

Amendments to input methodologies for Transpower to provide a listed project mechanism

Reasons paper

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Regulation Branch
Commerce Commission

Contents

1. INTRODUCTION 4

2. SUBMISSION ANALYSIS AND DECISIONS ON KEY FEATURES OF THE LISTED PROJECT
MECHANISM..... 8

3. PROCESSES, REQUIREMENTS AND EVALUATION CRITERIA FOR LISTED PROJECTS 26

ATTACHMENT A: ILLUSTRATIVE LISTED PROJECTS EXAMPLES FOR RCP2 33

1. Introduction

Purpose of this paper

1. This paper sets out our reasons for our decision to provide a listed project mechanism through amendments to the input methodologies for electricity lines services supplied by Transpower New Zealand Limited (Transpower).
2. The amendments are determined in the *Transpower Input Methodologies Amendments Determination 2014 (No.2)* [2014] NZCC 34.

Determinations affected by the amendments

3. We have determined amendments to the following Transpower input methodology (IM) determinations:
 - 3.1 *Transpower Input Methodologies Determination* [2012] NZCC 17 (Transpower IM); and
 - 3.2 *Transpower Capital Expenditure Input Methodology Determination* [2012] NZCC 2 (Capex IM).
4. The amendments address issues relevant to the determination of Transpower's individual price-quality path to apply from 1 April 2015.
5. The amendments provide a mechanism for Transpower to apply for, and the Commission to approve, additional base capex for inclusion within Transpower's price path during a regulatory period in respect of large scale replacement and refurbishment projects, which are referred to as 'listed projects'.
6. The amendments take effect when they are published by notice in the *Gazette*, on 27 November 2014.

Overview of the amendments

7. We have amended the input methodologies for electricity lines services supplied by Transpower as follows:
 - 7.1 Amended the price path reconsideration provision in the Transpower IM to accommodate the revenue impact of approved base capex in respect of listed project assets that are forecast to be commissioned in a regulatory period;
 - 7.2 Inserted into the Capex IM a definition of 'listed project' and the requirements that a base capex project or programme must meet to be eligible for consideration as a listed project;
 - 7.3 Inserted process requirements for application and approval of base capex in respect of listed projects within the regulatory period into the Capex IM; and

- 7.4 Amended the formula for calculating the annual ‘base capex expenditure adjustment’ in the Capex IM to maintain the incentive effects when additional base capex in respect of listed projects has been approved by the Commission.

Overview of the process we used to consult on amendments

Background to the request for amendment of the IMs

8. The Capex IM recognises capital expenditure incurred in relation to asset replacement and asset refurbishment projects as base capex, regardless of the dollar value of the projects. As such—in the absence of IM amendments to provide a mechanism for Transpower to apply for, and the Commission to approve, additional base capex for inclusion within Transpower’s price path during a regulatory period—even large reconductoring projects (eg, line or cable replacement projects with costs in excess of \$20 million) would fall within the base capex portfolio, for which the Commission must set a base capex allowance in advance of each regulatory period.
9. The base capex allowance is an approved pool of capital expenditure which permits substitution by Transpower between projects and programmes within the overall base capex portfolio.
10. Base capex is subject to an incentive framework which compares approved annual amounts of the base capex allowance with the actual values of commissioned assets funded as base capex.¹
11. In 2013, Transpower requested that the Commission extend the Capex IM definition of major capex to include expenditure on large reconductoring projects that would otherwise be included (in full or in part) within the base capex allowance.²
12. Consistent with this request, Transpower’s subsequent expenditure proposal for RCP2 in December 2013 did not include capital expenditure associated with five large reconductoring projects, proposing that they be excluded from base capex and submitted to the Commission for separate approval.³

Consultation process on the IM amendments

13. On 10 February 2014, the Commission:
 - 13.1 issued a notice of intention to begin work on proposed amendments to the input methodologies for Transpower;⁴ and

¹ In contrast, the Capex IM applies an incentive framework to individual large capex projects for major capex.

² Email from Jeremy Cain (Chief Regulatory Advisor, Transpower) to Commerce Commission requesting Capex IM amendment relating to large refurbishment and replacement projects (4 October 2013).

³ Transpower New Zealand Limited, “Expenditure proposal regulatory control period 2” (December 2013) paragraph 45.

⁴ Commerce Commission, “Notice of Intention: proposed amendments to input methodologies for Transpower” (10 February 2014).

- 13.2 released an issues paper which sought views on, amongst other things, whether Transpower's individual price-quality path should allow for resets of the forecast MAR during RCP2 to accommodate capital expenditure on replacement and refurbishment projects that have a high cost, broad scope and/or uncertain timing (ie, it contemplated approved expenditure being included in resets of the forecast MAR during RCP2, even though it was excluded from the initial base capex allowance).⁵
14. In May 2014 we consulted on the process requirements for the application by Transpower and approval by the Commission of base capex in respect of listed projects as part of the individual price-quality path determination. This was followed in June 2014 with consultation on an amendment to Transpower's input methodologies that would allow it to recover revenues for certain listed projects under the individual price-quality path determination, through a reconsideration of the individual price-quality path.
15. It was initially contemplated that we would reach a final decision on this reconsideration amendment as part of the wider group of amendments to Transpower's input methodologies published on 28 August 2014. However, as set out in our August input methodologies and individual price-quality path reasons papers,⁶ we did not make a final decision on the reconsideration amendment at that time as our view on the most appropriate place to set out the approval mechanism for listed projects changed.
16. Our earlier view was that the process requirements for the application by Transpower and approval by the Commission of base capex relating to listed projects should form part of the individual price-quality path determination. As at 29 August 2014, our view was that those process requirements should instead be set out in the Capex IM, as this is more consistent with s 54S of the Commerce Act 1986 (Commerce Act).
17. We made in-principle decisions on 29 August 2014 that Transpower's RCP2 individual price-quality path would include a mechanism to allow us to reconsider the forecast MAR to take account of approved base capex for five (large reconductoring) listed projects. On 23 October 2014 we published updated draft input methodologies amendments reflecting our then view of where the process requirements for the application by Transpower and approval by the Commission of base capex relating to listed projects should be set out. The draft amendments proposed at that time were to:
- 17.1 the Capex IM, incorporating the listed projects base capex approval mechanism we had previously consulted on as part of the individual price-quality path determination; and

⁵ Commerce Commission "Invitation to have your say on Transpower's individual price-quality path and proposal for the next regulatory control period" (issues paper, 10 February 2014), paragraphs 3.25 and 3.26.

⁶ *Setting Transpower's individual price-quality path for 2015-2020* [2014] NZCC 23 (29 August 2014); Commerce Commission "Amendments to input methodologies for Transpower 2014" (reasons paper, 28 August 2014).

- 17.2 the Transpower IM, updating the reconsideration amendment to reflect where we then believed the listed projects base capex approval mechanism should sit.
18. Views were sought from interested parties on these updated draft input methodologies amendments related to approval of base capex in respect of listed projects.
19. In making our final decision, we have had regard to submissions on the listed project base capex approval mechanism received in relation to both Transpower's individual price-quality path, and Transpower's input methodology amendment consultation processes.

Structure of this paper

20. The remainder of this paper is structured as follows:
- 20.1 Chapter 2: Our analysis and decisions that result in the amendments.
- 20.2 Chapter 3: The processes, requirements and evaluation criteria required to be applied in RCP2 and how the base capex associated with listed projects will feed into the base capex expenditure framework in the Capex IM.
- 20.3 Attachment A: Illustrative examples with indicative timelines for RCP2 to assist with understanding the practical application of the listed projects mechanism and the interaction with the individual price-quality path determination and the Capex IM incentive features.

2. Submission analysis and decisions on key features of the listed project mechanism

Purpose of this chapter

21. This chapter sets out our decisions on key issues raised in submissions and is structured as follows:
 - 21.1 Firstly, we provide an upfront overview of our final decision.
 - 21.2 Secondly, we recap on the proposed approach we outlined in our draft input methodologies that were published for consultation on 23 October 2014, and the key substantive points made in submissions we received in response.
 - 21.3 Thirdly, we then work through the focal issues as follows:
 - 21.3.1 where the listed project mechanism should be set out;
 - 21.3.2 what uncertainty the listed project mechanism deals with;
 - 21.3.3 whether the listed project mechanism should be available beyond RCP2 (and, if so, what features a listed project should have);
 - 21.3.4 whether listed projects should be considered on an approve / reject basis; and
 - 21.3.5 whether base capex approved in respect of a listed project should apply to the project, or for a regulatory period.
 - 21.4 Finally, we comment on some specific drafting points raised by Transpower, before summarising our conclusions on the key features of the listed project mechanism.

Our decision to make input methodology amendments

22. This section provides an upfront overview of our final decision.
23. We have made amendments to:
 - 23.1 the Capex IM, to incorporate the listed projects base capex approval mechanism; and
 - 23.2 the Transpower IM, to update the reconsideration amendment provision to reflect where the listed projects base capex approval mechanism sits.

