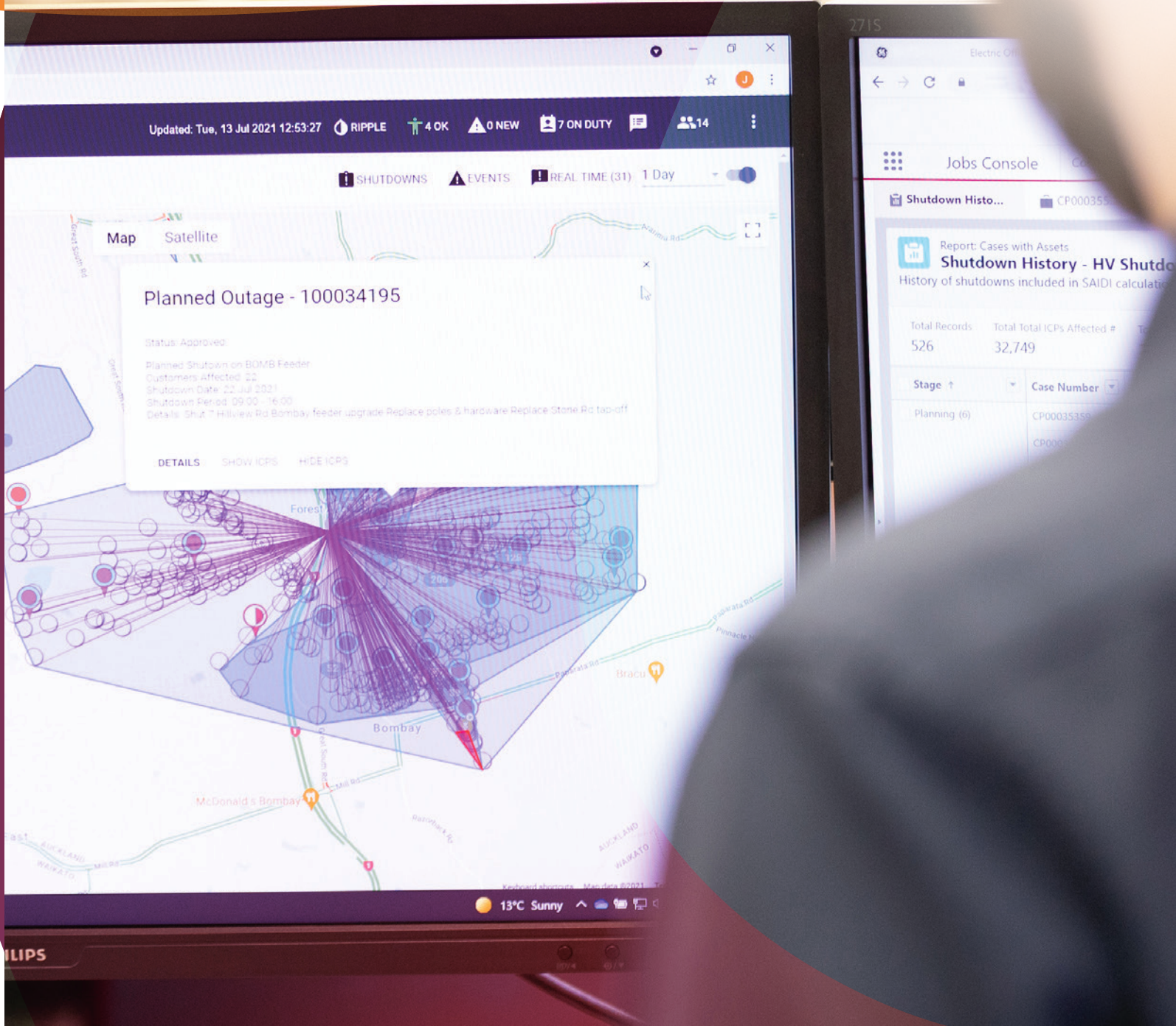
The Electricity Price Review<sup>4</sup> recommended the LFC Regulations be phased out. This is supported by the Government. MBIE is developing a phase-out approach. From 1 April 2022, power companies will begin a 5-year phase-out of low fixed charge tariff regulations. Removing these regulations will create a fairer, more equitable system.

## 2.4 Electricity Industry Participation Code 2010 (Code)

The Code is made by the Electricity Authority under the Electricity Industry Act 2010. Some parts of the Code are relevant to distribution prices.

Part 6 of the Code regulates the connection of distributed generation and includes distributed generation pricing principles in Schedule 6.4. Counties Energy's distributed generation pricing methodologies comply with those principles (see Appendix C: Alignment to the Electricity Authority's pricing principles).

Part 12A of the Code regulates distributor agreements with retailers and includes a template default distributor agreement in Schedule 12A.4. The template default distributor agreement includes process requirements for changes to distribution prices and price structure, categories and options. Counties Energy published a default distributor agreement based on the template in February 2021, which is now available for retailers to enter into.



<sup>1</sup> [https://comcom.govt.nz/\\_data/assets/pdf\\_file/0025/78703/Electricity-distribution-information-disclosure-determination-2012-consolidated-3-April-2018.pdf](https://comcom.govt.nz/_data/assets/pdf_file/0025/78703/Electricity-distribution-information-disclosure-determination-2012-consolidated-3-April-2018.pdf)

<sup>2</sup> <https://www.ea.govt.nz/operations/distribution/pricing/>

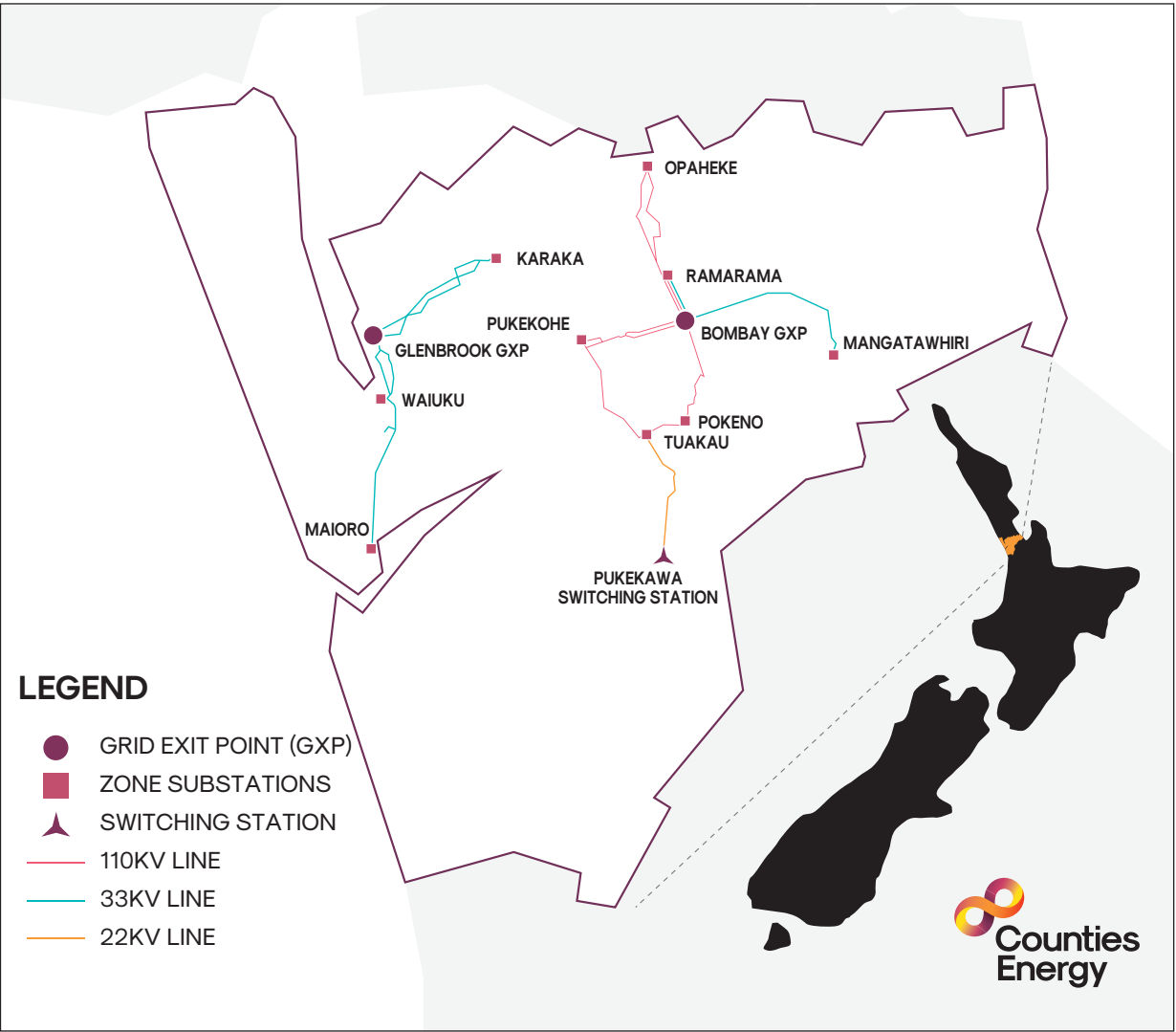
<sup>3</sup> <https://www.ea.govt.nz/assets/Distribution-Pricing-Scorecards-2020-Summary-of-findings-and-key-themes-v2.pdf>

