

MEMO

To Ralph Matthes
From Mike Hensen
Date 02 September 2022
Subject EDB Transmission charge pass-through

Purpose

This note is a short review of an Electricity Authority (EA) guidance note on principles for the pass through of Transpower charges by electricity distribution businesses (EDB) to their customers. The review comments are a response to the invitation by the EA for 'informal feedback' on the guidance note by 2 September 2022 and are focused augmenting the high-level comments in the paper with a clearer description of the how the current EDB pass-through compares to the objectives of the EA for the new TPM

Suggestions for next steps

- It would be helpful for the EA to describe how it expects the principles for recovering distribution charges should be aligned with the guidance on recovering transmission charges. As EDB charges are about double the Transpower charges and address similar issues (recovery of the cost of long-lived network assets) it would be preferable if the two sets of principles were aligned to send clear signals to EDB about cost allocation and to encourage EDB to send clear mutually reinforcing price signals to customers.
- The EA needs to clarify the expected scope and rate of movement by EDB towards the principles in the guidance note. Most of the EDB methodologies use contribution to coincident peak as one of the allocators distribution and transmission charges but this concept is not relevant to the pass-through of transmission charges under the new transmission pricing methodology (TPM). Without this clarification, commercial and industrial customers face considerable uncertainty about the:
 - Risk of large changes in distribution charges as the basis of allocation is changed.
 - Time that will be available for consultation with EDB on proposed price changes. For example, Vector's price setting timeline¹ for 1 April 2022 suggests that for prices from 1 April 2023, these issues would need to be addressed in pricing proposals September 2022 and consultation on changes in pricing structure would need to be completed by the end of December 2022.

The guidance note acknowledges a wide variety in EDB pricing methodologies and anticipates that outcomes will depend on EDB choices.²

¹ 'ELECTRICITY DISTRIBUTION SERVICES 2023 PRICING METHODOLOGY. From 1 April 2022' page 7, Table 1: Timeframe for Vector's electricity price setting.

² Guidance note, paragraph 1.4, page 3.

- The high-level approach to allocation for customers, needs to be more closely linked to the TPM and more comment is required on the workability of the proposed principles³. The expectation that transmission charges are ‘fixed-like’ is generally not met for residential customers. For benefit-based charges the principle assumes a level of granularity in benefit calculation that may not be available from the Transpower calculations. For the allocation of the residual the principle refers to the customer ‘size (*as a proxy for ability to pay*)’ which is not the same as the historical anytime maximum demand allocator which is used in the TPM.
- The practical matters⁴ need to be reviewed for practical relevance and materiality.
 - Large customers do not tend to be locationally flexible. Future uncommitted transmission investment would not be the subject of an EDB pass-through allocation decision.
 - Future investment may be the subject of EDB consultation with affected customers. Comment on the role of EDB and the process that EDB should use to consult with customers on grid investments would be a useful addition to the guidelines.
 - In principle pass-through should be transparent. In practice the pass-through charges are a component of EDB line charges which are then re-packaged for residential consumers by electricity retailers.
- The comparison⁵ by the EA between the ‘*traditional*’ EDB costs allocation and more ‘*forward looking approach*’ under the TPM needs to be tested against both the legislation under which EDB recover the cost of their and the extent to which the TPM will provided a forward-looking signal. (Over the next two to five years the TPM will be dominated by the residual has been allocated on the basis of historical AMD and a benefit-based charges for historical assets where there is no forward element.) Both EDB and Transpower have their revenue set by the Commerce Commission using a building block method. While the TPM does change how Transpower charges are allocated to consumers the overall level of charges and is still driven by ‘*traditional*’ recovery of asset cost and operating expenditure.

Comment on TPT guidance principles⁶

The TPT guidance includes 5 high level distribution pricing principles We comment on these individually. The guidance note does not present a strong argument for the ‘use of fixed charges where possible’ and this principle does not follow directly from the distribution pricing principles. The other four principles can be aligned with the distribution pricing principles particularly the requirement to (a) signal the economic costs of service provision, (c) responsiveness to need users and (d) have regard to transaction costs.

Map transmission charges to pricing areas

It is unlikely that TPM benefit-based charges will be calculated with sufficient granularity for this principle to materially alter the allocation of EDB charges. The TPM cost allocations are calculated by location for both the residual and benefit-based charges. However, the recent

³ Guidance note, paragraph 1.13, page 4.

⁴ Guidance note, paragraph 1.14, page 5.

⁵ Guidance note, paragraph 3.9 page 9.

⁶ Guidance note, paragraph 4.3 page 10.

examples of benefit-based charge allocation completed by Transpower have aggregated these locations into a small number of regions that include multiple EDB areas let alone EDB pricing areas.

This principle also does not provide guidance on how to allocate TPM charges across customer groups within an EDB area. The information published by Transpower on the benefits does not seem to provide the level of detail required for EDB to allocate benefits across customer groups in a pricing area. The allocation of the residual across locations based on AMD suggests the EDB could also use AMD to allocate the residual across customer groups, but the suggested allocation methods do not comment clearly on this option and is not used by most EDB for residential consumers.

Use fixed charges where possible

EDB tend to recover most of their residential line charges through variable rather than fixed charges and the practice varies widely across EDB. The distribution pricing principles can be met with fixed or volume-based charges and the guidance note does not explain the arguments for moving from volume based to fixed charges.

It would be helpful for the examples used to illustrate the principles to describe what change is expected toward the switch from volume based to fixed charges. The extent to which the LFC phase -out ceilings are a constraint on EDB capacity to switch from volume based to fixed charges could also be assessed using information published by EDB.