24. These amendments reflect decisions that:
- 24.1 The requirements that give effect to the listed projects mechanism are appropriately set out in the Capex IM, as this is consistent with s 54S of the Commerce Act.
 - 24.2 The listed projects mechanism will apply from the commencement of RCP2, and beyond.
 - 24.3 We may (at our discretion) identify listed projects in an individual price-quality path determination.
 - 24.4 To qualify for inclusion as a listed project in an individual price-quality path determination, a base capex project or base capex programme must have the following features:
 - 24.4.1 the expenditure under the project (or programme) must be 'base capex' in respect of asset replacement or asset refurbishment;
 - 24.4.2 the forecast aggregate capital expenditure under the project (or programme) must exceed \$20 million;
 - 24.4.3 the project (or programme) must be reasonably required by Transpower, with at least one (or more) assets likely to be commissioned in the regulatory period to which the individual price-quality path determination applies;
 - 24.4.4 the commencement date of the project within the regulatory period is anticipated, but cannot be forecast with specificity; and
 - 24.4.5 The base capex of the project (or programme) is not already accommodated in the base capex allowance for the regulatory period.
 - 24.5 During a regulatory period Transpower may submit an application to us for approval of base capex in respect of a listed project.
 - 24.6 The requirements that must be met by Transpower, and the criteria we will use to evaluate expenditure in respect of a listed project, are set out in the Capex IM.

- 24.7 The revenue impact of base capex in respect of listed projects will feed into Transpower's individual price-quality path through updates to the forecast MAR in a manner consistent with the Transpower IM reconsideration provisions for newly-approved major capex projects.⁷
- 24.8 The amendment to the price path will not take effect until the relevant pricing year relating to the disclosure year in which assets in respect of the project are forecast to be commissioned, and the update to the forecast MAR will only be available:
- 24.8.1 if our approval is given prior to November in a disclosure year, from the pricing year beginning the following April; or
- 24.8.2 if our approval is given in or after November, from the pricing year beginning after the disclosure year in which approval is given.
- 24.9 The final date for submission of an application to us for approval of base capex in respect of a listed project will be 30 June in the year in which the base capex proposal is submitted for the next regulatory period.⁸
25. Consistent with our above decisions, the base capex approved by us in respect of listed projects, like all other approved base capex, will be:
- 25.1 able to be substituted by Transpower between base capex projects within the overall envelope of approved base capex for the regulatory period; and
- 25.2 subject to the base capex expenditure incentive framework in the Capex IM.⁹

Our draft input methodologies of October 2014

26. This section recaps the proposed approach we outlined in our draft input methodologies that were published for consultation on 23 October 2014, and the key substantive points made in submissions we received in response.

⁷ We will amend the price path (ie, forecast MAR for the years in which the assets to which the base capex relates are forecast to be commissioned) to take account of the revenue impact of base capex we approve in respect of a listed project. Later when the assets funded as base capex are actually commissioned, the washup process in the individual price-quality path determination will replace the forecast base capex with the actual base capex, which may result in an ex-post economic gain or loss and a resulting EV account entry. That entry will result in an EV adjustment to the forecast MAR in a later year, so that over time Transpower's revenue will be based on the actual base capex value of the commissioned assets.

⁸ For example, for RCP2 this is 30 June 2018, which is prior to the December 2018 submission of the base capex proposal for RCP3. This lines up with the timing for the setting of prices for the final year of the regulatory period.

⁹ As the base capex that is approved for listed projects will only be in respect of replacement or refurbishment projects, we do not anticipate that any approval of that base capex will also result in any change to the targets, caps or collars for the revenue-linked grid output measures that are set for the regulatory period at the time the base capex allowance is initially determined for the regulatory period.

Our October 2014 draft decision

27. The draft input methodology amendments published for consultation on 23 October 2014 reflected our:
- 27.1 in-principle decisions that Transpower’s RCP2 individual price-quality path would include a mechanism to allow us to reconsider the forecast MAR to take account of approved base capex for five (large reconductoring) listed projects;
 - 27.2 view that process requirements for the application by Transpower and approval by the Commission of base capex relating to listed projects should be set out primarily in the Capex IM; and
 - 27.3 proposed form of the listed project mechanism within the Capex IM.
28. We sought views from interested parties on these draft input methodology amendments. We were particularly interested in submissions regarding how we proposed to implement the listed project mechanism. We also invited submissions on whether the listed project mechanism should apply beyond RCP2.
29. We received further submissions from Transpower,¹⁰ the Major Electricity Users’ Group (MEUG),¹¹ and Maui Development Limited (MDL).¹² As has been the case previously, all submissions supported the introduction of a mechanism that would allow Transpower to apply for, and the Commission to approve, additional base capex for inclusion during RCP2 of identified large asset replacement and refurbishment projects that are subject to uncertain timing estimation. Key areas of difference between these submissions and how we proposed to implement the listed project mechanism are summarised in Table 1.

¹⁰ Transpower New Zealand Limited, “Submission on proposed *Listed Projects* mechanism under Transpower Input Methodologies” (7 November 2014).

¹¹ Major Electricity Users’ Group, “Submission on Proposed Transpower IM Amendments October 2014” (7 November 2014).

¹² Maui Development Limited, submission letter of 7 November 2014 from Jelle Sjoerdsma, Commercial Operator, Maui Pipeline.

Table 1: Key substantive points in further submissions

Key substantive point	Views of interested persons
<ul style="list-style-type: none"> We proposed that the listed projects mechanism would only apply to the approval of base capex for RCP2 and not in later regulatory periods 	<ul style="list-style-type: none"> Transpower and MDL support the listed projects mechanism for base capex, but they submit that the mechanism should extend beyond RCP2 MEUG supports the listed projects mechanism for base capex, and sees the benefits of better timing of projects. It considered a one-off adjustment for RCP2 a pragmatic solution, but said nothing further about whether the mechanism should extend beyond RCP2
<ul style="list-style-type: none"> We proposed that the approval mechanism would apply to assets that are forecast to be commissioned in RCP2, and not to approval of the base capex project per se (ie, would not anticipate approval of base capex for RCP3) 	<ul style="list-style-type: none"> Transpower submits that our approvals under the listed projects mechanism should be in respect of projects, rather than the forecast base capex in RCP2
<ul style="list-style-type: none"> We proposed that the Commission would evaluate Transpower's request for approval of the additional base capex for listed projects in RCP2 and it is for the Commission to determine the additional approved base capex amount 	<ul style="list-style-type: none"> Transpower submits that the listed projects mechanism as drafted has the potential for conflict between Board governance and our approval, in particular our ability to change the requested base capex amount before approving it

30. In the following sections we consider the focal issues raised in submissions, as follows:

30.1 where the listed project mechanism should be set out;

30.2 the uncertainty the listed project mechanism is intended to deal with;

30.3 whether the listed project mechanism should be available beyond RCP2 (and, if so, what features a listed project should have to qualify for inclusion);

30.4 whether listed projects should be considered on an approve/reject basis; and

30.5 whether base capex approved in respect of a listed project should apply to the project, or for a regulatory period.

Where the listed project mechanism should be set out

31. Our view, as at 23 October 2014, was that process requirements for the application by Transpower, and approval by the Commission, of base capex relating to listed projects should be set out in the Capex IM as this is more consistent with s 54S of the Commerce Act.

32. No submissions disagreed with this view.
33. We reconfirm our view that:
- 33.1 the listed project mechanism should be set out in input methodologies, rather than contained largely within Transpower's individual price-quality path; and
- 33.2 this is more consistent with s 54S of the Commerce Act, which requires input methodologies to include requirements, evaluation criteria and processes for evaluating capital expenditure proposals.

The uncertainty the listed project mechanism is intended to address

34. This section considers the areas of uncertainty that a listed project mechanism might address, and what we think it should address.

Asset replacement and refurbishment traditionally sits within the base capex framework

35. The base capex framework within the Capex IM recognises capital expenditure incurred in relation to asset replacement and asset refurbishment projects as base capex, regardless of the dollar value of the projects. The Commission is required to set a base capex allowance (for each disclosure year of a regulatory period) in advance of each regulatory period.¹³
36. The base capex allowance is an approved pool of capital expenditure which permits substitution by Transpower between projects and programmes within the overall base capex portfolio. Base capex is subject to an incentive framework which compares approved annual amounts of the base capex allowance with the actual values of commissioned assets funded as base capex.
37. Where asset enhancement is a material outcome of the project, asset replacement and refurbishment projects may (if they exceed the base capex project threshold) fall within the major capex framework. The definitions of 'asset refurbishment' and 'asset replacement' in the Capex IM effectively exclude a project from the uncapped aspects of the definition of 'base capex' if the project improves the original service potential (for asset refurbishment) or materially improves the original service potential (for asset replacement). The major capex framework operates on a project basis with a suite of other treatments that differ from treatment within the base capex framework.

