TPM Post Implementation Review, summary report - public

October 2025



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1 Overview

Transpower is conducting a post implementation review (**PIR**) of the new transmission pricing methodology (**TPM**). Its purpose is to understand how the TPM is delivering on intended objectives, identify issues and how these might be addressed.

Concept has assisted with the review, which has two stages:

- 1. A survey of stakeholders.
- 2. Consideration of selected focus areas.

In Stage 1, we surveyed TPM stakeholders and Transpower staff on their experience with the new TPM. In Stage 2, we considered three focus areas:

- 1. Immediate opportunities where Transpower can pursue improvements, such as educational materials, how it engages on TPM matters and forecasting information.
- 2. Near-term opportunities improvements that could be addressed through an operational review of the TPM.
- 3. Longer-term opportunities broader policy issues.

This report summarises what we discovered from stakeholders.

1.1 Stakeholder survey feedback

TPM implementation and operation has been difficult for current and prospective customers (including where those would connect at distribution level) and Transpower. Many see the TPM as a 'black box', inaccessible, excessively complex, highly sensitive to small changes, unpredictable and unforecastable. Particular concerns:

- Uncertainty is stalling/stopping demand side and generation investment for both grid and distributor connected (and prospective) customers.²
- The quality of engagement in transmission investment planning has deteriorated and is increasingly simplistic and price-based.
- A perception the TPM is unfit for present system circumstances and risks becoming an impediment to electrification.

Benefit-based charges (**BBCs**) are, by some margin, the biggest area of concern, even for sophisticated stakeholders.

Figure 1 summarises perceived materiality of issues by TPM charge component and a judgemental assessment of the ease to address. 'Materiality of issues' reflects stakeholder sentiment while 'ease to address' reflects the likely analytical and administrative processes.

Figure 1: Materiality of issues and ease to address, judgemental

TPM component	Materiality of issues	Ease to address	
Residual charge			
Connection charge			
Benefit-based charges			
Adjustment rules			

¹ Respondents assigned a complexity rating of 9/10, with 85% seeing complexity as a product of the TPM itself. They indicated a confidence level of 25% in their ability to forecast transmission charges.

² 9% somewhat agree the TPM enables investment (demand and generation), 60% disagree (12% don't know, the balance neither agree nor disagree).

We acknowledge and thank survey respondents for their engagement, sharing their experiences and insights.

1.2 Stakeholder feedback on focus areas

In Stage 2 we held two workshops. These were well attended, with a wide cross-section of stakeholders, robust and constructive discussion. The workshops focused on education, engagement and forecasting; however, also provided insights that informed the two longer term focus areas.

1.2.1 Education, engagement and forecasting

Education and engagement

Stakeholders consider TPM education should equip them with the skills to undertake an end-to-end review of how their charges are calculated.

That engagement and training should enable them to close information and skill gaps and that forecasting information is sufficiently granular to drill down to the very bottom of the calculations for each charge, now and into the future.

Forecasting

In this context, a forecasting tool can offer complementary benefits where it provides the interactive platform for stakeholders to interrogate forecasting information Transpower provides to them. In addition, it could give potential investors indicative TPM charges to progress their investment decision-making.

It is important that Transpower's efforts address the needs of its current and prospective customers (being immediately exposed to the TPM), but also of embedded current and prospective customers

³ The two longer-term benefits are contributing to lower electricity prices for consumers and supporting New Zealand's efficient transition to a low-emissions economy.

who want to understand how their choices and behaviours can impact TPM charges to their EDB (which EDBs pass on to them).

1.2.2 Scope for an 'operational review'

Transpower is able to initiate a review of the TPM itself and propose changes to the Electricity Authority.

Drawing on stakeholder feedback, including of Transpower's own staff, we see two obvious areas for an operational review:

- 1. Refinement of adjustment mechanisms to better achieve policy intent, reduce volatility and uncertainty.
- A concerted effort to reduce complexity in BBCs to better achieve policy intent and reduce risk of unintended consequences.

The scope and ambition of an operational review, in particular for the 2nd area above, will depend on Transpower's capacity and appetite for change. Several of the broader policy concerns may be resolved by addressing the areas above, and there is potential to address some or all remaining issues through the review.

1.3 Our observations

Considering stakeholder feedback and discussions, it appears unlikely the TPM is realising the hoped for benefits³ at this point and unclear whether, without refinement, the TPM will yield the hoped for benefits in the foreseeable future. Concerningly, it is possible the TPM is increasing, not reducing costs to consumers and impeding, rather than supporting the transition to a low-emissions economy.

The gap between expectations of what TPM reform would deliver and what is occurring in practice appears to be down to:

- the degree of complexity and prescription specified in the TPM Guidelines and the TPM itself.
- the increasing activity by energy users to electrify and by generators to connect (to meet demand), which exacerbates the cost of unclear price signals.
- Difficulty anticipating the pace or extent of change in our energy system when the TPM was adopted in 2022.
- the not-unexpected need for refinement after implementation of such a major regulatory change.

