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By email im.review@comcom.govt.nz

Input Methodologies Review 2023: Draft Framework Paper and Process and Issues Paper

Dear Andy

Transpower welcomes the opportunity to respond to the Commerce Commission's (the Commission's) Input Methodologies (IMs) Review 2023 draft Framework Paper and Process and Issues Paper.

We welcome the Commission decision to include the Transpower Capital Expenditure (Capex) IM as part of the IMs review. We also welcome the Commission's decision to extend the timeframe for submissions and cross-submissions in recognition of the large amount of material and issues under review.

We agree with the Commission's starting premise that most aspects of the IMs are working well but "*there may be scope for some elements to be improved*" and "[*t]he IMs may need to enable more flexibility to help keep up with the pace of change*".[1] Transpower continues to be of the view that the IMs are fundamentally fit-for-purpose. We note that while some of our proposed amendments to the IMs are incremental, we believe they will be key enablers of electrification.

Since the last IMs review, climate change issues and electrification have increased the need to invest in the grid. These 'game changers' dominate our Transmission Tomorrow strategy, our Wakamana i Te Mauri Hiko blueprint for a decarbonised economy and our electrification roadmap.[2]

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[1] Foreword, Process and Issues Paper

[2] Whakamana i Te Mauri Hiko - Empowering our Energy Future and Electrification Roadmap.

While the implications of climate change for the energy sector are myriad, for Transpower it means we need to invest to ensure transmission capacity is available in time, and that our assets are reliable and resilient to increased dependence on electricity across the economy.

Our upcoming Regulatory Control Period 4 (RCP4) Proposal, and major capex projects (including our Net Zero Grid Pathways (NZGP) major capex projects), will set out our understanding of the investment requirements over the next five to 15 years for us to continue to supply a reliable and safe service and to deliver on decarbonisation requirements.

In the context of the Government's policy to reach net zero emissions by 2050, we need the IMs Review to provide certainty:

1. that we can plan and invest to meet the future needs of our customers and end consumers, today and in the future; and
2. around financing these investments.

We summarise our position on these two key points below.

Future investment requirements

The current Capex IM Investment Test, based on the grid investment test the Electricity Commission created nearly two decades ago, has provided Transpower certainty as to the information and analysis it needs to seek approval from the Commission. However, to provide certainty that the Investment Test will continue to deliver the right investment at the right time (ensuring investment is in place as customers need it) we consider two key areas of change are to:

1. Shift the Capex IM Investment Test evaluation to a more principles-based approach.
2. Introduce more flexibility in the Transpower IMs to allow for a greater range of uncertainty mechanisms. We also see this being achieved via a principles-based approach.

Our views on the Capex IM are shaped by our experience with its operation, and our understanding of the Fibre Capex IM[3] that applies under Part 6 Telecommunications Act. The Fibre Capex IM makes several improvements compared to the Transpower Capex IM. For example, the Fibre Capex IM has a much clearer and more tightly focussed evaluation criteria and purpose that: "*the proposed capex … reflects good telecommunications industry practice" and "the efficient costs that a prudent Fibre network operator would incur …*". The Fibre Capex IM evaluation criterion is industry agnostic and consistent with replicating outcomes in a workably competitive market.

[3] Fibre Input Methodologies subpart 8

The Fibre Capex IM also usefully separates evaluation criteria and "assessment factors" that the Commission "must have regard to" where they are "relevant when evaluating a capex proposal".[4]

We consider there is potential for targeted changes to the Transpower Capex IM that reduce prescription while still providing certainty. In other words, retain key elements of the Transpower Capex IM (more certainty about the requirements needed for the investment test) and incorporate some elements of the Fibre Capex IM (reduction of some elements of prescription and more flexibility in the evidence required to support investment approval).

Under the Transpower IMs there are a variety of mechanisms for uncertainty,[5] however the IMs set out prescriptive requirements on how these mechanisms will work. We consider that a principles-based approach which would allow uncertainty mechanisms to be set via Transpower Individual Price-quality Path (IPP) is more effective. For example, the Transpower IMs could include the principles/criteria that need to be met for an uncertainty mechanism to be applied, and the IPP Determination would prescribe how it would work in practice. This would provide a similar level of certainty around how the Commission would consider uncertainty mechanisms, while only requiring the IPP determination to have the prescription and not requiring an associated change in the IMs.[6] Resilience spending and bringing forward transformer replacements to provide customer with more capacity are two areas where we consider more flexibility is required.

Financing

The Commission has put several finance issues on the table. For Transpower, the key ones are the application of the WACC 67th percentile for setting the allowed rate of return and Transpower's unindexed RAB.

The Commission has investigated these parameters in the past, and reached the conclusions:

- That the 67th percentile was required for electricity networks to ensure investments were undertaken; the consequences of setting the rate of return too low was worse for consumers than unintentionally setting it too high.[7]
- Shifting Transpower from an unindexed RAB would have material administrative costs, would materially impact Transpower's cash flows over the short term, and, with the probable need to shorten depreciation profiles, ultimately lead to a similar outcome as an unindexed RAB.[8] These decisions were made in 2016, and, as we note

[4] Refer clause 3.8.6 Fibre Input Methodologies

[5] Listed projects, Enhancement and Development (E&D) reopener, Major Capex Projects, pass-through, recoverable costs, and change events

[6] This was the case for our RCP3 E&D reopener mechanism. This was introduced in the IPP but required a change to the Transpower IM to allow it. The change was required because the existing reopener mechanism prescribed in the IM was not able to accommodate the IPP requirements.

[7] IM review - Final reasons papers (consolidated) 20 December 2016 page 639

[8] IM review - Final reasons papers (consolidated) 20 December 2016 page 327

above, since then Transpower's need for investment has only increased. Our RCP4 proposal and our proposed NZGP major capex projects have a material increase in investment requirements over the current regulatory period. We do not consider reducing the WACC percentile or shifting Transpower to an indexed RAB would be consistent with the Commission's change criteria, specifically the changes would not promote the Part 4 purpose effectively.

The step-change that would be required to shift to indexing Transpower's RAB would have substantial cash flow implications and may cause financeability concerns. This effect may require the Commission to accelerate depreciation on assets in order to provide higher initial cash flows, thereby achieving a similar outcome as the unindexed RAB.

We note that the Commission is reviewing the IMs at a time of high inflation and, therefore, associated forecast increases in the official cash rate (OCR). Transpower is forecasting that the OCR increases will drive our required rate of return to a similar level as we had in RCP2. This means, all else being equal, an increase from 4.57% (vanilla post-tax) to over 7%.

The RCP3 determination was well timed to deliver significant reductions in Transpower's revenue requirements for RCP3. Our RCP3 proposal also had a cautious investment plan which utilised flexibility to allow time to determine the investment requirements for decarbonising the economy. Combined, although largely driven by the reduction in the rate of return, RCP3 provided a significant price decrease for our customers (around 15% in nominal terms). While the increase in revenue requirements for RCP4 comes at a time when inflation is impacting New Zealand consumers across the board, it is a result of market movements outside of our, and the Commission's, control.

We consider mechanisms, such as the trailing cost of debt with annual updates, can mitigate these significant step changes (either up or down) in the required rate of return in the future. While we previously advocated for fewer within-period adjustments to reduce price volatility, the materiality of rate of return movements on our revenue requirements necessitates the the Commission reconsidering the use of annual updates for our revenues to avoid material price shocks between RCPs.

Draft framework paper

The focus of our submission is on the Process and Issues Paper. The Commission's decision-making and review framework has been well canvassed previously. The IMs review framework should be assessed against its ability to: (i) help ensure the Commission's decision-making is transparent and predictable; and (ii) support the achievement of legislative requirements and the applicable statutory objective(s).

It is well understood that the Commission needs to take into account the transition to a low emissions economy/greater electrification. We have previously stated:[9]

> *While the Commission operates with different powers to those overseas, we consider that a similar shift to incorporating emissions reduction in the application of Part 4 regulation is required. This does not require a revolution for the regulatory framework, but we think incremental improvements to the current regime are important as they would help enable decarbonisation and ensure the grid will remain resilient in a future that will be increasingly more reliant on electricity supplied via the grid.*

It is important the IMs review framework supports the Commission fully taking into account the dynamic changes "in relation to the impacts of climate change, the transition to a low carbon economy, and the ongoing impact of COVID-19" and also "Changes to consumer preferences, technology, and government policy …".[10]

We welcome that the Commission is proposing to use the climate related financial disclosures(TCFD) framework for categorising climate-related risks and issues. As the Commission is aware, Transpower has adopted a multi-year TCFD programme and been working towards better understanding of our climate change related transition risks, physical risks and liability risks to ensure mitigation assumptions are quantified and climate change scenarios are integrated into our strategic planning processes.[11]

To that end, we consider the Capex IM should be explicit that the expenditure objectives under base capex for asset replacement and refurbishment expenditure extend towards resilience expenditure (as the combination of all assets). Reliability is more influenced by localised impacts of shorter duration (usually minutes or hours). Resilience is concerned with high impact, low probability events that have the potential to significantly disrupt our service. While resilience has been part of our planning process, electrification will increase dependence on the grid and therefore we consider that we need pro-actively to increase our investment in this area.