<sup>4</sup> <https://www.mbie.govt.nz/dmsdocument/6932-electricity-price-review-final-report>



# 3.0 Strategic pricing drivers

Counties Energy’s network operating and capital expenditure, along with an annual customer price survey feedback, are key considerations in setting the pricing strategy. A further consideration is the Counties Energy discount, which is fully posted<sup>5</sup> with Counties Energy publishing its pricing after the discount is paid.



## 3.1 Urban growth

Counties Energy is experiencing significant growth due to the southward expansion of Auckland city’s residential, commercial and industrial subdivision. This is now occurring through the central region of Counties Energy’s network covering both its west and east networks.

To supply this growth new infrastructure is required. That infrastructure includes the newly built Pokeno substation as well as the Barber Road substation under construction and future substations planned for Glenbrook, Kingseat, Drury South and Pukekohe North. These new substations will be built in the next 12 years, with exact timing dependent on demand.

## 3.2 Rural and remote areas

Counties Energy’s rural areas are experiencing substantially less growth, with remote areas seeing little to none. Often the remote and rural areas are supplied with older infrastructure that is getting towards end of life and needs replacement. The per ICP cost to supply the rural and remote areas is typically higher than urban areas because more infrastructure is required to supply each customer.

## 3.3 Different pricing implications for our urban and remote network areas

Counties Energy has introduced an updated Capital Contribution Policy<sup>6</sup> which assists the Company with differential pricing between the high growth urban areas and the low growth rural and remote areas. This is achieved by ensuring rural and remote customers pay a higher Capital Contribution than the equivalent urban customer. A rural residential connection attracts an upstream<sup>7</sup> contribution of \$2,500 compared to \$950 for the equivalent urban connection. Counties Energy believes that this is an effective mechanism for ensuring rural customers contribute more as compared to applying differential urban-rural line prices that would be hard to manage, create rural community complaints and generate little additional revenue (most of Counties Energy’s ICPs are urban so higher rural and remote line prices would not generate revenues to offset the downside of differential urban-rural pricing).

## 3.4 Reliability investments

Counties Energy has a significant amount of capital and operating expenditure planned to improve network reliability. This includes increased management of vegetation, replacement of high failure rate assets as well as capital expenditure to change the network configuration (e.g. splitting of feeders to reduce the number of customers impacted by a single outage). These additional costs are being recovered through standard line charges.

## 3.5 Customer survey

In addition to the customer (beneficiary) feedback Counties Energy receives from the Trustees of the Counties Energy Trust (as publicly elected representatives of the customer beneficiaries of Counties Energy), Counties Energy also conducts an annual customer survey. This annual survey includes questions designed to ascertain the level of customer satisfaction as to both price and quality. The results of the survey are an important input into the development of Counties Energy’s Asset Management Plan. In turn, the capital expenditure driven by this plan is factored into the calculation of the appropriate level of target revenue, which then drives future line price increases. Counties Energy also carries out regular customer experience surveys with customers it has recently interacted with in order to understand, from the customer perspective, how it is considered in terms of service quality and performance.

## 3.6 Annual discount payment

Counties Energy pays an annual discount to customers that reflects the mandate it has to keep prices as low as possible. The discount is posted as a line tariff after the discount and is approximately a 15% price reduction. This discount is normally paid out once a year in December via the customers’ electricity retailer, with retailers being required to apply the discount as a credit to the customer’s power account.

<sup>5</sup> Fully posted meaning that the discount line prices are published on Counties Energy’s tariff.

<sup>6</sup> [https://static1.squarespace.com/static/60b5a9a3de2fdf4b5708f81f/t/610f71984d406b2d5d5ac8dc/1628402076274/Capital\\_Contribution\\_Policy\\_2020.pdf](https://static1.squarespace.com/static/60b5a9a3de2fdf4b5708f81f/t/610f71984d406b2d5d5ac8dc/1628402076274/Capital_Contribution_Policy_2020.pdf)

<sup>7</sup> The upstream cost covers the additional capacity invested by Counties Energy to enable ongoing connections and includes the costs of high voltage distribution feeders, substation capacity and sub-transmission capacity.



## 4.0 Pricing strategy

Counties Energy's pricing strategy is designed to send economically efficient pricing signals. The signals are the combination of the infrastructure capacity investment required to supply new peak demand and the recovery of remaining costs through pricing that maximises use of the network.

This approach, one of sending correct pricing signals as opposed to the historical approach of cost recovery through a flat cents per kWh charge, is the appropriate one in today's world. Technology is rapidly changing the electricity industry from how electricity is produced through to how it is consumed. These new price signals will inform and encourage better customer investments and provide savings for customers who adapt their consumption behaviour. For example, encouraging electric vehicle owners to charge during off-peak times will lead to a reduction in both the customer electricity bill<sup>8</sup> and Counties Energy's required investment in peak network capacity. Another example is the potential uptake by customers of home batteries to lower the household or business line charges by charging the battery off-peak and then discharging its power during Counties Energy's higher priced peak demand periods. Again, this kind of consumption behaviour in turn leads to a reduction in the level of peak demand investment that Counties Energy needs to make.

Counties Energy wants to recover its remaining costs, which are not recovered through the peak price signal, through pricing that maximises use of the network assets because increased use of the network during off-peak times will not directly trigger increased costs for Counties Energy. This requires a balance to be achieved through maximising off-peak usage, with lower pricing at these times, while recovering all Counties Energy's remaining costs. To achieve this Counties Energy has identified a fixed charge as the most appropriate recovery mechanism because it allows customers access to low variable kWh electricity prices during off-peak periods.

