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Electricity Sector
The Beginning of the End — TPM Decision Made

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The Electricity Authority's (EA) transmission pricing methodology (TPM) decision paper reaffirms Meridian Energy (MEL) and NZAS as the main winners from changes to the TPM. However, the changes relative to the EA's July 2019 Issues Paper are relatively minor and water down the impact of transmission price increases/decreases vs. the current TPM, i.e. the winners are not doing quite so well and the losers are doing a little better. It has taken the EA more than a decade to get to this point, and there is still 33 months to go before new transmission charges are implemented on 1 April 2023 — all going well.

Meridian Energy (MEL) remains the biggest winner, Mercury (MCY) the biggest loser

MEL remains the main beneficiary with a benefit of NZ$27m vs. current transmission prices, although this benefit is -NZ$2m lower than it was under the 2019 Issues Paper. Given the delays in the TPM, we had taken a conservative approach to MEL's upside such that the EA's calculated benefit is +NZ$15m higher per annum than our current forecast (+NZ8cps of value).

MCY remains the worst off generator. Its transmission charges will increase ~+NZ$8m as it is the only generator without South Island generation (hence, receives no benefit from changes to HVDC pricing). Its transmission charges going forward are reasonably significant due to transmission work in the Central North Island benefiting its geothermal power stations. Our current forecasts assume an +NZ$5m increase in MCY's transmission charges, the +NZ$3m difference equating to NZ3cps.

Details of the direct winners and losers vs. the current TPM and the previous July 2019 TPM proposal are presented in Figure 1.

The other indirect loser is Trustpower (TPW). The TPM is estimated to provide TPW a direct benefit of +NZ$1m. However, the implementation of the new TPM will reduce avoided-costs-of-transmission (ACOT) revenue further, potentially -NZ$8m per annum as disclosed at TPW's recent FY20 result.

NZAS benefits about the same, but prudent discount policy creates some opportunity

NZAS's gain from changes to the TPM has slipped to +NZ$10m (from +NZ$11m). However, the estimate of its absolute charge is NZ $42m which is still ~-NZ$20m lower than its actual 2019 transmission charges.

NZAS also has the opportunity to apply for a "prudent discount" on transmission charges if it can prove its current transmission charges are higher than the "efficient stand-alone cost" of providing the same service. There is a great deal of uncertainty as to what a prudent discount could look like, with Transpower having to come up with a workable policy. It is also likely to be applied after the broader TPM has been implemented in 2023.

We suspect NZAS will be disappointed with the EA's decision paper. Whilst it provides some transmission price relief, it is a long-way short of what it is seeking, is several years away from implementation (NZAS wants price relief now) and the prudent discount policy provides no certainty. That said, it is a step in the right direction and we doubt that it will have a material impact on Rio Tinto's decision on the future of NZAS.

Over to Transpower to implement the EA's guidelines

There is no consultation on this paper as it is a decision paper. Transpower is now required to implement the guidelines, turning them into formal code. It has until 30 June 2021 to do this. The EA will then assess whether Transpower has implemented the guidelines appropriately and will consult on the proposed Electricity Industry Participation Code amendments.

The aim is to implement the new TPM by 1 April 2023, which requires Transpower to formally notify its customers of the price changes by the end of November 2022.

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Winners and losers from the EA's decision paper

Compared to previous reports, the changes that the EA has made are relatively minor from the July 2019 Issues Paper. In general, the winners are not winning quite as much and the losers are not losing quite as much (Vector is a notable exception). However, with the estimated total 2021/22 transmission charge reducing -6%, everyone is better off, including Vector. The reason for the transmission charge decline is between the 2019 Issues Paper and the 2020 Decision Paper the Commerce Commission finalised the regulatory price path for Transpower, with lower interest rates driving lower transmission charges.