We did not observe strong opposition to the principle of benefit-based charges⁴, rather how these are specified in the TPM – where there is near unanimity over the negative impacts of complexity, volatility and resulting unpredictability (**CVU**) in the TPM.

We think there are low-regrets steps that Transpower can take immediately or in the near term:

- Further steps to build stakeholder understanding of the TPM:
 This could mean:
 - enhanced information and support for stakeholders.
 - more meaningful forecasting information and potentially a quantitative 'model' or service to aid estimation and forecasting of TPM charges.
- Transpower initiating an 'operational review' of the TPM that could:
 - address specific issues identified to date.
 - remove some complexity, moderate factors causing volatility and/or inhibiting predictability.

These steps may go a long way towards mitigating CVU concerns.

Any review could give increased emphasis to the general provisions of the TPM Guidelines:

"that the TPM must balance the economic benefits and costs of precision with the economic benefits and costs of practical considerations, including robustness, simplicity, certainty (including through limiting the need for Transpower to exercise discretion) and costs with developing, administering and complying with it." ⁵

⁴ There is serious concern about the economic and social impact of large increases in the allocation of transmission costs to disadvantaged regions.

⁵ <u>TPM Guidelines</u>, General Matters

2 Introduction

This section provides background on what the TPM is for, how the TPM is developed and reviewed, the current TPM and why this post implementation review has been conducted.

2.1 What is the TPM for?

The transmission pricing methodology or TPM is the regulated methodology that Transpower is required to apply to recover its full economic costs⁶ from customers.

The TPM is determined by the Electricity Authority (the Authority) and is incorporated into the Electricity Industry Participation Code (the Code). The TPM specifies how Transpower must:

- attribute its revenue between different charges.
- calculate each charge.
- apply each charge to different customer categories.
- conduct and assure the price setting process.

2.2 Developing the TPM

The purpose of the TPM is to ensure that Transpower's full economic costs are allocated in accordance with the Authority's main objective in section 15 of the Electricity Industry Act, 2010.

To develop the TPM the Authority must:

• develop and consult on an 'issues paper'.

⁶ The Commerce Commission determines Transpower's maximum allowable revenue (MAR) which are set to reflect the economic cost of Transpower's services. This is done by setting an 'individual price path' using rules called 'input methodologies'. Information about this regulation and Transpower's current individual price path is available here/beta/figures-path/

 publish the process for developing the TPM and any guidelines that Transpower must follow.

Transpower must then develop the TPM in accordance with the process and guidelines specified by the Authority.

This is how the current TPM was developed. It contains significant changes from the preceding TPM. The main components of the current TPM are summarized below.

2.3 The current TPM

The current TPM has applied since 1 April 2023. It was introduced after a review initiated by the Authority. The main stages of the review and TPM development were:

- 1. October 2012: Authority initiates TPM review due to material change in circumstances.
- 2. April 2020: Authority issues TPM Guidelines to Transpower.
- 3. August 2021: Transpower proposes TPM to Authority.
- 4. June 2022: New TPM adopted by Authority.
- 5. April 2023: New TPM in operation by Transpower.

The current TPM is a significant departure from the preceding TPM; it comprises three main charges:

 Connection charges, which recover the cost of assets that connect individual customer(s) to the interconnected grid and are paid by those customers. Paid by generation and offtake customers.

- 2. **Benefit-based charges (BBCs)** for new and some historical interconnection investments, paid by customers who are expect to benefit from them. Paid by generation and offtake customers.
- **3. Residual charges** which recover residual revenue (maximum allowable revenue less all other transmission charges). Paid by offtake customers only.

The connection charge was retailed from the prior TPM, the BBCs and residual charges replace two previous charges (the HVDC charge and interconnection charge).

The TPM also includes provisions for amending transmission charges – adjustment events, reassignment and prudent discounts (in specific circumstances). There is also a transitional price cap.

2.4 Post implementation review

As noted in section 2.3, the current TPM contains significant changes from the preceding TPM.

In early 2025 Transpower decided to conduct a post implementation review (PIR) of the new TPM. A post implementation review is a structured review to assess effectiveness after implementation. PIRs are good practice for policy makers and regulators,⁷ and for major change projects⁸.

Transpower engaged Concept to support its review including to survey and engage with customers, stakeholders and Transpower's own staff where they interact with or are affected by the TPM.

The PIR highlighted a number of issues with the TPM, and several opportunities to improve the effectiveness of the TPM in meeting its

objectives. These opportunities could be realised through a review by Transpower of the TPM.

2.5 Review of the TPM

Part 12.4 of the Code contains the current TPM. Part 12 of the code also sets out the requirements and processes for development and review of the TPM, including consultation, decision making and implementation timing.

