

# **Transpower capex input methodology review**

## **Emerging views on incentive mechanisms**

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**Associated documents**

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## Introduction and purpose

1. As part of the capex input methodology review (capex IM review), we are considering changes to the incentive mechanisms that apply to Transpower and which are defined within the capex input methodology (capex IM).
2. The capex IM focusses on the incentive mechanisms that apply to capex but should be considered as part of an overall incentive framework together with:
  - 2.1 the incentive mechanism on opex (ie, IRIS)<sup>1</sup> which is defined in the Transpower IM determination and which was reviewed as part of the main IM review;<sup>2</sup> and
  - 2.2 the application of the incentive mechanisms prior to and during a regulatory control period (RCP) and major/listed project proposals.
3. The purpose of this paper is to seek feedback from stakeholders on our emerging views on certain aspects of the incentive mechanisms for Transpower. This will allow us to take stakeholders' views into account prior to the publication of our draft decision on the capex IM review in November.
4. We suggested the consideration of Transpower's incentive mechanisms as a focus area in our initial paper on the capex IM review.<sup>3</sup> It was subsequently confirmed as Topic 1 in our process update paper.<sup>4</sup> This paper provides some emerging views on some aspects of issues identified in that paper. In particular, this paper focusses on aspects of the following issues:
  - 4.1 considering the appropriate categorisation for different types of capex;
  - 4.2 whether the individual incentive mechanisms in the capex IM are appropriate;
  - 4.3 whether there is potential for tailoring incentive rates for different types of capex projects; and
  - 4.4 whether aspects of the investment test should be extended to other types of capex not already subject to the test.<sup>5</sup>

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<sup>1</sup> The current symmetric Incremental Rolling Incentive Scheme (IRIS) that applies to Transpower was introduced in November 2014. See: Commerce Commission "Amendments to input methodologies for electricity distribution services and Transpower New Zealand: Incremental Rolling Incentive Scheme" (27 November 2014).

<sup>2</sup> Commerce Commission "Input methodologies review final decision: Transpower Incremental Rolling Incentive Scheme" (29 June 2019).

<sup>3</sup> Commerce Commission "Transpower capex input methodology review – Proposed focus areas for the capex IM review" (15 May 2017).

<sup>4</sup> Commerce Commission "Transpower capex input methodology review: Process update paper" (28 July 2017).

<sup>5</sup> This paper does not cover the question raised in the process update paper 'reviewing Transpower's exposure to input prices and foreign exchange rate movements and the interaction with the incentive

5. Submissions on our proposed focus areas paper have been considered in preparing this paper.<sup>6</sup> However, the intention of this paper is not to provide emerging views on all detailed elements of the capex IM that may affect the incentives on Transpower. Instead we have focused on the issues that we consider would most benefit from further consultation.
6. If particular aspects of the capex IM that have a bearing on Transpower's incentives are not covered in this paper, then we are not necessarily signalling that draft changes should not be expected in our draft decision. For example, this paper does not consider in detail the incentives on Transpower provided by the Grid Output measures and maintenance of quality standards.<sup>7</sup>
7. Comments on our emerging views presented in this paper are due by **5pm, Friday 22 September 2017.**

### **Current expenditure categories and incentive mechanisms**

8. Transpower's capital expenditure is currently categorised in the capex IM as either base capex or major capex. Base capex includes asset replacement and refurbishment (all project sizes) and asset enhancements (under \$20 million), while major capex is limited to asset enhancement (over \$20 million).
9. Base capex (including listed projects) is intended to cover all capital expenditure, except those large individual enhancement projects that, given their nature and magnitude (over the threshold), warrant individual scrutiny and public consultation.
10. The capex IM also outlines additional requirements for base capex projects over \$20 million. Projects over this threshold are subject to certain stakeholder consultation obligations and can also form part of the listed project mechanism if identified in the IPP Determination.<sup>8</sup>
11. Listed projects are identified prior to the commencement of an RCP if the project meets the conditions specified in the capex IM.<sup>9</sup> The mechanism allows Transpower more time to do technical studies and refine its expenditure forecasts before submitting its proposal for approval and inclusion in the base capex allowance.

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mechanisms'. We consider this is a separable topic from the other aspects of the incentive mechanisms which does not require further consultation prior to the publication of a draft decision.

<sup>6</sup> See Commerce Commission "Transpower capex input methodology review – Proposed focus areas for the capex IM review" (15 May 2017).

<sup>7</sup> The capex IM provides a broad framework for grid output measures, however the specific measures are defined as part of the individual price-quality path. We note Meridian and Mercury's concern over Transpower's adherence to the timing of approved projects and our still considering our views on this issue and how it relates to the capex IM. For example, see: Mercury "Consultation Paper – Transpower Capex IM review" (14 June 2017), p. 2; Meridian "Areas of focus for the Transpower capex input methodology review – Meridian submission" (14 June 2017), p.1.

<sup>8</sup> *Transpower Individual Price-Quality Path Determination 2015* [2014] NZCC 35, Schedule I.

<sup>9</sup> These requirements are listed in the amendment paper: Commerce Commission "Amendments to input methodologies for Transpower to provide a listed project mechanism – Reasons paper" (27 November 2014), para 110.