Other pricing factors incorporated into the pricing methodology are as follows:

- Customers should only be charged for the network assets they actually use. For example, customers taking supply at a high voltage, which is 11kV and above, should not be charged for the low voltage network that they do not use;
- In order to comply with Low Fixed Charges regulation, Counties Energy needs to make available a line tariff where the fixed residential charge is limited to 30 cents per day for those customers using less than 8,000kWh per annum; and
- Counties Energy, where appropriate, negotiates pricing and service levels with large industrial customers. This allows these customers to opt for a service solution that is tailored to the requirements of their business, which may be different from the service level that Counties Energy contracts with retailers, through the Default Distribution Agreement.

Lastly, a key foundation of Counties Energy's strategy is recognition of the importance of working with all electricity retailers on its network to support better price signalling and simpler tariffs for customers. To this end, the Company is working to develop shared pricing initiatives that enable retailers to present to customers, in a simple and straightforward way, tariffs that, where possible, align energy, distribution and transmission underlying cost signals and enable customers to act and be rewarded for altering their power usage.

### 4.1 Supporting the pricing strategy implementation

Counties Energy continues to invest in its assets, and the development of tools and tariffs that encourage efficient use of its network and contribute to improving long-term value for money for its customers. This includes:

- The installation of smart meters, with over 97% of Counties Energy's mass-market ICPs having a Counties Energy smart meter<sup>9</sup> as at 31 March 2022;
- Consulting with every electricity retailer on the Counties Energy network and gaining their commitment to obtaining their consumption data from Counties Energy's smart meters;
- The introduction of smart tariffs on 1 January 2014. These were initially made available to all mass-market customers through their retailers. On 1 April 2019 all customers were switched over to these new tariffs<sup>10</sup>; and
- Collaborating with metering provider Intellihub to ensure that smart tariff data is available to retailers.

<sup>8</sup> Counties Energy does not directly bill the customer, but rather bills the customer's electricity retailer. So this assumes that the customer's retailer passes on the savings to the customer.

<sup>9</sup> Large commercial and industrial customers use specialised TOU meters.

<sup>10</sup> A default tariff was available for retailers unable to use the peak and off-peak data.



# 5.0 Methodology

Counties Energy’s pricing methodology is aligned to the pricing principles as published on the Electricity Authority website<sup>11</sup>.

Counties Energy’s pricing model is designed to ensure that, as far as possible, prices do not result in cross subsidies occurring between customer groups. This is through allocating costs to Counties Energy’s main customer groups.

## 5.1 Target revenue

In the period 1 April 2022 to 31 March 2023, Counties Energy will be increasing customer prices by an average 6.4%. The Company has a lines revenue target for the period 1 April 2022 to 31 March 2023 of \$73.96 million. This target revenue is built up from the budgeted costs in the FY2023 year, which then equates to Counties Energy’s total recoverable revenue. The breakdown is illustrated in Table 1 below.

Table 1 – Breakdown of costs that form the target revenue

Cost component	2022/23 budget (\$k)
Transpower	11,166
ACOT	571
Network operations	12,274
Head office	10,253
Depreciation	14,142
Other costs	2,297
Taxation	6,167
Return on capital	17,091
Total revenue required to cover total costs	73,961



<sup>11</sup> <https://www.ea.govt.nz/operations/distribution/pricing/>

# 6.0 Cost allocation

Counties Energy’s costs are allocated on a cost driver basis. For instance, Counties Energy’s Transpower transmission charges are driven by the Company’s regional<sup>12</sup> coincidental peak demand (RCPD). Therefore, the transmission cost is allocated to customer groups based on the proportion of the peak demand use attributable to each group. The cost allocators that are used in the pricing model are set out in Table 2 below.

Table 2 – Cost drivers

Allocator	Description	Cost categories and rationale
Asset	There are two steps in determining this allocator. First, the value of assets is divided into distinct parts of the network (e.g. low voltage and high voltage), then the value of the assets in each part of the network is allocated to those customer groups that use that part of the network. These values are aggregated for each customer group. Further detail is provided in Table 3 below.	The asset cost allocator was designed by Counties Energy to allocate certain budget items based on the extent to which network assets were required to satisfy the demand of each customer group. These budget items include network operations expenditure, insurances, depreciation and return on capital investment.
AMD	Annual maximum demand from a customer group as a proportion of total summed group maximum demand for each group's highest 12 periods.	AMD is used to allocate substation and sub-transmission (33kV, 110kV lines) infrastructure.
CMD	Demand from a customer group as a proportion of total demand during the 100 periods of highest coincident maximum demand (CMD) on the network.	CMD is used to allocate infrastructure that has been designed to meet the maximum demand on the network. It is also applied to Transpower connection charges as this is the basis of these pass-through costs.
RCPD	Demand from a customer group as a proportion of total demand during Transpower’s regional coincident peak demand (RCPD) measurement periods.	Applied to Transpower’s interconnection charges as this is the basis of these pass-through costs.
Major customers	Costs that relate solely to serving major customers are allocated entirely to this customer group.	Administration and asset costs that relate solely to serving major customers are allocated entirely to this customer group.
Volume overheads – kWh	Annual consumption of a customer group as a proportion of total annual consumption of all customers.	Applied to administration and overhead costs that Counties Energy considers increase with the total volume of consumption.
Customer overheads – ICP	Number of ICPs (installation control points) in a customer group as a proportion of the total.	Applied to administration and overhead costs that Counties Energy considers increase with the number of customers.

<sup>12</sup> The region being all areas north of the Bombay GXP, which is referred to as the upper North Island.



6.1 Asset cost allocation

The allocation of network asset values to customer groups is then used to allocate expenditure to the related network expenditure. It is assumed that these costs occur in proportion to the total RAB<sup>13</sup> value of assets in each component of the network. For example, low voltage assets comprise 22% of the network asset base, so it is assumed that maintenance costs on low voltage assets will be 22% of the total maintenance costs. Counties Energy’s intention is to allocate asset-related costs based on the extent to which a customer group uses those assets. This is largely related to usage (maximum demand) and the specific allocators are shown in Table 3 below.

Table 3 – Asset cost allocation

Network component	Customer groups included in allocation	Allocator
Streetlighting	Unmetered streetlights only.	Full allocation.
Low voltage cables, lines and plant	All mass-market customer groups (excludes major customers, non-standard contracts and unmetered streetlights).	Equally weighted: proportion of ICPs in customer group and 100 highest anytime maximum demand (AMD) during peak periods (weekdays 0700–1100, 1700–2100) for each customer group as a proportion of the sum of AMD (so measured) for all customer groups.
Shared distribution substations	All customer groups, except non-standard contracts.	AMD (as above).
11kV network, zone substations and sub-transmission network	All customer groups.	CMD (as above).

6.2 Allocation to customer groups

The aggregated value of each allocation used in the pricing model is then allocated to the customer groups as detailed in Table 4 below. Once applied to the relevant cost categories, this gives the aggregate modelled target revenue recovery amount by customer group, as shown in Table 5 below.