The rest of this submission

We have addressed the issues raised in the Commission's process and issues, and framework paper in more detail in the accompanying appendices. We have split the issues into the following and cover them in the respective appendices:

1. those *promote the Part 4 purpose more effectively or promote the IM purpose more effectively*.

[9] Transpower, Fit for purpose regulation, 28 May 2021.

[10] Foreword, Process and Issues paper 20 May 2022

[11] Transpower, Fit for purpose regulation, 28 May 2021.

2. those that *significantly reduce compliance costs, other regulatory costs, or complexity (note, without detrimentally affecting the Part 4 purpose*).

We have also attached a report prepared for Transpower by Frontier Economics (Frontier) in relation to RAB indexation. The report sets out the difference between indexed and non-indexed approaches, provides information on recent regulatory development, and estimates the cash flow implications for Transpower of an indexed approach.

In the timeframe available we have endeavoured to raise all the issues we see but if anything has been missed we trust we are able to raise those in the remaining process.

We would appreciate the opportunity to discuss this submission with the Commission. Please do not hesitate to contact me (joel.cook@transpower.co.nz).

Kind regards,

Joel Cook

Head of Regulation

Appendix 1: Promote Part 4 and IMs more effectively

This appendix discusses issues that promote the Part 4 purpose more effectively or promote the IM purpose more effectively.

The issues we cover have been identified by the Commission and are, broadly:

- processes and settings under the Capex IM for investment to ensure the Capex IM does not inadvertently create "*barriers to the efficient connection of electricity generation (and particularly renewable generation), electricity demand resulting from the decarbonisation of large industrial users, or the optimal dispatch of generation*"[12]
- financing that investment to maintain incentives to invest, innovate and meet customer demands
- roles for and application of revenue adjustment mechanisms "*to deal with the implications of uncertainty about the investment need, the timing of investment, and the magnitude of uncertainty in the forecast of cost.*"[13]

The existing Capex IM framework has worked well during our recent period of relatively flat demand growth with a comparatively high degree of certainty. The most substantive change that has occurred since the 2015/16 IMs review has been a shift in focus to the transition to low emissions and greater electrification of the economy. As the pace of electricity demand growth increases, we believe the time is right for a conversation about how we could evolve this system to reflect the role that the grid must play in New Zealand's decarbonisation. We agree with the Commission that:

> *"The energy and airport sectors are in a period of change, particularly in relation to the physical impacts of climate change, the transition to a low carbon and climate-resilient economy, and the ongoing impact of COVID-19. Further changes in technology, government policy and consumer preferences are also expected to impact these sectors in the short, medium and long term. A key development is the recent publication of the first emissions reduction plan, which contains strategies, policies and actions for achieving the first emissions budget. The plan is likely to have significant impact on both sectors."*[14]

Consistent with this, we agree with the Commission's view and approach that:

> *"This IM Review occurs during a period of change for the energy and airport sectors, particularly in relation to the impacts of climate change, the transition to a low carbon economy, and the ongoing impact of COVID-19. Changes to consumer preferences, technology, and government policy are all expected to also affect these*

[12] Commerce Commission Process and Issues paper 20 May 2022 paragraph 4.32
[13] Commerce Commission Process and Issues paper 20 May 2022 paragraph 4.31
[14] Commerce Commission Process and Issues paper 20 May 2022 Executive summary

sectors in the short to medium term … we begin by identifying and defining the issues clearly and letting this inform the process we follow."[15]

We also agree and support the introduction of the Climate - related financial disclosures framework (TCFD) to understand and categorise the climate-related uncertainties, risks and opportunities facing regulated suppliers.

Capex IM Issues – Major Capex

The Capex IM goes directly to issues relating to incentives to innovate and invest that are needed to meet the challenges of the transition to a low emissions economy. Transpower considers that the Capex IM needs to be adapted to reflect the increased reliance on the grid from electrification.

We have identified several issues for review under the Capex IM and propose the following changes in the blue box below, for the Commission's consideration. We present further discussion on main points following the list below.

Investment Test - Assessment:

1. The major capex decision rule that the option chosen must maximise net benefits risks foreclosing options that in the round are more desirable for a decarbonised future. We propose the approach under the Fibre Capex IM that the option that is chosen is under a "prudent and efficient operator" objective.
2. Adopt the Fibre separation of evaluation criteria and "assessment factors" that the Commission "must have regard to" where they are "relevant when evaluating a capex proposal".
3. Adopt the Fibre Capex IM assessment factors as appropriate including "competition effects", "the extent of uncertainty" and "the extent that a risk-based approach has been applied".
4. Remove arbitrary constraints such as the limitation that unquantified benefits are capped at "10% or less of the aggregate project costs". Transpower considers the appropriate assessment of unquantified benefits is a matter of judgement which should be considered on a case-by-case (investment-by-investment) basis.
5. Adopt a more principles-based/less prescriptive approach to the sensitivity analysis requirements. The key elements of the existing requirements which should be retained are that Transpower can justify the choice of sensitivity analysis and the analysis is sufficiently robust to rely on to demonstrate an investment option should be approved.
6. Remove the requirement to model "all" the scenarios published by MBIE and "reasonable variation". We are comfortable that the Capex IM links to the MBIE

[15] Commerce Commission Process and Issues paper 20 May 2022 Foreword

demand and generation scenarios and provide some guidance as to the types of things (forecast demand) that should be reasonably included in sensitivity analysis.

7. Amend the MCP and expect major capex (EMC) settings to enable exemption of all the uncontrollable costs.
8. Where EMC applies the MCP should include the total expected cost of these uncertainties rather than the P50 estimate as required by the Capex IM;
9. Link the discount rate to the NZ Treasury's discount rate for infrastructure and consider whether a social rate of time preference (SRTP) discount rate should be used for social benefits.
10. Revise the major capex consultation process to increase opportunity for Non-Transmission Solution (NTS) responses based on better specification of the NTS opportunity when we know the likely transmission options to meet the need.
11. Consider, due to the potentially large volume of MCP work, to allow for recovery of operating costs to support the delivery of new major capex projects for example the additional ICT, asset management and operations, and business support costs that are uncertainty at the time of our RCP proposals.

Investment Test – process:

12. Raise the threshold (base capex threshold) for major capex – We propose that this should be raised to $30m to (approximately) reflect inflation from 2012 to the mid-point of RCP4. Consequential changes for other policy settings that use $20m should also be made (e.g. listed projects).
13. Introduce a more proportionate approach to MCP applications based on the need and/ or size of the project. For example, to allow discretion on long-listing consultation requirements for some projects.
14. We propose that the Commission considers clarifying the staging process to allow for expenditure forecasts to be revisited once a more thorough estimate is complete. This would mean we could progress projects into the MCP process faster. Alternatively allowing a symmetric use of exempt capex could help us manage cost uncertainty more efficiently.

Precedent for a more flexible approach provided by the Fibre Capex IM

Since the Commission reviewed the Transpower Capex IM it has developed and introduced a Fibre Capex IM under Part 6 Telecommunications Act. Part 6 was deliberately designed to be most comparable to the Part 4 Commerce Act IPP regime that applies to Transpower.[16]

[16] Transpower's submission to the proposals to introduce the new Part 6 Telecommunications Act regime highlighted the benefits of cross-sector precedent.

We welcome that the Commission "*will compare the Transpower capex mechanisms with the appropriate mechanisms designed for Chorus in the Fibre IM regime and consider which, if any, of those could or should be adapted for Transpower.*"

The Fibre Capex IM does not explicitly include a market benefit test, but the assessment factors include a requirement for "quantitative or economic analysis". The Fibre Capex IM is more permissive in terms of the quantitative or economic analysis related to the proposed capex that is adopted, subject to "*the reasonableness of the key assumptions, methodologies, planning and technical standards relied upon.*"[17]

We would support reduction of some elements of prescription and more flexibility in the evidence required to support investment approval. For example, the benefit in having an explicit market benefit test in the Transpower Capex IM is that it provides greater certainty in relation to the requirements for investment approval, but as previously indicated, the options decision rule could be more permissive.

Some of the elements of the Fibre Capex IM that would support greater flexibility in applying the investment test include

- evaluation based on a prudent and efficient operator standard
- an investment decision rule not confined to solely "maximising net benefits" but beneficial under a range of scenarios
- identifying the evaluation criteria under Part 6 of the Capex IM as either assessment criteria or evaluation criteria (in our view the current approach muddles the two)

An evaluation criterion based on a prudent and efficient operator standard

The Investment Test could be improved by adopting the Fibre Capex IM's singular evaluation criteria (expenditure objective).

The evaluation criteria under the Transpower Capex IM includes a mix of factors, some of which might be better classed as "assessment factors" consistent with the Fibre Capex IM.

The evaluation criteria and assessment factors in the Fibre Capex IM are a notable departure from the Transpower Capex IM and may be better suited to challenges the electricity industry faces in adopting to the transition to a low emissions economy. The Fibre criterion is industry agnostic and consistent with replicating outcomes in a workably competitive market:

We consider the Commission's rationale for adopting a prudent and efficient operator test is applicable to Transpower under the Part 4 Commerce Act. Whether expenditure is prudent and efficient is an appropriate umbrella test for investment in regulated networks regardless of the industry. The Fibre test is the corollary of replicating the outcomes of a workably competitive market.

