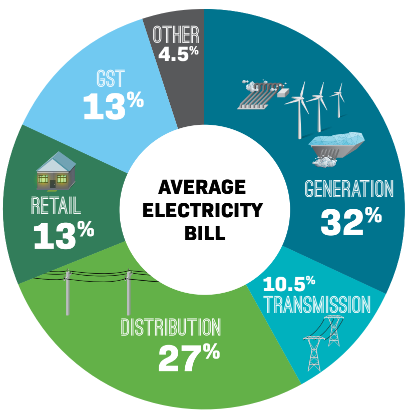
ELECTRICITY AUTHORITY
TE MANA HIKO

HOW ELECTRICITY DISTRIBUTION PRICING WORKS

DISTRIBUTION OF ELECTRICITY REFERS TO THE POWER POLES AND LINES THAT FEED ELECTRICITY TO AND FROM YOUR HOUSE.

There are 29 distribution companies in New Zealand. They provide and maintain the local power networks that carry electricity via power poles and lines from the national transmission grid to homes and businesses. On average, distribution accounts for around 27 percent of your electricity bill, so it's important that the costs of distributors' networks are carefully managed.



The proportion distribution takes up of your bill

Distributors provide a safe and reliable supply of electricity to your home or business. A reliable service has few interruptions to electricity supply. However, all electricity networks can have the occasional interruption. Interruptions may be caused by unplanned events, such as bad weather or accidental damage. They can also happen through planned events like outages for maintenance work or replacing old power poles with new ones. When building and operating their networks, distributors need to make trade-offs between reliability and cost, meaning a high level of reliability can be costly for consumers.

Distributors have two Government regulators that look at what they charge consumers. Distributors are monopoly businesses, so they are mainly regulated by the Commerce Commission. For the majority of distributors, the Commerce Commission sets and enforces minimum network reliability standards and determines the maximum amount of money each distributor can recover from consumers in its region through distribution charges.

The Electricity Authority oversees how each distributor can charge customers to recover this money. Simply put, in terms of the money distributors charge, the Commerce Commission sets the "size of a pie", while the Authority looks at how to "slice up the pie".

We want distribution pricing to send the right signals about the cost of the electricity that's being fed to your home or business. When these signals are correct, we should see better use of the electricity network. This means distributors will build new poles or lines only where they are needed. Distributors, consumers and businesses will also consider using new technologies to manage congestion when the network is fully used (like in the evening during the middle of winter). Over time, this means distributors will spend less in total on new investments and grid maintenance, keeping overall distribution costs lower for consumers. In other words, the way the "pie is sliced" is important as this influences how the "size of the pie" changes over time in terms of distribution charges for consumers. We call pricing that results in these outcomes, "efficient distribution pricing".

Distribution pricing matters now even more as New Zealand looks to electricity as one way to further reduce carbon emissions, which will require significant investment in the sector. Getting distribution pricing right helps to manage how much traditional investment (such as poles and wires) is required, and to make sure investment in new technology happens in the right place on the network. This helps contribute to providing electricity to New Zealanders at a lower overall cost.

Efficient distribution pricing will provide the right rewards for consumers who are installing technology, like batteries and roof-top solar panels. We call these distributed energy resources – storing or generating electricity on a smaller scale than traditional power stations, at a location closer to where the electricity is used. The Authority sees investing in distributed energy resources as an important part of New Zealand's transition to a low emissions economy. Efficient distribution pricing means people investing in distributed energy resources get benefits that match the costs they are saving, and aren't effectively receiving subsidies from other consumers.

The Authority published updated distribution pricing principles for distributors in 2019 and expects them to update their prices to be more efficient, consistent with these pricing principles.

AURORA ENERGY

Aurora Energy owns and operates the electricity distribution network for Dunedin, Central Otago and the Queenstown Lakes region and is owned by the Dunedin City Council. It has approximately 90,000 customers.

Aurora Energy's distribution network has been run down over many years, leading to serious safety and reliability concerns. Aurora has asked the Commerce Commission