¹³ Capex IM, clause 2.2.2(1)(a)

Transpower's concerns about the fit of large reconductoring projects

38. Transpower has previously submitted that large projects with high cost or timing uncertainty (such as large reconductoring projects) are a poor fit with the base capex framework.¹⁴
39. Notably, Transpower was concerned that:
- 39.1 in the absence of a listed project mechanism, there was no timing flexibility, as projects could not be considered on an individual basis during the regulatory period;
 - 39.2 accurate cost estimation for reconductoring projects is inherently difficult even at a relatively advanced planning stage and the base capex incentive arrangements could generate material rewards or penalties due to estimation uncertainty rather than underlying efficiency gains or losses; and
 - 39.3 listed projects which spanned regulatory periods would be difficult to accommodate within the base capex framework as they may require the Commission to approve components of a base capex allowance for future regulatory periods in advance of considering that future regulatory period's base capex portfolio as a whole.
40. These are matters that the Commission has contemplated during its consideration of whether to provide (and, if so, in what form) a mechanism that would allow Transpower to apply for, and the Commission to approve, additional capex associated with identified projects that historically sit outside the major capex framework of the Capex IM. Our view has been, and remains, that these concerns can be accommodated by creating a listed project mechanism within the base capex framework of the Capex IM.
41. We recognise, at least for RCP2, Transpower's concern that its forecasting process for some identified large reconductoring projects had cost and scope uncertainty, particularly in light of the fact that (at the time Transpower submitted its RCP2 base capex proposal) detailed technical studies were yet to be completed to determine whether it was economic to enhance capacity within these projects.
42. Creating a mechanism that would allow Transpower to apply for (within a regulatory period), and the Commission to approve, additional base capex recognises Transpower's concerns about timing flexibility for large projects such as these. Support for such an approach to deal with timing uncertainty also came from MEUG.
43. However, we do not accept that concerns about accurate cost estimation for reconductoring projects cannot be accommodated within the base capex framework.

¹⁴ Transpower New Zealand Limited, "Response to IPP Draft Decision (27 June 2014), page 57; Jeremy Cain email request for IM amendment (4 October 2013); "Response to IPP issues paper" (3 March 2014), pages 16 and 17.

44. We do not consider that it has been demonstrated to us that accurate cost estimation for projects that are categorised as base capex projects or programmes is as inherently difficult as in the case of major capex projects. Major capex is characterised by enhancement and development, bringing an improvement or innovation element to the project. Base capex (particularly for reconductoring) focuses on the refurbishment or replacement of existing assets.
45. Further, Transpower itself has indicated that accurate cost estimation can be enhanced through planning, detailed design work, and investigation.¹⁵
46. The fungible nature of the base capex allowance (including provision for resourcing investigation work within it) provides a mechanism for managing the impact of estimation uncertainty as it permits substitution by Transpower between projects and programmes within the overall base capex portfolio. The listed project mechanism we have proposed is intended to treat base capex increments associated with a listed project in any given disclosure year as fungible across the whole base capex portfolio.
47. The base capex framework accommodates projects which span regulatory periods – this is not a characteristic that is the sole preserve of large reconductoring projects.

Our view – base capex for listed projects sits within the base capex framework

48. Transpower submitted that the listed projects mechanism (ie, the ability to apply for additional base capex at a time after the base capex proposal is submitted) was primarily intended to deal with “things that change during a regulatory control period and which it is in the interests of consumers that we plan for”. However, in our view this overstates the scope of the mechanism as we have previously proposed it.
49. The listed project mechanism we have consistently proposed was not meant to change the way the base capex framework operates to accommodate cost uncertainty for base capex projects generally. Rather, it was to allow Transpower more time to do technical studies and refine its forecasts before it submits its proposal for approval sometime in the regulatory period following the base capex proposal.
50. We confirm our view that listed projects remain base capex projects, and the listed project mechanism should not be built on the major capex framework. The listed project mechanism is:
 - 50.1 intended to deal with uncertainty of project commencement date (and the planning or forecasting benefit that will result from deferring the listed project aspect of what would otherwise be contained in a base capex proposal); and

¹⁵ We note that Transpower has previously signalled that these are ways that it could reduce cost uncertainty. See Transpower New Zealand Limited, “Response to IPP draft decision” 27 June 2014 at page 57.

- 50.2 not intended to alter, once base capex for a listed project has been approved, the way the base capex framework operates to accommodate cost uncertainty for listed projects within the base capex portfolio generally.

Whether the listed projects mechanism should extend beyond RCP2

51. In our 23 October 2014 consultation paper we invited submissions on whether the listed project mechanism should apply beyond RCP2.
52. Our earlier thinking, in the context of setting Transpower's individual price-quality path for RCP2, was that the mechanism would not be required beyond RCP2 and it was our expectation that Transpower will be a position to comprehensively propose a base capex allowance for the regulatory periods after RCP2.¹⁶
53. Transpower disagreed with that view, submitting that the material uncertainty for these projects is not a transitional issue that will be resolved for regulatory periods beyond RCP2 and the listed project mechanism should be a permanent framework feature.¹⁷
54. Both Transpower and MDL have now submitted that the listed project mechanism should be retained beyond RCP2.
55. Transpower submitted that:
- 55.1 a mechanism to apply for additional base capex is needed to accommodate the inherent reality that there will always be things that change during a regulatory period and which are in the interests of consumers that Transpower plans for; and
- 55.2 some other projects (reconductoring, generation driven, or those driven by step changes in demand) may be relatively large projects but their timing need and cost are uncertain (and the uncertainty does not fit well with the base capex model despite substitutability of base capex).¹⁸
56. MDL supported Transpower in its view that the estimation uncertainty associated with large reconductoring projects is not a transitional issue isolated to RCP2, as the timing of large transmission infrastructure related projects is difficult to forecast with specificity.¹⁹

¹⁶ Commerce Commission, "Setting Transpower's individual price-quality path for 2015-2020" (reasons for draft decision, 16 May 2014), at paragraph 3.72.

¹⁷ Transpower New Zealand Limited, "Response to IPP draft decision" (27 June 2014) at page 57.

¹⁸ Transpower New Zealand Limited, "Submission on proposed Listed Projects mechanism under Transpower Input Methodologies" (7 November 2014) at page 2.

¹⁹ Maui Development Limited, submission letter of 7 November 2014 from Jelle Sjoerdsma, Commercial Operator, Maui Pipeline

57. MEUG submitted that the one-off adjustment to the input methodologies for RCP2 is a pragmatic solution, and congratulated Transpower for initially suggesting that the five large asset replacement and asset refurbishment projects that are subject to uncertain timing should be separated from the IPP base capex proposal for RCP2.²⁰

Pros and Cons

58. For the five reconductoring projects identified by Transpower in the circumstances of RCP2, our in-principle view as at 29 August 2014 was that a listed project mechanism was justified for that regulatory period. There are arguments for and against extending the mechanism beyond RCP2 and we discuss these below, dealing first with the cons.
59. In proposing a listed project mechanism that applied only to RCP2, we anticipated a mechanism to deal with immediately identified need for timing certainty in respect of reconductoring projects set out by Transpower.
60. Extending the mechanism beyond the period of immediate need has the potential to run counter to incentives for Transpower to improve its forecasting, modelling and managing of its base capex and opex requirements. In particular, it would potentially weaken the drivers for improvement of cost estimation data tools such as asset condition modelling, and use of network health measures to optimise the timing of expenditure.
61. While both Transpower and MDL submit that estimation uncertainty is not a transitional issue for RCP2, no specific projects or programmes have been identified for which a listed project mechanism might be necessary in RCP3 or beyond.
62. Transpower asserts that some large capex projects have uncertain timing need and uncertain cost and this justifies the need for an ongoing listed projects mechanism for (all) larger scale base capex projects. However, of the three examples in Transpower's submission, two would more likely qualify as major capex projects (generation driven projects, and projects driven by step changes in demand), so the proposed listed projects mechanism may not apply to them. This leaves large scale reconductoring projects, such as the five mentioned in Transpower's December 2013 base capex proposal, as examples of the most likely ongoing type of base capex project.
63. For the five RCP2 examples, we are also conscious that the primary reason Transpower proposed to exclude those projects for RCP2 from the base capex expenditure forecasts was that "detailed technical studies are yet to be completed to determine whether or not it is economic to enhance capacity".²¹

²⁰ Major Electricity Users' Group, "Submission on Proposed Transpower IM Amendments October 2014" (7 November 2014).

²¹ Transpower New Zealand Limited, "Expenditure proposal regulatory control period 2" December 2013 at page 45.

