



Transmission Pass-through Methodology

Effective: 1 April 2023

1.1 This Transmission Pass-through Methodology

This document describes the methodology Wellington Electricity Lines Limited (**WELL**) uses to allocate Transmission Costs to some large customers who have a direct agreement with WELL. The direct agreement with these customers will state whether this methodology applies to that customer. This methodology is consistent with how Transmission costs are allocated to other customers receiving distribution services from WELL. The Transmissions cost allocation methodology for customers on WELL's standard tariffs is provided in WELL's Pricing Methodology which can be found on its website at: www.welectricity.co.nz/disclosures/pricing

The method by which Transmission Costs are incurred by Wellington Electricity is determined largely by the Electricity Authority (**EA**) who sets the Transmission Pricing Methodology (**TPM**). Transpower (the grid operator) uses to allocate costs to users of grid transmission services. Wellington Electricity may change its allocation methodology from time to time to account for changes in Transmission Costs, the methodology used to determine Transmission Costs, or the methodology used to allocate Transmission costs to customers.

This methodology has been updated for the new TPM introduced in 2022 and will be applied to WELL's prices from 1 April 2023.

1.2 Definitions

Customer means a party with which Wellington Electricity has a connection contract allocating Transmission Costs on a transmission pass-through basis.

Consumer Group The category of consumer used by the Electricity Distribution Business (EDB) for the purpose of setting prices

Connected Capacity is the size of a customer's connection – the capacity a customer has access to. Note, the connected capacity could be different to a customer dedicated transformer if a load is fused down.

Energy used means the historic metered energy, adjusted for losses, (measured in kWh) delivered to the Customer over a year



Network means the electricity distribution network in each area that Wellington Electricity supplies distribution services, as defined by the following table:

Pricing Year means the 12 month period from 1 April to 31 March, each year.

Transmission Costs means the charges payable to a Transmission Service Provider or to any other party in respect of the transmission of electricity and the costs incurred by Wellington Electricity as a result of those charges.

Transmission Service Provider means Transpower or any owner or operator of any transmission system or embedded generator.

Transpower means Transpower New Zealand Limited and any successors or permitted assigns.

WELL means Wellington Electricity Lines Limited and any successors or permitted assignees.

1.3 Allocation methodology

The TPM classifies transmission costs into four components.

- a. **Connection Charges:** Charges for connection assets – this has not changed from current prices.
- b. **Benefit Based Charges:** Allocates costs of new and certain historical grid investments to customers in proportion to their benefit. Benefit-based charges (BBCs) recover capital and operating costs (including a share of overhead opex) attributable to a benefit-based investment.
- c. **Residual Charges:** Residual charges recover Transpower's revenue not recovered through other transmission charges. Includes old investments and overheads not included in BBC.
- d. **Provisions for adjusting transmission charges:** The TPM also allows for a number of other adjustments to Transmission charges, including:
 - Adjustments for substantial and sustained change in grid use
 - Reassigning costs if the forecast future loading is substantially less than the expected capacity of an investment
 - Prudent discount adjustments to ensure efficient investment decisions
 - Transitional cap to smooth aspects of the TPM transition

The TPM allocates these cost pools to each grid customers, including WELL. WELL then passes these costs through to its own customers. The allocation methodology was developed for Transmission costs using the guidelines provided by the Electricity Network Association (**ENA**). The ENA's guidelines were informed using the EA's Distribution Pricing Practice Note¹, which provides specific guidance on how to apply the TPM to Distribution Prices. The EA's expectations are:

- fixed Transmission charges, which are not intended to influence customers' network use decisions, should be passed through as fixed (daily) distribution charges.

¹ <https://www.ea.govt.nz/assets/dms-assets/30/Distribution-Pricing-Practice-Note-v-2.2-October-2022.pdf>



- Transmission charges intended to send price signals that influence network use should be passed through as distribution charges that send the same price signal (and influence network use in the same way) as the Transmission charge.

