Fairness and the TPM

The Electricity Authority is responsible for the rules on sharing out the $1 billion per year costs of building and running the national transmission grid (the transmission pricing methodology or TPM).

This note is not about what the Authority itself thinks. That's because the Authority's objective – which is written into law – doesn't include a fairness objective. The Authority considers whether the rules will lead to a competitive and reliable electricity system at the lowest cost to consumers.

In response to a request from the Expert Advisory Group, Authority staff have prepared a note on how some may consider the current TPM is unfair.

Regional inequalities under the current TPM

The current TPM means people pay different rates based on where they live

First, we need to dispel the myth that the current TPM shares out grid costs equally. As you can see from the table below, the amount paid for transmission per unit of electricity and per residential household varies significantly across the country. For example, people in Gisborne or Kaiapoi pay up to two or three times more towards grid costs (through grid charges) than some elsewhere.

Unequal grid charges paid in different places around the country

	Ashburton	Dannevirke	Gisborne	Greymouth	Kaiapoi	Nelson	Waipukurau
c/kWh	1.55	3.99	4.41	2.52	4.86	2.66	4.20
$/household /year	$124	$319	$353	$201	$389	$213	$336

Source for c/kWh: MBIE Quarterly Survey of Domestic Electricity Prices (QSDEP). The $/household is illustrative only and for ease of comparability assumes 8,000 kWh/year electricity usage in all areas (consistent with QSDEP assumption).$ figures include GST.

MBIE produces data on the various components of household bills in different towns derived from what retailers actually charge. By contrast the Authority in its own modelling calculates the impact of the TPM and an associated subsidy for local generation (because this is what it is responsible for). The above table of transmission costs to households in different places is derived from MBIE's data, but calculating the impact of the TPM alone would also produce the same result of considerable regional variation.

On average, grid charges make up about 10% of a household's power bill. The power bill also covers items other than grid costs, including distribution network costs, payments to distributed generators and the cost of generating electricity.

The current TPM means some regions don't pay their fair share for better reliability

People who live in rural regions often have lower levels of grid reliability compared to people who live in the cities. The current TPM doesn't take these differences into account.

The current TPM means some regions don't pay their fair share of regional grid lines

Another reason the current TPM is considered unfair is that some people in regional centres have to pay for the whole cost of lines transporting electricity within their region, while those in main centres like Wellington and Auckland don't have to pay those costs (instead they are spread over the whole country).

The current TPM means some businesses don't pay their fair share

Most of the grid's costs fall on consumers only (not on electricity generators). Grid costs are divided into several different categories, and the biggest category (around 70% of the total) is called "interconnection". Electricity generators don't pay any "interconnection" costs, even though the poles and wires in the "interconnection" category are used to transport their power to market.

What's more, that 70% is not shared out equally. The current TPM allows some businesses to avoid paying their fair share of grid charges. For example, one large business has managed to avoid making *any* contribution to interconnection costs (even though it uses the grid and benefits from it). Its zero contribution means other people have to pay more to make up the difference.

Likewise, some lines companies are able to reduce their share of grid charges by arranging for local generators to run at certain times. In some places they have managed to reduce their contribution towards grid costs significantly. This often means the generator gets an extra payment, paid for by consumers. And again, it means that people living in other places have to pay more to make up the difference: places like Dannevirke or Waipukurau, where there are no local generators (except tiny ones).

This situation will only get worse as new technology gets cheaper and more people will be able to use it to shift charges onto others. For example, batteries are getting cheaper which, in itself, is a good thing. However, as their cost falls, the current TPM could encourage businesses to install batteries purely to shift their grid charges onto other customers in other parts of the country. This will mean people in some regions will end up paying more than others.

A better TPM means people won't have to pay for upgrades that don't benefit them

One of the main reasons people are paying higher charges for the grid is that they have to pay for grid upgrades that they don't benefit from. In the last ten years, there have been some large and costly grid upgrades that have benefited people living in the north of the North Island (for example), by providing them with a more reliable service and cheaper wholesale energy charges. Paying for these upgrades has increased grid charges by more than 100% on average since 2007 (by more in some places – for example, grid charges in New Plymouth went up by 166%). People in all parts of the country are paying for those upgrades, even though many don't get much benefit from them.

One of the main charges we currently see as likely to make up our new TPM proposal is a "benefit-based" charge, which would be paid by generators as well as consumers. Such a charge would make sure that only those who benefit from grid upgrades pay for them and people that don't benefit don't pay. We expect our proposal to change the charges that businesses pay for some existing grid lines. This is not unusual: it's similar to bringing in a new rule requiring existing businesses to produce less pollution, or a change in the rate of tax that an existing business pays.

A new TPM means businesses will pay their fair share

The other main charge we're looking at bringing in is a "residual" charge, designed to pick up remaining costs. We expect this charge to be shared out in a way that makes it hard for any business to avoid paying their share (and shifting it onto other people). We think such an approach would "level the playing field".

Businesses that profit from the current system want to stop it from changing

We are aware that some people strongly oppose our direction for TPM reform, for a couple of reasons. Some oppose because they're benefiting from recent grid upgrades without paying the full cost of those upgrades: in other words, they are getting benefits at someone else's expense. Other businesses own local generation, which are used to avoid paying a fair share of grid costs and shift it onto others and receive payments for this. Many of these businesses oppose our intended direction because any change is likely to reduce these payments.

When we hear a business arguing against reforming the TPM, it helps to remember they are usually focussed on their own bottom line, not on making things better for consumers. Promoting the long term benefit of consumers is the Authority's job.

The changes we're thinking about would make things fairer, and crucially lead to a competitive and reliable electricity system at the lowest cost to the consumer. This makes consumers better off in the long-term but at the expense of some businesses who are exploiting flaws in the current TPM.