64. If, after detailed technical studies, Transpower determines that the listed projects should include an enhancement component (ie, improve the original service potential of the assets), they may no longer meet the definition of ‘base capex’ projects or programmes. In that case, there is no base capex that the Commission could approve. Instead Transpower may submit a major capex proposal.²²
65. On the ‘pro’ flipside, there may be consumer benefits in Transpower having more time to advance its planning and improving forecasts of cost estimations though the availability of more time (beyond the timeframes for submitting a base capex proposal prior to a regulatory period) to undertake detailed planning, detailed design, and further investigation work. A listed project mechanism is likely to encourage more accurate timing of large project spends as it allows for more time.
66. While no specific projects or programmes have been identified for which a listed project mechanism might be necessary in RCP3 or beyond, we acknowledge that the operation and replacement of a deteriorating asset fleet is a challenge that Transpower is already facing. Transpower noted in its December 2013 base capex proposal that it has:
- “an asset fleet that is older than our peers . . . our assets have a finite life, which many are reaching. They are increasingly showing age-related deterioration. . . [in RCP1] we sought approval for expenditure for a programme of replacement and refurbishment to address this issue. Some of this was driven by safety issues. The Commerce Commission fully supported this expenditure, as a matter of relative urgency. . . . The need for these programmes is ongoing.”²³
67. Having revisited asset age information provided by Transpower,²⁴ we are not convinced that large asset replacement and refurbishment projects or programmes will go away after RCP2. The age profile of conductors within Transpower’s asset fleet indicates concentrated volumes of conductors currently aged between 40 and 60 years. A simple comparison with the 55 year standard physical asset life for Transpower’s transmission lines (as prescribed in the Transpower IMs) reaffirms that age-related asset deterioration and the replacement of a deteriorating asset fleet are key challenges for Transpower in the medium term.
68. We do not expect Transpower’s use of tools for assessing line condition and prediction of the end of life (ie, to provide estimates of need date, scope and cost) will advance its planning and improving forecasts of cost estimations in the same way that availability of more time would do – at least in the medium term. Transpower itself acknowledges that its planning approaches need improvement to meet the Commission’s expectations.²⁵

²² Capex IM, clause 3.3.2.

²³ Transpower expenditure proposal of December 2013; see the Foreword to that proposal.

²⁴ Transpower New Zealand Limited, “TL Conductors and Insulators fleet strategy (FS03)” 16 October 2013 at page 13. This document was provided to the Commission as supporting documentation accompanying its Expenditure proposal for RCP2 in December 2013.

²⁵ Transpower, “Submission on proposed *Listed Projects* mechanism under Transpower Input Methodologies” (7 November 2014), page 2.

69. We are conscious also of previous review comments from Strata, expert advisors to the Commission who reviewed the asset management documentation, data and models from individual asset fleets provided as part of Transpower's base capex proposal for RCP2.
70. Strata identified three areas of concern with Transpower's application of the asset lifecycle methodology:
- 70.1 potential bias in the asset health indices models towards over-estimation;
 - 70.2 the engineering review is biased towards over-estimation; and
 - 70.3 the probable roll-out (ie, non-completion within RCP2) of some asset replacements into RCP3 and the resulting non-delivery of the output asset health profiles.²⁶
71. The availability of a listed projects mechanism is likely to encourage more accurate timing of large project spends and, as noted by MEUG, is in consumers' interests.

Scope of listed projects mechanism

72. Transpower seeks a mechanism to apply for additional base capex (of any kind) within a regulatory period, beyond the immediately identified need for large reconductoring projects. However, Transpower has not demonstrated specific projects or programmes for which a listed project mechanism may be needed beyond RCP2.
73. Given MEUG's reluctance to endorse such a mechanism beyond a one-off adjustment, and our own concerns that extending this pragmatic response to five identified projects in RCP2 into a broad and general mechanism potentially runs counter to incentives around Transpower's forecasting, modelling and managing of its base capex and opex requirements, we consider limitations should be placed around the future use of the mechanism beyond RCP2.
74. Our view is that extending the availability of a listed project mechanism beyond base capex projects incurred for asset replacement and asset refurbishment purposes is unwarranted. Similarly its availability should be limited only to large (ie, forecast cost in excess of \$20 million) asset replacement and asset refurbishment projects or programmes with uncertain commencement dates, and which are not already accommodated within the base capex allowance.

²⁶ Strata Energy Consulting, "Advisor Report on the Transpower New Zealand Limited IPP Proposal for RCP2" (16 May 2014), paragraph 438.

Whether listed projects base capex should be approved for a project or a regulatory period

75. In this section we consider whether base capex approved in respect of a listed project should be approved on a project basis or for a regulatory period.
76. Transpower states that the revenue recovery mechanism for projects begun in one regulatory period and commissioned in another is not clear. It refers to this as “inefficient boundary issues”.
77. It submits that we should approve the base capex of a complete project where the commissioning dates of the assets arising from that base capex span more than one regulatory period. This differs from the base capex framework, where we approve the base capex for assets that are forecast to be commissioned in a regulatory period.
78. The base capex framework has features which allow us to review, at least for identified programmes, the milestones that Transpower anticipated one regulatory period out, with the milestones that were then achieved in accordance with Transpower’s internal approval processes.²⁷ This provides a vehicle for us to review the accuracy of previous forecast cost estimations, and to consider the accuracy of current forecast cost estimations for future milestones in light of these.
79. As noted above, the listed project mechanism was not intended to change the way the base capex framework operates to accommodate cost uncertainty for base capex projects generally. The fungible nature of the base capex pool provides a mechanism for managing the impact of estimation uncertainty, as it permits substitution by Transpower between projects and programmes within the overall base capex portfolio. We do not consider the forecast size of ‘listed’ asset replacement and asset refurbishment projects is sufficient reason to alter that approach.
80. The listed projects mechanism is not intended to fundamentally alter Transpower’s project risk profile for projects that sit within its base capex portfolio. We would expect, having reviewed Transpower’s request for approval of the base capex for the listed project both for the regulatory period and for the overall proposed duration of the project, that we would be well-informed to make decisions about the remaining base capex for the project that should flow through to the base capex allowance when the next base capex proposal rolls around.
81. However, like any other base capex project that is started in one regulatory period and completed in another, we will have the opportunity to review progress against the project in the base capex proposal and to consider the accuracy of current forecast cost estimates for future milestones in light of these.
82. To be a listed project, we have specified requirements that must be met for any nominated base capex project or programme. One of these requirements is that at least one or more assets are likely to be commissioned in the regulatory period.

²⁷ Capex IM, clause 7.3.1(1)(b) and clause F6 within Schedule F.

83. If at the time that Transpower submits its base capex proposal for a regulatory period and signals that it seeks 'listing' for a project that will commence in the regulatory period, but for which all assets under that project will be commissioned in the next regulatory period, the project will not qualify to be a listed project. We could not accept an application for base capex approval in the first regulatory period if the project was not listed.
84. Conversely, if some of the assets under the project are forecast to be commissioned in the first regulatory period, the project may qualify for 'listing' and we may accept for evaluation an application during the regulatory period as if it had been an identified programme within the base capex proposal.
85. We recognise that, after listing, forecast commencement dates and timing of asset deliverables may change. If after listing the anticipated timing of all commissioned asset deliverables was beyond the regulatory period, we would not expect Transpower to seek approval for base capex associated with the listed project. Consistent with the base capex framework in the Capex IM we would only consider the proposed base capex in the subsequent regulatory period.
86. We reconfirm that the listed project mechanism is not a project-based approval and we will only consider approving capital expenditure for the regulatory period for which the project is a listed project. We consider that inter-regulatory period boundaries are navigable and we set out examples in Appendix A.

Whether listed projects should be evaluated on an approve/reject basis

87. This section considers whether an application for approval of a specified amount of base capex for a listed project should be considered on an approve/reject basis, or instead whether it is for the Commission to determine the amount of base capex.
88. Transpower submitted that the requirement for a listed project application to include evidence that its Board has approved the listed project and has delegated financial authority to commence the project (subject only to our approval) is problematic and causes a governance issue. Transpower's concern focused on our ability to reduce the amount of contingency on a project (ie, we do not only have the power to approve or reject Transpower's proposal). It argues that this would expose Transpower to unmanageable risk. It sought the ability to review its position if the Commission changes the maximum amount recoverable for a listed project.
89. We reiterate that listed projects remain base capex projects or programmes.

90. The listed project mechanism requires us to evaluate an application for approval of base capex for a listed project in accordance with the existing evaluation criteria in the Capex IM for base capex matters, as if the listed project was an identified programme. These evaluation criteria require consideration of, among other things, the linkages between projects(or programmes) within that portfolio. In evaluating the application, we may disagree with the figures submitted by Transpower. Implicit in our ability to determine the approval amount, we may disagree with the amount of contingency proposed by Transpower on a project.
91. Through our consultation on Transpower’s request for approval of the additional base capex in respect of a listed project (ie, our draft decision on the request) Transpower would be given the opportunity to consider and respond to any draft decisions of the Commission to approve amounts that might differ from the maximum recoverable amount proposed by Transpower. We envisage this would be a similar process to that adopted in the context of our consideration of the appropriate level of the base capex allowance for RCP2. Such a process extends to Transpower (and other interested persons) the opportunity to consider and confirm whether it feels exposed to unmanageable risk as a result of the draft base capex approval specific to that project.
92. Approved base capex for a listed project (ie, listed project increments) forms part of the base capex fungible pool. Within that base capex pool (either from the base capex allowance or through additions related to listed projects) there is the ability for funds to flow between any base capex project(s). This is a mechanism for Transpower to manage cost uncertainty that exists under the base capex framework but which is not available under the major capex framework.²⁸
93. We note the provision, within the base capex expenditure adjustment, to identify an amount of the adjusted base capex allowance (or commissioned base capex) to which the base capex incentive rate does not apply – the ‘g’ term in the base capex expenditure adjustment calculation. We consider this could be available in situations where base capex for a listed project has been approved by the Commission, yet commissioning of listed project assets has not (absent good reason) followed on as expected.²⁹
94. In summary, we do not accept that a ‘propose/respond’ model is appropriate for listed projects as Transpower suggests.

