TOWARDS MORE EFFICIENT ELECTRICITY PRICES

Consulting on changes to electricity transmission and distributed generation pricing

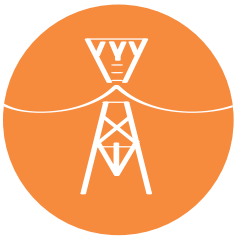
The Electricity Authority promotes competition in, reliable supply by, and efficient operation of, the New Zealand electricity industry for the long-term benefit of consumers. We regulate the electricity market by developing and setting the market rules, enforcing and administering them and monitoring the market's performance.

Part of our statutory objective focuses on the efficient operation of the market. In a workably competitive market, consumers should see electricity prices that reflect the efficient costs of supplying the electricity that they use. How much consumers pay will vary depending on the cost of supplying them.

We've identified two areas where we believe the current pricing model could be more efficient:

TRANSMISSION PRICING

The transmission pricing methodology (TPM) – this sets the method by which Transpower allocates transmission charges so it can recover its maximum allowable revenue. Transpower is a regulated monopoly and the Electricity Authority regulates the TPM applied by Transpower.



DISTRIBUTED GENERATION

The pricing principles for distributed generation – this sets the prices for services provided to, or by, generation connected directly to a local distribution network, rather than through the national transmission grid.

We are currently consulting on both these topics. These projects are separate, but have some links, which is why we have chosen to consult on both projects at the same time. This brochure provides a high-level summary of the issues we are seeking to address and the proposals we are considering.

TO MAKE A SUBMISSION

Please email submissions@ea.govt.nz with your submission. While these two projects are linked, we would appreciate separate submissions for each project, addressing the questions raised in each consultation paper.

Submissions for the *Transmission Pricing Methodology Review: Second issues paper* close at 5pm on Tuesday, 26 July 2016.

Submissions for the Review of Part 6 distributed generation pricing close at 5pm on Tuesday, 26 July 2016. Please note, late submissions are unlikely to be considered.

If you have any questions, please contact us on 04 460 8860. Please note, all submissions will be published at www.ea.govt.nz after the consultation period has closed.

This document is a summary of the Electricity Authority's consultation papers *Transmission Pricing Methodology Review: Second issues paper* and *The Review of Part 6 distributed generation pricing principles*. Parties planning to make submissions should view the full consultation papers at www.ea.govt.nz We welcome all views on this topic.

OVERVIEW OF OUR PROPOSED CHANGES TO TRANSMISSION PRICING METHODOLOGY (TPM)

THE TRANSMISSION GRID

Most of New Zealand's electricity is generated from energy sources a long way from where the majority of people and businesses are located.

The national transmission grid transports electricity across 12,000 kilometres of transmission lines and through more than 170 substations to some large industrial consumers, and to local distribution networks that then transfer the electricity to Kiwi homes and businesses.

The transmission grid is owned and operated by Transpower. Transpower is a regulated monopoly, so the maximum revenue it can recover is set by the Commerce Commission. Transpower's maximum allowable revenue has increased greatly over the past five years as a result of construction of a number of major new transmission assets.

Transpower's maximum allowable revenue is expected to increase to close to $1,000 million by the year ending March 2017 and to over $1,050 million by the year ending March 2020.

THE TPM DETERMINES HOW TRANSPOWER RECOVERS ITS REVENUE

Transpower prepares the TPM based on guidelines set by the Authority. We are proposing new guidelines that Transpower must follow to prepare a new TPM.

The key points of our proposal are:

- **Generators and consumers, to the extent possible, would be charged for the particular grid services they receive. The charges would reflect the cost of the services delivered to them. The main new charge is called an 'area-of-benefit' (AoB) charge. This charges customers in the area that has benefited from a grid investment.**
- **Because some costs are not specific to any part of the grid (for example Transpower's head office cost) and it's not practicable to apply the AoB charge to all assets, there would also be a 'residual charge' to allocate these costs to ensure that Transpower's revenue is fully recovered.**

THE CURRENT TPM PRODUCES PERVERSE RESULTS

Transmission is essentially a transport service. So, logically, consumers close to where electricity is generated should pay less than those consumers who are a long way away from generation. That's not how current charges work. The charges in regions that are close to New Zealand's largest electricity generators (mostly in the lower South Island) are sometimes higher than the charges in regions that are distant from that generation.

Current transmission charges do not broadly reflect the cost of the transmission services.