Table 4 – Value of allocators by customer group

Customer groups	ICPs	kWh	AMD	CMD	RCPD	Asset	Major customers
Major customers TOU	0.4%	34.9%	27.0%	16.7%	21.1%	14.9%	100.0%
Prepaid	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
LFC	38.2%	14.1%	19.0%	24.0%	20.9%	24.5%	0.0%
Residential	44.6%	30.2%	37.6%	47.7%	43.9%	45.2%	0.0%
General	15.0%	19.3%	14.1%	9.3%	11.7%	12.2%	0.0%
LFC with distributed energy resource	0.8%	0.4%	0.5%	0.4%	0.5%	0.5%	0.0%
Residential with distributed energy resource	0.9%	0.8%	0.8%	0.8%	0.9%	0.8%	0.0%
General with distributed energy resource	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
Unmetered streetlights	0.0%	0.2%	0.8%	0.9%	1.0%	1.8%	0.0%

The above modelling provides the initial modelled target revenue levels for each customer group, but this is not the target revenue that would be obtained from final prices. This is because the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004 state that there must be an adjustment within the cost categories, which requires manipulation of the modelled outcomes<sup>14</sup>.

6.3 Revenue allocated to customer groups

The model allocates the required revenue over the customer groups, which will vary year to year depending on peak demands, capital expenditure and customer numbers. Consequently, other critical issues are considered as part of the determination of prices, including customer bill shock and pricing stability.

Table 5 – Modelled target revenue by customer group

Customer groups	Target revenue (\$k)
Industrial direct contracts	3,998
Commercial and industrial TOU	11,263
LFC (low fixed charge)	16,811
Residential	13,510
General	26,970
LFC with distributed energy resource	309
Residential with distributed energy resource	317
General with distributed energy resource	649
Unmetered streetlights	134
Total	73,961



<sup>13</sup> Regulated asset base, which is the regulated capital value of Counties Energy’s regulated network.

<sup>14</sup> Counties Energy is required to make this correction owing to the LFC regulations. However, the Company considers this to be an inefficient allocation of costs that is unfair to some customer groups, such as large families in rented homes.



# 7.0 Counties Energy pricing from 1 April 2022

Due to increased operating costs and capital expenditure, Counties Energy increased line charges by 6.4% on average effective 1 April 2022. This increase will mean an average electricity charge increase to a customer's retailer bill of approximately 2.2% from 1 April 2022. As part of the rebalancing of prices from variable to fixed, this increase was applied to the fixed component of the line price only.

The increase equates to around 16 cents per day or around \$4.92 per month for a household using 8,000kWh per annum. This increase is being driven by the following:

- Material price inflation far higher than government inflation of five percent which is expected to continue for the foreseeable future;
- Increased Transpower transmission costs and local council rates; and
- Increased operating costs, including increased investment in critical cyber security and innovations such as an Advanced Distribution Management System (ADMS) to enable smarter, sustainable, and innovative energy services and solutions.

## 7.1 Customer impact

As part of the work that resulted in the 1 April 2022 price increase, Counties Energy carried out customer impact analysis. This was necessary because the 6.4% increase in line prices was applied to the fixed charge, to bring the fixed charge close to the optimal pricing calculated in the pricing model. This meant that customers using less power than average would be subject to a greater increase in charges than high-volume customers.

This impact was not seen for residential customers using less than 8,000kWh per annum, because the Low Fixed Charges regulations limits the daily fixed charge to 30 cents per day for those customers. Residential customers using 8,000kWh per year would see a \$59 increase in line charges per annum. The pricing impact by residential annual volume usage is shown below in Table 6.

Table 6 – Effect of price change on residential customers

Total kWh/pa	Change in annual lines charges (\$)	Change in annual lines charges (%)
0	\$54.75	100.0%
1000	\$55	33.9%
2000	\$56	20.6%
3000	\$56	14.8%
4000	\$57	11.7%
5000	\$57	9.6%
6000	\$58	8.2%
7000	\$59	7.2%
8000	\$59	6.4%
9000	\$44	4.4%
10000	\$28	2.6%
11000	\$13	1.1%
12000	-\$3	-0.2%
13000	-\$18	-1.4%
14000	-\$33	-2.4%

General business customers who are connected but not using any power would see a 32% increase in line charges (an increase of \$136.47 per annum). An example of a business connection that has no consumption is an irrigation pump that is only used during years in which there is drought.

Business customers using more than 70,000kWh per annum would see a 1.8% or less increase in their line charges per annum. The pricing impact for general business customers by annual volume usage is shown below in Table 7.

Table 7 – Effect of price change on business customers

Total kWh/pa	Change in annual lines charges (\$)	Change in annual lines charges (%)
0	\$136.47	32.0%
5,000	\$136.47	14.3%
10,000	\$136.47	9.2%
15,000	\$136.47	6.8%
20,000	\$136.47	5.4%
25,000	\$136.47	4.5%
30,000	\$136.47	3.8%
35,000	\$136.47	3.3%
40,000	\$136.47	2.9%
45,000	\$136.47	2.6%
50,000	\$136.47	2.4%
55,000	\$136.47	2.2%
60,000	\$136.47	2.0%
65,000	\$136.47	1.9%
70,000	\$136.47	1.8%
75,000	\$136.47	1.6%
80,000	\$136.47	1.5%





# 8.0 Pricing for non-standard contracts

## 8.1 Approach to setting prices for non-standard contracts

Counties Energy currently has four customers on non-standard contracts. These four customers are connected at eight ICPs. Customers on non-standard contracts contribute approximately 5.4% of the total target revenue.

The line tariffs for the four non-standard contracts used by Counties Energy take the same form i.e. a single fixed charge calculated annually and invoiced monthly.

The calculation of the charge involves a distribution component and a Transpower component. The distribution component is determined using the average of the twelve highest peak demands in the previous 12 months multiplied by a negotiated per kW price. This per kW price reflects a return on capital employed, the associated maintenance and operating costs, plus a contribution to Counties Energy’s overhead costs.

The Transpower component of the charge is determined as the customer’s contribution to the Counties Energy peak demand and contribution to the GXP connection charges. This charge uses the rates published by Transpower as pass-through costs plus a handling fee.

## 8.2 Pricing for distributed generation

There are<sup>15</sup> 1,146 small, 87 medium sized and 4 large distributed generators connected to the Counties Energy network. Customers owning distributed generation, and connected to the Counties Energy network, pay 1.03c per kWh to export electricity over the Counties Energy network. This revenue seeks to recover the incremental costs of connecting the distributed generation, which includes network and overhead costs. These costs relate to the additional compliance and administrative costs, rather than the additional network infrastructure costs. Table 8 below summarises these charges and payments.

Table 8 – Distributed generators

Network component	Capacity <= 10kW	Capacity >10kW	
		<0.5GWh/annum	>0.5GWh/annum
No. of ICPs	1,146	87	4
Export charge	Yes	Yes	Yes

<sup>15</sup> As at 31 December 2021.





# 9.0 Pricing reform roadmap

Counties Energy is committed to improving the efficiency of its distribution pricing to ensure better utilisation of the network and, because technology is rapidly changing, how electricity is produced and consumed. These changes are affecting how the network is, and will be, used, and how distribution services should be priced. In addition, Counties Energy is experiencing unprecedented levels of network growth which, when added to the anticipated increased load associated with electric vehicle charging, will create network constraints and drive significant future network investment.

Consequently, Counties Energy believes that cost-reflective pricing is imperative to the long-term efficient management of the network. Without the correct price signals, customers may make inefficient investment decisions in emerging technologies, or they may utilise new technologies in an inefficient manner. Customer feedback on network pricing indicated that flexibility, transparency and simplicity in pricing is vital to elicit the required demand response.