²⁸ The evaluation criteria applicable to listed projects (ie, commensurate with an identified programme within Transpower’s initial base capex proposal) contemplate consideration of links with other projects or programmes and mechanisms for controlling actual capital expenditure.

²⁹ We recognise that, in the (hypothetical) event that the Commission disagreed with the ‘g’ term amounts disclosed by Transpower, we must have regard to the views of interested parties before we used different amounts that we considered correct in the circumstances.

Drafting implications

95. In the context of its general concern, Transpower submitted that the drafting of proposed clauses that set out the evidence required within a listed project application were problematic. Specifically, Transpower was concerned with the requirement for evidence that Transpower's Board has approved the listed project, and has delegated financial authority to commence the project subject only to Commission approval.
96. Our intent in drafting those requirements was to provide us with an assurance that Transpower's Board was comfortable, at the time the application for approval of base capex for a listed project is submitted, that its application incorporates what it considers to be the appropriate level of planning, design and investigation work to inform its desired plan to implement asset replacement and refurbishment.
97. A commitment to expenditure decisions (through evidence of delegated financial authority) is a potential indicator that Transpower's Board are comfortable that they consider it is the right time to undertake such projects. The requirement to provide evidence of delegated financial authority was not intended to compel Transpower to proceed with a listed project.
98. On reflection, we can appreciate Transpower's concern that the clause requiring evidence of delegated financial authority to commence the project might be misunderstood as requiring Transpower to commence the listed project subject only to the Commission's approval of the additional base capex. That was never our intention. We have deleted that clause.
99. We have retained the provision requiring evidence that Transpower's Board has approved the listed project business case, and that quality assurance processes have been applied to that.

Conclusions

100. We comment in this section on some specific drafting points raised by Transpower, before summarising our conclusions on the key features of the listed project mechanism.

Other drafting matters

101. In addition to the key substantive points of difference, Transpower made a number of other comments and drafting suggestions. We have considered these in finalising the IM amendments.

102. We note, in response to Transpower's drafting suggestions:
- 102.1 We did intend that consultation on listed projects would be required to be undertaken by Transpower acting in accordance with the policies and processes specified in its base capex proposal. Listed projects are only one form of base capex project or programme. Transpower must therefore act in accordance with each relevant policy and process specified in its base capex proposal (see clause 3.2.2 of the Capex IM). Listed projects must be identified prior to the regulatory period to be eligible for listing in the individual price-quality path determination.
- 102.2 We anticipate that Transpower will identify the base capex projects or programmes it considers are eligible for the regulatory period ahead, at the time it submits its base capex proposal (as it did in December 2013 for RCP2). All policies and processes relevant to base capex for those listed projects should be identifiable at that time.
- 102.3 We have (through deletion) clarified that the appropriate cost-benefit analysis is solely that recognised in clause 3.2.1 of the Capex IM.
- 102.4 We have (through deletion) clarified that the additional approved base capex in respect of listed projects does not increment the base capex allowance by amendment to the IPP determination. The base capex allowance set prior to a regulatory period does not provide for base capex associated with listed projects. Listed project additions are reflected directly in the forecast MAR for the remainder of the regulatory period.

Conclusions on the key features of the listed project mechanism

103. We confirm our earlier view (of October 2014) that the listed project mechanism should be set out primarily in input methodologies, rather than in Transpower's individual price-quality path.
104. We confirm our earlier view that listed projects remain base capex projects, and the listed project mechanism should not be built on the major capex framework. The listed project mechanism is:
- 104.1 intended to deal with uncertainty of project commencement date (and the planning/forecasting benefit that will result from deferring the listed project aspect of what would otherwise be contained in a base capex proposal); and
- 104.2 not intended to alter, once base capex for a listed project has been approved, the way the base capex framework operates to accommodate cost uncertainty for listed projects within the base capex portfolio generally.
105. We have moved away from our earlier view that the listed project mechanism should be available only for RCP2. The listed project mechanism will be available for RCP2 and beyond for base capex projects or programmes with all of the following features:

- 105.1 The expenditure under the project (or programme) must be 'base capex' in respect of asset replacement or asset refurbishment;
 - 105.2 The forecast aggregate capital expenditure under the project (or programme) must exceed \$20 million;
 - 105.3 The project (or programme) must be reasonably required by Transpower, with at least one (or more) assets likely to be commissioned in the regulatory period to which the individual price-quality path determination applies;
 - 105.4 The commencement date of the project within the regulatory period is anticipated, but cannot be forecast with specificity; and
 - 105.5 The base capex of the project (or programme) is not already accommodated in the base capex allowance for the regulatory period.
106. We confirm our earlier view that an application for approval of a specified amount of base capex for a listed project should not be considered on an approve/reject basis. It is for the Commission to determine the amount of approved base capex.
107. We confirm our earlier view that base capex in respect of a listed project should be approved for a regulatory period (and not on a project basis).

3. Processes, requirements and evaluation criteria for listed projects

Coverage of this chapter

108. This chapter outlines the processes, requirements and evaluation criteria for listed projects that apply to Transpower. It also covers how base capex expenditure associated with listed projects will feed into the base capex expenditure incentive framework in the Capex IM.

Base capex projects or programmes that can be listed

109. Prior to the start of a regulatory period, Transpower may signal us where it considers that certain base capex projects or base capex programmes should be considered for 'listing'. We anticipate that Transpower would do this at the time it submits its base capex proposal for an upcoming regulatory period (as was the case in December 2013 when it submitted its expenditure proposal for RCP2).
110. To be eligible for 'listing' a base capex project or programme must comply with identified requirements. These require that:
- 110.1 the Commission considers the project or programme will require capital expenditure of greater than \$20 million;
 - 110.2 the Commission considers the project or programme is reasonably required by Transpower, with at least one (or more) assets likely to be commissioned in the regulatory period;
 - 110.3 the base capex forecast to be incurred is in relation to asset replacement and/or asset refurbishment;
 - 110.4 a project or programme commencement date within the regulatory period is anticipated but cannot be forecast with specificity; and
 - 110.5 the project / programme is not already accommodated in the base capex allowance for the regulatory period.
111. If a base capex project or programme complies with the identified requirements, the Commission may, at its discretion, decide to recognise it in the individual price-quality path that applies to the regulatory period in which commencement is anticipated.

Timeframes and processes for evaluating applications for approval of base capex in respect of listed projects

112. Under the listed project mechanism, Transpower may submit an application in relation to any one or more listed projects within a regulatory period for approval of base capex in respect of that listed project.
113. The listed project mechanism will operate within some practical timing constraints relating to when Transpower calculates and announces its pricing for the pricing years in the regulatory period.

114. This means the base capex increment is only available:
- 114.1 if approval is given prior to November, from the pricing year beginning the following April; or
 - 114.2 if approval is given in or after November, from the pricing year beginning after the disclosure year in which approval is given.
115. This timing reflects:
- 115.1 Transpower's *ex ante* price path compliance obligations within the individual price-quality path;
 - 115.2 the timing of the Commission's reconsideration of Transpower's individual price-quality path, with reference to clause 3.7.4(5) of the Transpower IM and any tighter timing limits imposed in an individual price-quality path determination (eg, our in-principle decision for RCP2 is that we will make any amendments to the individual price-quality path by the second Wednesday of November each year);
 - 115.3 the need for any forecast base capex, where the listed project assets are forecast to be commissioned in the final year of the regulatory period, to be approved prior to the Commission's last opportunity (ie, the second to last disclosure year of the regulatory period) to reconsider the IPP (ie, in the November which is seventeen months before the start of the next regulatory period); and
 - 115.4 the timing of submission of an application to the Commission for approval of base capex in respect of a listed project for that final year, to be not later than the end of June twenty-two months before the end of the regulatory period to provide the time necessary for Commission approval by that November (eg, by 30 June 2018 for Commission approval by November 2018 in the case of RCP2).
116. Also, Transpower's base capex proposal for the regulatory period following a project's 'listing' must be submitted to the Commission no later than the first working day of the December sixteen months prior to the next regulatory period.³⁰ It will encompass all forecast base capex, including in respect of the listed project assets, where the related assets are forecast to be commissioned in that next regulatory period.
117. After receiving an application from Transpower, we will consider and evaluate it as soon as reasonably practicable.

³⁰ Capex IM, clause 2.2.1(3).

118. If we decide to approve an amount of base capex for inclusion in Transpower's individual price-quality path, we will update the forecast MAR figures to provide for the revenue impact of the approved base capex in respect of the relevant listed project.

Requirements that must be met by Transpower

119. Prior to seeking approval of base capex in respect of any listed project, Transpower must meet a number of requirements, including requirements relating to:
- 119.1 the extent of consultation and agreement with consumers; and
 - 119.2 the scope and specificity of information required from Transpower.
120. While the scope and specificity of information required from Transpower is comprehensive, it has the following purposes:
- 120.1 Ensuring we receive the information we will require to make a prompt turnaround decision;³¹
 - 120.2 Applying a consistent approach to that which would apply if the listed projects had been specified as part of the most recent base capex proposal; and
 - 120.3 Allowing us to assure, in making our approval, that there is an appropriate commitment by Transpower to carry out the project, taking into account the potential expenditure flexibility for Transpower in increasing the overall base capex pool by the amount of additional base capex.