[17] Fibre Capex IM clause 3.8.6 Assessment factors.

Balance between prescription and flexibility under the Investment Test

We welcome the Commission's proposal "*to separately consider whether the IMs governing approval of Transpower's investments also allow for sufficient flexibility to enable Transpower to respond through its investments to changes to the market and environment in which it supplies electricity transmission services*".[18]

Drawing on the learnings from the development of the Fibre Capex IM would help ensure investment that is efficient and prudent is approved, there is a clear and singular criterion for investment and there is an appropriate split between evaluation criteria and, 2nd order, assessment factors.

We are concerned that the current application of the multi-faceted, Transpower Capex IM evaluation criteria coupled with highly prescriptive Investment Test requirements may have the unintended effect, going forward, of excluding some prudent and efficient investments that would be approved under the Fibre Capex IM. We reiterate "*it would be beneficial if the Capex IM review delivered greater clarity around what the Commission will consider within the Investment Test's current boundaries*".[19]

We consider the evaluation criteria and the Investment Test should be more permissive of recognising uncertainty in decision-making and the changes that will be needed as New Zealand transitions to a low emissions economy. A prudent and efficient network operator would need to be mindful of Government policy on climate change and renewables but a strict market benefit test may not be flexible enough to take into account wider NZ Inc benefits such as Government climate change policy and CO_2 emissions, even if these benefits align with the long-term benefit of consumers. Some elements of the Investment Test are overly prescriptive and arbitrary. One of the problems with highly prescriptive requirements is that it results in a 'one size fits all' approach which does not necessarily take into account investment specific matters such as the value of the investment or the extent of uncertainty around its costs and benefits. The market benefit test may not always be consistent with efficient and prudent investment decisions, particularly decisions made under uncertainty as the economy transitions. [20] It may be better to create flexibility for Transpower under the Investment Test subject to the reasonableness of the alternative key assumptions and methodologies etc that Transpower uses.

18181818 Process and Issues paper 20 May 2022, page 119 footnote

[19] Transpower, Fit for purpose regulation, 28 May 2021.

[20] For example, in Transpower's consultation on whether to go ahead with the final elements of CULWP we stated "two of the remaining sections are principally needed if more power is required to be transferred north as a result, for example, of new generation in the regions or the retirement or downsizing of the Tiwai aluminium smelter" and "the lead time for commissioning transmission projects, and in this particular case the uncertainty about when the upgrades will be needed, means CUWLP can't be delivered 'just-in-time'. If work started only when the owner of the aluminium smelter announced a material reduction in demand or closure, it would be up to 3 years before work on the remaining CUWLP sections could remove the northward constraints."

Accounting for uncertainty should allow the Commission to consider least regrets options, as seen in other jurisdictions such as Great Britain, in its evaluation. A least regrets option may on the narrower interpretation not be the most maximal but would perform better (create benefits) under the uncertainty across a range of scenarios

Separation of evaluation criteria and assessment factors

We consider that the Transpower Capex IM should adopt the Fibre Capex IM separation of evaluation criteria and "assessment factors" that the Commission "must have regard to" where they are "relevant when evaluating a capex proposal".

The existing clause 6.1.1 evaluation criteria (clause 6.1.1(6) in particular) and matters such as market benefit tests, the extent to which expenditure has already been committed and mitigation strategies would best be categorised as assessment factors.[21]

Treatment of unquantified benefits

Transpower supports the principle that we should attempt to quantify benefits as far as possible and avoid over or undue reliance on intuitive or subjective judgement.

We agree with the Commission that "*quantitative analysis may not always be possible, appropriate, or meaningful*".[22] We are also mindful that qualitative factors should not assume a merely supplementary function but should be able to be given independent and, where appropriate, decisive weight.

These principles are well canvassed by the Court of Appeal in Godfrey Hirst NZ Ltd v Commerce Commission.[23] The Commission's cost benefit analysis for its Local Loop Unbundling (LLU) recommendation under section 64 of the Telecommunications Act also provides useful and relevant precedent. The quantified CBA showed that regulation of LLU would have significant net benefits, but the Commission recommended against LLU regulation on the basis of the weighting it gave to non-quantified factors.

The Capex IM should not include arbitrary constraints such as the limitation that unquantified benefits are capped at "10% or less of the aggregate project costs"[24]. The appropriate assessment of unquantified benefits is a matter which could be considered on a case-by-case (investment-by-investment) basis.

While the Capex IM allows Transpower to propose an alternative percentage, there is a substantial difference in burden of proof between justifying that non-quantified benefits should be given a particular weighting versus providing evidence to support deviation from an arbitrary default rate. We consider that the arbitrary cap curtails the extent to which non-

[21] The term "assessment factor" is used for the equivalent Fibre Capex IM provisions but would usefully be used for the clause 6.1.1(6) criteria in the Transpower Capex IM.

[22] Draft Framework paper 20 May 2022, page 36

[23] Godfrey Hirst NZ Ltd v Commerce Commission.

[24] Capex IM Schedule D clause D1 (2) (a)

quantified benefits can be taken into account and could reasonably be expected to result in prudent and efficient investment not passing the Investment Test in some circumstances.

Electricity Demand and Generation (EDGS) Scenarios[25]

Whilst the Capex IM requires scenario analysis in support of the Investment Test, the use of energy demand and generation scenarios is limited to those published by the Ministry of Business, Innovation and Employment (MBIE), EDGS, or reasonable variations. This has worked well during our recent period of relatively flat demand growth with a comparatively high degree of certainty. However, the EDGS have not been updated since 2019.

Robust scenarios of future generation and demand are vital for us to plan our investments to enable decarbonisation, and for the Commission and stakeholders to have confidence that our investment decisions are prudent and efficient. Through this review we propose to clarify the requirements for the scenarios including consideration of alternative scenarios to EDGS.

Sensitivity analysis

A comparison of the Fibre and Transpower Capex IMs' sensitivity analysis requirements provides a good example where we consider that the Transpower Capex IM includes unduly prescriptive requirements. It is not obvious that the differences between the two IMs' sensitivity analysis requirements are based on industry or legislative specific justification or reasons.

The only requirement in the Fibre Capex IM is that "quantitative or economic analysis related to the proposed capital expenditure" includes sensitivity analysis in relation to capex proposals, base capex information requires and connection capex information requests.[26] There are no specified scenario requirements or other direction as to what the analysis needs to include, such as different demand projections and discount rates.[27]

The Transpower Capex IM extends well beyond the equivalent Fibre provisions. The Transpower Capex IM includes, for example, requirements to detail the "reasons for selecting the variables of the sensitivity analysis",[28] an explicit requirement that an investment option "is sufficiently robust under sensitivity analysis",[29] a long-list of detailed sensitivity analysis requirements,[30] and requirements for demand and generation scenario variation.[31]

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[25] Transpower, Fit for purpose regulation, 28 May 2021.

[26] Clauses 3.7.9(1)(g), 3.7.15(1)(f) and 3.8.6(d) Fibre Capex IM.

[27] In contrast to the Transpower Capex IM, the Fibre Capex IM does not prescribe a discount rate or variations on the discount rate to be used for quantitative or economic analysis or sensitivity analysis.

[28] 3.2.3(2)(f) Transpower Capex IM.

[29] D1(1) Transpower Capex IM.

[30] D7(1) Transpower Capex IM.

[31] D3 and G3 Transpower Capex IM.

The prescriptive requirements for demand and generation scenario modelling, including the requirement to model "all"[32] the scenarios published by MBIE and "reasonable variation" (again with a prescriptive list of variations[33]) have given rise to practical issues and would result in a modelling an excessive amount of scenarios and sensitivities if a 'black letter' interpretation of the IM is adopted.

While we do not advocate that the Commission adopt the Fibre Capex IM equivalent provisions, we consider adopting a more principles-based/less prescriptive approach, consistent with the overall approach taken to the Fibre Capex IM, would be desirable.

The key elements of the existing requirements which should be retained are that Transpower can justify the choice of sensitivity analysis and the analysis is sufficiently robust to rely on to demonstrate an investment option should be approved. We are also comfortable that the Capex IM link to the MBIE demand and generation scenarios and provide some guidance as to the types of things (forecast demand) that should be included in sensitivity analysis.

Discount rate

The 7% pre-tax real discount rate in the Capex IM decided in 2012 is out-of-date and too high.

The discount rate was derived from Treasury general guidance at that time for the discount rate that should be used in cost benefit analysis and in economic analysis.

The Treasury now recommends that a real, pre-tax discount rate of 5% be used as the default rate (for projects that are difficult to categorise, including regulatory proposals, and most social sector projects) and 5% also be used for infrastructure including energy.[34]

The issue of whether a social discount rate should be used to evaluate whether investment proposals would be to the long-term benefit of consumers has arisen from time-to-time, and there is precedent for this approach in some other jurisdictions. This may be a matter worth considering as part of review of the IMs review, including whether a social rate of time preference should be used for social benefits.

The issue of what is the appropriate discount rate has come up in Transpower's consultation on development and implementation of the new transmission pricing methodology (TPM).[35] The most recent submissions on the topic were in response to the draft assumptions book that will be used to calculate consumer benefits as part of the benefit-based charge methodologies.

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[32] D3(4) Transpower Capex IM.

[33] D3(3) Transpower Capex IM.