The Transmission costs allocated to Wellington Electricity are all fixed so the cost allocation methodology focuses on prices that will not influence a customer's energy behaviours i.e. distribution prices relating to Transmission costs will also be fixed.

The Distribution Pricing Practice Note also provided practical guidance about the application methodology. The ENA's guidelines summarise this guidance in two principles:

- Principle 1—distributors should not attempt a detailed replication of the allocation approach used in the TPM. Rather the allocation approach should be consistent with and have regard for the allocation approaches adopted by the TPM. In practice, this can be achieved by adopting the same underlying allocation drivers of demand (AMD) or usage (kWh) share.
- Principle 2—the pricing structures for the recovery of Transmission costs should reflect the non-distortionary principle (prices should not influence the ongoing use of the grid) implicit in the fixed charge adopted by Transpower.

WELL used these two principles to select the cost drivers used to allocated Transmission costs to each customer group. Appendix A summaries how we have applied the guidelines and principles to allocate transmission costs to customer groups and tariff categories. The cost allocation reflects:

- The allocation drivers used to allocate costs to each customer group align with the TPM cost drivers – Benefit Based Costs and Residual costs are allocated by kWh and Connection costs are allocated by AMD which is approximated using connected capacity.
- Costs are allocated within the customer group using connected capacity:
 - Costs are allocated to residential and small commercial customers using a standard connected capacity size of 15kVA
 - Costs are allocated to medium commercial customers using a weighted average connected capacity
 - Costs are allocated to direct bill customers and large commercial customers using individual connected capacity.

WELL did have a choice of using energy used or anytime maximum demand for allocating Residual costs as the TPM used both cost drivers to allocate Residual costs. We selected energy used (GWH) to allocated Residual costs because:

- **It is consistent with the TPM allocation approach (principle 1):** Consistent with the guidance provided by the EA and the ENA, we have used an allocation approach that has regard to the TPM, rather than replicating it. We have used a simple single cost allocator and a one year's historic data set to simplify the allocation calculation. The TPM uses both AMD (for the initial cost allocation) and GWH (to annually update the cost allocation). As provided by the ENA pricing



guidelines, it is therefore appropriate that distributors use either approach when allocating Residual charges to pricing groups.

- **It meets the non-distortionary principle (principle 2):** Costs are allocated to the customer groups using historic energy used. A single customer cannot materially impact the proportion of total Transmission cost allocated to a customer group by charging how they consume electricity. The EA's Distribution Pricing Practice Note provides that GWH is the best cost driver for ensuring customers cannot influence the ongoing use of the grid (paragraph 4.40).
- **The GWH cost driver is transparent, readily available and is an accurate data source:** Historical electricity use is disclosed publicly as part of our Annual Compliance Statement Disclosures. The electricity used data is externally audited and certified by our directors before it is disclosed on our website and provided to the Commerce Commission.

1.4 Revenue allocation

WELL calculates a customer's share of the total Transmission cost at the start of the year. The calculation is based on historic data and confirmed total Transmission costs from Transpower so the calculation can be made in advanced. Figure 1 provides the Transmission costs, for the regulatory year starting 1 April 2023, provided by Transpower and the allocators used to allocate those costs.

Figure 1 –Transmission cost components and cost allocators

Transmission cost components (2023/24)	Total Transmission cost (\$m)	Customer group Allocator
New Investment Charge	0.90	Connected capacity
Connection Costs	8.73	Connected capacity
Residual Charge	30.33	Historic GWh
Appendix A BBC	6.42	Historic GWh
Low Value BBC (post 2019)	3.43	Historic GWh
Transitional Cap	0.15	Historic GWh
Total	49.96	

Figure 2 provides the proportion of costs that will be allocated to each Consumer Group using the energy used and connected capacity cost drivers. The energy used cost driver reflects the proportion of historic energy used by each Consumer Group. The connected capacity cost driver reflects the proportion of total capacity of each Consumer Group.

The weighted average cost driver is the weighted combination of the two cost drivers and reflects a Consumer Groups share of the Transmission costs.