2.5.1 Review by Transpower

Transpower can review the TPM at any time and may submit a proposed variation to the Authority (provided it is at least 12 months after the last Authority approval of the TPM).

These reviews by Transpower are known as 'operational reviews' and any changes proposed must be assessed by the Authority before being accepted, rejected or referred back to Transpower.

Transpower has previously submitted one proposal to the Authority, which was subsequently adopted into the previous TPM.

2.5.2 Review by the Authority

The Authority can *review* the TPM if it considers there has been a material change in circumstances. The TPM review that led to the current TPM was in response to a material change in circumstances.

The Authority may *amend* the TPM in certain circumstances, for example if the amendment is technical and non-controversial.

The Authority has made a number of such amendments since adopting the current TPM in 2023.

⁷ Post-review | Ministry for Regulation

⁸ What Is Post Implementation Review? | Atlassian

3 Stakeholder feedback

Stakeholder involvement included:

- 43 responses to the survey from a wide cross section of sector and adjacent stakeholders (including residential and commercial / industrial consumers, grid and distributor connected generators, retailers and distributors).
- workshops with Transpower's pricing, grid investment and customer teams.
- two well-attended workshops with survey respondents. The workshops were focused on:
 - steps Transpower could take to better inform and support stakeholders.
 - how TPM charges could be better forecast.

A full report of stakeholder feedback through the survey, as well as insights from the workshops, was provided to Transpower.

3.1 Summary of stakeholder feedback

Stakeholders recognise the lengths Transpower staff have gone to aid understanding of the TPM. However, those efforts and the efforts of stakeholders themselves have been largely unsuccessful - particularly for BBCs.

While most understand the basic concepts and what each TPM charge is intended to achieve, no stakeholder was confident in either their comprehension of, or ability to estimate or forecast transmission charges.

stakeholders' initial unfamiliarity with a new TPM during the transitional period and by uncertainty about the location, timing and size of transmission investments (which would exist even if the TPM did not change) than by the methodologies for the allocation of transmission costs in the TPM.

3.2 CVU concerns anticipated, but thought to be

A common theme amongst submitters on the proposed new TPM

sentiment in its TPM decision paper, discussed the respective

was complexity and predictability. The Authority acknowledged this

drivers and how it would expect those to be addressed in the future.

uncertainty about future transmission charges is more driven by

transitory

Most importantly, it expected that: 9

- Transpower will, over time, work to establish what further information could be produced to help stakeholders better understand the implications of the new TPM.
- stakeholders will continue to invest time and resources in understanding the factors that matter to them, including engaging on investment proposals and scrutinising their costs and benefits.

Stakeholder feedback suggests these expectations were incorrect or underestimated the degree of CVU inherent in the new TPM.

Despite their best efforts, the TPM so far remains a 'black box' to stakeholders. We asked explicitly whether this is due to an initial unfamiliarity or rather the methodology itself, and the responses overwhelmingly suggested the latter.

It is not unusual after major regulatory or other changes are implemented that further refinement is required. This is evidenced by the series of TPM amendments already made by the Authority.

interviews with a small number of stakeholders in lieu of survey.

⁹ TPM decision paper, page 100

However, while these may have been worthwhile on their own merits they have added to the complexity of the TPM and therefore exacerbated rather than alleviated stakeholders' CVU concerns.

The new TPM appears to be at a pivotal moment, with increasing levels of TPM fatigue and frustration – as stakeholders grapple with technological change, demand growth and balancing security of supply.

3.3 How stakeholders see TPM CVU

Stakeholders see CVU as the cause of or a contributor to several significant issues. They think, for example, that CVU in the TPM is:

- impacting generation and demand side investment. Investors are unable to forecast (or obtain from a third party) transmission costs and the resulting uncertainty and profitability risk is delaying / stalling investment.
- introducing general cost uncertainty to all customers (in addition to the risk to potential investors above) and limiting EDBs' ability to flow transmission price signals through to distribution prices.
- consuming much of Transpower's advanced modelling capacity, reducing capacity for business / customer modelling.
 Stakeholders do not have the capability and/or capacity to replicate Transpower's modelling and/or challenge it.
- reducing the opportunity for effective engagement with Transpower's investment proposals, as the inputs and assumptions driving pricing outcomes are not transparent to stakeholders.
- leading to general disengagement and 'TPM fatigue', particularly for stakeholders that have invested to understand but continue to see it as prohibitively complex and inaccessible.

 necessitating highly skilled staff in organisations (that many do not have) and access to skilled consultants, making it also costly.

These issues are driving increasing frustration for customers and industry stakeholders. They may also be impacting security of supply, system efficiency and electricity prices.