[34] https://www.treasury.govt.nz/information-and-services/state-sector-leadership/guidance/financial-reporting-policies-and-guidance/discount-rates

[35] https://www.transpower.co.nz/our-work/industry/transmission-pricing-methodology/tpm-consultations-2022

We received submissions from Electra, Meridian, Northpower and Vector that all considered 7% to be too high and that this could skew/bias benefit assessment to shorter-term benefits e.g. Electra: "*we support Meridian and Vector's assertion that a discount rate of 7% is too high to discount future benefits*".

MEUG considered that 7% "is a pragmatic interim approach" but considered that the rate should be reviewed. MEUG clarified in cross-submission that its views were not in conflict with submissions that considered 7% to be too high.

Manawa was the only stakeholder that supported Transpower using a 7% discount rate but supported it on the grounds that it was "consistent with clause D6(3)(a) of the Transpower Capex IM". Obviously if the discount rate in the Capex IM is reviewed and lowered adoption of a lower discount rate for the TPM would also be consistent with the Transpower Capex IM.

Transpower proposes that the Commission could link the Investment Test discount rate to the Treasury's rate for Infrastructure.

Threshold for major capex

Transpower proposes that the base capex threshold be adjusted from $20m to $30m. The threshold has not changed since it was set, and it has been impacted by inflation. This has resulted in the base capex threshold reducing in real terms over the last 10 years.

While the base capex threshold of $20m is specified as the value for which enhancement and development (E&D) becomes an MCP, we propose the adjustment from $20m to $30m also be made where the value is embedded in the IMs (listed projects, application of the low incentive rate, cost-benefit analysis consultation requirements, and provision of governance arrangements). These clauses could link to the base capex threshold rather than having embedded values.

In its 2018 review of the Capex IM the Commission considered suggestions to lower the base capex threshold, however, its decision stated "*Our emerging views paper outlined our view that extending the major capex process to a larger number of smaller projects would not be efficient or consistent with the proportionate scrutiny principle …*"

We suggest consideration be given to whether the current MCP process is proportionate to the size and impact of all projects over $20m.[36] Appropriate hurdles need to be in place for our stakeholders to contribute and the Commission to ensure that, based on available information, our proposed investments deliver long-term benefits for consumers. However, for efficiency the assessment and consultation processes should be proportionate to the value and impact of the proposed projects. For example, a project between $20m and $100m could have a more proportionate approach with for example, Transpower discretion for the long-listing requirement.

[36] Transpower submission Fit for purpose regulation, 28 May 2021.

Incentive rates and cost estimates

Despite the reduced incentive rate of 15% under P50 costing, we now spend more time (circa nine to 12 months) refining our cost estimates to be confident in the P50 value. While these cost estimates are important to the process, the changes that result through our refining of the estimates may not affect the outcome of the evaluation e.g. a project may still be net beneficial even with an increase in costs of 20%.

We also propose that the Commission consider whether the approval value should accommodate a forecast for the operating costs that would be incurred to deliver new major capex projects for example the additional ICT, asset management and operations, and business support cost (where these costs are not capitalised). These operating costs are uncertain at the time of a base capex proposal and therefore may be better dealt with via the MCP approval process.[37] The potential size of our Net Zero Grid Pathways programme has highlighted the need for additional support costs to deliver this work.

We propose that the Commission considers clarifying the staging process to allow for expenditure forecasts to be revisited once a more thorough estimate is complete. This would mean we could progress projects into the MCP process faster. Alternatively allowing a symmetric use of exempt capex could help us manage cost uncertainty more efficiently.

Definition of exempt major capex

We welcome that the Commission acknowledges the concerns we have in relation to exempt major capex (EMC) and its interaction with the major capex allowance (MCA), and that it "intend[s] to analyse and address in greater depth in our next review of the Capex IM".[38]

We consider that "a better definition of exempt major capex is required"[39] and:[40]

> *"The purpose of the major capex incentive regime is to incentivise downward pressure on project costs. However, there are some project costs which are outside of Transpower's control. Examples include costs associated with abnormal weather conditions, unexpected sub-ground conditions, lockouts or imposed work restrictions, changes in supply and market forces, and outage constraints due to unplanned system events.*
>
> *We support the principle of exempting those types of project cost uncertainties from the incentives regime because they are not efficiency related. Exempting costs*

[37] Note, if this was required it does not need to be incorporated into the MCP process and could be dealt with via a separate, but related uncertainty mechanism.

[38] Commerce Commission: Decision and Reasons Transpower's Bombay Otahuhu Regional major capex project, 19 March 2021.

[39] Transpower submission Fit for purpose regulation, 28 May 2021.

[40] Transpower, Major Capex Project draft decision: Bombay-Otahuhu Regional Major capital proposal, 17 December 2020.

associated with those events or circumstances from the incentive regime means that Transpower neither benefits (if those costs do not occur), nor is penalised (if those costs do occur). This would be a symmetric approach to dealing with such uncertainties and would be equitable for both Transpower and consumers."

Our views in summary are:

- the MCP and EMC settings should be able to exempt all the uncontrollable costs
- if the project delivery uncertainties are exempt from the incentive mechanism, then the MCP should include the total expected cost of these uncertainties rather than the P50 estimate as required by the Capex IM;
- including the total estimated amount of project delivery uncertainties would provide a symmetric setting of the incentive mechanism and is more equitable for both Transpower and consumers; and
- setting EMC based on the P50 estimate of the project uncertainties in the MCA would be asymmetrical. If the relevant project uncertainties do not eventuate, Transpower would not be entitled to any reward, but if the cost of the project uncertainties exceed the P50 estimate, Transpower would be penalised.

We agree with the Commission that the current drafting of the Capex IM does not allow these to occur. As the Commission has pointed out:[41]

"While this approach would provide a symmetrical approach in terms of penalty and reward, it is outside the scope of the Capex IM to set the EMC above the MCA [Major Capex Allowance]. This is because the definition of 'exempt major capex' under clause 1.1.4(2) of the Capex IM requires the EMC to be an amount of the MCA."

We consider there is an undesirable and unworkable circularity in current settings that "*EMC can be set for portions of the MCA that reflect uncertainties*" but the Commission "*cannot reasonably determine an EMC due to the uncertainties around estimating the additional costs resulting from higher levels of engagement*."[42]

Staged investments

We propose reviewing that the MCP staging mechanism is working as intended to increase the speed of regulatory funding approvals.[43]

Whilst Transpower recognises the need to enable new transmission demand and generation connections, we are aware that 'enable' suggests building ahead of need and without the certainty those connections will be built.

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[41] Commerce Commission, Draft decision Bombay Otahuhu Regional major capex project 26 November 2020 – paragraph C47.4

[42] Commerce Commission, Decision and reasons, Bombay Otahuhu Regional major capex project, 19 March 2021.

[43] Transpower submission Fit for purpose regulation, 28 May 2021.

We are considering options for managing such risk, and how to advance long-lead time projects to match the generation build lead times. Unless these are closely aligned there is risk that new renewable generation investments will be delayed. Staging investments could help. We consider the Commission's approach to accepting and assessing staged projects would benefit from clarification. Additional guidance, like the AER has provided for Australian transmission network providers would help facilitate staging mechanisms.

Financeability: Cost of capital and RAB issues

We present a summary of our views of the appropriate finance settings to continue to incentivise investment and expand on each in turn following the summary.

Our views on the issues to ensure investment can be financed are:

1. Adopt a trailing average cost of debt. The approach better matches how efficient businesses finance, and when coupled with annual updates, reduces the impact of large revenue shifts between RCPs when the risk-free rate moves materially in one direction.
2. Retain the WACC percentile uplift at either 67th percentile or higher. The need for investment is now higher than when the Commission made its decision to set the percentile at 67th the case is now stronger for this percentile level.
3. Reject adoption of a split (two-tier) WACC percentile. We agree with the Commission that nothing has changed since its previous decision to reject a split cost of capital.
4. Control the capital parameters for market distortions from COVID-19 – the market movements have been affected Covid-19 (and now the war in Ukraine). These are exceptional events, and the Commission should control for the impact as appropriate.
5. Retain current approach to the sample including gas and electricity. The Commission is likely to face the same sample size issues encountered when it previously considered this matter, which could preclude production of robust, separate estimates of asset betas for the two sectors.
6. Retain the non-indexed RAB method for Transpower. As the Commission has previously concluded, the additional administrative cost for Transpower to move to a indexed RAB coupled with the likely need to shorten asset lives to cover the cash flow implications means that this would be detrimental to promoting the Part 4 objectives.
7. WACC alignment with regulatory period. Amend the WACC rules to provide that the WACC calculation mirrors the duration of the regulatory period.

Trailing average cost of debt

Transpower considers that the Commission should revisit whether a trailing average cost of debt (TACD) should be adopted in light of the fall in interest rates from a high in 2008 to record lows in March 2020 after the 2020-25 DPPs and IPP were set. The TACD approach would better match how we issue debt and efficient debt management. As we stated in a submission on the 2016 IM review:

> *The trailing average approach, implemented well, will go a considerable way to addressing the main problems with the current rate-on-the-day methodology. These problems include:*

1. Large exposures to refinancing risks implicit in the current approach

2. Market disruption (i.e., elevated spreads, inability to hedge risk) due to the narrow refinancing window assumed

3. Inability of prudent and efficient suppliers to match their actual debt service costs to the regulatory allowance and

4. Volatility in transmission prices between Regulatory Control Periods (RCPs).[44]

We recognise that switch-over from a rate of the day (ROTD) approach to a TACD approach – while it should average out over the longer-term – could create winners and losers between consumers and regulated suppliers in the short-term depending on the path interest rates take. However, this can be mitigated through a transition between the two approaches over the next price-reset regulatory period.