Figure 1. Summary of winners and losers from the 2019 Issues Paper and the 2020 Decision Paper

	EA Estimate of Absolute Charges				EA Estimate of Benefit vs. Status Quo Charges			
	July 2019 Issues Paper NZ$m	June 2020 Decision NZ$m	Change NZ$m	Change %	July 2019 Issues Paper NZ$m	June 2020 Decision NZ$m	Change NZ$m	Change %
Generation								
Contact Energy (CEN)	21.2	20.0	(1.2)	-6%	0.1	0.1	0.0	0%
Genesis Energy (GNE)	7.6	7.1	(0.5)	-7%	2.0	1.9	(0.1)	-5%
Mercury (MCY)	8.6	8.1	(0.5)	-5%	8.6	8.1	(0.5)	-5%
Meridian Energy (MEL)	40.8	38.5	(2.3)	-6%	(28.7)	(26.9)	1.8	-6%
Tilt Renewables (TLT)	0.2	0.2	0.0	0%	0.2	0.2	0.0	0%
Trustpower (TPW)	1.1	0.9	(0.2)	-18%	(0.8)	(0.8)	0.0	0%
Other NI generators	3.0	3.0	(0.0)	-1%	3.1	2.9	(0.2)	-8%
Other SI generators	0.8	0.0	(0.8)	-100%	0.8	0.0	(0.8)	-100%
Total generation	**83.3**	**77.8**	**(5.5)**	**-7%**	**(14.7)**	**(14.5)**	**0.2**	**-1%**
Lines companies								
Vector (Auckland)	169.1	159.8	(9.3)	-5%	7.1	8.0	0.9	13%
Powerco (Taranaki, BOP)	68.9	65.2	(3.7)	-5%	(5.1)	(4.2)	0.9	-18%
Orion (Canterbury)	54.5	48.9	(5.6)	-10%	7.7	5.0	(2.7)	-35%
Wellington Electricity	39.1	37.0	(2.1)	-5%	(7.6)	(6.8)	0.8	-11%
Other lines companies	203.8	190.7	(13.1)	-6%	17.0	15.8	(1.2)	-7%
Total lines companies	**535.4**	**501.6**	**(33.8)**	**-6%**	**19.1**	**17.8**	**(1.3)**	**-7%**
Industrial companies								
NZAS	44.4	42.0	(2.4)	-5%	(11.3)	(10.2)	1.1	-10%
Other industrial companies	15.9	15.3	(0.6)	-4%	6.9	6.9	0.0	0%
Total industrial companies	**60.3**	**57.3**	**(3.0)**	**-5%**	**(4.4)**	**(3.3)**	**1.1**	**-25%**
Total transmission charges	**679.0**	**636.7**	**(42.3)**	**-6%**	**0.0**	**0.0**	**0.0**	

Source: EA, Forsyth Barr analysis

The above analysis excludes the effects of the TPM changes on ACOT revenue. The decision to move away from allocating transmission costs based on peak demand will result in ACOT revenue being cut. Trustpower (TPW) is the most affected generator.

Next steps

- Transpower develops a proposed TPM based on the EA's guidelines that updates the Electricity Industry Participation Code (30 June 2021)
- EA reviews Transpower's proposed Code amendments and if acceptable approves them for consultation (March 2022)
- Once finally approved, Transpower implements the new TPM, calculating new transmission prices (November 2022)
- New transmission prices take effect (1 April 2023)

Revising the TPM is undoubtedly a convoluted process, and the onus is now on Transpower to implement the EA's guidelines. We expect most of the guidelines should not be too difficult to implement, however, the prudent discount policy could be challenging.

A judicial review is possible (the changes are material enough for some parties to want to judicially review the revised TPM). That said, the EA is confident and judicial review will not result in delays (we are not so confident).

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Transmission pricing recap

Potted history

Transmission pricing has been a vexed issue in the electricity industry ever since Transpower separated from the Electricity Corporation of New Zealand (ECNZ) in 1994. The most contentious issue has been charging the HVDC inter-island link 100% to South Island generators. MEL refused to pay the transmission charges for several years, culminating in the creation of the Electricity Commission (EC) in 2003. The EC's first attempt at transmission pricing reform efforts were unsuccessful (its initial proposals were successfully challenged in court by MEL and CEN). In 2009 the EC released an initial options paper to start the TPM process again. Following the 2008 dry year, the EC morphed into the EA in 2010, which resulted in the TPM reform process effectively starting again. After a series of benign consultation documents, the EA released a paper in October 2012 that first proposed a beneficiaries pays type approach (albeit the EA's approach was far too complex). Almost eight years later and a decision has been made, albeit it will take almost three more years to implement.