## 9.1 Pricing reform progress to date

Counties Energy is a leader in the introduction of optional mass-market Time of Use (TOU) pricing through:

- Its investment in smart meters to enable such pricing, with coverage now around 97% of mass-market (i.e. residential and small to medium businesses) customers;
- Being one of the first distributors to introduce peak/off-peak TOU pricing, with off-peak and controlled prices excluding any recovery of Transpower's transmission charges; and
- Being one of the first distributors to transfer all mass-market customers to a TOU pricing (this occurred on 1 April 2019).

Other initiatives that Counties Energy has implemented include:

- Introduction of a requirement that any new customer with a capacity requirement of 2MVA or greater enters into a line function services agreement (LFSA). This LFSA allows for tailored time and location-specific pricing, which typically includes an early termination payment to protect Counties Energy's future revenue and alleviate any risk of stranded assets;
- Introduction of an updated capital contribution policy that seeks to ensure that new connections meet the cost of the associated impact on the network and its capacity;
- Introduction of an updated capital contribution policy that ensures customers connecting to rural or remote rural areas of the network pay a higher up-front cost to connect to the network. This higher cost reflects the additional high voltage infrastructure back to the nearest substation required to connect a rural customer compared to an urban customer;
- Rebalancing fixed and variable prices over time to improve price signals. This commenced on 1 April 2021, when the increase was applied principally to every customer group's fixed price component<sup>16</sup>;
- Introduction of a standardised pricing structure that is closely aligned with the Electricity Network Association's pricing guidelines. This ensures that Counties Energy's pricing is user friendly for customers and retailers; and
- Encouraging mass-market customers with photovoltaic solar array systems to align their consumption to their generation output. To this end, Counties Energy introduced an injection charge for all excess generation injected into the network.

<sup>16</sup> Except the low fixed charge residential tariffs.





## 9.2 Updated capital contribution policy

Counties Energy is the fastest growing network in the country, with capital expenditure to accommodate these new connections budgeted to be \$438m over the next 10 years. To ensure our existing customers are not fully burdened with these costs, we have introduced an updated capital contribution policy. This means these future costs are funded by up-front capital contributions and future revenue from these new connections. The key aim of our policy is to ensure that the addition of a new connection should not make existing customers worse off, either now or in the future. Ideally, the addition of a new connection should benefit existing customers as the new connection should contribute to shared costs and assets. We achieve this by making sure each new connection includes an appropriate share of the cost to operate and maintain electrical distribution assets upstream from the connection. This approach has contributed to the increase in annual capital contribution revenue from \$9.1m in 2018/19 to approximately \$24m in 2021/22.

Additionally, for network extensions in rural areas, capital contributions are an effective signal of the high costs of providing capacity in low density rural areas. Our updated capital contribution policy ensures customers connecting to rural or remote rural areas of the network pay a higher up-front cost to connect to the network (i.e. the upstream contribution for a rural residential new connection is \$2,500 compared to \$950 for an urban residential new connection). This higher cost reflects the additional voltage infrastructure back to the nearest substation required to connect a rural customer compared to an urban customer.

Charging developers more for new connections in rural or network constraint areas should encourage developers to investigate non-network solutions that can result in more economically efficient power supply outcomes. In particular, small businesses and households in rural and remote areas solar generation with backup battery supply maybe the most cost effective solution. In a region where there is power supply congestion, then for larger customers, or a small community, a microgrid with a combination of solar generation and battery storage, with a capacity limited grid supply, maybe more cost efficient. These solutions save money for both our customers and Counties Energy.

## 9.3 Introduction of peak/off-peak pricing

The introduction of the Company's optional mass-market Time of Use plans allows customers to consider shifting discretionary loads to low-priced times when there is limited or no cost to customers involved in doing so (e.g. setting a dishwasher to wash dishes outside of the peak 5–9pm winter period). This provides a clear message for customers around placement of any future discretionary load.

A current area where future load is anticipated is the increased use of electric vehicles. To start the process of customer education and discretionary usage, Counties Energy has introduced an extra rate type to the current residential Time of Use plans. Assuming that retailers develop price packages based on this plan, this would allow customers to reduce their line charges by shifting their power usage, and new discretionary consumption such as EV charging, into off-peak periods.

## 9.4 Rebalancing fixed and variable prices

Counties Energy runs a primarily fixed-cost business, however, it recovers most of its costs using a variable charge – a flat per kWh charge that is not cost-reflective, nor benefit-based<sup>17</sup>. This is inefficient and means customers are paying more than they need to. This is because flat per kWh charges do not signal to customers when the network is congested and costly to use or when there is spare capacity. To address this, Counties Energy has increased total revenue from Fixed Charges from 19% in 2019 to 33% in 2022. The decision to primarily increase the fixed prices reflects the fact that the majority of the Company's costs are fixed and sunk. Increasing the fixed portion of revenues aligns the recovery of revenues with the way costs are incurred. This reflects the physical nature of the network, which is primarily made up of power poles, power lines, transformers, and substations. Investments to extend the network, replace assets, or create more capacity are made with a long-term view of usually 40 years plus.

Counties Energy is changing its pricing over time to better reflect the fixed cost nature of its business and to incentivise customers to shift usage to times when there is spare capacity in the network. The benefits include sharing the cost of the network more fairly across those who access the network, reducing the incremental cost to consume electricity and reducing revenue risk.

Subsidies between low and high customers of electricity are being addressed through reweighting fixed and variable charges, within the limitations of the Low Fixed Charge regulations. Counties Energy is making these changes over time to mitigate and manage the impact on customers.

## 9.5 Injection charge for all excess generation injected into the network

As installation of distributed generation (DG) has become more affordable and efficient, there has been an increase in residential settings for generation, particularly of rooftop solar photovoltaic (PV). These installations result in a reduction in the quantity of electricity that needs to be purchased from a retailer and transmitted through the distributor's lines. For Counties Energy, the major peak demand through the year occurs outside of the prime solar-generation times and, therefore, generation does not reduce the network costs of supplying a residential connection. In particular, even when generating, the network must always be available to balance supply and demand within the household. With current pricing based strongly on consumption, these connections pay less than an equivalent connection without DG, however, they require the same level of network service. Such an outcome is inequitable to customers who are unable to afford the installation of solar or live in a rental where there is no solar installed.

To encourage mass-market customers with photovoltaic solar array systems to align their consumption to their generation output, Counties Energy has introduced an injection charge for all excess generation injected into the network. By aligning usage to generation, customers with solar are encouraged to consume as much of the electricity generated as possible during generation times (e.g. washing machines, dishwashers, electric vehicle chargers), as opposed to using these items during peak times. This approach ultimately reduces peak usage on the network. In addition, using the generation reduces voltage quality issues that are caused by multiple arrays injecting into the network when there is little load (midday voltage rise is a significant issue in Australia). The injection price is low at 1.03c/kWh to ensure that the revenue recovered only covers the incremental costs Counties Energy incurs from managed distributed generation on the Counties Energy network.

## 9.6 Standardised pricing structure that is closely aligned with the pricing guidelines

Counties Energy has introduced a standardised pricing structure that is closely aligned with the Electricity Network Association's pricing guidelines. Counties Energy seeks to implement pricing structures that meet customer preferences, send the right signals and are well understood by customers. Counties Energy is committed to continually evolving its prices to meet customer expectations while still meeting regulatory requirements.