3.4 Broader policy concerns

While CVU is the greatest source of concern, stakeholders also told us the TPM was producing other unintended / undesirable outcomes. These included concerns:

- risk of over-build. The reliance on nodal prices to signal transmission constraints was described as "all you can eat, until it is too late" – reflecting a concern price signals were not being received and therefore could not be acted on. This could be due to a combination of:
 - energy prices being high, and more due to generation scarcity than transmission constraints.
 - widespread hedging of energy costs muting nodal price signals.
 - transmission investment commitment typically occuring before constraints binding.
 - the difficulty stakeholders have in estimating future transmission costs (as outlined earlier).

Stakeholders contrasted the clarity of previous regional coincident peak demand charge (**RCPD**) with BBC price signals. Where RCPD is perceived to have been effective in providing a clear and actionable short and long-run price signal, BBCs are not. Beyond clarity, there is a view that - in contrast to the 2010s – electrification will lead to grid constraints and that a strong and

- clear peak price signal will help defer/reduce transmission investment as the electricity system adapts.¹⁰
- 2. **the TPM may tilt the playing field towards large incumbents.** CVU issues may present a particular barrier for small incumbents and new entrants with little/no existing experience to engage meaningfully on TPM matters.
 - In turn, this means stakeholders with better access to skilled staff and consultants will have more leverage to lobby Transpower in its TPM-related decision making. This may risk tilting the playing field for those with resources and established expertise.
- 3. **the extent to which Transpower judgements can drive TPM outcomes.** The TPM frequently requires Transpower to exercise judgements, including on aspects that TPM charges are very sensitive to. The implications are three-fold:
 - It creates uncertainty for stakeholders as it is difficult for them to predict how Transpower will exercise its judgements.
 - ii. It introduces scope for lobbying, particularly where judgements have a disproportionally strong lever on TPM charges (for example, where they can noticeably alter benefits allocation between demand and generation).
 - iii. It assigns Transpower powers to decide on wealth transfer outcomes.
- 4. **the TPM may skew stakeholder input to Transpower's investment consultations**. For many stakeholders, their motivation to engage has increased where they have been

¹⁰ Grid scale batteries and distributed energy resources, while still nascent, are expected to be effective in managing peaks and reducing the need for peak driven grid and generation investment.

identified as potential beneficiaries of proposed Transpower investments. Minimising transmission charges and contributing to sound investment outcomes are both important drivers, however anecdotal evidence consistently suggests some purely engage with a view to minimising transmission charges to them.

5. **benefit-based charging can contribute to equity issues**, through its allocation of charges to bespoke groups of beneficiaries (rather than spreading them across all electricity consumers).

This could lead to affordability issues:

- where remote and low-density regions (as opposed to urban areas) and those with consumers that live in deprivation are identified as main beneficiaries of new investment.
- where high transmission cost can either contribute to the closure of plants or would be prohibitively high to enable investment in generation and demand assets, in turn either lowering employment or preventing new employment opportunities from being created.

Equity issues may also arise:

- where BBC create 'winners' and 'losers' based on when an investment was made.
- where the cost of regional growth investment is recovered by all beneficiaries, and not just by the region where the growth occurs.
- 6. **clarity on how distributors should pass transmission charges to embedded generators.** This is not a TPM issue per se, but several distributors and generators flagged uncertainty

over how new-TPM charges should be passed on to embedded generators.

4 Stage 2: focus areas

In Stage 2, we further considered stakeholder feedback and focused further engagement and analysis in three areas:

- Near-term: steps Transpower can take to improve stakeholder understanding and ability to navigate / manage TPM CVU. For example, through enhanced resources, customer support and modelling tools.
- Medium-term: preliminary scoping for a TPM operational review, initially focused on identified issues that could be addressed through such a review.
- Longer-term: summarising the broader policy issues.

Effort was weighted towards low-regrets steps Transpower could take in the near and medium terms to help with TPM CVU and address recognised issues in the TPM, with a brief assessment of longer-term opportunities.

As we observed in the overview section, there is potential for Transpower to expedite changes to address CVU and potentially some broader policy issues through an operational review.

4.1 Near term: education, engagement, forecasting

Stakeholders appreciate resources and support Transpower already provides but have given clear feedback on how this could be enhanced. In summary:

 Education insights: Stakeholders need an end-to-end view of how their charges are calculated and want to understand how their actions (including those of embedded customers) could drive TPM charges. In their view, educational materials must cover the full breadth and depth of the TPM – providing a holistic, joined-up view of the TPM workings as well as an opportunity to drill down where stakeholders wish to do so.