12. Figure 1 provides an overview of the core incentives and requirements on different capex types and magnitudes.

**Figure 1 – Overview of incentives and consultation requirements**

	Base capex (<\$20m)	Base capex - (>\$20m, R&R, not listed)	Listed projects (>\$20m, R&R, timing/cost uncertain)	Major capex project (>\$20m, E&D)
<b>Type of capex</b>	R&R* or E&D*	R&R	R&R	E&D
<b>Incentives applied</b>	Ex-ante symmetric incentive rate (33%)	Ex-ante symmetric incentive rate (33%)	Ex-ante symmetric incentive rate on approval (33%)	Ex-post adjustments (efficiency & overspend adj.)
<b>When is the allowance approved by Commission</b>	Part of Base Capex allowance approved at start of RCP	Part of Base Capex allowance approved at start of RCP	Flows into Base Capex allowance following separate ComCom approval	Separate approval by Comcom* – allowance separate from base capex
<b>Consultation requirements</b>	No specific consultation req.	Apply cost/benefit test and TP consults with stakeholders	Commission consults on costs	Commission consults on costs and need (ie. investment test)

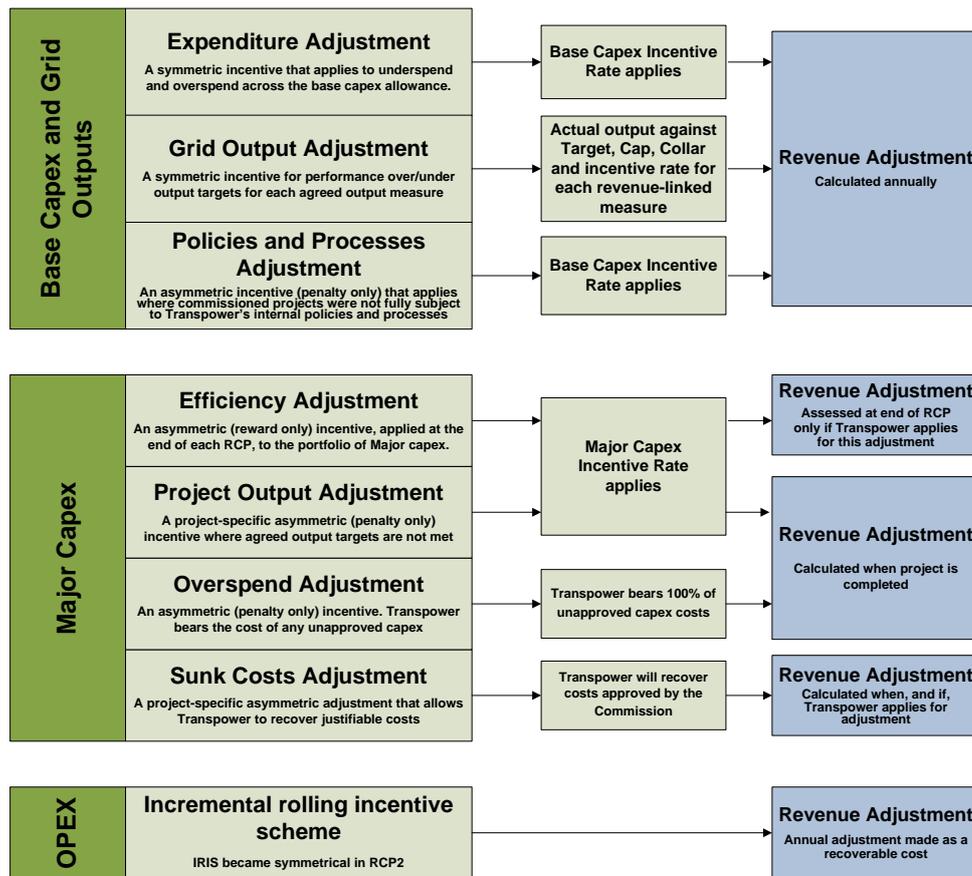
\*R&R = Replacement and refurbishment , \*E&D = Enhancement and Development

\*Generally approved at P90 (Although not specified in the Capex IM)

13. In addition to the core incentives, there are three specific incentive mechanisms that apply to base capex and four incentive mechanisms that apply to major capex contained within the capex IM. The specific incentives applying to RCP2 are outlined in Figure 2. Further details on the operation of these incentive mechanisms were provided in the capex IM proposed focus areas paper.<sup>10</sup>

<sup>10</sup> See Commerce Commission “Transpower capex input methodology review – Proposed focus areas for the capex IM review” (15 May 2017), Attachment D.

Figure 2: Overview of Transpower capex and opex incentive mechanisms in RCP2



14. The suite of incentive mechanisms that apply to Transpower is intended to incentivise improvements in efficiency, delivery of outputs within approved expenditure, and improving the outputs themselves.<sup>11</sup> The incentives are also intended to be complementary, which means we consider the incentive mechanisms as a package, rather than as isolated mechanisms.

### Potential problems identified

15. Our review of the incentive mechanisms and the submissions from stakeholders on our 'proposed focus areas' paper led us to identify potential problems with two aspects of the incentive framework applied to Transpower by the capex IM:
- 15.1 the incentives affecting major capex appear to provide limited incentive for delivering efficient capex spend – in particular the use of an ex-post efficiency adjustment for major capex;<sup>12</sup> and
  - 15.2 the potential disincentive for Transpower to undertake transmission alternatives (and, in particular, procure network services from third party providers) in instances when they may be the most efficient solutions.

<sup>11</sup> Commerce Commission "Transpower capital expenditure input methodology reasons paper" (31 January 2012), para 2.2.6.

<sup>12</sup> Commerce Commission "Transpower capital expenditure input methodology reasons paper" (31 January 2012), section 4.2.