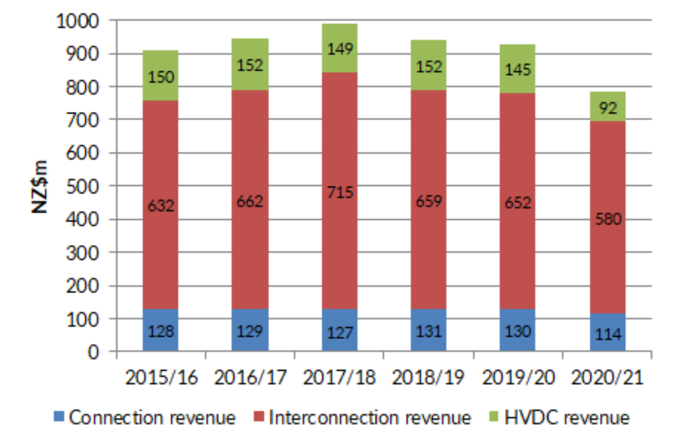
It has been a long-journey to get to the current decision paper and is probably the closest the industry has got to transmission pricing reform since the mid-2000s.

How current transmission pricing works

The Commerce Commission determines how much Transpower is allowed to charge and the EA then determines how that amount is allocated to users of the transmission network. Currently there are three broad charges:

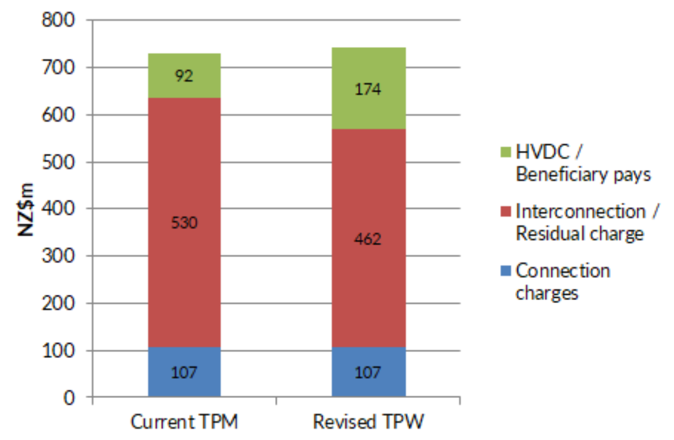
- **Connection charges:** Applies to transmission assets where there are only one or two users. Both generators and consumers (lines companies and large industrial users) pay connection charges.
- **Interconnection charges:** All other AC network charges are allocated to users on a "postage stamp" basis (i.e. consumers all pay the same rate) and charged based on peak electricity demand. Only consumers pay interconnection charges.
- **HVDC charges:** Currently only South Island generators pay HVDC charges. MEL pays ~70% of HVDC charges as it is the largest South Island generator.

Figure 2. Transpower revenue breakdown



Source: EA, Forsyth Barr analysis

Figure 3. Estimated 2021/22 transmission charge breakdown



Source: EA, Forsyth Barr analysis

New transmission allocation methodology

The EA is moving to a beneficiary pays approach for transmission charges. Connection charges are unchanged as by definition the beneficiaries of connection assets are the ones already paying. Specific benefit-based charges will be applied to seven specific transmission investments, one of which is the HVDC link. The remaining transmission charges will be allocated as a residual charge. This is like the current interconnection charge, although the allocation methodology will no longer be peak demand. Over time, the "beneficiary pays" charges should increase and the residual charge decrease as new transmission investment will be allocated on a beneficiary pays basis. For example, if NZAS were to close, MEL and CEN would pay the highest transmission charges related to the lower South Island grid upgrade that would then take place as they are the main beneficiaries of that grid upgrade.

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