- Engagement insights: Stakeholders consider engagement should recognise they "don't live and breathe, rather, dive in and out" of the TPM. They ask for hands-on, practical training for those new or returning to the TPM and quick and immediate access to human support is a must have for many. Existing engagement processes can be enhanced if Transpower better prepares stakeholders for these events.
- Forecasting information insights: Stakeholders want high-level forecasting information to be reconcilable to inputs, assumptions and project levels, and any year-on-year incremental changes to be transparently identifiable. They see sufficient guidance and explanatory commentary as a pre-requisite to understand the rationale for charges (and EDBs can make informed choices when passing them on to their customers). In their view, the time horizon forecasting information should cover is 5-10 years.
- Forecasting tool insights: Stakeholders want an interactive tool to interrogate their forecast charges based on Transpower's current asset base and forecast investments in transmission assets. Potential investors want to understand TPM charge implications for their investment opportunities, with an accuracy band of +/-15%. Views on the tool's level of sophistication are diverse, ranging from some basic functionality to advanced capabilities, such as undertaking scenario modelling and expressing charge outcomes in probabilistic ranges.

Stakeholders raised the need for more 'customer journey' based resources in place of or in support of the volumes of material already available. This recognises a growing diversity of stakeholders, many engaging with the TPM for the first time with limited resources.

Many of the challenges stakeholders face relate to BBCs and their interaction with other TPM charges. Stakeholders recognise there are limits to how much education, engagement and forecasting can

do given the level complexity, uncertainty and volatility inherent in the BBCs. This leads to medium / longer term initiatives.

4.2 Medium term: 'operational review'

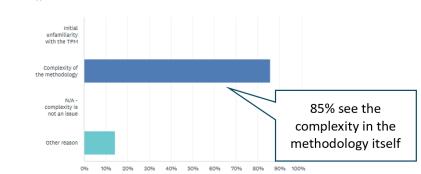
Stakeholders identified several specific issues that could potentially be addressed through an operational review of the TPM.

Figure 2, a snip from survey responses, shows stakeholders perceive TPM complexity to driven by the methodology itself rather than other factors.

Figure 2: source of complexity

2a. In your view, what contributes most to the complexity of the TPM?

Answered: 28 Skipped: 15



Addressing complexity (and volatility and uncertainty) requires refinement of the TPM itself. Transpower, as author and now administrator of the TPM, is well placed to address these concerns through and operational review.

Transpower asked us to provide a preliminary scope for such a review, focused on the specific issues identified. They include:

- 1. Refinement of adjustment mechanisms. For example,
 - a. ceasing charges for a specific site where a multi-site customer exits at that location.

- b. reducing/removing in-year adjustments to reduce volatility and customer disruption.
- 2. Reconsidering the threshold for large investments, in turn affecting the delineation between the simple and standard methods to calculating BBC.
- Refinement of BBC charge specification to reduce the need for Transpower to exercise judgement, to reduce complexity, volatility and uncertainty. Overall, to enhance and support stakeholders ability to understand, replicate and forecast BBCs and, by extension, transmission charges reliably.

While stakeholders are concerned about price outcomes, their overriding concern is the inability to understand, replicate and forecast BBCs and, by extension, transmission charges with any degree of confidence.

In this sense it is not the philosophy or policy behind BBCs, rather how these are implemented through the TPM and charge calculation that is the problem. That is to say, the TPM has not struck the balance precision and practicality. This impacts the efficacy of BBCs, casts doubt on benefit realisation and risks the negative externalities described earlier in this report.

4.3 Longer term: 'review of the policy settings'

Stakeholders also highlighted a range of broader policy concerns as summarised in section 3.

These may be addressed to differing degrees through the measures discussed above. In analysis for Transpower we considered briefly how each concern might be addressed – noting procedural limits on what might be achieved through a Transpower initiated operational review.

This is a summary report for publication. More in-depth information and analysis has been provided to Transpower through our intermediate reports on Stage 1 and stage 2 work.

4.4 Appendices

Appendix A: Review scope

Appendix B: PIR stakeholder feedback summary

Appendix C: Stakeholder comments

Appendix A. Review scope

This section discusses the scope for the TPM PIR, considering the Authority's TPM objective and the TPM Guidelines it used to develop the new TPM.

The TPM objective

In its <u>letter</u> to Transpower upon the new TPM commencement, the Authority specified the TPM objective as follows:

The new TPM will bring substantial benefits to consumers in the years ahead, through stable, robust, and efficient transmission pricing. The new benefit-based approach will lay solid foundations for the substantial investment that will be required to meet our decarbonisation goals, by promoting the right investments being made at the right place, at the right time. Over time, the new methodology is expected to contribute to lower electricity prices for consumers and support New Zealand's efficient transition to a lowemissions economy.

The Authority's statement specifies two longer-term TPM objectives:

- Contributing to lower electricity prices for consumers.
- Supporting New Zealand's efficient transition to a low-emissions economy.

In its <u>TPM decision paper</u>, the Authority explains further the drivers that will help achieve these objectives and that it considers the new TPM will promote.¹¹

Contributing to lower electricity prices for consumers

- ¹¹ TPM decisions paper, Executive Summary
- ¹² TPM Guidelines, Authority's intent

- More efficient use of the grid.
- More efficient investment in transmission and generation assets.
- Reducing the cost of electricity at peak times.
- Lower prices over time for delivered electricity.