16. The following sections describe why we consider there are potential problems in these areas and also our emerging views on potential solutions.
17. We have also considered other issues raised as part of our review process and on which we welcome further views. These are:
  - 17.1 our emerging view that the threshold used to define a major capex project (which is currently limited to enhancement projects over \$20 million) should remain as it is; and
  - 17.2 our emerging view that the effectiveness of the process and policies incentive mechanism is limited and could potentially be replaced with additional information disclosure requirements.<sup>13</sup>

### **Major capex efficiency incentives**

18. We consider there are four aspects of the major capex regime contained within the capex IM that affect the core efficiency incentives on Transpower when undertaking major capex projects:
  - 18.1 the major capex efficiency adjustment;
  - 18.2 the major capex overspend adjustment;
  - 18.3 the ability for Transpower to apply for an amendment to a major capex allowance; and
  - 18.4 the approval of the major capex allowance at a P90 cost estimate.

#### *Major capex efficiency incentives – Identified issue*

19. The ‘major capex efficiency adjustment’ is an ex-post adjustment that rewards Transpower for cost efficiency gains across all major capex projects concluded within a particular RCP.<sup>14</sup> The intention of the efficiency adjustment is to provide Transpower with an incentive to maintain downward pressure on costs within the portfolio of approved major capex projects.<sup>15</sup>

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<sup>13</sup> This was raised in the areas of focus paper. Commerce Commission “Transpower capex input methodology review – Proposed focus areas for the capex IM review” (15 May 2017), para 100.2.

<sup>14</sup> This is implemented by adjusting Transpower’s allowable revenue at the next RCP reset. Commerce Commission “Transpower capital expenditure input methodology reasons paper” (31 January 2012), section 4.2.

<sup>15</sup> This is different from the quantitative ex-ante incentive mechanism applied to base capex and listed projects which does not rely on qualitative ex-post scrutiny. The ex-ante mechanism mechanically rewards or penalises Transpower based on the difference between the capex allowance and actual capex – subject to a defined ‘incentive rate’.

20. We consider the original policy intent of the major capex efficiency adjustment remains appropriate.<sup>16</sup> However, we consider that there are issues with the implementation of this policy through the existing ex-post mechanism. We consider the current approach is unlikely to be the best solution for incentivising Transpower to drive cost efficiency. We consider a revised approach could encourage greater efficiency in Transpower's major capex and lead to a simpler, more flexible regime for major capex projects.
21. Some of the issues with the current (ex-post) qualitative mechanism are that:
- 21.1 It is difficult to identify whether differences between the forecast and actual expenditure are due to efficiency gains or an initial high forecast of costs. This results in uncertainty about the final monetary reward that will be achieved from efficiency gains during the major capex project, which in turn is likely to reduce Transpower's incentive to achieve efficiency gains.
  - 21.2 The asymmetric aspect of the mechanism and the fact it is applied across the portfolio of completed major projects means that the incentive is not constant over time.<sup>17</sup>
  - 21.3 The ex-post nature of the mechanism means it is administratively burdensome to apply.
22. Transpower also considered that the incentive mechanism is ineffective in its current form. In its submission on the proposed focus areas, Transpower explained how it has attempted to implement the efficiency adjustment:<sup>18</sup>
- Even under a potential 'prize' the approach was too hard, not intuitive, and very distracting. We abandoned our RCP1 efficiency claim before embarking on inefficiency finding. We are still unsure of how to implement the mechanism and consider the approach counterproductive.
23. Another separate adjustment mechanism applied to major capex that also affects incentives is the 'major capex overspend adjustment'. This is a penalty calculated at the completion of a major capex project which applies when costs exceed the level of approved capex for the project. The asymmetric penalty requires Transpower to bear 100% of the costs in excess of the total approved costs for the project. It is intended to encourage Transpower to deliver project outputs at the level of cost that the assessment of Transpower's major capex proposal was based on.<sup>19</sup>

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<sup>16</sup> Commerce Commission "Transpower capital expenditure input methodology reasons paper" (31 January 2012), para 4.2.13.

<sup>17</sup> For example, if one particularly large project is expected to be inefficient, then the incentive to achieve efficiencies in other projects is reduced. This is because any efficiency gains will be netted out by the larger inefficiencies.

<sup>18</sup> Transpower "Capex IM review issues identification via focus areas" (14 June 2017) p. 13.

<sup>19</sup> Commerce Commission "Transpower capital expenditure input methodology reasons paper" (31 January 2012), para 4.4.9.

24. The operation of the overspend adjustment in practice causes has also caused some issues. For example:
- 24.1 The overspend adjustment results in significant cost risk to Transpower when the project is large and costs are uncertain. To mitigate this cost risk, under the current regime our recent practice has been to approve Transpower's allowances for major capex projects at a P90 level rather than a P50 cost – which would be the best estimate of costs. This allows some additional headroom in the revenue allowance compared to expected costs, however, it lowers the efficiency incentive for major capex projects to be delivered at an appropriate cost.<sup>20</sup>
  - 24.2 Transpower has the ability to apply for an amendment to a major capex project expenditure allowance.<sup>21</sup> This reduces the incentive to deliver the outputs at the approved cost, as there is the opportunity to increase the allowance ex-post in the event that it has overspent the original allowance.
  - 24.3 Although Transpower has the ability to apply for an amendment, it is not guaranteed and it is only approved ex-post. The ex-post nature of the amendment can result in uncertainty on whether an amendment will be approved. This can potentially affect Transpower's incentive to invest when it expects to be above the initial allowance (because it may have to bear 100% of the additional costs), even if the investment is in the long-term interest of consumers (for example, to maintain an appropriate level of quality).
25. The combination of these effects means that the current framework might not result in clear incentives for the efficient delivery of major capex projects.

