

## MEMO

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**To** Ralph Matthes  
**From** Mike Hensen  
**Date** 2 March 2020  
**Subject** TPM 2019 Supplementary Consultation Paper 11 February 2020

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### Purpose

This note comments on the proposals in the Electricity Authority (EA) supplementary consultation paper<sup>1</sup> on TPM 2019 (TPM 2019 Supp) to:

- Update the allocation of the residual charge - section 5, pages 12 to 16
- Change to the prudent discount policy - section 6, pages 16 to 19
- Adjusting benefit based charges when a plant closes - section 4 pages 8 to 11.

These topics are secondary to the main issues raised in submissions on TPM 2019<sup>2</sup> – namely criticisms of the CBA, the practicality of the area of benefit charge and the risk of removing a peak use signal. Our criticism of the CBA included the point that the strength of RCPD signal to mass market customers during peak period and therefore the response of mass-market consumers to the proposed changes in transmission pricing was overstated based on our analysis of EDB pricing. This means that the benefit of increased use of the grid by mass market customers in response to the proposed transmission pricing changes is over-estimated in the CBA. Our comments on the TPM 2019 still stand. The EA intends to publish further papers on the issues raised in submissions about the CBA and peak charging early in March 2020.

### Update residual charge allocation

TPM 2019 estimated that the residual charge for 2021-22 would be \$494 million and proposed that this be allocated between electricity distribution businesses (EDB), industrials (directly connected to the grid) and generators connected to the grid based on an average of their share of gross anytime maximum demand (AMD) over the four years 2014-15 to 2017-2018. In TPM 2019 Supp proposes adjusting the residual allocator based on the change in share of energy demanded (calculated as a moving average over four years) by EDB, industrials and generators with a lag of 7 years. The first adjustment under this approach would occur in 2025-26 and would be based on the change in share of average energy consumed between the four years 2014-15 to 2017-2018 and the four years 2015-16 to 2018-2019.

The EA rationale for using a moving average of change in energy delivered to adjust an allocation based on share of AMD is that the energy delivered is a good proxy for change in connection size and ability to pay. This assertion is unconvincing and is made without any

<sup>1</sup> 'Transmission pricing methodology: 2019 Issues paper, Supplementary consultation, 11 February 2020' available at <https://www.ea.govt.nz/dmsdocument/26354-supplementary-consultation-paper-transmission-pricing-methodology-2019-issues-paper>

<sup>2</sup> '2019 issues paper, Transmission pricing review, Consultation paper, 23 July 2019'

supporting evidence or analysis about why an energy delivered adjustment factor is more consistent with the EA argument for AMD based allocation than simpler alternatives such as a lagged or partial adjustment of the residual allocation to changes in AMD over time. Our analysis of EDB pricing indicates that some EDB use AMD for groups of ICP to allocate their network costs and that for some of these EDB the total of AMD for groups of ICP was materially higher than the AMD of the EDB.

The proposed share of energy delivered adjustment is likely to deliver only a very slow change in the residual allocation over time. Unless industrial direct connect customers materially alter their energy use the main driver of adjustment in the residual allocation will be the change in energy delivered to EDB customers. To estimate the adjustment path, we have applied the adjustment formula proposed in TPM 2019 Supp to the following scenarios for growth in energy delivered to EDB over the period 2018-19 to 2023-24 (the latest year that affects the residual allocation in 2030-31):

- Low – annual growth of 0.22 percent per year based on the compound annual growth rate in energy delivered over the period 2014-15 to 2017-18
- Business as usual (BAU) – annual growth of 1.1 percent per based on the compound annual growth rate implied by the Interim Climate Change Commission (ICCC) forecast growth in demand with moderate electric vehicle take-up and some electrification of process heat
- Accelerated electrification (Accelerated)– annual growth of 2.0 percent per based on the compound annual growth rate implied by the Interim Climate Change Commission (ICCC) forecast growth in demand with fast electric vehicle take-up and electrification of process heat.

Energy delivered to generators and industrial direct connects is assumed to continue at 2017-18 levels over the forecast period.

**Table 1 Forecast residual allocation shares**

Share for EDB, industrial and generator for ‘Low’, Business as usual’ and ‘Accelerated electrification scenarios

Group	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
<b>Low</b>							
EDB	86.28%	86.75%	86.44%	86.35%	86.37%	86.40%	86.42%
Generator	1.70%	1.71%	1.69%	1.68%	1.68%	1.67%	1.67%
Industrial	12.02%	11.54%	11.87%	11.98%	11.95%	11.93%	11.91%
<b>BAU</b>							
EDB	86.28%	86.78%	86.52%	86.51%	86.64%	86.77%	86.90%
Generator	1.70%	1.70%	1.68%	1.66%	1.64%	1.63%	1.61%
Industrial	12.02%	11.52%	11.80%	11.84%	11.72%	11.61%	11.49%
<b>Accelerated</b>							
EDB	86.28%	86.80%	86.59%	86.65%	86.88%	87.10%	87.32%
Generator	1.70%	1.70%	1.67%	1.64%	1.61%	1.59%	1.56%

Group	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
Industrial	12.02%	11.50%	11.74%	11.71%	11.51%	11.31%	11.12%

Source: NZIER

The forecast adjustment paths show industrial direct connect share of the residual falling by between 0.11 and 0.9 percentage points (1 to 7 percent) over 2024-25 to 2030-31 assuming industrial direct connect keep consuming at current levels. (The drop in the residual allocation in 2025-26 is due to high energy use in 2015-16 dropping out of the moving average and does not reflect the steady state.)

### Change to the prudent discount policy

The proposed change to the prudent discount policy does not explain in sufficient detail how the discount would be calculated, how it would affect benefit and residual charge allocation and how the EA reached its conclusion in paragraph 6.22 that the net benefits would be small but positive.

### Adjusting benefit based charges when a plant closes

The adjustment of benefit based charges when a plant closes does not seem to apply to:

- a transmission customer disconnecting from the grid (see footnote 5 at the bottom of page 9).
- The benefit charges proposed for existing assets as the liability ceases 10 years after the commissioning date of the grid investment (see paragraph 4.4, page 8).

Therefore, the proposal seems to be intended to apply to future benefit charges for new Transpower assets. A logical comparator for this proposal would be the approach that Transpower applies to contracts for connection assets with an allowance for the fact that the benefit charges will be assessed by Transpower rather than the result of contractual negotiations. An analysis of the proposal along these lines would be more relevant to the allocation of benefit charges on new assets than the observations about 'take-or-pay' contracts in paragraph 4.16 page 10.