Pass step changes through

It is not clear why the EDB would moderate Transpower's assessment of EDB customer impact on the allocation of network costs. It would be more helpful if this principle considered Transpower and EDB could co-ordinate their assessment of the effect of the change in usage on the grid and the lines network to ensure that the resultant transmission and EDB charges were based on a consistent assessment of the impact of the change in electricity usage.

Use proportionate allocation methods

This principle outlines some of the options that EDB have for choosing a methodology for allocating transmission pass-through. However, the key issue here is how closely aligned the cost allocation methodology and cost recovery pricing used by EDB are to the approach used in the TPM

The discussion of this principle would be improved by a comparison of the allocation methodologies used by EDB with the allocation methodology used under the TPM and assessment of whether they provide reinforcing or countervailing incentives to customers to use the grid and lines company network.

The example used in the guidance note⁷ combines EDB cost allocation methodology and cost recovery pricing, but these are separate steps in the setting of EDB charges. Our review of EDB pricing cost allocation methodology shows a variety of allocators are used although all of the EDB use either contribution to regional coincident peak demand or share of anytime maximum demand. There seems to be less difference across EDB in the approach to cost recovery pricing. Generally, costs are recovered through:

- Volume based charges for residential consumers.

⁷ Guidance note, paragraph 4.38.

- Fixed charges based on capacity or peak demand for commercial customers.

Appendix A

This section reports data on for the six EDB that account for just under 70 percent of the transmission charges allocated to EDB on:

- EDB recovery of transmission charges Table 1 based on pricing schedules for the year beginning 1 April 2022. Most EDB recover the transmission charge through a variable charge for residential customers and a fixed charge for commercial customers.
- Level of lines and transmission charges and allocation of recovery between fixed and volume-based charges Table 2 for the year ended 31 March 2021, (This is the most recent year for which Schedule 8 of the EDB Information Disclosure has been published for all of the EDB listed.)

Table 1 EDB transmission charge recovery approach

[insert caption subheading]

EDB	Customer group	Transmission recovery
Vector	Residential	Highest volume-based charge in each plan.
	Other	Fixed capacity charge for 'time of use' metred customers. Volume based charge for all other customers.
Powerco	Residential	Volume based charge.
	Other	Mixture of fixed and volume-based charges for commercial customers with proportions that vary by pricing area and plan. Fixed capacity or peak demand charges for large commercial customers.
Orion	Residential	Fixed peak demand charge and volume-based charge.
	Other	Fixed peak demand charge.
Wellington	Residential	Combination of fixed daily and volume-based charges
	Other	Combination of fixed daily and volume-based charges
Unison	Residential	Not clearly stated.
	Other	Not clearly stated.
Aurora	Residential	Volume based charge.
	Other	Fixed capacity and fixed peak demand charges.

Source: NZIER analysis of EDB pricing schedules for the year beginning 1 April 2022.



Table 2 EDB line charges for six EDB that cover approximately 70 percent of transmission charges paid by EDB

All charges are in \$ million.

EDB	Customer group	ICP (average number)	Energy delivered (GWh)	Transmission Charge	EDB Charges	Total Line Charges	Fixed Daily Charge	Fixed Other Charge	Volume Based Charge	Fixed Daily Charge	Fixed Other Charge	Volume Based Charge
Vector	Residential	514,880	3,581	93.1	227.7	320.8	89.8	0.0	231.0	28%	0%	72%
	Other	68,603	4,629	89.6	150.2	239.7	49.6	91.0	99.1	21%	38%	41%
	Total	583,483	8,210	182.7	377.8	560.5	139.4	91.0	330.1	25%	16%	59%
Powerco	Residential	345,944	2,720	66.3	200.0	266.3	37.4	1.4	227.5	14%	1%	85%
	Other	2,247	2,160	29.9	57.1	87.0	52.2	25.5	9.3	60%	29%	11%
	Total	348,191	4,880	96.2	257.1	353.3	89.6	27.0	236.7	25%	8%	67%
Orion	Residential	207,993	2,345	49.1	135.2	184.2	13.1	70.9	100.2	7%	38%	54%
	Other	1,592	904	16.5	28.8	45.3	0.0	45.3	0.0	0%	100%	0%
	Total	209,584	3,249	65.6	163.9	229.5	13.1	116.2	100.2	6%	51%	44%
Wellington	Residential	152,783	1,105	37.3	61.8	99.1	25.8	0.0	73.3	26%	0%	74%
	Other	17,405	1,159	18.0	31.0	49.0	15.8	14.8	18.5	32%	30%	38%
	Total	170,188	2,264	55.4	92.8	148.2	41.6	14.8	91.8	28%	10%	62%
Unison	Residential	97,615	697	0.0	75.2	75.2	22.5	0.0	52.7	30%	0%	70%
	Other	18,109	936	0.0	61.9	61.9	36.0	8.7	17.2	58%	14%	28%
	Total	115,724	1,633	0.0	137.1	137.1	58.5	8.7	70.0	43%	6%	51%
Aurora	Residential	84,791	674	6.1	57.0	63.1	4.6	4.8	53.7	7%	8%	85%
	Other	7,305	631	4.0	31.4	35.3	2.0	33.3	0.1	6%	94%	0%
	Total	92,096	1,305	10.0	88.4	98.4	6.6	38.0	53.8	7%	39%	55%

Source: NZIER analysis of Schedule 8 of the EDB Information Disclosure.

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