At the time of the 2015/16 IMs review low interest rates may have made the prospect of switching from ROTD to TACD appear unattractive (in terms of the prices consumers would have incurred at the subsequent price reset), but with interest rates now rising again consumers continued to fall after the 3-month window used under the TACD method and these reductions weren't reflected in the 2020-25 DPP and IPP price-paths.

The prevailing ROTD approach meant the WACCs set for 2020-25 did not reflect either the higher interest rates regulated suppliers efficiently locked in prior to 2020 or the lower interest rates after the prevailing rate was determined for the 2020-25 price-paths. Transpower has previously pointed out that this results in a "regulatory lottery" for regulated suppliers and access seekers (and ultimately end-consumers). The size of price increases and decreases at each price reset depends not just on the costs regulated suppliers' need to recover to ensure a return on their efficient and prudent investment, but also on what level interest rates happen to be at within a narrow 3-month window before each price reset decision is made.

We previously submitted: "Retention of the 'rate on the day' (ROTD) approach is out of step with regulatory developments in other jurisdictions and imposes unnecessary costs and risk on both consumers and suppliers."[45] This view is reinforced by Vector's open letter submission which highlights:

"The Commission is now an outlier by adopting a primarily "on-the-day" approach to setting the cost of debt. Other regulators such as the AER made the decision to

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[44] Transpower, Trailing average cost of debt and efficient debt management, February 2016, Transpower-submission-cost-of-capital-update-paper-5-February-2016.pdf (comcom.govt.nz)
TP_Sub_Cost_of_Capital_Uodate_Paper_5Feb2016.pdf (transpower.co.nz)

[45] https://comcom.govt.nz/__data/assets/pdf_file/0023/61169/Transpower-Submission-on-IM-review-draft-decision-4-August-2016.pdf

move away from the on-the-day approach given the volatility this approach has on the benchmark WACC from regulatory period to regulatory period".[46]

We note support for a TACD approach has been offered by both regulated suppliers and access seekers/consumers.[47] Transpower previously submitted for example, in relation to the last IMs review: "*It was notable that, despite WACC being a generally contentious issue, only one party (Contact with support from Meridian) submitted in favour of the current 'rate of the day' (ROTD) approach to setting WACC*".[48]

Decision to adopt Rate of the Day in the Fibre WACC IM

We note the issue of whether to adopt a TACD versus a ROTD WACC was raised in submissions during the development of the Fibre IMs.

For example, Vector submitted:

> *"The Commission's approach to estimating the cost of debt for Chorus and LFCs adopts a very similar method to that adopted in the IMs for regulated suppliers under Part 4 of the Commerce Act. Vector has serious reservations about this approach as it relies on a very specific debt hedging strategy which is artificial and specifically linked to the regulatory control period. The approach is at odds with international regulators which recognise efficient debt management strategies will involve debt being raised using different products and maturity periods. Instead Vector recommends the regular updating of the cost of debt based on a portfolio throughout the regulatory control period. The regular updating of the cost of debt portfolio to create a trailing average ensures stability with prices over time. This is the approach adopted by Ofgem, the Australian Energy Regulator, and almost all US public utility commissions."*[49]

Sapare similarly advocated[50] "transitioning to a trailing average over the initial five years of the period" on behalf of Chorus.

The Commission justified its preference for ROTD, in the final IMs Decision and Reasons Paper,[51] on the basis that it considered ROTD superior to using historic rates. We consider that the reference to historic rates is somewhat of a misnomer because a TACD will, over the

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[46] Vector "Vector Submission to the Commerce Commission's Open Letter on the Input Methodology Review, Gas Pipeline Business Reset and Information Disclosure Review" (May 2021), p. 42.

[47] The Process and Issues Paper limits the discussion of this topic to submissions from Vector.

[48] https://comcom.govt.nz/__data/assets/pdf_file/0018/61074/Transpower-IM-review-draft-decisions-cross-submission-Topic-paper-4-Cost-of-capital-25-August-2016.pdf

[49] https://comcom.govt.nz/__data/assets/pdf_file/0024/206862/Vector-Communications-Submission-on-Fibre-input-methodologies-Draft-decision-28-January-2020.pdf

[50] https://comcom.govt.nz/__data/assets/pdf_file/0025/206863/Chorus-Submission-on-Fibre-input-methodologies-Draft-decision-Sapere-report-27-January-2020.pdf

[51] Commerce Commission, Fibre input methodologies: Main final decisions – reasons paper, 13 October 2020.

course of the RCP, use a mix of historic and interest rates that are more recent than the prevailing rate used under ROTD.

Similarly, the Commission argued the price stability provided by a historic rate "*could blunt the signals from structural changes in the financial markets with respect to new investment in infrastructure, as significant changes in interest rates only slowly affect the specified cost of capital*"[52] but a TACD approach will update for changes in interest rates yearly whereas ROTD only adjusts every 5 years (or whatever the duration of the regulatory period is).

The Commission also stated that *"[t]he long-term benefits of consumers could be harmed if a supplier requires a significant capex investment but is not incentivised to do so. … This situation may arise if the prevailing cost of debt is significantly higher than the cost of debt allowance provided by a WACC allowance based on a trailing average methodology*".[53] This argument is incomplete, as the opposite could equally be true if the prevailing cost of debt is significantly lower than a TACD WACC.

In short, we do not consider the Commission's view that the expectation of returns under the prevailing rate approach provides a better investment signal than under the historical rates approach is a safe basis to favour ROTD over TACD.

WACC percentile uplift

The issue of determining the optimal WACC percentile uplift was addressed comprehensively by the Commission in 2014/15 in response to the High Court IM Merit Appeal decision.[54] This issue received more attention than any other topic in the first IMs review; from both the Commission and stakeholders.

Transpower considers the only material new information relevant to whether these settings should be changed is the focus on the transition to a low emissions economy, and electrification of the New Zealand economy, which heightens the importance of investment in network capacity and resilience and in incentives to invest. This suggests either the 67th percentile WACC should be preserved or the optimal percentage may have increased since the 2014/15 review.

We are aware the Commission has subsequently determined a mid-point WACC should be adopted in the Part 6 Telecommunications Act WACC IM. The Commission has noted: "[t]he Fibre IMs reasons paper is our most recent statement of our approach to determining whether particular circumstances warrant a WACC uplift."

It should be recognised that:

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[52] The same arguments were used in the Commerce Commission, Input methodologies review draft decisions Topic paper 4: Cost of capital issues, 16 June 2016.

[53] Commerce Commission Cost of capital IMs Draft decisions 16 June 2016, paragraph 135.2

[54] Attempts were also made to re-litigate the WACC percentile decision during subsequent parts of the IMs review e.g. by Contact.

- the Fibre WACC percentile decision is not material new information as the Commission has never adopted anything other than a mid-point WACC under the Telecommunications Act[55];
- the Commission "[p]provide[d] an annual ex-ante allowance calculated by using a 10 basis point discount rate applied to the allocated RAB (including accumulated losses)";[56]
- submissions in response to the 2014/15 WACC percentile review, the UCLL and UBA TSLRIC determination and the Fibre WACC IM determination highlighted industry-specific differences mean the optimal WACC percentage for energy is higher than for telecommunications (be it copper or Fibre services);[57] and
- these industry specific differences have been explicitly acknowledged by the Commission in both the Process and Issues Paper and the Fibre WACC IM decision e.g.:[58]

> *"The gradual and visible expected consequences of under-investment in regulated FFLAS, the potential mitigation of the risk of any underinvestment due to potential competition and asset stranding risk (albeit small), the availability of alternatives, and the relative newness of the regulated FFLAS networks mean that the expected scale of costs to end users from under-investment appears an order of magnitude less than the costs they would face from a higher than mid-point WACC."*

The Commission has noted "*Our decision to apply a WACC uplift for electricity lines businesses and gas pipeline businesses under Part 4 of the Commerce Act was made in a different industry context*".[59]

Split (two-tier) WACC

Transpower remains of the view a split (two-tier) WACC does not warrant further consideration. If the Commission considered adopting a two-tier WACC it would need to consider whether the tier for new investment should be above 67th percentile. If a two-tier WACC was adopted the optimal WACC uplift may be higher than if there is a single WACC. It should not be assumed that the optimal average uplift would be less than 67th percentile.