*Major capex efficiency incentives – Proposed solution*

26. We consider that an improvement to major capex incentives would be to move towards an ex-ante approach for efficiency incentives using a framework consistent with the base capex regime. We are proposing to replace two asymmetric ex-post incentive mechanisms (the major capex efficiency adjustment and the major capex overspend adjustment) with a single ex-ante symmetric mechanism.
27. We consider that a continuous ex-ante symmetric incentive rate that is known before the commencement of a major project will be more effective in incentivising downward pressure on costs.

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<sup>20</sup> A P50 cost estimate implies that there is 50% chance the project will come in under cost, with the other 50% chance that it comes in above cost, ie, there is an equal chance of over/underspending. However, a P90 estimate for major capex projects means that we would expect only a 10% chance that the actual costs of the project would be above its allowed cost. As such, P90 cost estimates will be above the expected cost of the project.

<sup>21</sup> Commerce Commission "Transpower capital expenditure input methodology reasons paper" (31 January 2012), para 4.4.6.

28. The symmetric nature of the suggested regime would mean that Transpower retains the specified percentage (the incentive rate) of any underspend and bears the same percentage of any overspend.
29. The ex-ante nature of the regime would mean that there would be no ex-post assessment of any underspend or overspend. This would make it a simpler regime to implement and would eliminate the uncertainty of the ex-post assessment outlined above, which might reduce the incentives to pursue efficiency gains.
30. Moving to an ex-ante efficiency regime (with the major capex project output adjustment and sunk costs adjustment remaining unchanged) for large major capex projects would mean that the same broad incentive approach is applied to all types of capex.
31. An ex-ante regime that eliminates the need for us to undertake ex-post judgements on the level of net efficiency gains or the magnitude of any amendment to the expenditure allowance would also provide benefits. In our experience these types of judgements have imposed significant regulatory costs on us and Transpower during the application and approval process.
32. Currently, major capex projects tend to be approved at a P90 expenditure estimate level, reducing the risk on Transpower of cost overruns for large and potentially uncertain major capex projects. With the introduction of an ex-ante regime for major capex projects, we consider that it would be appropriate to move the expenditure approval level to P50, consistent with the base capex provisions, rather than a P90 estimate.<sup>22</sup>
33. Under an ex-ante regime of the type suggested there would be no ex-post amendments to costs, but instead any cost uncertainty for major capex would be dealt with through:
  - 33.1 a lower ex-ante incentive rate; and/or
  - 33.2 the potential use of a staging process for major capex (described in further detail below), which would reduce cost uncertainty prior to final approval of the major capex allowance.
34. Under the proposed ex-ante incentive regime, the level of the incentive rate affects how any differences between forecast and actual costs are shared between Transpower and consumers. For example:
  - 34.1 An incentive rate of 0% means that Transpower obtains revenue equal to its actual expenditure.
  - 34.2 An incentive rate of 100% means that Transpower obtains revenue equal to its forecast expenditure.

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<sup>22</sup> A P50 cost estimate would be the expected cost of the project and would not include any additional contingency allowances.

- 34.3 An incentive rate of 33% means Transpower obtains revenue equal to its forecast expenditure *and* 67% of the difference between its forecast and actual expenditure (ie, it is exposed to 33% of the difference).
35. There are advantages and disadvantages in setting the incentive rate at different levels. Broadly:
- 35.1 For Transpower, a lower incentive rate reduces its revenue risk in the event that actual expenditure will be different to forecast expenditure. However, the lower incentive rate also reduces the incentives on Transpower to make efficiency savings because it will retain less of any benefits.
- 35.2 For consumers, a lower incentive rate *increases* the exposure of consumers to the difference between Transpower's forecast expenditure and actual expenditure. However, a lower incentive rate also *decreases* the exposure of consumers to the difference between the charges actually paid by consumers and Transpower's actual expenditure. As a result of the trade-off between these two impacts, confidence in Transpower's forecasts may affect the consideration of the appropriate incentive rate.
36. We are open to the idea of using targeted incentive rates for major capex projects that are dependent on the context of the project and are not necessarily consistent with the default base capex incentive rate (currently 33%). The level of the incentive rate could reasonably vary depending on the uncertainty and/or magnitude of the project.
37. At this stage, we consider that the incentive rate for each major capex project (or individual stage of a major capex project) should be determined at the same time that the allowance is approved. Potential reasons for major capex projects having a lower project-specific incentive rate rather than the default base capex rate could include circumstances where:
- 37.1 the Commission does not have confidence that the accuracy of Transpower's P50 estimate is appropriate (for example, we could consider the forecast may have built-in upward bias resulting in the potential for a monetary windfall to accrue to Transpower); or
- 37.2 there is a large cost uncertainty for an individual project (relative to overall capex) which exposes Transpower or consumers to the risk of significant gains or losses, even if the P50 estimate is considered to be an appropriate forecast of costs.<sup>23</sup>

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<sup>23</sup> For example, the delivery of one major capex project could have a major impact on the profits of Transpower (including aspects of delivery outside its control). This is less of a concern for base capex, where the portfolio effect means that projects that are delivered under or over the forecast of costs will have a tendency to cancel each other out.