Extent of consultation and agreement with consumers

121. Before seeking approval of base capex in respect of any listed project, Transpower must, in line with clause 3.2.1(b) of the Capex IM, undertake consultation with interested persons. Consultation with interested persons should be of a scope commensurate with the project's nature, complexity, impact and significance.³²
122. We would expect that when Transpower consults with interested persons on a proposed project, it would identify the project targets for delivering the amount of work that it plans (eg, in the case of a reconductoring project this might be represented by a targeted percentage of conductor commissioned by disclosure year).³³

³¹ Refer to the discussion in Chapter 5 on the importance of applications and approvals being made relative to the November dates for the annual updates of the forecast MAR.

³² Capex IM, clause 8.1.2.

³³ In order to provide interested persons with information on the ongoing progress by Transpower in meeting the commissioning targets for approved base capex of listed projects, we will shortly be considering consultation on including this as a requirement of the Transpower information disclosure determination.

Other requirements that must be met by Transpower

123. Before seeking approval of base capex in respect of any listed project, Transpower must undertake a cost-benefit analysis commensurate to the project size and complexity. Currently this is (and will continue to be) a requirement for any base capex project costing more than \$20 million.³⁴
124. The cost-benefit analysis must include consideration of alternatives to the project, and for the project, where applicable. These alternative options could include non-replacement and demolition, enhancement or development of alternative assets, and non-transmission solutions.
125. Transpower must assess the current and future need for the applicable proposed assets by reference to the demand and generation scenarios in clause D4(1) of Schedule D of the Capex IM.³⁵
126. Transpower must demonstrate that its Board of Directors has considered and approved (subject to our approval of an additional base capex amount) the business case for the listed project and must also show that it has delegated its financial authority to commence the listed project. The business case considered and approved by Transpower's Board must include Transpower's fully completed quality assurance checklist.
127. Transpower must provide certification, by its chief executive officer, that:
- 127.1 the information underpinning the application was derived from and accurately represents, in all material respects, the operations of Transpower; and
- 127.2 the listed project to which the application relates was approved in line with the applicable requirements of Transpower's approval processes of directors and management.
128. In addition to the cost-benefit analysis, Transpower must, in its application for approval of base capex in respect of a listed project, provide us with:
- 128.1 a description of the reasons for carrying out the listed project, supported by relevant technical information;
- 128.2 the intended scope of the listed project, including specification of the grid outputs that apply in respect of the listed project;

³⁴ See the Capex IM, clause 3.2.1. Transpower must undertake a cost-benefit analysis consistent with determining 'expected net electricity market benefit' (see also Schedule D of the Capex IM) and consult with interested persons. As noted earlier in this paper, we have (through deletion) moved away from drafting a requirement that also specifies a cost-benefit analysis in terms of efficient and prudent costs. This clarifies that the appropriate cost-benefit analysis is solely that recognised in clause 3.2.1 of the Capex IM.

³⁵ As defined in the Capex IM, clause D4(1).

- 128.3 all relevant technical and costing information used to estimate both the cost of the listed project and alternative options, including details on risk allowances and contingencies; and
- 128.4 the estimated cost of the listed project, broken down into year by year figures in 'expected disclosure year of commissioning' prices, and the assumptions used to derive the estimated cost.
129. Where we consider that, for the purpose of deciding whether to approve base capex in respect of a listed project we require further information from Transpower, we will request Transpower to provide such information by a date specified by us such that it is reasonable for Transpower to comply.

Criteria we will use to evaluate applications for approval of base capex in respect of listed projects

130. After receiving an application in respect of a project listed in the individual price-quality path determination, we will consider and evaluate it in line with the consultation requirements and evaluation criteria in the Capex IM that apply to base capex.³⁶ We will then decide whether to approve an amount of base capex for inclusion in Transpower's individual price-quality path, and what that amount might be.

How base capex in respect of listed projects will feed into the base capex incentive framework

131. The key components of the incentive framework for base capex are contained in Schedule B of the Capex IM. Revenue adjustments are given effect through the washup process in Transpower's individual price-quality path determination.
132. Approved base capex associated with listed projects is subject to incentive mechanisms that apply to base capex. The two incentive mechanisms that apply specifically to base capex are the:
- 132.1 base capex expenditure adjustment (Schedule B, clause B1 of the Capex IM); and
- 132.2 policies and processes adjustment (Schedule B, clause B2 of the Capex IM).

³⁶ The consultation requirements are specified in clauses 3.2.1 and 8.1.2 of the Capex IM. The evaluation criteria are specified in Schedule A of the Capex IM. In the event that the Commission does not comply with the timeframes for evaluating capital expenditure proposals, the provisions in Part 5 of the Capex IM apply.

Base capex expenditure adjustment

133. To ensure that the base capex expenditure adjustment also applies to approved base capex associated with listed projects, some amendments to the mechanism were required.
134. We amended the ‘adjusted base capex allowance’ used in the annual base capex expenditure adjustment to have the effect of combining the base capex allowance set for the regulatory period (eg, in August 2014 for RCP2) with any further approved base capex in respect of a listed project.³⁷ That is, the base capex expenditure adjustment would measure Transpower’s performance against all approved base capex (as approved in both the initial base capex allowance, plus the further base capex approved in respect of any listed project).
135. We have also made an additional, non-material, amendment to the definition of ‘base capex incentive rate’ to correctly reference (within that definition) the base capex expenditure adjustment.³⁸
136. The disparity adjustments for the forecast CPI and the forecast FX rates in the annual base capex expenditure adjustment will work in the same way for approved base capex in respect of listed projects as they do for the base capex allowance.³⁹
137. For consistency with the fungibility concept of base capex and to simplify any disparity adjustments for RCP2, we fixed the forecast CPI and forecast FX rates used for the base capex allowance in the setting of the base capex allowance, so they would also be used for any proposed base capex in respect of a listed project.
138. At the time we approve the base capex in respect of a listed project we will also determine the amount or percentage of that approved base capex to which the forecast FX rates will apply.⁴⁰

³⁷ The amendments are to the definition of “adjusted base capex allowance” and to the calculation mechanism for the annual base capex expenditure adjustment.

³⁸ The original definition of ‘base capex incentive rate’ uses the term ‘base capex incentive adjustment’, whereas the correct defined term is ‘base capex expenditure adjustment’. While this is a non-material amendment, we included it within this amendment process for transparency and because it is a timely correction to part of the package of mechanisms that give effect to the base capex incentive framework.

³⁹ We have also made a clarifying amendment to the definition of adjusted base capex allowance and the calculation of base capex annual base capex expenditure adjustment into which this feeds. This confirms that the disparity adjustments are between actuals and the forecast CPI and forecast FX rates that were applied at the time the Commission determined the base capex allowance. This clarification makes explicit the link between the setting of the base capex allowance and the specification of the forecast CPI and the forecast FX rates (required under clause 2.2.2(1)(a) and clause 2.2.2(2) of the Capex IM), and the disparity adjustments made at the time incentive adjustments are calculated.

⁴⁰ This is consistent with clause 2.2.1(2)(c) of the Capex IM and our base capex allowance decisions for RCP2 on 29 August 2014. See *Setting Transpower’s individual price-quality path for 2015-2020* [2014] NZCC 23 (29 August 2014) at Attachment J, Table J1.

Policies and processes adjustment

139. No amendments to the existing policies and processes adjustment (Schedule B2 of the Capex IM) are necessary to accommodate approved base capex in respect of listed projects in this incentive mechanism. The applicable policies for base capex described in a base capex proposal will apply to any application made by Transpower for approval of base capex in respect of a listed project.
140. As the requirements that must be met by Transpower effectively include undertaking a cost-benefit analysis and consultation in accordance with clause 3.2.1 of the Capex IM, approval of base capex in respect of listed projects will mean that the value for 'h' in the policies and processes adjustment is zero. As for any other base capex, the value of 'h'' (ie, compliance with clause 3.2.2 of the Capex IM, which relates to Transpower's compliance with its own policies and processes) is evaluated once the assets funded as base capex are commissioned.

Attachment A: Illustrative listed projects examples for RCP2

- A1 The examples set out in this Attachment A demonstrate by reference to the dates and listed projects for RCP2 how the listed projects mechanism will work and the effect that approved base capex in respect of any listed project will have on Transpower's forecast maximum allowable revenue:
- A1.1 Example 1: Application and approval in the first (2015/16) disclosure year, and prior to November 2015, of base capex where the listed project assets are forecast to be commissioned in the second to final disclosure years of RCP2 (ie, 2016/17 to 2019/20 disclosure years). This example illustrates how the mechanism will generally apply in the 2015/16 to 2017/18 disclosure years.
- A1.2 Example 2: Application and approval in the first (2015/16) disclosure year, but after November 2015, of base capex where the listed project assets are forecast to be commissioned in the third to final disclosure years of RCP2 (ie, 2017/18 to 2019/20 disclosure years). This example highlights differences from Example 1 as a result of base capex approvals falling in or after November in the 2015/16 to 2017/18 disclosure years.
- A1.3 Example 3: Application and approval in the fourth (2018/19) disclosure year, and prior to November 2018, of base capex where the listed project assets are forecast to be commissioned in the final disclosure year of RCP2 (ie, 2019/20 disclosure year), and in RCP3. This example illustrates the final time for base capex approvals under the listed project mechanism for RCP2 and shows the anticipated interface with the setting of revenues for RCP3.
- A1.4 Example 4: After completion of detailed technical studies, Transpower considers that the base capex relates to listed project assets that are forecast to be commissioned after RCP2 (ie, in RCP3).