Transpower supports the Commission's comments that:

> *"We considered the possibility of a split cost of capital in the 2016 IM review. We noted, in deciding not to implement a split cost of capital, that there were unresolved problems in the implementation. Submissions from other parties argued for not devoting further resources to this issue until the practical problems in its implementation have been resolved. We are not aware of any new evidence either*

[55] Including for the determination of Telecommunications Service Obligation ("KSO") costs, the value of Chorus' "Financial Loss Asset", setting wholesale prices for Fibre under Part 6 and setting TSLRIC prices for UCLL and UBA.
[56] Commerce Commission, Fibre input methodologies: Main final decisions – reasons paper, 13 October 2020.
[57] E.g. see the following CallPlus submissions (here and here) to the UCLL and UBA TSLRIC determination.
[58] Fibre input methodologies: Main final decisions – reasons paper, 13 October 2020 refer 6.647
[59] Fibre input methodologies: Main final decisions – reasons paper, 13 October 2020. refer 6.671

within New Zealand or internationally that would change our position but would welcome further evidence on this point."

To our knowledge, there is no new evidence to support a split cost of capital arising since the 2016 IMs review:

- As far as we are aware, the Commission did not consider adopting a split cost of capital as part of development of the Part 6 Fibre WACC IM;
- There is a further 6 years of evidence of comparable regulators not adopting a split cost of capital. The standard regulatory approach of applying a single allowed return has continued to be adopted by regulators in comparable jurisdictions;
- At the time of the 2016 IM Review, the Queensland Competition Authority was considering the split cost of capital approach. The QCA has rejected that approach and continues to adopt an approach similar to that adopted by the Commission; and
- We are unaware of any further developments in the literature relating to the split cost of capital.

Thus, regulatory stability would imply that the Commission's current decision on the split cost of capital should be maintained in the absence of any new evidence.

We also share the views the Commission previously expressed on implementation, including how to objectively determine what allowed return should apply to each of the two tiers of regulatory allowance, and that "*The incentive to invest depends on an investor's expectation of a return over the lifetime of an asset. This will in turn depend on implementation of any split cost of capital approach and the confidence with which investors expect the arrangements to endure*".[60]

Investor expectations about the returns/recovery of new investments are shaped by how regulators treat sunk investment, as new investment will become sunk once the investment is commissioned. A lower WACC percentile on sunk investment could signal risk of 'regulatory opportunism' as regulated suppliers have limited ability to undo investments once they are made and committed.

We have similar views about the High Court's IMs Merit Appeal decision commentary on valuing sunk investments at scrap value.[61] The High Court comments ignored that regulatory decisions are not a one-off game. If the Commission set the RAB for sunk investments at scrap value or set the WACC for sunk investments at mid-point, it would negatively impact investors' expectations about how new investment would be treated and undermine regulated suppliers' incentives to invest.

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[60] Commerce Commission Cost of capital IMs Draft decisions 16 June 2016 paragraph 684.2

[61] The High Court IM commentary was flawed though as it treated investment decisions as a 'one-off' game and ignored that how sunk investment is treated (the High Court said sunk investment could potentially be valued at scrap value) will impact on regulated suppliers' expectations about how their new investment will be treated.

Transpower also remains of the view a spilt WACC would be problematic for reasons provided during the 2014/15 WACC percentile review, including (i) the arbitrary distinction that would be required between new and sunk investment; (ii) the fact that new investment becomes sunk investment after it is made; and relatedly (iii) the signal that providing a lower WACC for sunk investments would send to investors and the potential dampening of incentives to invest this could cause (undermining the value of the higher WACC percentile for new investments).

RAB indexation

Transpower does not support a change from non-indexing the RAB for Transpower. Our views on this matter and the context for them have not changed, if anything the need for ensuring finance is even more necessary given the impetus for electrification.

RAB indexation for Transpower would be a major change to the IM. If a change were to be considered then substantial evidence would be required to inform any decision, including evidence that demonstrates the issues the Commission previously raised are no longer applicable. In actuality, our evidence points to the opposite. Our forecast investment programme has significantly increased since the 2015/16 IMs review. Therefore, based on the Commission's previous arguments, which we agree with, there is no case to shift us to an indexed RAB.

During the last IMs review we noted "[w]*e support MEUG's recommendation for the "Commission's draft decision to retain the approach of not indexing Transpower's RAB to inflation*""[62] and "[w]*e agree the benefits are unclear while the practical difficulties and transaction costs appear material*".[63]

We agree with the conclusions the Commission reached in the 2015/16 IMs review and consider that they remain valid e.g..[64]

- "We have not identified any problems in relation to our approach …"
- "If we were to change our approach there would be complexity and compliance costs of an unknown magnitude, given Transpower's regulatory approach relies heavily on consistency with GAAP to the extent practicable, and indexing the RAB would not be able to be achieved in a GAAP consistent manner. We also considered the possible revenue shock RAB indexation could cause."
- "The uncertainty around capital recovery resulting from emerging technologies means that indexing Transpower's RAB is not consistent with our approach to shortening asset lives for EDBs. To be consistent we would have to allow an

[62] MEUG, Submission on Input methodologies draft review decisions, 4 August 2016, paragraph 14.

[63] https://comcom.govt.nz/__data/assets/pdf_file/0018/61074/Transpower-IM-review-draft-decisions-cross-submission-Topic-paper-4-Cost-of-capital-25-August-2016.pdf

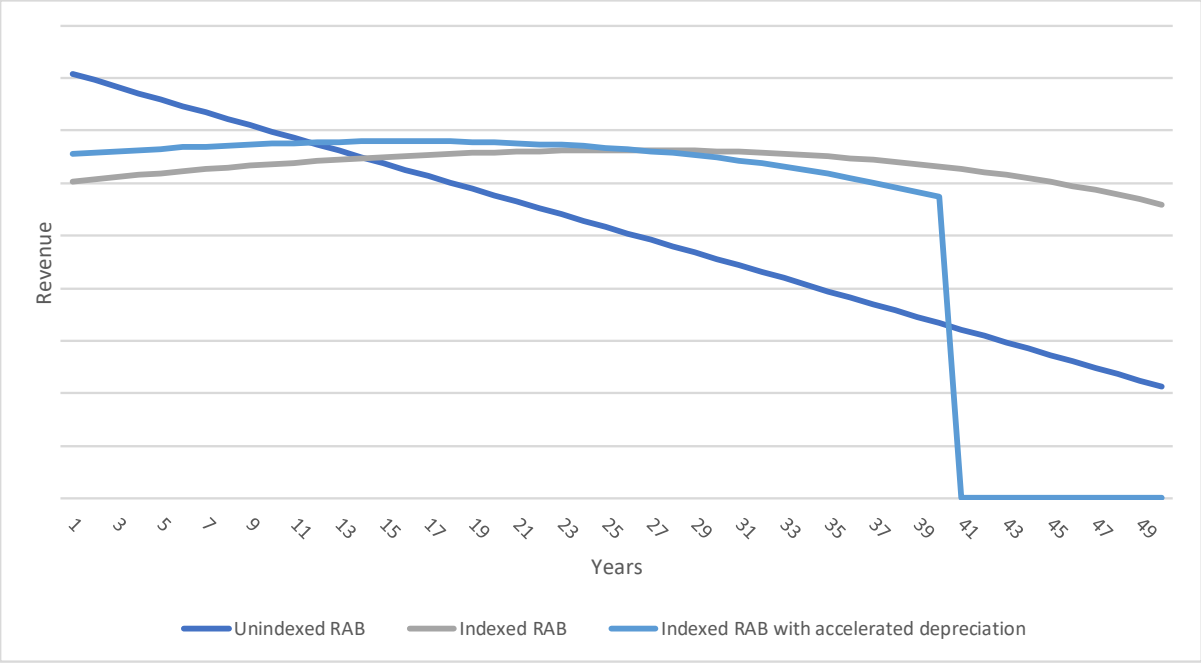
[64] Commerce Commission, Input methodologies review decisions Topic paper 1: Form of control and RAB indexation for EDBs, GPBs and Transpower, 20 December 2016.

equivalent treatment for Transpower, but this would add complexity for a similar outcome to that achieved under no RAB indexation."

The last bullet point is consistent with the Process and Issues Paper observation that "*RAB indexation backloads the recovery of capital, therefore increasing the value at risk of stranding*". If RAB indexation was introduced the Commission may would need to consider the extent to which accelerated depreciation would need to substitute to ensure Financeability.

The following graph illustrates the RAB value/revenue implications of the different approaches to RAB indexing over-time. Assumptions are a 4% real interest rate, 2% inflation, 50 year asset life, and 40 year accelerated depreciation.

Figure 1: Cash flow implications of different approaches to RAB roll-over



What the graph highlights is the significant shift in the cash flows to later periods as inflation is recovered via the RAB instead of the rate of return.

We consider the retention of a non-indexed RAB to be consistent with the Commission's position on emerging technology, and the decisions it has made to allow electricity distribution businesses (EDBs) (by application) and GPBs (universal) accelerated depreciation.

We note the issue of RAB indexing was raised in the context of the gas DPP reset, and non-indexing was raised an option – as well as accelerated depreciation – to reduce the risk of asset-stranding and to ensure reasonable investor expectations that regulated suppliers will be able to recover the prudent and efficient cost of their investments.

Financeability implications of different RAB indexing approaches

We commissioned consultancy Frontier Economics (Frontier) to analyse the effect of different regulatory approaches on investment incentives. We have provided this alongside our submission.

Their report highlighted the substantial cash flow impacts indexation would have. Frontier estimate, based on our RCP3 revenue model, that if we had an indexed RAB for RCP3, our cash flows would have been reduced by $430m.

Frontier highlighted that the key difference between the different indexing approaches is the way in which the allowed return on equity is provided – in particular, the split between the cash allowance during the regulatory period and future cash flows.