38. We are also considering introducing an option within the capex IM for projects to go through a staged approval process before the final costs and completion date are approved by the Commission. A staging process could provide greater confidence in the final P50 cost estimates allowed for different stages of major capex projects.
39. A staging approach could allow Transpower and the Commission to agree to divide projects that have large cost or timing uncertainties into multiple stages so that more time is allowed to refine forecasting and timing estimates. This could increase the effectiveness of an ex-ante regime by lowering the chances of windfall gains to consumers or Transpower from inaccurate forecasts.
40. Under a staging process, cost estimates should be sufficiently known that they are not biased above or below the approved P50 level.
41. If the different stages of major capex projects are still assessed to have significant cost or timing uncertainty at the time of approval the projects would potentially have an ex-ante incentive rate tailored to that stage.<sup>24</sup> For example, a project stage with a high degree of uncertainty could be given an incentive rate of 15%.
42. This lower incentive rate can potentially reduce the impact to Transpower from inaccurate cost forecasts, but the disadvantage would be that the financial incentive for Transpower to deliver the project efficiently would be reduced.
43. A diagram outlining our proposed changes to the regime is provided in Attachment A.

*Potential for a lower incentive rate for listed projects*

44. Listed projects are currently subject to a symmetric ex-ante incentive mechanism that operates in a similar way to our proposed mechanism for major capex projects. However, all listed projects are currently subject to the default base capex incentive rate (currently 33%).
45. Transpower has suggested that the size and cost uncertainty associated with some future listed projects may justify a lower incentive rate.<sup>25</sup>

For listed projects, and potentially for major capex, a lower incentive rate is more appropriate. Large individual projects have a high degree of uncertainty and are very large compared with approved base capex quantum.

46. Listed projects can also be subject to some of the same characteristics (ie, potential for large gains and losses due to uncertainty over cost forecasts) that we considered in paragraph 37 may justify a lower incentive rate for major projects. As a result we are open to Transpower's suggestion that listed projects could potentially be subject to a lower incentive rate. This would be more consistent with the proposed approach to major capex.

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<sup>24</sup> That is, the incentive rate would be different to the Base capex incentive rate (currently 33%).

<sup>25</sup> Transpower "Capex IM review issues identification via focus areas" (14 June 2017) p. 11.

47. Our initial view is that a lower incentive rate would be an exception for listed projects. Otherwise the default base capex incentive rate would apply. Transpower would be able to apply for a different incentive rate to apply for listed projects that meet defined criteria. If the application was successful, the resulting project-specific allowable revenue would also need to be separated from the general base capex allowance to ensure the appropriate incentive rate is applied.
48. For a project to be subject to an alternative capex incentive rate we expect it would need to illustrate a significant degree of cost uncertainty at the time of final cost approval. It would also need to be of a significant magnitude such that Transpower and consumers could be subject to significant revenue risk from those cost uncertainties.

### **Incentives and engagement on transmission alternatives**

49. A number of submissions have raised an issue about the incentives for Transpower to undertake efficient investment decisions, particularly when considering transmission alternatives or non-traditional investment options.<sup>26</sup>
50. At this stage, we do not have evidence to suggest that this is currently a significant problem. However, we have some concerns about whether the current rules provide sufficient ongoing incentives to ensure appropriate investments are both identified and undertaken when it is efficient to do so.
51. The current level of innovation in the electricity industry and the increasing options for transmission alternatives mean the full benefits of alternative options are both uncertain and potentially significant. As a result, we consider it is appropriate to consider both:
- 51.1 the incentive on Transpower to consider all available options (including any bias towards opex or capex solutions); and
  - 51.2 Transpower's engagement with external parties in both identifying and considering transmission and non-transmission investment options. We consider that third-party scrutiny and engagement in investment decisions will help to enhance investment choices for the long-term benefit of consumers.

#### *Incentives for transmission alternatives – potential issue*

52. The current incentive regime is designed to ensure that Transpower is generally indifferent to providing opex or capex solutions (ie, both opex and capex provide approximately a 33% incentive rate) and therefore Transpower should be incentivised to deliver the least cost solution, whatever form it might take. The exception is for major capex projects, which (as noted above) are subject to different incentives.

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<sup>26</sup> Contact "Transpower Capex IM Review" (14 June 2017), p.1; MEUG "MEUG submission on Transpower capex input methodology review" (14 June 2017), p.2; Pioneer "Transpower capex input methodology review – Proposed focus areas", p. 2.

53. However, as noted in submissions there are some additional incentives that may affect Transpower's investment decisions. These include:
- 53.1 The provision of a return on capital allowance equivalent to the 67<sup>th</sup> percentile WACC, which, all other things being equal, should result in a higher return than the expected value of the WACC.<sup>27</sup>
  - 53.2 The ability of the capex solutions to enter the regulated asset base. This provides the expectation of a normal return for the lifetime of that asset, with no ongoing assessment of the value of individual assets to consumers. In contrast the revenue associated with specific opex amounts can be reviewed at the time of each IPP reset.<sup>28</sup>
  - 53.3 The ability of the Electricity Distribution Businesses (EDBs) as consumers of transmission services to fully pass-through Transpower charges to end users, which may reduce the level of scrutiny EDBs apply to certain Transpower investment decisions.
54. The cumulative impact of all the incentives on Transpower's different investment decisions is unclear.<sup>29</sup> However, it is possible that the most efficient solutions may not be considered (or be considered inappropriately) as part of the investment process. This could be a particular issue in the medium-term future given the technological change that is expected to take place in the electricity sector where there may be increasing alternatives to traditional network investment.
55. We consider that there should be greater opportunity for third-party engagement with Transpower when it is considering investments for which there are potential transmission alternatives. This could allow for a wider variety of investment options, enhance protection for consumers against inefficient investment, and ensure the full benefits of innovation in the electricity industry are realised.

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<sup>27</sup> MEUG "MEUG submission on Transpower capex input methodology review" (14 June 2017) para 17.

