

# **Transpower capex input methodology review**

## **Proposed focus areas for the capex IM review**

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### Associated documents

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Commerce Commission  
Wellington, New Zealand

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## Executive summary

### Purpose of this paper

- X1. This paper seeks your input in defining the key focus areas and identifying the specific problems to be considered by our review of the Transpower capital expenditure input methodology (**capex IM**).

### The capex IM

- X2. The capex IM describes the process for capital expenditure (**capex**) to be submitted by Transpower for our approval, the processes that we and Transpower must follow, the information that must be provided to us by Transpower, and the evaluation criteria and approach that we use in considering Transpower's capex proposals.
- X3. The capex IM was determined on 31 January 2012 and published on 9 February 2012. A number of amendments to the capex IM have been made since then.

### Reviewing the capex IM

- X4. Section 52Y of the Commerce Act 1993 requires us to review each IM no later than seven years after its date of publication.
- X5. On 28 April 2017, we issued a notice of intention to commence the review of the capex IM, under section 52Y of the Act (the **capex IM review**).

### This phase of the capex IM review is focused on problem definition

- X6. This paper sets out the proposed focus areas for the capex IM review and explains our views on some of the questions we might consider under each area. We are seeking your input on the key focus areas and the specific problems to be considered by the capex IM review.

### The issues should drive the process and timeline for the capex IM review

- X7. We consider that the issues the capex IM review will consider should drive the process and timeframes we adopt. As such, we see this problem definition phase being crucial for shaping the remainder of the capex IM review. After reviewing your submissions on this paper, we expect to be well placed to further develop the process and timeline for the capex IM review.

### Decision-making framework and objectives for the capex IM review

- X8. For the capex IM review, we propose to apply the same framework that we used for reaching decisions on the 2015-2016 input methodologies review (**IM review**).<sup>1</sup>

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<sup>1</sup> Commerce Commission "Input methodologies review decisions – Framework for the IM review" (20 December 2016).

### **We propose five focus areas for the capex IM review**

- X9. We are proposing five key focus areas for the capex IM review:
- X9.1 Focus area 1: Given the changing landscape in the energy sector, are there adjustments that could be made to the capex IM to better ensure the right transmission investments are being made, including non-transmission solutions?
  - X9.2 Focus area 2: Does the capex IM support a proportionate approach to scrutiny?
  - X9.3 Focus area 3: Once expenditure has been approved, does the capex IM appropriately deal with changing circumstances?
  - X9.4 Focus area 4: Are the incentive mechanisms in the capex IM effective?
  - X9.5 Focus area 5: Are aspects of the capex IM too complex and prescriptive?
- X10. We invite your views on whether these are the most useful focus areas for the review, and what are the specific problems we should consider within them. We are also interested in whether there are any other areas we should focus on, that are not already discussed in this paper.

### **We are holding a knowledge sharing workshop on 24 May 2017**

- X11. We plan to hold a knowledge sharing workshop for stakeholders on 24 May 2017. The purpose of the workshop will be to:
- X11.1 explain how the capex IM works;
  - X11.2 share some lessons learned to date; and
  - X11.3 discuss the proposed focus areas for the capex IM review.
- X12. We hope that the workshop will provide an opportunity for stakeholders without a close understanding of the capex IM to better understand what it is, how it works, and how it might be relevant for them. The workshop is intended to help inform your submissions on this paper.

### **Submissions**

- X13. We invite your written submissions on this paper by 5pm on 14 June 2017. We will publish these submissions, then seek cross-submissions on the points raised in submissions by 5pm on 28 June 2017.
- X14. Chapter 3 of this paper highlights our proposed focus areas for the capex IM review. We welcome your views on whether these would be valuable focus areas for the review, and whether there is anything else you think the review should focus on. We also welcome your views on any specific problems within the focus areas that should be considered as part of the capex IM review.

## CHAPTER 1: Introduction

### Purpose of this paper

1. The purpose of this paper is to:
  - 1.1 set out the context for the review of the Transpower capital expenditure input methodology (**capex IM review**);
  - 1.2 set out the potential focus areas and questions for the capex IM review;
  - 1.3 propose the process and timing for the capex IM review;
  - 1.4 invite submissions from stakeholders on this paper; and
  - 1.5 assist interested parties in preparing for the workshops and in writing submissions.