In the indexing case, the cash allowance is (initially) negative, requiring a cash injection from the equity holders. A change from non-indexed to indexed RAB would require consideration of the Financeability implications of the changes, as well as the longer-term implications of the change (lower prices now, but higher prices in the future).

Impact of COVID19

We support the Commission considering whether adjustments should be made to reflect the significant market movements as a result of COVID19.

In the early stages of the Covid-19 pandemic, various international markets experienced large shocks, which resulted in material changes to market return indices, as shown in Figure 2.[65] The response of energy network returns during these times may impact on the estimates of asset and equity betas.

[65] **Figure 2** plots the change of the Australian (AS51), United States (SPX), United Kingdom (UKX) and New Zealand (NZSE) market indices, as used by the Commission in estimating beta.

Figure 2: Recent (January 2019 – May 2022) market returns indices

Source: Frontier Economics analysis of Bloomberg data

Electricity versus gas asset beta

The Commission has indicated it will consider "*whether asset betas for electricity and gas businesses should be estimated using a combined comparator sample, or whether they should be estimated using separate samples" and "examining more closely the businesses in the sample to ensure that it is appropriate to include them as comparators*."[66]

We consider that the Commission is likely to face the same issues that arose when it previously considered this matter:[67]

- Limiting the need to make subjective calls as to which companies should be included i.e. which fit into electricity and which fit into gas;
- Ensuring that integrated companies remain, as excluding them would exclude potentially useful data; and
- Maintaining consistency and stability with the 2010 approach.

Based on the previous experience, restricting the electricity asset beta to the pure electricity comparators would reduce the sample size considerably.

[66] Process and Issues paper 20 May 2022, paragraph 6.40

[67] IM review - Final reasons papers (comcom.govt.nz). e.g. page 191

WACC calculation period

Finally, we note that the Commission adjusted the WACC calculation for the gas DPP reset to reflect the shorted regulatory period adopted (4 years rather than 5). The Commission did the same for the initial Fibre price-quality path which was set at 3 years. It may make sense to amend the WACC IM to automatically provide that the WACC calculation mirrors the duration of the regulatory period.

Efficiency and uncertainty mechanisms for risk allocation

The structure of the incentive regulation is designed to incentivise efficiencies and trade-offs between capital and operating expenditures. Uncertainty mechanisms are a regulatory tool for allocating cost risk associated with funding investments under uncertainty. Below we summarise our key responses.

1. Efficiency incentive mechanisms. We would support changes to enhance certainty for how existing mechanisms work but would be cautious of any wholesale changes.
2. Uncertainty mechanisms: We propose the Commission introduce a principle-based approach to allow dynamic uncertainty mechanisms, in the IMs, including mechanisms that can be applied in a mechanistic way i.e. the price-quality path can be adjusted automatically based on what is set in the IPP. This would prevent the application of uncertainty mechanisms being locked to what the issues were at the time the IM was set rather than when the IPPs are determined.
3. Uncertainty mechanisms should support expenditure decisions being both capital and operating costs. For example, neither the existing E and D reopener, nor the Listed projects uncertainty mechanism, support a decision delivered via operating costs. In contrast the major capex mechanism identifies the role for operating expenditure via non-transmission solutions.
4. We propose the IMs should be flexible enough for the Commission to consider uncertainty mechanisms that could range across the following areas:
    i. Funding for 'proactive' resilience projects
    ii. Bringing forward asset replacements to add capacity
    iii. First Mover Disadvantage type 2, adding incremental capacity
    iv. TransGO Lifecyle replacement
    v. Insurance premium increases as pass-through

Efficiency incentive mechanisms

As the regulatory regime increasingly matures (moving into the 2nd review of the IMs and the subsequent 3rd price-quality reset across electricity distribution, transmission and gas pipelines) a key focus is for efficiency mechanisms and ensuring regulated suppliers have incentives to innovate and improve efficiency, is to promote certainty in how those incentive regimes apply.

We would be supportive of changes to enhance certainty for how existing mechanisms work but would be cautious of any wholesale changes. We would like to work with the Commission to identify appropriate changes that it can consult on.

Complexity of the IRIS mechanism

The Commission has noted that we have raised concerns about the complexity of the IRIS mechanism (particularly for opex savings related to Transpower's IPP). As currently set out in the IM, the opex IRIS baseline adjustment term (IBAT) is difficult to calculate.[68]

We agree with the Commission "*The concept and workings of the IRIS mechanism, even in its most basic form, are difficult to understand*" and support the Commission's intention "*to review the effectiveness of, and incentives created by, the baseline adjustment terms for Transpower's opex IRIS as well as for a CPP for EDBs*".

Variation in efficiency sharing rates

Relatedly, the Commission has noted issues such as that "*The way that the opex IRIS is specified in the IMs means that the opex incentive rate mechanistically changes at each reset (as it is tied to the WACC)*." There is no obvious reason why the optimal incentive rate would change at each reset or would vary depending on the value of WACC.

In response to the Commission statement: "*In the absence of an adequate evidence base for an incentive mechanism that is specified in the IMs, it may be appropriate to change the IMs to provide for the incentive mechanism and/or incentive rate(s) to be determined in price-quality determinations at resets*", we are concerned that if incentive rates are uncertain or subject to change between resets it could impact on incentives to innovate and improve efficiency; and encourage a focus on efficiency improvements that can be made within a shorter (within RCP) time-period.

One of the issues we have experienced is the impact of differential incentive rates between capex and opex. For example, recent International Financial Reporting Standards (IFRS) require software as a service (SaaS) to be treated as operating costs. Previously we had capitalised SaaS. While in theory the opex and capex incentives are equalised from the consumer perceptive for Transpower, in practice, they are not. The capex incentive relies on an explicit percentage of the under/ over-spend to be retained, while the opex incentive relies on an in-perpetuity assumption.

This applies to all areas of opex and capex trade-offs, for example, where we identify transmission alternatives and undertake a more efficient opex solution, we are worse off, financially, than if we proceeded with a capex solution.

A report prepared for the Australian Energy Market Commission (AEMC) by CEPA analysed in depth the incentive arrangements in the Australian Electricity regulatory regime, which are

[68] Transpower, Fit for purpose regulation, 28 May 2021.

akin to those applying to Transpower.[69] CEPA concluded that the opex and capex financial incentives were NOT equal.[70]

We consider the regulatory/accounting changes should be able to be adjusted through the IRIS without any minimum level or threshold.

The adoption of a total expenditure incentive is an option the Commission could consider to address the differentials. We note that it has been raised as an option, as the Commission notes "*Unison suspects that it is necessary to move to a 'total expenditure rather than separately determining capex and opex' (Totex) regime to fully achieve this and notes that the current settings of the allowances continue to favour capex over opex, because opex is based on historical performance whereas capex is forward-looking.*"[71]

We consider that, as demonstrated in Great Britain, that a totex incentive can simplify the overall incentive regime, and ensure incentives are equalised across capex and opex. However, for Transpower there is a material cost of shifting away from our GAAP-based RAB. A wholesale shift from the current arrangements should be carefully considered and not rushed into.

Uncertainty mechanisms

We consider uncertainty mechanisms should apply in situations where investment decisions cannot be forecast sufficiently accurately at the time a determination is made, and/or where events outside the regulated supplier's control will impact its costs. The degree of complexity or level of prescription of the mechanism should be proportionate to the risk being mitigated. An uncertainty mechanism is not a substitute for poor planning.

The mechanism needs to be sufficiently defined to provide confidence that it would be applied as intended and guard against unintended outcomes. Mechanism design can range from entirely mechanistic to entirely discretionary and the existing ones for Transpower exhibit elements of each design. For example, the mechanisms under the Capex IM are more discretionary whereas those under the Transpower IMs are arguably more mechanistic.

The Capex IM currently has three main mechanisms to manage forecast uncertainty (uncertain need, timing and cost): major capex, listed projects, and the enhancement and development re-opener. These mechanisms function via following prescribed processes and relying on regulatory approval to enable cost recovery. This high level of prescription appropriately recognises that getting the costs wrong would have high impacts for the supplier or customer. However, such prescription may inadvertently limit application to a range of candidate investment needs and their solutions.

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[69] CEPA, Expenditure incentives faced by network service providers, May 2018, CEPA Report - Expenditure Incentives (aemc.gov.au).

[70] The "NOT" was inserted as signalled in later submission 3 August 2022 here

[71] Process and Issues paper 20 May 2022, paragraph 5.92.

The Transpower IMs also have mechanisms for cost impacts outside the suppliers control including being able to label certain costs as "pass-through" or "recoverable" costs and a price-path re-opener provisions for errors and catastrophic events.[72] In particular, the price-path reopener is designed to be difficult to re-open given the high cost impact hurdle of 1% of MAR, the effect of which means Transpower can incur significant costs to manage catastrophic events but still not spend enough to ensure cost recovery, which is counter intuitive.

We consider a more principle-based approach in the IMs, that allows for reopeners to be prescribed in the IPP, is more effective. This approach would avoid needing to adjust the IMs in future when a new uncertainty mechanism is required for an RCP.