Example 1: Application and approval of base capex in the first disclosure year, and prior to November 2015, in respect of listed project assets that are forecast to be commissioned in the second to final disclosure years of RCP2

- A2 This example illustrates how the listed project mechanism will generally apply in the 2015/16 (and 2016/17 and 2017/18) disclosure year.
- A3 The example assumes that Transpower applies for approval of base capex in respect of a listed project in the disclosure year 1 July 2015 – 30 June 2016 (ie, 2015/16 disclosure year), and in sufficient time for the Commission to consider and approve the base capex before November 2015.
- A4 The assets to which the base capex relates are forecast to be commissioned in one or more of the 2016/17 to 2019/20 disclosure years.
- A5 The example assumes that the Commission will approve the base capex in respect of the listed project prior to November 2015.

A6 By the second Wednesday in November 2015 the Commission will update the forecast MAR under the individual price-quality path to take account of the revenue impact of the base capex in respect of the listed project (ie, update of forecast MAR) in the pricing years:

A6.1 1 April 2016 to 31 March 2017 (2016/17 pricing year);

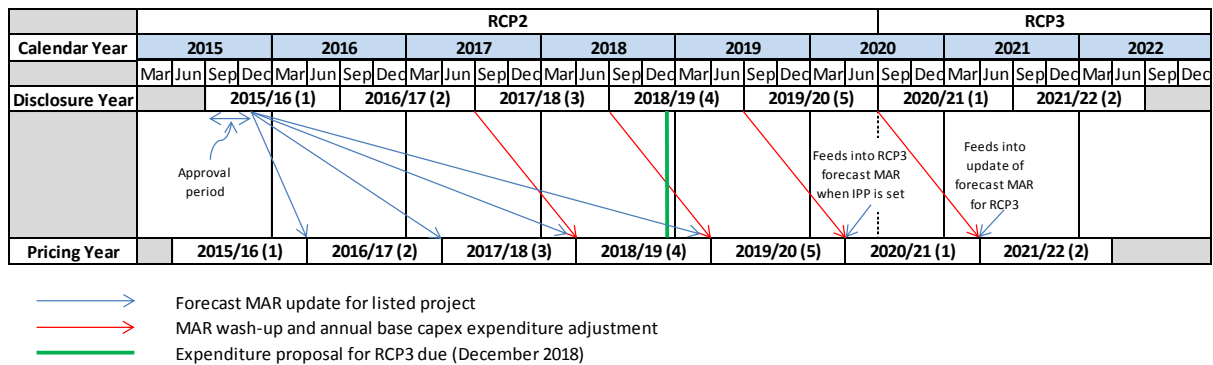
A6.2 1 April 2017 to 31 March 2018;

A6.3 1 April 2018 to 31 March 2019; and

A6.4 1 April 2019 to 31 March 2020.

A7 Those key timeline steps for this example are set out in Figure A1.

Figure A1: RCP2 timeline for example 1



A8 At the conclusion of the 2016/17 disclosure year, the adjusted approved base capex for the purposes of determining the annual base capex expenditure adjustment under Schedule B1 of the Capex IM will be equal to:

A8.1 the base capex allowance determined on 29 August 2014 for the 2016/17 disclosure year (\$249.5 million) (ie, term ‘d’ in the formula in Schedule B1); plus

A8.2 the incremental base capex approved by the Commission with respect to the listed project for the 2016/17 disclosure year (ie, term ‘d’ in the formula in Schedule B1); plus

A8.3 an adjustment correcting for the disparity between the forecast CPI and actual CPI in respect of both the base capex allowance and the approved base capex in respect of the listed project for the 2016/17 disclosure year (ie, term ‘e’ in the formula in Schedule B1); plus

- A8.4 an adjustment correcting for the disparity between the forecast FX rates and actual FX rates in respect of both the base capex allowance and the approved base capex in respect of the listed project for the 2016/17 disclosure year (ie, term ‘f’ in the formula in Schedule B1).
- A9 Any annual base capex expenditure adjustment that is calculated following the 2016/17 disclosure year will be taken into account in the forecast MAR update for the 2018/19 pricing year (fourth pricing year of RCP2).⁴¹ The reason the adjustment is not carried into the forecast MAR in the 2017/18 pricing year is because the adjustment is calculated part way through that year (ie, in November 2017, which is in the pricing year 1 April 2017 to 31 March 2018 – the 2017/18 pricing year).
- A10 The washup of the forecast MAR building blocks will be calculated in accordance with the individual price-quality path determination. The washup will take into account the revenue effect of the actual base capex in respect of the listed project assets commissioned in the disclosure year, less the estimated revenue effect already taken into account in the amount of the forecast MAR. The result of the washup calculation following the 2016/17 disclosure year will be taken into account in the forecast MAR update for the 2018/19 pricing year (fourth pricing year of RCP2).
- A11 At the conclusion of the 2017/18 disclosure year, the adjusted approved base capex for the purposes of determining the annual base capex expenditure adjustment under Schedule B1 of the Capex IM will be equal to:
- A11.1 the base capex allowance determined on 29 August 2014 for the 2017/18 disclosure year (\$242 million); plus
 - A11.2 the incremental base capex approved by the Commission with respect to the listed project for the 2017/18 disclosure year; plus
 - A11.3 an adjustment correcting for the disparity between the forecast CPI and actual CPI in respect of both the base capex allowance and the approved base capex in respect of the listed project for the 2017/18 disclosure year; plus
 - A11.4 an adjustment correcting for the disparity between the forecast FX rates and actual FX rates in respect of both the base capex allowance and the approved base capex in respect of the listed project for the 2017/18 disclosure year.
- A12 Any annual base capex expenditure adjustment that is calculated following the 2017/18 disclosure year will be taken into account in the forecast MAR update for the 2019/20 pricing year (final pricing year of RCP2).

⁴¹ Under Schedule B1 of the Capex IM, the annual base capex expenditure adjustment for the disclosure year is generally the difference between the adjusted approved base capex described above and the actual base capex where the assets to which it relates are commissioned in the disclosure year, multiplied by the RCP2 base capex incentive rate of 33%.

- A13 The result of the washup calculation following the 2017/18 disclosure year will be taken into account in the forecast MAR update for the 2019/20 pricing year (final pricing year of RCP2).
- A14 At the conclusion of the 2019 disclosure year, the adjusted approved base capex for the purposes of determining the annual base capex expenditure adjustment under Schedule B1 of the Capex IM will be equal to:
- A14.1 the base capex allowance determined on 29 August 2014 for the 2018/19 disclosure year (\$231.6 million); plus
 - A14.2 the incremental base capex approved by the Commission with respect to the listed project for the 2018/19 disclosure year; plus
 - A14.3 an adjustment correcting for the disparity between the forecast CPI and actual CPI in respect of both the base capex allowance and the approved base capex in respect of the listed project for the 2018/19 disclosure year; plus
 - A14.4 an adjustment correcting for the disparity between the forecast FX rates and actual FX rates in respect of both the base capex allowance and the approved base capex in respect of the listed project for the 2018/19 disclosure year.
- A15 Any annual base capex expenditure adjustment that is calculated following the 2018/19 disclosure year will form part of the EV account balance at 30 June 2020 and, as is the case for adjustments that will flow through from RCP1 to RCP2, we anticipate will be taken into account in setting the amount of the forecast MAR for the 2020/21 pricing year (ie, when the forecast MAR for the individual price-quality path is set for the first pricing year of RCP3 in November 2019).⁴²
- A16 The result of the washup calculation following the 2018/19 disclosure year would similarly form part of the EV account balance at 30 June 2020 and be taken into account in setting the amount of the forecast MAR for the 2020/21 pricing year.
- A17 At the conclusion of the 2019/20 disclosure year, the adjusted approved base capex for the purposes of determining the annual base capex expenditure adjustment under Schedule B1 of the Capex IM will be equal to:
- A17.1 the base capex allowance determined on 29 August 2014 for the 2019/20 disclosure year (\$213.1 million); plus

⁴² Any references in these illustrative examples to how the results of the annual base capex expenditure adjustment would be applied as EV adjustments in the forecast MAR for RCP3 assume that, subject to consultation, the individual price-quality path for RCP3 and the application of the EV adjustments in the forecast MAR would follow the same format as for RCP2. If after consultation at that time a different format of individual price-quality path is preferred for RCP3, we would anticipate that the individual price-quality path for RCP3 would include some form of mechanism that would carry over the revenue effects of RCP2 washups and incentive calculations to RCP3.