Supporting New Zealand's efficient transition to a lowemissions economy

- Improving certainty for investment in new renewable generation.
- Better transmission pricing signals will support the right investments being made at the right time and in the right places.
- New Zealanders will be able to access new, cheaper renewable generation earlier.
- This will help ensure the best use of existing and future infrastructure.

Guidelines for the TPM development

To achieve the TPM objective, the Authority had prepared <u>TPM Guidelines</u> for the development of the new TPM.

These specified the components the TPM must include, including:¹²

• a connection charge.

- a benefit-based charge.
- a residual charge.
- a prudent discount policy.
- a transitional cap on certain transmission charges.
- additional components the TPM may include.

Large parts of the TPM Guidelines focus on the technical implementation of these components that are of lesser relevance to this review.

Instead, the review focusses on the General Matters section, comprising a set of principles the new TPM must comply with, of which the most relevant to this review are the following:¹³

- The TPM must balance the economic benefits and costs of precision with the economic benefits and costs of practical considerations, including robustness, simplicity, certainty (including through limiting the need for Transpower to exercise discretion) and costs with developing, administering and complying with it.
- Transpower must consult with its customers on all charge types.
- Transpower must provide sufficient information to customers to understand the basis for the calculation of charges under the TPM.

The TPM must result in an allocation of charges to customers

¹³ TPM Guidelines, General Matters

Appendix B. TPM PIR Stakeholder responses summary

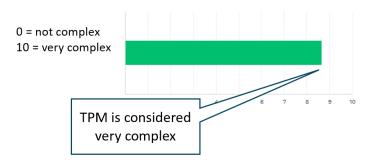
This appendix shows some insights from our TPM PIR stakeholder survey conducted in May 2025. Stakeholders were asked a series of questions for which they could provide a score (1-10) and were able to add comments in free text boxes. We provided a full report of stakeholder feedback to Transpower separately.

Respondent grouping	Number of Responses	% of responses	Summary	
Residential consumer	3	5	43 stakeholders took part in the survey.* The majority were electricity distribution businesses (EDBs), followed by electricity	
Distributor connected consumer (commercial / industrial)	4	7		
Grid connected consumer (commercial / industrial)	7	13	generators, grid connected consumers (direct connects) and electricity retailers. There were a small number of responses from distribution network connected consumers	
Electricity generator	13	23		
Electricity retailer	6	11	(commercial and residential) and one from an industry association.	
Electricity distributor	18	32	Overall this is a good representation of	
Other	5	9	Transpower stakeholders *some respondents covered two categories e.g. generator / distributor / retailer	
Total number of respondents	43*			

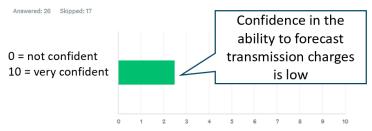
A selection of survey responses is provided on the following pages. These responses are most pertinent to the issues raised by stakeholders.

1. Overall, how would you rate the complexity of the new TPM?

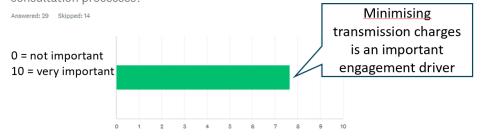
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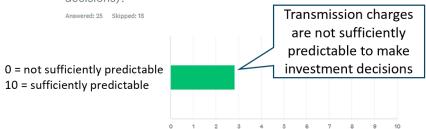
1a. How confident are you in your ability to forecast transmission charges related to Transpower's existing assets over time?



4a. How important is minimising your own transmission charges as a motivation for engaging in Transpower's transmission investment consultation processes?

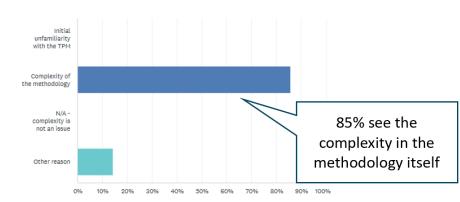


6a. Overall, are transmission charges under the new TPM sufficiently predictable to enable you to make financial investment decisions (e.g. considering your ability to undertake discounted cash-flow analysis, to seek funding for investment opportunities and to make final investment decisions)?

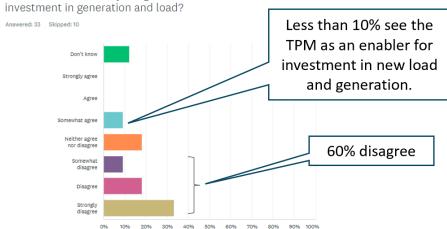


2a. In your view, what contributes most to the complexity of the TPM?