<sup>28</sup> A number of submissions illustrated this point by identifying a potential problem where Transpower is disincentivised from entering longer-term contracts with third parties for transmission alternatives, due to the uncertainty over future revenues. This in turn makes it more difficult for third parties to undertake alternative investments. Therefore, alternative options may be disadvantaged compared to Transpower's investment in capex solutions. See for example, Trustpower "Proposed focus areas for the capex IM review" (14 June 2017), section 2.4; IEGA "Commerce Commission review of Transpower Capital Expenditure Input Methodology" (14 June 2017), p.3.

<sup>29</sup> For example, there may also be an incentive on Transpower to invest in opex solutions for which the cost is more easily removed, compared to a large capex investment with a long asset lifetime, which could be subject to future asset stranding risk.

*Incentives for transmission alternatives – potential solution*

56. The capex IM requires Transpower to apply the investment test to large enhancement and development projects over \$20 million (major capex). As part of the investment test, and also as a requirement for considering listed projects Transpower is specifically required to consider transmission alternatives.<sup>30</sup>
57. To a lesser extent, for replacement and refurbishment projects and programmes over \$20 million (both listed and base capex projects), Transpower must undertake cost-benefit analysis to identify a preferred investment option and must undertake consultation with interested parties.<sup>31</sup>
58. However, these requirements do not apply for projects under \$20 million or projects over \$20 million that form part of the initial base capex allowance. For those base capex projects, Transpower determines the preferred solution through its internal policies and processes. Transpower can and does consult and engage with third parties if it considers it appropriate, but submissions on our proposed focus areas paper have suggested that this engagement, and the ability of third parties to contribute to alternative solutions, could be improved.
59. For example, Contact submitted that only 20% of Transpower’s investments are subject to significant scrutiny.<sup>32</sup>
- Contact is concerned that, at present, the RIT only captures approximately 20% of Transpower’s capex and suggests it should be extended to cover a greater proportion.
60. We share some of the concerns raised in submissions over whether the current regime provides sufficient incentives for Transpower to:
- 60.1 consider whether transmission alternatives could provide more efficient investment options that are to the long-term benefits of consumers; and
- 60.2 whether such services can more efficiently be provided by third parties.
61. At this stage, we do not see any evidence that suggests that Transpower is not appropriately considering transmission alternatives. However, we consider there are potential changes to the capex IM and related processes that would improve transparency and ensure greater confidence that the most appropriate solutions are being considered and chosen.

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<sup>30</sup> *Transpower Capital Expenditure Input Methodology Determination 2012* [2012] NZCC 2, cl. 8.1.3 (1) (b), cl. 3.2.4 (2) (b).

<sup>31</sup> *Transpower Capital Expenditure Input Methodology Determination 2012* [2012] NZCC 2, cl. 3.2.1 (a).

<sup>32</sup> Contact “Transpower Capex IM Review” (14 June 2017), p.1.

62. In particular, we are keen to increase the ability for stakeholders to:
- 62.1 understand complex planning documents;
  - 62.2 identify opportunities where transmission alternatives are feasible;
  - 62.3 have an opportunity to engage with Transpower at the most appropriate time in the planning process; and
  - 62.4 understand the reasons for Transpower's acceptance or rejection of potential solutions.

*Incentives for third-party engagement – potential solutions*

63. Transpower's engagement process for major capex projects appears to be robust, and we do not propose changing engagement requirements for projects or programmes that fall under that category.
64. Base capex projects over \$20 million (including listed projects) also require consultation with interested persons.<sup>33</sup> At this stage, we do not consider any significant changes to the capex IM that outline these consultation requirements are required, particularly given our expectation that replacement and refurbishment projects are less likely to provide opportunities for alternative solutions than enhancement projects. However, we are interested in views on the operation of the current consultation processes for these types of projects.
65. We have a slightly greater concern over the incentives on Transpower to undertake engagement and apply efficient solutions when considering investment projects that fall under the \$20 million threshold.
66. For these projects, there are currently no formal requirements for Transpower to engage directly with consumers and other stakeholders on the most appropriate investment solutions other than through the base capex proposal consultation prior to the start of each RCP. Despite this, we note that Transpower can and does sometimes undertake engagement and consultation outside of the formal requirements of the capex IM when it considers that it is appropriate to do so.
67. Our emerging view is that improvements could be made to the current processes to better ensure the most appropriate investment options are identified on an ongoing basis. We are therefore considering introducing additional engagement requirements on Transpower for the investment process for certain types of capex projects and programmes. This additional engagement could be related to longer-term planning and/or specific projects that fall under the \$20 million threshold.

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<sup>33</sup> *Transpower Capital Expenditure Input Methodology Determination 2012* [2012] NZCC 2, cl. 3.2.1 (b).

68. Despite our view that there is potential for additional engagement steps we would not want a regime that increases costs disproportionately or extends project delivery times unnecessarily. We need to strike a balance between the costs and benefits of introducing additional engagement requirements, with a view to ultimately promoting the long-term benefits of consumers.
69. The intention for any additional engagement would be to increase the likelihood of selecting the right option by allowing other parties opportunities to identify and offer cost effective transmission alternatives, require Transpower to openly engage with external parties to identify and consider alternative solutions, and explain its chosen investment options to stakeholders.
70. We are open to how this additional engagement might work in practice, and consider that some particular projects would benefit more from additional engagement than others (for example, when there are a number of transmission alternatives).
71. We do not presently consider it would be appropriate to extend the engagement obligation on transmission alternatives to all projects below the base capex threshold. However, we consider a more balanced approach which identifies specific projects that would benefit from increased third-party engagement can be developed.<sup>34</sup> We welcome views on how we can ensure any additional engagement is appropriately focussed and does not impose unnecessary costs.
72. For example, project cost threshold (for example, \$5 million) could apply to restrict engagement costs that are likely to outweigh any potential benefit. Transpower would then have discretion over the level of engagement for smaller projects below this threshold. This approach could allow wider engagement for projects that might benefit from greater interaction with third parties.
73. We consider that identifying projects (or types of projects) that may benefit from increased engagement would be less administratively burdensome to all parties and more efficient than lowering the base capex threshold to make more projects subject to the major capex engagement and scrutiny process.