The Company's residential pricing is sufficiently cost reflective. Counties Energy residential customers have options and incentives including:

- Significant rewards for making available as much load as possible (hot water and EV Smart charging) onto Counties Energy's controlled rate;
- Options to take up Time of Use pricing, which rewards customers for shifting their consumption from peak to off-peak periods; and
- Signals to customers choosing to install solar PV that they will need to contribute a fair share to the costs of providing the network, so their electricity needs are continuously met.

Counties Energy is satisfied that its industrial level pricing approaches are cost reflective. Cost-reflective pricing elements are based on capacity and price differentials between winter and summer peak demands. Industrial customers are priced individually based on their capacity requirements for specific assets used to provide their distribution service.

<sup>17</sup> Electricity retailers are not required to pass on Counties Energy's TOU tariff to their customers and, therefore, customers not on a TOU tariff will need to request TOU pricing from their retailer or switch to a retailer that offers TOU pricing.



## 9.7 Congestion pricing

Counties Energy takes congestion pricing seriously to manage isolated areas of winter peak potential overloading within the network, in order to defer capital expenditure. Counties Energy is experiencing rapid growth with the potential for feeders to reach capacity during winter peak demand. To manage peak demand on these feeders, and future feeders, Counties Energy is looking to implement congestion pricing via its discount load control price and targeted feeder load control.

The Company's low controlled rate will encourage customers to take as much load as possible (hot water load control and EV Smart Charging) at Counties Energy's controlled rate. This will be used in conjunction with targeted load control on any congested feeders. This approach is possible due to the remote reprogramming of ICP control relays that then allow the substation load control to target just the congested feeders rather than impacting all customers. This congestion pricing methodology suits Counties Energy's network where the number of customers is low on any particular feeder and the feeders facing congestion are changing rapidly as a result of subdivision growth and network upgrades.

Technically, distributors are not able to operate any part of their network when it is congested because this would result in the voltage falling below the regulated level. Therefore, at any one time, distributors will not have significant areas of their network at risk of congestion. This is true of Counties Energy with on-going peak capacity investments meaning that the risk of winter peak congestion<sup>18</sup> is isolated. However, moving forward the most significant risk to the level of network congestion is the uptake of electric vehicles. If there is a rapid level of uptake, and EV charging occurs during peak hours in winter, Counties Energy will face significant pressure on the network. As mentioned above, the changes to the Time of Use plans from April 2019 have assisted in giving customers direction as to when charging is most advantageous. While distribution charges will give direction, this will need to be backed up with retail plans that complement these signals.

An added tool to manage the impact of EVs on the Counties Energy network is the adoption of "Smart Charging." Smart charging, where customers opt to utilise the low controlled variable rate, has been shown to provide high levels of customer satisfaction, with the added benefit of allowing Counties Energy to manage the peak demand associated with EV chargers. Tariffs and scheduling charging during off-peak periods alone creates a risk of too many customers responding to the same price signal at the same time, creating a second peak. That would potentially be more disruptive, given standard EV chargers are equivalent to adding two households worth of load onto the network. To this end, Standard Residential Controlled rates have significantly decreased from \$0.0507 in 2019/20 to \$0.012 in 2022/23.

## 9.8 Ongoing improvements

Going forward, Counties Energy will continue to rebalance future prices, with a view to increasing fixed prices, reducing off-peak variable prices and increasing peak prices<sup>19</sup>. Increasing mass-market fixed daily prices not only reduces household budget stress from seasonal variation from higher winter bills, but also allows Counties Energy to significantly reduce its off-peak and controlled prices<sup>20</sup>.

Counties Energy anticipates that it will reduce its off-peak and controlled rate further to encourage electricity consumption (e.g. electricity over gas for space and water heating) and electric vehicle charging during off-peak times. In addition, Counties Energy expects that the decreased controlled rate will result in a significant number of electric vehicle chargers being connected to Counties Energy's controlled tariff.

## 9.9 Future options

Counties Energy recognises the need to make sure that it is keeping pace with the rapid changes in the way electricity is produced and consumed. Future potential changes to the Company's tariffs that it has identified at this point in time, but which would be subject to retailer consultation, include the following:

- If there is sufficient demand, then Counties Energy will consider introducing a mass-market line tariff for electric vehicle owners. This would comprise a day-time shoulder-period line price and a very low night period to encourage overnight charging;
- Introducing an option for differential regional pricing, which reflects the higher network costs to service different areas of the network. For example, higher line prices in the high growth areas of the Counties Energy network to recover the significant new infrastructure required to service the new subdivisions in the area; and
- Recovery of costs through principally a fixed price only, with variable pricing being limited to only the network peak demands. The network peak demand occurs over approximately 1% of the year (being the regions coldest winter weekday mornings). During these times, increased home heating demand coincides with commercial and industrial demand to create Counties Energy's peak electricity demand.



<sup>18</sup> Rather than congested areas of the network are referred to as constrained with demand being limited through load control. Transpower also operates with constraints but has significantly more ability to control these constraints through sending GXP price signals.

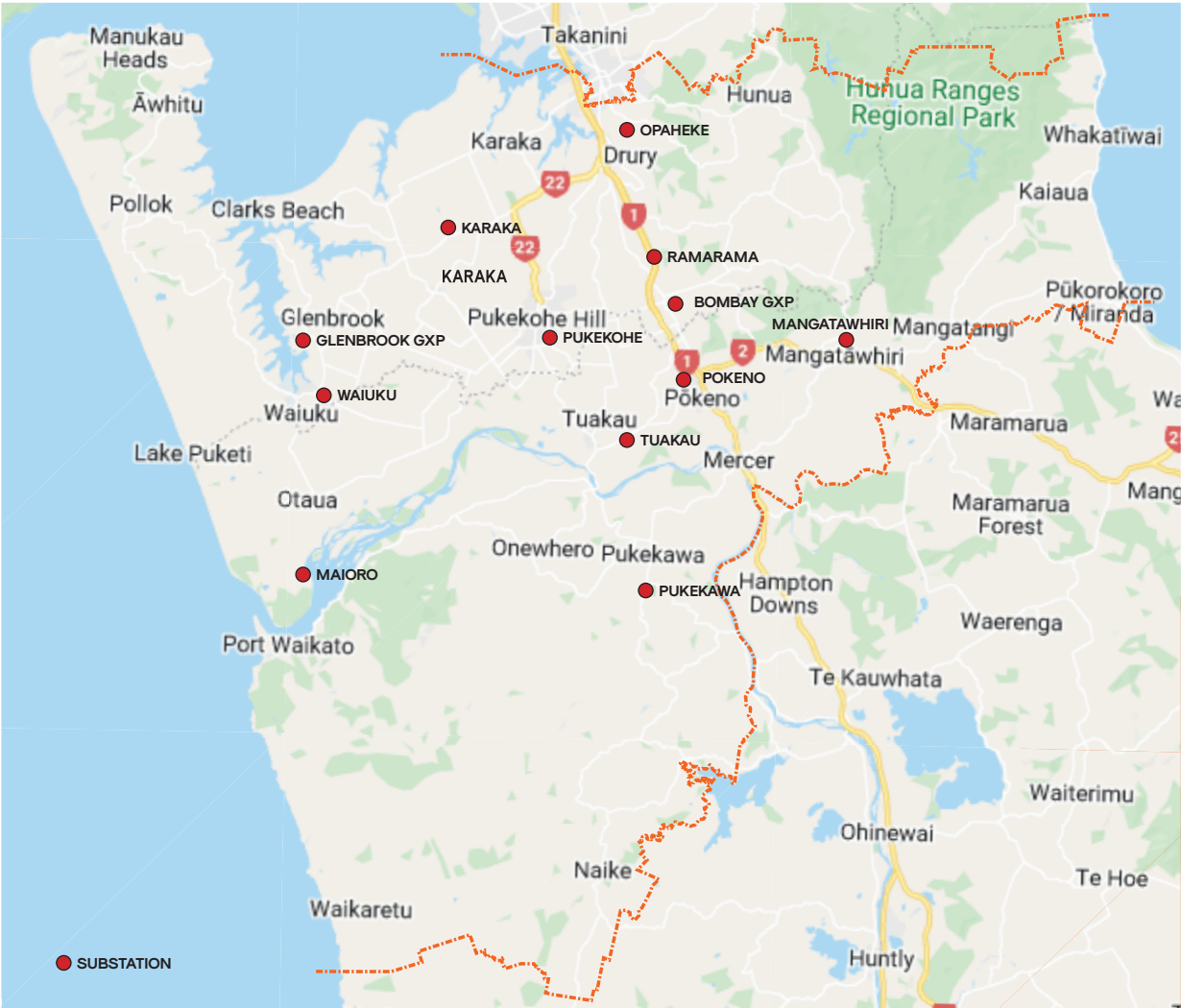
<sup>19</sup> Counties Energy will review the allocation of Transpower charges within Counties Energy's fixed, peak and off-peak prices once the Electricity Authority has implemented the Transmission Pricing Methodology into the Electricity Industry Participation Code.