Figure 2 – Allocation of revenue to each Consumer Group

Consumer group	Connected capacity	GWH	Weighted allocation (weighted by cost categories)	Revenue allocated
	(%)	(%)	(%)	(\$m)
Residential	62%	49%	51%	25.56
General Low Voltage	28%	37%	35%	17.72
General Transformer	9%	12%	12%	5.85
Non-metered	0%	0%	0%	0.04
Streetlights	0%	1%	1%	0.31
Direct Bill	0%	1%	1%	0.48
Total	100%	100%	100%	49.96

Direct Bill customers' share of Transmission costs is \$0.48m. Figure 3 compares the direct bill customers total share of Transmission costs with the total amount allocated last pricing year.

Figure 3 – change in Transmission costs allocated to direct bill customers.

Pricing year starting	01-Apr-22	01-Apr-23	Difference (\$)	Difference (%)
Direct Bill	0.71	0.48	-0.24	-33%

1.5 Calculation of a customer's share of Transmission costs

The annual amount of Transmission costs allocated to each customer on a direct agreement where this methodology applies, will be calculated before the start of the pricing year and provided to each customer within the same time frames as this agreement is required to be disclosure.

1.6 Payment of transmission costs

The Transmission Costs allocated to the Customer will be invoiced to the Customer each month in arrears. Monthly amounts will be calculated as the Total Amount allocated to a customer divided by 12.

The payment terms of each invoice will be determined in accordance with the Customer's connection contract with Wellington Electricity.

Amounts are expressed exclusive of Goods and Services Tax.

1.7 Transpower's transmission pricing methodology

The methodology used by Transpower to determine its transmission charges is outlined in the pricing methodology document - "Transmission Pricing Methodology". This can be found on the Electricity Authority's website at: www.ea.govt.nz/operations/transmission/transmission-pricing/



1.8 Appendix A - Transmission pass-through methodology

Transmission cost	Cost driver - price categories	Price category	Cost driver - within price categories	Customer group	Tariff
Residual	kWh	Residential	Fixed capacity (15 kVA)	Residential	Fixed daily
		Commercial	Fixed capacity (15 kVA) avg. connected capacity Individual connected capacity	Small (15kVA and under) Medium (4 x categories from 15kVA to 1500kVA - GLV & 3 x categories from 15kVA to 300kVA - GTX) Large (2 x categories from +300 kVA - GTX)	Fixed daily Fixed daily or capacity charge Capacity charge
		Non-metered	Fixed capacity Fixed capacity	Non-street lighting streetlighting	Fixed daily Fixed daily
		Direct	Individual connected capacity	Direct bill	Capacity charge
Benefit based	kWh	Residential	Fixed capacity (15 kVA)	Residential	Fixed daily
		Commercial	Fixed capacity (15 kVA) avg. connected capacity Individual connected capacity	Small (15kVA and under) Medium (4 x categories from 15kVA to 1500kVA - GLV & 3 x categories from 15kVA to 300kVA - GTX) Large (2 x categories from +300 kVA - GTX)	Fixed daily Fixed daily or capacity charge Capacity charge
		Non-metered	Fixed capacity Fixed capacity	Non-street lighting streetlighting	Fixed daily Fixed daily
		Direct	Individual connected capacity	Direct bill	Capacity charge
Connection	Connected capacity	Residential	Fixed capacity (15 kVA)	Residential	Fixed daily
		Commercial	Fixed capacity (15 kVA) avg. connected capacity Individual connected capacity	Small (15kVA and under) Medium (4 x categories from 15kVA to 1500kVA - GLV & 3 x categories from 15kVA to 300kVA - GTX) Large (2 x categories from +300 kVA - GTX)	Fixed daily Fixed daily or capacity charge Capacity charge
		Non-metered	Fixed capacity Fixed capacity	Non-street lighting streetlighting	Fixed daily Fixed daily
		Direct	Individual connected capacity	Direct bill	Capacity charge