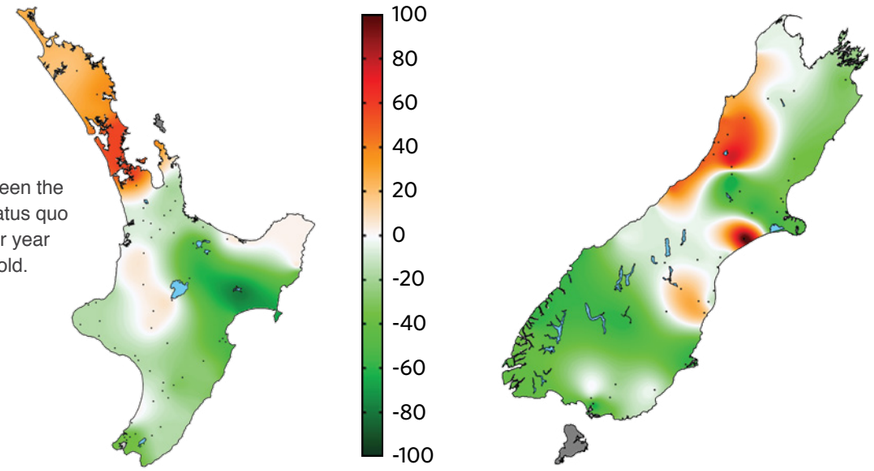
THE PROPOSED CHANGES SHOULD ENCOURAGE BETTER GRID INVESTMENT AND DECISION-MAKING

This is because the transmission charges that each party pays will better reflect the service they receive and the cost of that service. This should encourage better use of the grid and lead to better investment decisions.

We expect the proposed changes to incentivise better grid investment decisions and improve operational decision making.

THE INDICATIVE REGIONAL EFFECT OF THE TPM PROPOSAL

The difference between the proposal and the status quo shown as dollars per year for a typical household.



NOW IS A GOOD TIME TO ADDRESS THIS ISSUE

Now is a good time to reform the TPM because major grid upgrades have been completed in the last 5 years or so. Also, significant new grid upgrades may be required in the near future. Amending the TPM now will help to ensure these future decisions are best for New Zealand.

Addressing the issue now will help to ensure future grid investment decisions are made with a clear understanding of all benefits and costs.

ANY CHANGES TO ELECTRICITY PRICES WOULD NOT OCCUR BEFORE APRIL 2019

This consultation closes at 5pm on Tuesday, 26 July 2016. We'll consider all submissions and decide whether a new TPM is warranted. If we decide it is, we'll then publish a final process for the development of the TPM and final guidelines for Transpower to follow when developing the TPM.

OVERVIEW OF OUR PROPOSAL ON DISTRIBUTED GENERATION PRICING

DISTRIBUTED GENERATION CAN PLAY A USEFUL PART IN OUR ELECTRICITY NETWORK

Generation connected to a local distribution network is called distributed generation. Distributed generators typically receive some services from distribution networks, and may also provide some services to distribution networks.

The rules for setting the charges that distributed generation must pay to distributors, and vice versa, are called the distributed generation pricing principles (DGPPs).

The Authority is reviewing the DGPPs to ensure they promote competition in, reliable supply by, and efficient operation of the electricity industry for the long-term benefit of consumers.

Distributed generation injects electricity into distribution networks and earns revenue by selling electricity. There is about 1,000 MW of distributed generation capacity in New Zealand; this includes gas, wind, hydro, diesel and geothermal generators.

Distributed generation can provide network support services. In some instances it can reduce the capital and operating costs of distribution and transmission networks. For example, if a transmission asset supplying a town is frequently operating at full capacity, distributed generation may postpone or avoid an expensive upgrade of that asset.

THE CURRENT RULES DO NOT ACHIEVE THEIR OBJECTIVE

There are two problems with the current DGPPs:

- Distributed generators do not have to pay any of the common costs of the network. Instead, these costs are borne by electricity consumers.
- Distributed generators get paid for network support services at a rate equal to the transmission charges a distributor can avoid due to the operation of the distributed generation. This is called the avoided cost of transmission (ACOT) payment. The problem is that distributed generation often does not actually reduce transmission costs, even when it does reduce transmission *charges*. As a result, consumers are paying around $25-35 million each year in higher electricity bills, for no benefit.

Both of these problems can cause inefficient investment in, and operation of, distributed generation.

WE ARE PROPOSING TO REMOVE THE DGPPs

We think separate pricing principles for distributed generation are not necessary. Simply removing the DGPPs from the market rules would resolve both issues raised above. If the DGPPs were removed, distributors would not have to treat distributed generation on a preferred basis compared with other customers. Transpower would be responsible for making payment to a distributed generator if it was reducing transmission costs. Distributed generation that does reduce transmission costs would be encouraged. We consider removing the DGPPs will promote more efficient operation and investment decisions for distributed generation and the wider electricity sector.

THE PROPOSED CHANGE WOULD BE PHASED IN

We are proposing to phase in this change, and propose that the change would come into effect on 1 April 2017 for distributed generation located in the Lower North Island and Lower South Island regions and 1 April 2018 in all other regions. This would allow time for Transpower and distributed generation owners to make agreements on generators operation and payment.