<sup>20</sup> It should be noted that the customers who are most affected have fixed charges set at no more than 30 cents per day under the Low Fixed Charge regulations. Until these regulations are fully repealed, any fixed to variable pricing correction will be limited in its impact.



# Appendix

## Appendix A: Map of the Counties Energy territory



Appendix A: Map of the Counties Energy territory

## Appendix B: Electricity Authority pricing principles

- a. Prices are to signal the economic costs of service provision, including by:
  - i. being subsidy free (equal to or greater than avoidable costs, and less than or equal to standalone costs);
  - ii. reflecting the impacts of network use on economic costs;
  - iii. reflecting differences in network service provided to (or by) customers; and
  - iv. encouraging efficient network alternatives.
- b. Where prices that signal economic costs would under-recover target revenues, the shortfall should be made up by prices that least distort network use.
- c. Prices should be responsive to the requirements and circumstances of end users by allowing negotiation to:
  - i. reflect the economic value of services; and
  - ii. enable price/quality trade-offs.
- d. Development of prices should be transparent and have regard to transaction costs, customer impacts, and uptake incentives.





## Appendix C: Alignment to the Electricity Authority’s pricing principles

This section describes how the Counties Energy methodology aligns with the Electricity Authority’s pricing principles<sup>21</sup>.

- Pricing principle (a): Prices are to signal the economic costs of service provision, including by:
- i. being subsidy free (equal to or greater than avoidable costs, and less than or equal to standalone costs);
  - ii. reflecting the impacts of network use on economic costs;
  - iii. reflecting differences in network service provided to (or by) customers; and
  - iv. encouraging efficient network alternatives.

Table 1 assesses Counties Energy’s current alignment with Pricing Principle (a), and how that will change as it implements its strategy and moves towards its target.

Element	Current	Target
Being subsidy free (equal to or greater than avoidable costs, and less than or equal to standalone costs)	Counties Energy’s pricing methodology creates subsidy free prices between the customer groups through the pricing model where customer group costs are calculated, and pricing designed so that the customer group’s total revenue recoups the corresponding customer group costs. This ensures that all customers within a group pay for a proportion of the group’s direct network costs, an allocation of overheads and an allocation of the common infrastructure (e.g. substations and sub-transmission lines). Through allocating only a proportion of overhead and common infrastructure costs, the pricing is below the standalone cost of providing line services.	Counties Energy will continue to review and refine our capital contribution policy in order to ensure existing customers are not burdened with the costs associated with the expected network growth. Charging developers more for standard power connection and reticulation in rural or network constraint areas should encourage developers to investigate more cost effective power supply solutions such as a microgrid with a combination of solar, battery and a capacity limited grid supply. Counties Energy also uses its capital contribution pricing to ensure that new rural customers pay higher capital contribution connection charges that reflect the additional infrastructure required to supply them power. Through this mechanism, Counties Energy has introduced a rural and urban pricing mechanism to avoid urban customers subsidising new rural connections. This also incentivises developers to opt for a network alternative supply for new homes, which helps ensure that customers can avoid paying more than the standalone cost for line services.

<sup>21</sup> Application of the pricing principles are set out in the EA paper Distribution Pricing Practice Note 2019.



Element	Current	Target
Reflecting the impacts of network use on economic costs	Customer use of Counties Energy's network only increases Counties Energy's costs during peak times, where additional demand requires Counties Energy to increase capacity on its network and at the Transpower substation. Counties Energy is facing significant new capital costs to increase peak demand capacity, including investments such as new substations and sub-transmission lines. Consequently, Counties Energy introduced peak and off-peak pricing, with off-peak pricing provided at a significant discount that reflects the low cost of additional demand during off-peak times. At the same time, Counties Energy has significantly increased fixed prices to reflect that most network costs are fixed.	Counties Energy materially increased fixed prices on 1 April 2022 to reflect that, most of the time, network use has no impact on Counties Energy's costs. On 1 April 2022 Counties Energy also substantially reduced the controlled price to customers that reflects this supply being controlled during peak periods and, therefore, not increasing network peak costs. Going forward Counties Energy will encourage retailers to offer peak and off-peak prices to their customers.
Reflecting differences in network service provided to (or by) customers	<p>The prices reflect differences in network service provided through only allocating infrastructure, and their related costs, to those customer groups using the infrastructure. Examples being that high voltage customers aren't allocated low voltage infrastructure costs and only customers on a controlled tariff are allocated costs associated with Counties Energy's ripple relay plants.</p> <p>The prices encourage more efficient network usage through the following:</p> <ul style="list-style-type: none"><li>• Having a high peak demand charge that provides financial incentive for behind the meter battery investments;</li><li>• Having a high fixed charge that will encourage network disconnections, where economic alternatives exist (e.g. battery and solar opportunities for rural and remote household pumps that are not supplied via the same network connection point as the home);</li><li>• Having a high fixed charge also discourages the uneconomic installation of solar arrays as the home or business does not avoid paying the fixed costs that are required to provide them power; and</li><li>• Having available a low cent per kWh controlled tariff that allows customers to connect certain load types in return for Counties Energy being able to switch the load off during peak times and when the network is load constrained as a result of a network fault.</li></ul>	<p>Counties Energy will continue to revise and update capital contribution and line revenue to ensure the most effective response to the accelerating ICP and associated peak demand growth on the network. This will include exploring whether higher line prices are the most appropriate tool to recover the infrastructure costs associated with the supply of increased high voltage infrastructure (e.g. high voltage distribution feeders, substations and sub-transmission lines) to allow the connection of new subdivisions in the area.</p> <p>Counties Energy has significantly decreased the Controlled rate in order to encourage new customers to the network and EV owners to utilise the load control infrastructure. This will allow Counties Energy to most effectively manage the load on the network. Maximising network load control potential will also allow Counties Energy to target load control on constrained feeders. This approach is a significant tool in deferring network investment.</p>