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<sup>34</sup> In addition to projects that have greater potential for third party solutions, we also consider that increased ability for engagement could cover projects where one party is likely to be paying a large percentage of a Transpower investment, for example under a potential future TPM.

## Other issues

74. We previously identified two additional issues that we have considered as part of this emerging views paper:
- 74.1 the threshold used to define a major capex project, which is currently for enhancement projects over \$20 million; and
  - 74.2 the effectiveness of the process and policies incentive mechanism.<sup>35</sup>

### *Threshold for major capex projects*

75. We received submissions from Contact and Trustpower suggesting that the threshold for major capex projects could be lowered.<sup>36</sup> Contact also suggested the investment test should be extended to replacement and refurbishment (R&R) capex. Contact contrasted this with Australia where the AEMC have extended their regulatory investment test to R&R capex<sup>37</sup> and where the threshold for this test to apply \$6 million.<sup>38</sup>
76. At this stage we do not consider it is appropriate to lower the threshold for major capex or extend the process to R&R capex, although we acknowledge the arguments provided by Contact and Trustpower. The major capex regime provides significant scrutiny of investments and a comprehensive engagement process that is designed for major enhancements to the grid.
77. We consider that extending this type of process to a larger number of smaller projects would not be efficient or consistent with the proportionate scrutiny principle; however we welcome further views on this point. Similarly, a significant proportion of R&R projects are expected to be unsuitable for transmission alternatives, meaning that a blanket rule to extend further scrutiny to all of these types of projects may not result in an efficient outcome.
78. Despite our emerging view not to reduce the major capex threshold or extend the investment test to R&R projects, we recognise that there is a risk that insufficient scrutiny is place on certain types of projects. However, we generally consider a more effective method would be to focus scrutiny on projects which are likely to have a greater range of alternative investment options (ie, the criteria for additional engagement and consultation would be not be purely based on cost thresholds for base capex projects). We have outlined this approach in the previous section and welcome submissions on the most effective way to achieve this.

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<sup>35</sup> We raised the operation of the Policies and Processes mechanism in the areas of focus paper. See, Commerce Commission “Transpower capex input methodology review – Proposed focus areas for the capex IM review” (15 May 2017), para 100.2.

<sup>36</sup> Contact “Transpower Capex IM Review” (14 June 2017), p.1-2; Trustpower “Proposed focus areas for the capex IM review” (14 June 2017), section 2.2.

<sup>37</sup> AEMC “Rule determination: National Electricity Amendment (Replacement expenditure planning arrangements) Rule 2017” (18 July 2017).

<sup>38</sup> AER, “Cost threshold review for the regulatory investment test, Final determination” (November 2015).

79. We have also considered a further mechanism that could help mitigate concerns about the process in regard Transpower’s ability to invest in enhancement projects under \$20 million and when the revenue with those projects is included in the base capex allowance. This potential mechanism would be to include an option for automatic updates to the base capex allowance based on how demand evolves over an RCP.
- 79.1 For example, if there are projects included in Transpower’s RCP expenditure proposal which are dependent on demand growth, we could potentially include a ‘trigger mechanism’ that allows the capex associated with those specified projects to be added to base capex allowance (and consequently increase allowable revenue) during a price path.<sup>39</sup>
80. The use of this type of mechanism may help mitigate some of the concerns over project investment decisions without the need to lower the threshold for major capex projects and the associated administrative and regulatory costs.

*The effectiveness of the process and policies incentive mechanism*

81. The ‘proposed focus areas’ paper raised the question of the effectiveness of the current process and policies incentive mechanism. Transpower submitted that the processes and policies incentive could be removed, as it is ‘ineffective at assuring internal governance’.<sup>40</sup>
82. We consider it is important that Transpower has policies and processes for base capex expenditure that it adheres to during a regulatory period. This can help ensure that a thorough and rigorous process is applied when testing the economics and engineering solutions of any base capex expenditure.
83. We also have doubts about the current mechanism’s effectiveness to provide appropriate incentives on Transpower. We are therefore considering whether using information disclosure to provide greater information transparency to external stakeholders could provide a more effective method to incentivise Transpower’s adherence to appropriate policies and processes.
84. We are also considering the suggestion from MEUG that an ex-post review of particular projects could provide some benefits by subjecting Transpower to additional incentives to maintain and adhere to appropriate policies.<sup>41</sup> We are therefore interested in submitters’ views on the practicalities of such an approach and in particular ensuring the effective sampling of different projects.

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<sup>39</sup> An alternative might be to have a more general (rather than project specific) revenue adjustment that changes the allowance based on how demand develops over the RCP period.

<sup>40</sup> Transpower “Capex IM review issues identification via focus areas” (14 June 2017) p. 11.

<sup>41</sup> MEUG “MEUG submission on Transpower capex input methodology review” (14 June 2017) para 12 c).

85. If we continue to apply the existing process and policies revenue incentive, we are minded to change the mechanism so that it applies to the current processes and policies in place at any time, not those in place at the start of the RCP. This was a suggestion from Transpower.<sup>42</sup> If that was to apply, we would also need confidence that appropriate governance processes are in place for the updating of policies and processes.