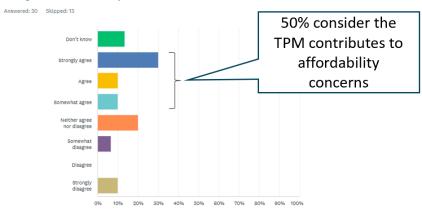
Answered: 28 Skipped: 15



3a. To what extent do you agree the new TPM is an enabler for new investment in generation and lead?

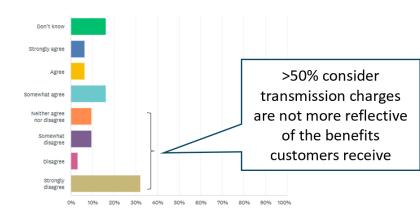


2a. To what extent do you agree that the new beneficiary-pays approach may contribute to electricity affordability concerns, given that transmission charges can be driven by factors such as location?



1a. To what extent do you agree that, since the inception of the new TPM, transmission charges are more reflective of the benefits Transpower's customers receive from the grid?

Answered: 31 Skipped: 12



Appendix C. Stakeholder comments

These comments were provided by survey respondents alongside their scoring for each question. Stakeholder comments are anonymised.

Theme 1: complexity, volatility, uncertainty

Direct connect - "Predicting the impact of new load or generation moves to a level of complexity requiring TPM modelling expertise. It is early days, but both the early projects under the new TPM (Western <u>BoP</u> and USI upgrades) are testament to the complexity as to who will get allocated. Modelling of potential benefits for consumers into the future is a nebulous approach."

EDB - "The complexity is so great that to gain meaningful and useful understanding takes too long, and even with some understanding the outcomes remain difficult if not impossible to determine. From a pure pricing perspective, this complexity makes it unworkable. Further, we would suggest that the complexity promotes disengagement – it's just too hard."

Generator - "1. Long term investment decisions require long term certainty (as much as possible). Connection and Transmission charges are a material component of a business case value. 2. you can not get any certainty on the day 1 Beneficiary charges for a new site. The lines company is generally unwilling to give you numbers, as is Transpower. There are independent experts you can use, however they can only base their analysis on what they know."

Generator - "It is too complicated and unpredictable. Also it is unclear what the various network company policies are for passing on costs for generation connected to networks but greater than 10W. I don't think even network companies fully understand these impacts."

EDB - "It is concerning to see the continual disclaimer that parties should seek independent advice when there is not a market for this advice. I believe it is too niche for one to be established so will likely result in those that can understand passing cost through to those that find it too complex."

EDB - "No one wants to think about the TPM any more than they <u>have to</u>. I'm not sure there would be a huge appetite for initiatives to help people become more familiar with the TPM other than offering a TPM hotline type service that can provide people with guidance, background, context, <u>etc</u> on an issue/question they have."

Generator - "I thought I knew little about it until I spoke to others and <u>realised</u> they knew less."

EDB - "I have mostly lost interest in the TPM due to its inherent flaws as I understand it."

EDB - "It is clear that Transpower has taken steps to support understanding of the TPM, and it is appreciated. It seems though that the complexity (probably driven by the highly dynamic nature of the TPM) that any amount of guidance will still be insufficient."

EDB - "It is impossible for us to determine what future transmission charges will be. For load customers or for new connected generators. For example, we provided a new generator with an indicative cost completed by an external expert, the first year was within \$1k, within two years the costs had doubled. The generator is not happy, and we are unable to provide ANY transparency."

EDB - "The methodology is too complex for meaningful engagement. Unfortunately for many within the industry, particularly without the tools to assess wholesale market movements, charges are accepted as given. Most feel ill-equipped to validate or challenge the allocations assigned to customer connections."

EDB - "New distributed generation customers always want to understand how much it will cost them to connect to our network for their investment decision. However, transmission charges for new DG customers are often an uncertainty to them. This is because, due to its complexity, we, as a distributor, don't have the expertise to estimate the new transmission charges driven by the new connection. And Transpower does not have the resources either to provide an estimate until it is close to the commissioning date of the new connection."

Theme 2: other TPM issues

Direct connect - "Our Transmission charges have INCREASED \$xm a year despite our consumption decreasing. This makes electricity unaffordable as we are now burdened with higher costs for the same or less. We have lost all possibility of impacting transmission charges by reducing demand at specific periods to assist the grid capacity."

EDB - "[we] agrees the beneficiary-pays approach can contribute to electricity affordability concerns. [our] remote location means energy costs are above the average for our customers. The new TPM resulted in a [X]% increase in[our] transmission charges. Ignoring the new \$[X] million connection charge, the BBC and Residual Charges are twice the Interconnection Charge we paid previously. It is difficult to explain to our customers why [we] must pay twice the amount it used to for use of the same set of assets."