The IMs should also allow for more automatic adjustments to the price-quality path to be made, for example after a MCP is approved we currently need to go through a further process to have the IPP adjusted for the revenue changes linked to the MCP, despite the level of expenditure, and thus revenue impact, being approved by the Commission. This adds unnecessary administrative costs for both Transpower and the Commission. Similarly where we bring forward asset replacement work from a future control period (and therefore it is not in our base capex proposal), at the request of a customer an automatic adjustment could be applied to the IPP triggered by the signing of the transmission works agreement. The customer will sign-off the works agreement to bring forward the investment and it will directly fund the incremental cost.

We consider relatively simple changes to the IMs can be made to allow more uncertainty mechanisms to be used during a price control period, to better balance the risks between consumers and Transpower, without significant additional administrative burden on the Commission.

The range of uncertainty mechanisms that we are considering for RCP4, in addition to the existing ones, are to account for:

- 'proactive' resilience projects whereby Transpower investigation during the control period identifies investment needed for mitigating or adapting to climate change impacts
- increased connection asset replacements due to customer demands to bring forward those asset replacements for increased capacity[73]
- providing for connection asset with *anticipatory capacity* to manage the issue known as First Mover Disadvantage type 2[74] and as provided for in the TPM

[72] Transpower IMs clause 3.6.5

[73] Noting that the Customer would pay for the incremental capacity via a transmission works agreement and the price-path would only fund the investment needed for the **asset replacement** component as defined under the Capex IM

[74] TPM Development Project: First Mover Disadvantage Consultation | Transpower

- TransGO (our fibre network) lifecycle replacement
- insurance premium increases

We also note that the List Project mechanism is restricted to asset replacement or asset refurbishment. We consider, if the Commission does not allow for a more principles-based approach in the IMs, that the Listed Project definition should be changed to allow it to cover more types of base capex projects such as information systems and technology assets.

Appendix 2: Other matters

In this appendix we list a range of issues that we consider for change under the framework criteria to "*significantly reduce compliance costs, other regulatory costs, or complexity (without detrimentally affecting the promotion of the section 52A purpose*)."

Our interpretation of the above framework statement is that new policy should not be added if it does not promote the Part 4 or IMs purposes, and would add compliance and complexity costs i.e. the cost benefit of the regulation would be negative.

Transpower involvement in "contestable activities"

The Commission has raised the question "*… whether Transpower's greater involvement (or potential involvement) in contestable activities since we originally set Transpower's IMs suggests any changes are necessary to our cost allocation approach for Transpower*".

We do not consider our unregulated / third party activities to material enough to warrant addition of onerous new reporting requirements.

We currently use the avoidable cost allocation methodology (ACAM) for the System Operator Service Provider Agreement (SOSPA). This methodology requires that we only allocate cost to the System Operator (SO) that would not otherwise be incurred i.e. only incremental costs are allocated to the SO. ACAM leads to lower costs being allocated to the SO compared to an activity-based cost allocation. If Transpower could not apply ACAM we would need to negotiate higher fees for SO services with the Electricity Authority.

Addition of opex information requirements in the IMs

Transpower considers that opex information requirements should be included in either the Capex IM or Transpower IMs.[75]

If opex information requirements are included in the IMs, the Commission would not have to continue to rely on s53ZD notices for each RCP. Transpower would be certain of the rules for making, and the Commission evaluating, our operating costs.

We consider the use of notices goes against the purpose of have operational rules in the IMs "*to promote certainty for suppliers and consumers in relation to the rules, requirements, and processes applying to the regulation*". [76]

Other clarifications and improvements

Transpower has identified various opportunities to improve the workability of the IMs by reducing complexity or reducing ambiguity while ensuring that policy is preserved.

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[75] Transpower submission to the Commission - Ensuring regulation is fit for purpose - May 2021

[76] Commerce Act 1986 clause 52R

We note that in developing the Fibre IMs the Commission made a deliberate effort to learn from and improve on the drafting of the Part 4 IMs, which resulted in various (non-industry specific) changes such as simplification of the drafting. We consider that there is merit in the Commission revisiting the Part 6 IMs decision and assessing where the drafting improvements might be suitable for the Part 4 IMs.

Area	Proposal
Price-Quality Paths Funding mechanisms to investigate and test innovative services	In our May 2021 submission on Fit for Purpose regulation[77], we identified that "*Overseas regimes, for example in Australia and Great Britain, have specific funding mechanisms. For example, the AER has the Demand Management Innovation Allowance Mechanism, and Ofgem runs a Network Innovation Competition and provides a Network Innovation Allowance. We consider that introducing similar funding mechanisms is appropriate given the energy sector's transition. Any mechanism(s) that are introduced should ensure that knowledge funded under these mechanisms is shared*." We agree that these types of arrangements can be beneficial to support innovation.
Capex IM Schedule A Commission evaluation of base capex proposal	Schedule A clause A1 "general evaluation" contains a multitude of factors to have regard to that we consider are complicated to understand and apply. Expenditure evaluation approaches created for EDBs (their Customised Price Path CPP) and more recently under the Fibre Capex IM appear more straightforward to understand (and therefore provide greater certainty in their application). To reduce complexity but without undermining the Part 4 purpose or the IMs purpose, we propose Schedule A in the Capex IM be made more clear by importing the approach under the CPP as below (or the Fibre Capex IM although we consider the EDB CPP is more aligned with Transpower's business). Evaluation via the Capex IM under our IPP, and the IMs for the CPP should in our view be similar, for the similar regulatory intent for specific expenditure proposals.

[77] Transpower submission to the Commission - Ensuring regulation is fit for purpose - May 2021

Area	Proposal
	Specifically under the EDBs IMs[78], the criteria at 5.2.1 (d) *whether proposed capital expenditure and operating expenditure meet the expenditure objective*; could be less complex to apply for evaluation purposes.
Capex IM Investment decision frameworks should permit opex solutions.	Also raised under uncertainty mechanisms. Neither the listed project uncertainty mechanism nor the E&D re-opener uncertainty mechanism provide for recovery of an opex solution i.e. for Transmission alternative services.
Capex IM Network resilience adequacy is a growing concern	We consider that the Capex IM (specially, base capex) should explicitly refer to an expenditure objective for resilience, in the same way as base capex permits replacement and refurbishment capex. Resilience adequacy is a growing concern under the risk of more severe weather events.
Capex IM Clause 3.2.1	The definition should be clarified to avoid capturing ongoing programmes of work which are already consulted on via the base capex proposal. We are happy to discuss how the definition of programme can be clarified as this also relates to listed projects. We also note that determining net market benefits for programmes or projects related to reliability may not be a reasonable evaluation criterion.
Capex IM subpart 7 pricing information with major, base and listed proposals	Following development of our TPM, the information sought under 7.5.1 may not be the format by which our Customers receive pricing information. The TPM charges for high value major capex projects BBCs are proportionate to benefits (of various types) and not directly per kW or kWh. We propose that the pricing information is less prescribed, for example "*estimated increases in transmission charges*."
Transpower IM Clause 2. 2.7 (1) (d)	This clause relates to value of commissioned assets and specifically that an asset under an investment contract is "nil" value (the effect being that the TPM does not recover its cost). Following recent changes to the TPM, the asset value needs to reflect the policy

[78] Electricity Distribution Businesses' Input Methodologies

Area	Proposal
	intent that connection assets can be part funded by both TPM and investment contract (aka transmission works agreement). Propose "an asset used in providing electricity transmission services pursuant to a new investment contract, is nil if completely funded by contract; otherwise the value is that which will be recovered by the TPM"; Further we propose the IMs should make the term for our bilateral contracts more generic; for example the IMs term is "new investment contract" but Transpower has already changed the name of such contracts to "Transmission Works Agreement."
Transpower IM clauses 3.7.5 and 3.7.4	Despite the policy intent that the Commission may amend the grid output targets, caps, collars and grid output incentive rates associated with revenue-linked grid output measures for Major Capex, Listed and E&D re-opener projects, we consider the drafting creates a barrier to applying the policy (e.g. the drafting "any more than is reasonably necessary to take account of the change in costs". Seek drafting to support effective policy application. Note, in May 2022 we consulted on allowing MCPs, customer related work and listed project work to be excluded from our service measures.
Transpower IM Expenditure forecasting for revenue proposal and alignment with IBAT assessment under the IRIS[79]	Regulated suppliers use a forward-looking approach to expenditure forecasting to take account of step changes in capital or operating needs. However the Commission approach to IBAT for our IPP decision[80](xx) did not accommodate the step changes. Transpower submission to the Commission's approach stated "*Our RCP3 proposal provides relevant information to make a considered IBAT decision. The draft IBAT decision disregards using an analysis of step opex investments within our RCP3 proposal in favour of high-level examination of opex figures, including historic data that does not provide insight into future trends. The proposal provides clear evidence of new costs and relevant trends that we consider the*

[79] IRIS = Incremental Rolling Incentive Scheme IBAT = IRIS baseline adjustment term

[80] Transpower's individual price-quality path – IRIS baseline adjustment term Draft decision

Area	Proposal
	Commission should examine to ensure the IBAT decision is well founded and consistent with the opex allowance decision."[81]

In addition to the above, there are several drafting errors in the IMs, these are minor but should be picked up as part of the drafting process.

[81] Microsoft Word - Transpower submission on Draft IBAT decision (comcom.govt.nz)