- A17.2 the base capex approved by the Commission in respect of the listed project for the 2019/20 disclosure year; plus
 - A17.3 an adjustment correcting for the disparity between the forecast CPI and actual CPI in respect of both the base capex allowance and the approved base capex in respect of the listed project for the 2019/20 disclosure year; plus
 - A17.4 an adjustment correcting for the disparity between the forecast FX rates and actual FX rates in respect of both the base capex allowance and the approved base capex in respect of the listed project for the 2019/20 disclosure year.
- A18 Any annual base capex expenditure adjustment that is calculated following the 2019/20 disclosure year will form part of the EV account balance at 30 June 2021 and, as is the case for adjustments that will flow through from RCP1 to RCP2, we anticipate will be taken into account in the amount of the forecast MAR in the 2021/22 pricing year (ie, when the first forecast MAR update for RCP3 is made in November 2020 for the second pricing year of RCP3, which is an update after the individual price-quality path has been set for RCP3 in November 2019).
- A19 The result of the washup calculation following the 2020 disclosure year will similarly form part of the EV account balance at 30 June 2021 and be taken into account in updating the forecast MAR for the 2021/22 pricing year.

Example 2: Application and approval of base capex in the first disclosure year, and after November 2015, in respect of listed project assets that are forecast to be commissioned in the third to final disclosure years of RCP2

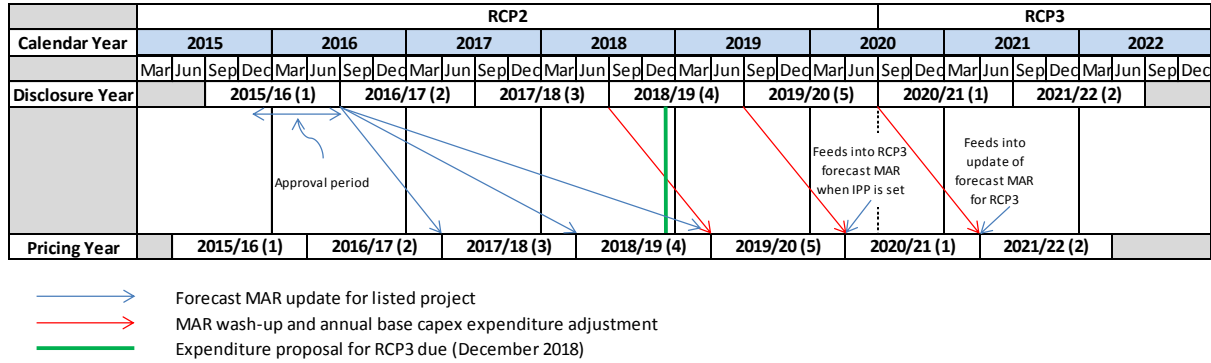
- A20 This example highlights the differences from Example 1 that will result if the base capex approvals fall in or after November in a disclosure year. It will generally apply in the 2015/16 (and 2016/17 and 2017/18) disclosure year.
- A21 The example assumes that Transpower applies for approval of base capex in respect of a listed project in the disclosure year 1 July 2015 – 30 June 2016 (ie, 2015/16 disclosure year), but not in sufficient time for the Commission to consider and approve the base capex before November 2015.
- A22 The assets to which the base capex relates are forecast to be commissioned in one or more of the 2017/18 to 2019/20 disclosure years.
- A23 The example also assumes the Commission will approve the base capex in respect of the listed project after November 2015.
- A24 By the second Wednesday in November 2016 the Commission updates the forecast MAR under the individual price-quality path to take account of the impact of the base capex in respect of the listed project on Transpower's revenue (ie, forecast MAR) in the pricing years:
 - A24.1 1 April 2017 to 31 March 2018 (2017/18 pricing year);

A24.2 1 April 2018 to 31 March 2019; and

A24.3 1 April 2019 to 31 March 2020.

A25 The key timeline steps for this example are set out in Figure A2.

Figure A2: RCP2 timeline for example 2



A26 The effect of approving the base capex in or after November is to exclude the effect of any approved additional base capex from the forecast 2016/17 pricing year. Transpower will not benefit from inclusion of any additional base capex for that listed project in the adjusted base capex allowance in the base capex expenditure adjustment for the 2016/17 disclosure year.

A27 Although the overall position should be NPV neutral once the base capex is approved, it highlights the importance from a cash flow perspective for Transpower of making timely submissions of applications for approval relative to the November timing of updates of the forecast MAR.

Example 3: Application and approval of base capex in fourth disclosure year, and prior to November 2018, in respect of listed project assets that are forecast to be commissioned in the final disclosure year of RCP2 and in disclosure years of RCP3

A28 This example illustrates the final time for base capex approvals under the listed project mechanism for RCP2 and shows the anticipated interface with the setting of revenues for RCP3.

A29 The example assumes that Transpower applies for approval of base capex in respect of a listed project in the disclosure year 1 July 2018 – 30 June 2019 (ie, 2018/19 disclosure year), and in sufficient time for the Commission to consider and approve the base capex before November 2018.

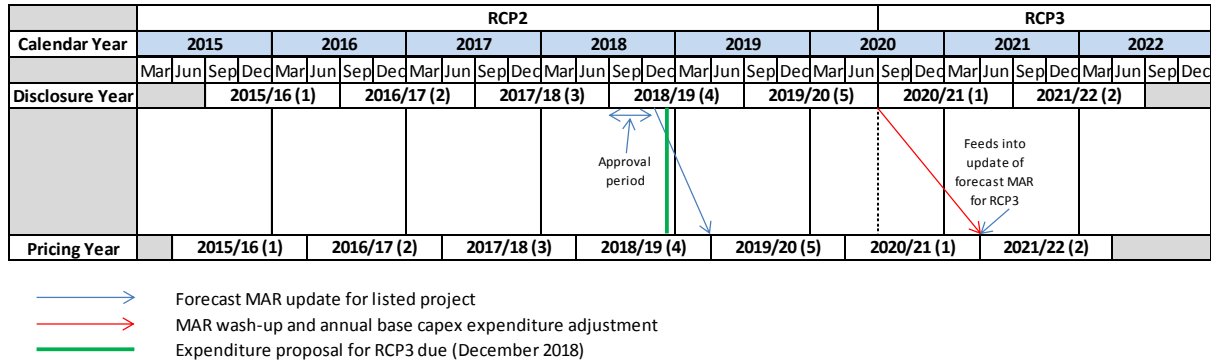
A30 The assets to which the base capex relates are forecast to be commissioned in the 2019/20 disclosure year and one or more years of RCP3.

A31 The example also assumes the Commission will approve the base capex relating to listed project assets that are forecast to be commissioned in RCP2 prior to November 2018.

A32 By the second Wednesday in November 2018 the Commission updates the forecast MAR under the individual price-quality path to take account of the impact of the base capex in respect of the listed project on Transpower’s revenue (ie, forecast MAR) in the 1 April 2019 to 31 March 2020 pricing year (2019/20 pricing year).

A33 Those key timeline steps for this example are set out in Figure A3.

Figure A3: RCP2 timeline for example 3



- A36 The result of the washup calculation following the 2019/20 disclosure year would similarly form part of the EV account balance at 30 June 2021 and be taken into account in updating the forecast MAR for the 2021/22 pricing year.
- A37 The portion of base capex that relates to listed project assets that are forecast to be commissioned after the end of RCP2 will be expected to form part of the base capex proposal for RCP3. The proposal is required by the Capex IM to be submitted by Transpower to the Commission not later than the first working day in December 2018.
- A38 The base capex in respect of listed project assets that are forecast to be commissioned after the end of RCP2 will be determined by the Commission not later than the last working day in August 2019 as part of the base capex allowance for disclosure years of the RCP3 regulatory period.
- A39 The base capex in respect of listed projects, where the assets are forecast to be commissioned after the end of RCP2, has no effect on the forecast MAR for RCP2 or the adjusted approved base capex for the purposes of determining any annual base capex expenditure adjustment under Schedule B1 of the Capex IM for RCP2.

Example 4: After completion of detailed technical studies, Transpower considers forecast commissioning of assets in respect of a listed project will only occur in RCP3

- A40 The listed project mechanism only applies to listed projects, and to base capex in respect of the listed project assets that are forecast to be commissioned in the regulatory period (in the current case, RCP2).
- A41 Assets in respect of this listed project example are not forecast to be commissioned in RCP2.
- A42 Details of Transpower's expenditure proposal related to this listed project will be expected to form part of the base capex proposal for RCP3 submitted by Transpower to the Commission not later than the first working day in December 2018.
- A43 Base capex in respect of this listed project would then be determined by the Commission not later than the last working day in August 2019 as part of the base capex allowance for the disclosure years of the RCP3 regulatory period.
- A44 The base capex of this listed project, where the assets are forecast to be commissioned after the end of RCP2, has no effect on the forecast MAR for RCP2 or the adjusted approved base capex for the purposes of determining any annual base capex expenditure adjustment under Schedule B1 of the Capex IM for RCP2.