EDB - "[xx]% of the [Xx consumers live in <u>deprivation</u>, they face a continuing increase in electricity costs to fund assets that meet the growth of electricity demand in Auckland. The BBI without a causer element will continue this inequity and affordability issue. This is a wealth transfer from the poorest to the richest in the country. The implementation of the new TPM saw an increase in transmission charges of [x]% to the poorest in the country."

Generator - "...even if my energy use is the same, a change in someone else's use can impact my charges. <u>Of course</u> I am not confident [in my ability to forecast transmission charges]."

EDB - "generation applicants require greater certainty of costs to inform their business cases, and we feel unable to provide that with the TPM. It would be useful if <u>Transpower</u> continued to set out the contribution to charges caused by adjustment events on an ongoing basis."

Direct connect - "Major projects on the grid, and events locally, make forecasting individual charges much more difficult. Added to this mix are changes in methodology by the Electricity Authority. The recent changes for emerging technologies (BESS) is an example in point. These changes were made despite there being nothing new since the TPM was introduced 2 years ago. These factors make forecasting difficult."

EDB - "Adjustments, reallocation and comparing actual costs with revenue mean it is not possible to predict in advance the charges for existing assets. The allocation of costs or reimbursement is so detailed that any change – even \$7.55 is being reimbursed to all customers paying for the WTK LV assets."

EDB - "TPM adjustment events result in a lot of information, but a lot of it is not accessible. We can see charges are increasing, and where, but cannot say why or perform any checks to verify the adjustment charges are correct."

EDB - "TPM has moved from an easily (relatively) understandable/explainable approach where impacts from actions could be determined, to one that is so complex and dynamic that it is nearly impossible to understand or know the impact from an action. Determining the impact of changes (such as adjustment events) under the TPM is far beyond the capability that we have in-house, and we have not gained a better understanding even when asking Transpower directly."

EDB - "...distributors don't have the expertise to calculate the adjustment event implications and Transpower doesn't have the resources to provide an estimate until it's very close to the actual commissioning date."

EDB - "Its only slightly worse insofar as the recent amendments and corrections create uncertainty about how whether future changes are on the horizon."

Transpower staff - "Some stakeholders purely focus on allocations, with a view to minimising costs to them, don't comment on the options assessment. This expands to the Commerce Commission's consultation processes where submissions dwell not on the regulatory investment test but TPM charges."

EDB - "We are now aware that things can change if the result is undesirable for a vocal participant."

Theme 3: opportunities for improvement

Reduce complexity

EDB - "Reduce complexity – which may require revision of some of the fundamental elements that are the 'new TPM'. Good pricing signals should be clear and understandable. It should be possible to know how our decisions will impact the price we are charged. The TPM does not facilitate this understanding or predictability."

Industry association - "Amend the methodology to be simpler."

EDB - "Simplifying the determination process for who benefits from each investment."

EDB - "We would rather see a simplified TPM. It's not clear to us that educating a wide range of people on the complexities of the current TPM is an efficient use of resources."

EDB - "Scrap TPM and replace with a more equitable and fair system that Networks that require increase load pay <u>for. and</u> not being cross-subsidized by Networks that don't require additional supply."

Education & tools

EDB - "Improved understanding and forecasting tools would increase visibility. If tools are not available, then producing forecasts of each for each customer for the next 5 years could help improve visibility."

EDB - "The most helpful thing would be a calculator that would allow us to accurately determine the incremental cost due to the connection of load and generation. A video that takes users through the elements used to determine their charges would be helpful. But only if it was understandable / could be followed by those without a deep knowledge of the TPM."

Generator - "A live model showing changes in use and changes in investments on the impacts of charges."

Generator - "A live model to demonstrate cost allocation and provide participants the ability to audit the calculations behind the numbers."

EDB - "There is a need for education, tools and support to understand the TPM and overcome the complexities that currently prevent it from being understood."

EDB - "We recommend plain English guides would be useful about the various charges under the TPM and processes that happen each year that end up adjusting the charges."

Information

Direct connect- "Transpower's implementation process has gone reasonably well. More information around cost allocation and justification of identified benefits for major projects are required. However, the major issues lie with the flowed fundamentals of the methodology."

EDB - "Providing this visibility requires <u>Transpower</u> to publish a document <u>summarising MCP</u> projects currently in the approval process and under initial investigation. This information would be useful – not only as it provides visibility about future transmission costs but also how the transmission grid is expected to evolve over the next 10-15 years."

EDB - "generation applicants require greater certainty of costs to inform their business cases, and we feel unable to provide that with the TPM. It would be useful if Transpower continued to set out the contribution to charges caused by adjustment events on an ongoing basis."

Generator - "Forecasts of charges for every generator over the next 10 years of their connection and benefit-based charging, based on what has been approved to date. An update of this forecast every time a new investment is proposed or approved."

EDB - "Being clearer about how you can talk to someone at Transpower if you need more information [would help]. Worked examples could be an option to convey SPPD complexity."