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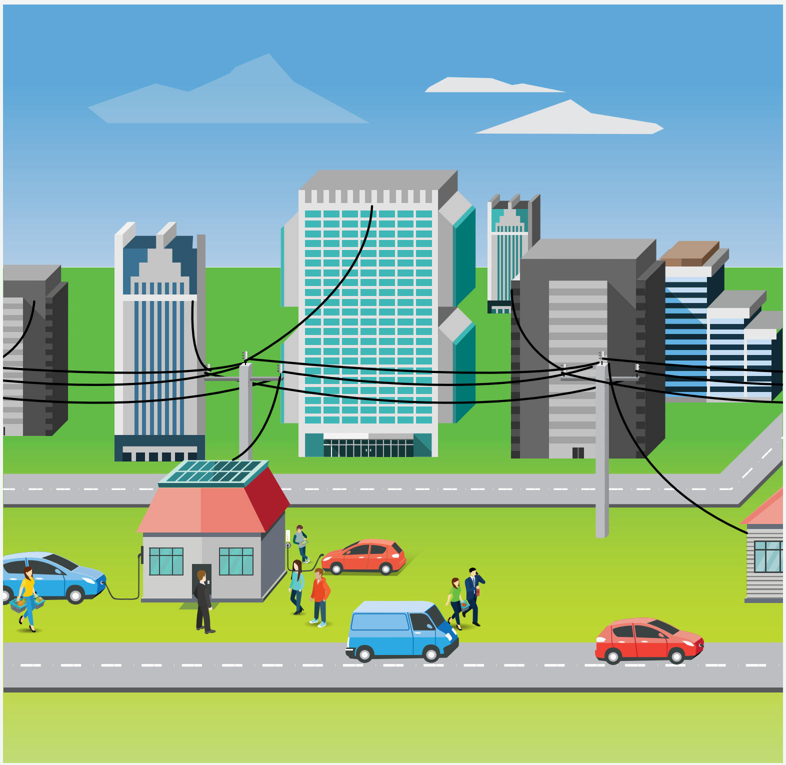
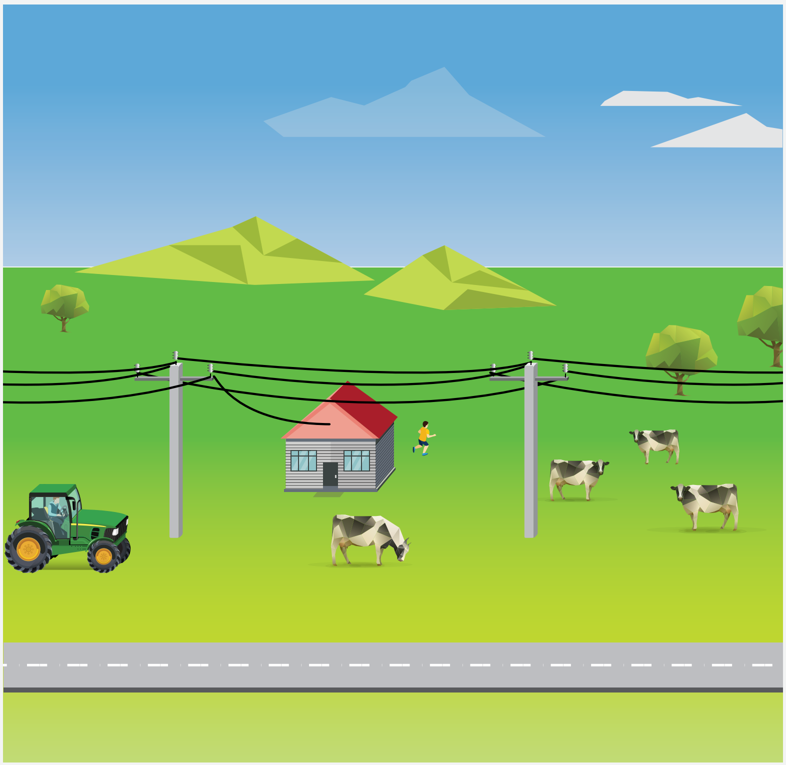


A region with less people and a long stringy network of poles and wires usually has a higher cost per household for distribution.



for permission to recover more money from its customers to fix its network. If the Commerce Commission approves this change, it will lead to a significant increase in average residential consumer bills. The increase is estimated to be $20 to $73 per month by 2026 depending on use and location, according to the Commerce Commission's November 2020 draft decision on Aurora's application for a customised price-quality path.

The Authority has listened to the concerns of households, families and businesses in Aurora's network about the substantial price increases, and particularly how those prices balance between the regions.

The Authority commissioned an independent review of Aurora's approach to setting regional prices and whether it is consistent with the distribution pricing principles. We can assure consumers we have checked Aurora's regional pricing to make sure that the way the pricing is balanced across the regions is appropriate (that is the prices in each region reflect the cost of providing service there).

Distribution pricing should reflect the costs of providing a service to an area. Different regions will have different investment requirements. Regions with a high population have more people to help spread the costs of providing electricity infrastructure (power poles and lines) to their local area. A region with less people and a long stringy network of poles and wires usually has a higher cost per household for distribution.

The Authority's review found Aurora's overall approach to regional distribution pricing largely reflects the differing costs across its three regions. However, the Authority did find some areas where Aurora can make improvements which will see future costs shared in a way that more closely reflects the cost of providing services to each of the regions.

The Authority raised some specific and urgent concerns with Aurora about the way it allocates some of its organisational costs. In the past, these allocations have been less problematic, but may no longer be fit for purpose due to recent cost growth.

There is also room to improve how Aurora allocates its network operating costs and capital costs (poles and wires).

The Authority met with Aurora in January to discuss our review of the way it goes about recovering the money approved by the Commerce Commission. The Authority is pleased to see Aurora has committed to making immediate changes to its regional distribution pricing to start to fix up the main concerns we raised with them by 1 April 2021, with further changes to come by April 2022.

The Authority will work with Aurora as they make these important changes, will check they are tested and encourage Aurora to keep its community regularly updated about the changes.

You can read the report on our review of Aurora's distribution pricing on our website **www.ea.govt.nz**.