### Questions to submitters

86. We are looking for your views in submissions on:
- 86.1 the potential problems and issues identified in this paper;
  - 86.2 our emerging view to move to a symmetrical ex-ante expenditure incentive regime for major capex projects;
  - 86.3 our view that major capex expenditure allowances under the proposed ex-ante incentive regime should be based on a P50 cost estimate;
  - 86.4 our ability to tailor incentive rates for major capex or listed projects;
  - 86.5 the need for greater engagement by Transpower and opportunity for external scrutiny on some projects that are currently part of base capex;
  - 86.6 the criteria that might apply when deciding which (base capex) projects should be subject to greater consultation and scrutiny;
  - 86.7 our emerging view not to change the \$20 million threshold for major capex projects; and
  - 86.8 our emerging view to replace the policies and processes incentive in the capex IM with targeted qualitative information disclosure.
87. We will consider submissions on this paper in reaching our draft decision. This will be published on 10 November 2017.

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<sup>42</sup> Transpower “Transpower additional information Capex IM review” (15 August 2017) p. 4.

**Attachment A: Overview of proposed changes to incentives – Flow diagrams**

88. Figures 3 and 4 demonstrate the proposed changes from the current incentive regime to the regime with our emerging views. They include how different characteristics of the capex types define the incentive mechanisms and processes which apply.
89. Figure 3 demonstrates the current incentive mechanisms and Figure 4 demonstrates our proposed incentive mechanisms.

Figure 3: Current capex incentives regime

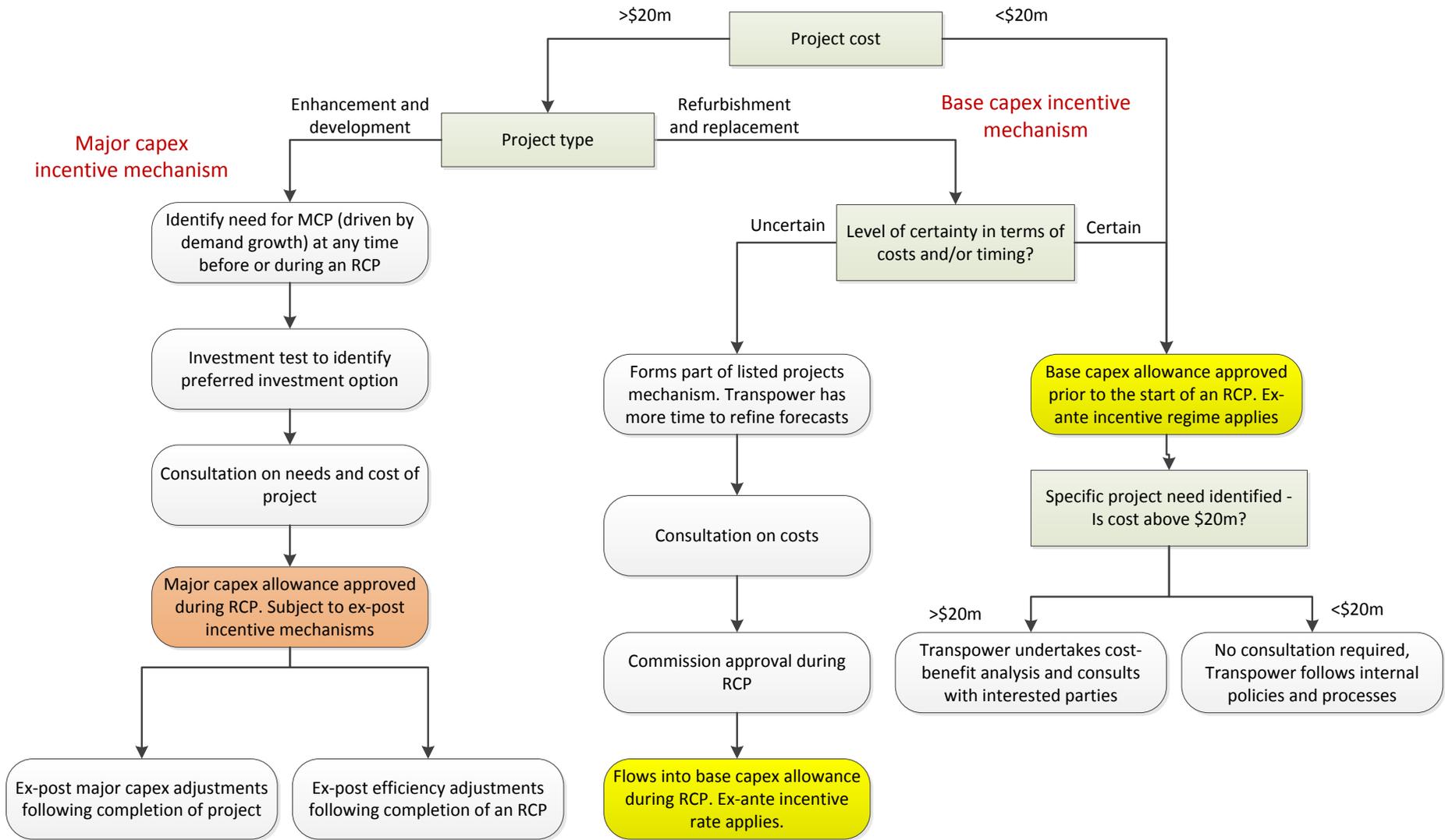


Figure 4: Proposed amendments to capex incentives regime