Element	Current	Target
Encouraging efficient network alternatives	<p>Counties Energy's pricing encourages efficient network alternatives through the following mechanisms:</p> <ul style="list-style-type: none"><li>• The increased fixed line price encourages customers to look at alternative non-network supply especially for low volume connections. For instance, customers that have a dedicated connection for their driveway gates, entrance lights or irrigation pump are being sent a pricing signal that would encourage low cost solar and battery solutions;</li><li>• The peak price signal encourages battery alternatives to network capacity upgrades. This is because batteries can release electricity during peak times and lower the lines charge to the home or business.</li><li>• Lastly, Counties Energy's capital contribution pricing sends the correct price signal for customers to look at alternative off-grid power supply. This is through ensuring that new connections pay for the additional new common infrastructure (high voltage feeders, substations and sub-transmission lines) that is required to enable the continued new connections to Counties Energy's network.</li></ul>	Counties Energy investigates non-network solution alternatives to grid investments for all its major capital investments. Alternatives that have been considered, especially for the supply of additional peak capacity, are peak diesel generators and batteries. These solutions could be provided by either Counties Energy or a third party that would be willing to guarantee that their service would deliver the contracted non-network services.

**Pricing principle (b):** Where prices that signal economic costs would under-recover target revenues, the shortfall should be made up by prices that least distort network use.

**Table 2 assesses Counties Energy's current alignment with Pricing Principle (b), and how that will change as it implements its strategy and moves towards its target.**

Element	Current	Target
Where prices that signal economic costs would under-recover target revenues, the shortfall should be made up by prices that least distort network use.	Counties Energy has significantly increased fixed line prices across all customer groups so that Counties Energy's prices recover the under-recovery of targeted revenues in a way that has the least distortion on network use.	<p>Counties Energy will continue to rebalance fixed and variable charges. This will result in increased fixed and variable peak charges whilst decreasing the off-peak and controlled rates. We are making these changes over time to mitigate and manage the impact on customers.</p> <p>Counties Energy will seek to partner with retailers to implement a primarily fixed charge tariff, with variable pricing being limited to only the network peak demands.</p>



**Pricing principle (c):** Prices should be responsive to the requirements and circumstances of end users by allowing negotiation to:

- i. reflect the economic value of services; and
- ii. enable price/quality trade-offs.

**Table 3 assesses Counties Energy’s current alignment with Pricing Principle (c), and how that will change as it implements its strategy and moves towards its target.**

Element	Current	Target
Reflect the economic value of services	Counties Energy negotiates as required to ensure it meets pricing principle (c). This includes negotiation with large customers for non-standard pricing arrangements and negotiations with Counties Energy’s large, distributed generators for connection to the Counties Energy network.	No change. The recently introduced policy has proven to be popular with customers, rewards and incentivises off-peak usage, and the early termination charge provides an added level of financial security to ensure connection costs are fully recovered.
Enable price/quality trade-offs		

**Pricing principle (d):** Development of prices should be transparent and have regard to transaction costs, customer impacts, and uptake incentives.

**Table 4 assesses Counties Energy’s current alignment with Pricing Principle (d), and how that will change as it implements its strategy and moves towards its target.**

Element	Assessment
Transparency	Counties Energy publishes its pricing methodology and pricing roadmap. The Company has also made improvements to its pricing methodology document this year.
Transaction costs	Counties Energy has sought transparency and lower transaction costs through simplification of its line charges. This has occurred over a 5-year period with the number of line tariffs reduced by over half.
Customer impacts	<p>Counties Energy has sought to reduce the impact by having its mass-market tariff voluntary rather than mandatory. Not making the tariff mandatory provides an incentive for customers that can reduce their electricity bill on a new tariff to transfer to the new tariff.</p> <p>The other mechanism by which Counties Energy is reducing the impact is through rebalancing its line prices overtime in order to spread the customer bill impact.</p>
Uptake incentives	<p>Residential, general mass-market and major customers have options and incentives relating to:</p> <ul style="list-style-type: none"><li>• Rewards for making available their controllable load (hot-water heating and EV Smart Charging) for load control.</li><li>• Options to take up Time of Use pricing, which rewards customers for shifting their consumption from peak to off-peak periods.</li><li>• Signals to customers choosing to install solar PV that they will need to contribute a fair share to the costs providing the network, so their electricity needs are continuously met.</li></ul> <p>Electric vehicle owners wanting lower prices for charging their vehicles are being encouraged to either seek retailers that offer Counties Energy’s off-peak line tariff or connect their charge to their controlled supply.</p>





## Appendix D: Definitions

**ACOT** – Avoided cost of transmission, which is a payment made to large, distributed generators for reducing Counties Energy's Transpower transmission charges.

**AMD** – Anytime maximum demand, which, for major customers, is defined as the average of the 12 highest offtake quantities for the customer at the connection location during the capacity measurement period.

**Capacity measurement period** – 12-month period starting 1 September and ending 31 August inclusive, immediately prior to the commencement of the pricing year.

**CMD** – Coincident maximum demand, which is the customer's demand during Counties Energy's peak demand.

**Code** – Electricity Industry Participation Code 2010.

**Counties Energy and/or Company** – Counties Energy Limited.

**Distributor** – Electricity distribution business.

**EA** – Electricity Authority.

**EV** – Electric vehicle.

**GWh** – Gigawatt hour.

**GXP** – Grid exit point – the Transpower substation that connects Counties Energy to the national transmission network.

**ICP** – Installation control point – the customer's point of connection to the network.

**ID Determination** – Electricity Distribution Information Disclosure Determination 2012.

**kWh** – Kilowatt hour.

**LFC Regulations** – Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004.

**LFSA (Line Function Service Agreement)** – Form of agreement used to record terms between Counties Energy and a (new) customer with capacity requirement of 2MVA or greater, regarding use (and when relevant development) of the network to enable supply of electricity to that customer.

**MBIE** – Ministry of Business, Innovation & Employment.

**MWh** – Megawatt hour.

**RCPD** – Regional coincident peak demand, relates to the customer's off-take at the connection location during the upper North Island regional peak demand period.

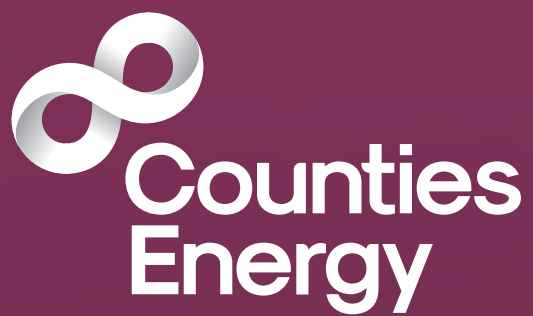
**Smart metering** – Counties Energy's Landis & Gyr meters with Silver Spring Networks communications. These meters allow half-hour data consumption to be read remotely while providing real time network data to Counties Energy.

**Smart tariffs** – Line tariffs that vary by time of day. Counties Energy's smart tariffs have peak and off-peak time periods.

**Upstream contribution** – The upstream contribution is a capital contribution charge that goes towards Counties Energy's capital investment required to support the overall network growth. The upstream contribution is in addition to the direct costs to connect to the network. Without this charge Counties Energy would need to increase its line charges to all customers even though the benefit is for the new customers connecting. For example, as new connections are established, increasing the peak demand on Counties Energy's network, that in turn requires upgrading of high voltage feeders and the construction of new substations and transmission lines.







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