### Background to the capex IM and this review

2. Regulation under Part 4 (**Part 4**) of the Commerce Act 1986 (the **Act**) seeks to promote the long-term benefit of consumers of regulated services. These are electricity line services, gas pipelines services, and specified airport services at Auckland, Wellington and Christchurch international airports.
3. Input methodologies (**IMs**) are the upfront rules, processes and requirements of Part 4 regulation. Their purpose is to promote certainty for suppliers and consumers in relation to the rules, requirements and processes applying to regulated services under Part 4. IMs apply to all services regulated under Part 4.
4. We determined the majority of IMs in December 2010. We reviewed those IMs, including subsequent amendments, in 2015-2016 (the **2015-2016 IM review**).<sup>2</sup>
5. We determined the Transpower capital expenditure input methodology (**capex IM**) on 31 January 2012 pursuant to section 54S of the Act.<sup>3</sup> The requirement for us to set a capital expenditure IM for Transpower arose from an amendment to the Act that transferred to us the role of approving Transpower's grid upgrade plan proposals from the Electricity Commission (now disestablished and replaced by the Electricity Authority).<sup>4</sup>

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<sup>2</sup> As noted at paragraph 11 below, parts of this 2015-2016 review are still ongoing. Commerce Commission "Input methodologies review decisions: Introduction and process paper" (20 December 2016).

<sup>3</sup> *Transpower Capital Expenditure Input Methodology 2012* [2012] NZCC 2. Publication formally occurred when notice of the IM was published in the *New Zealand Gazette* on 9 February 2012.

<sup>4</sup> Electricity Industry Act 2010, s 155.

6. As required by s 54S(2) of the Act, the capex IM includes:
  - 6.1 requirements that must be met by Transpower, including the scope and specificity of information required, the extent of independent verification and audit, and the extent of consultation and agreement with consumers;
  - 6.2 the criteria the Commission will use to evaluate capital expenditure proposals; and
  - 6.3 time frames and processes for evaluating capital expenditure proposals, including what happens if the Commission does not comply with those time frames.
  
7. Some key features of our decisions in setting the capex IM were:<sup>5</sup>
  - 7.1 Capital expenditure must be classified as either base capex or major capex;
  - 7.2 The capex IM will apply to all capital expenditure intended to enter Transpower's regulatory asset base (**RAB**), including both base and major capex;
  - 7.3 Major capex is required to be consulted on, assessed and approved on a project-by-project basis using the requirements set out in the capex IM;<sup>6</sup>
  - 7.4 An incentive regime applies to both base capex and major capex (an overview of the incentive regime applying to Transpower is provided in Attachment A of this paper); and
  - 7.5 Transpower must publish an integrated transmission plan that explains Transpower's view about the long-term development of the grid.
  
8. In 2014, ahead of the 2015-2020 regulatory control period (**RCP2**), we introduced the 'listed projects' mechanism which allows Transpower to obtain additional base capex for listed projects.<sup>7</sup>

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<sup>5</sup> Commerce Commission "Transpower Capital Expenditure Input Methodology: Reasons paper" (31 January 2012), para X6.

<sup>6</sup> A summary of major capex projects that have been subject to capex IM approval processes is set out in Table B3 in Attachment B. Potential major capex projects that may be subject to the capex IM approval process in the future are discussed in Transpower's integrated transmission plan, see Transpower "Integrated Transmission Plan 2016" (27 September 2016), chapters 4-5.

<sup>7</sup> The 'listed projects' mechanism provides a means 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 that were anticipated to occur within that regulatory period, but where the specific timing of the project could not be forecast prior to the regulatory period. See: Commerce Commission "Amendments to input methodologies for Transpower to provide a listed project mechanism" (27 November 2014).



9. We have made amendments to the capex IM since it was first determined, a record of which is contained in the determination history of the current consolidated version of the capex IM.<sup>8</sup> A table of these amendments is included in Attachment B of this paper (Table B1).
- 9.1 Attachment B also sets out some details on the decisions made in setting the capex IM (Table B2), and the decisions we have made in applying the capex IM (Table B3).
- 9.2 Attachment C provides an overview of how the capex IM works, and Attachment D describes the capex IM incentive mechanisms.

*Our obligation to review the IMs*

10. Section 52Y of the Act requires us to review each IM no later than seven years after its date of publication.
11. On 10 June 2015, we commenced a review of all IMs except for the capex IM.<sup>9</sup> On 20 December 2016, we reached decisions on all areas within the scope of that notice of intention, except for three areas that we are still to reach decisions on this year.<sup>10, 11</sup>
12. Although we considered reviewing the capex IM as part of our 2015-2016 IM review, ultimately we decided it was appropriate to defer the review of the capex IM. This was because the capex IM was originally determined in January 2012, separately from the other IMs, had recently been amended, and did not substantially drive decisions in relation to the other IMs.<sup>12</sup>

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<sup>8</sup> *Transpower Capital Expenditure Input Methodology 2012* [2012] NZCC 2, p. 2.

<sup>9</sup> Commerce Commission "Notice of intention: Input methodologies review" (10 June 2015).

<sup>10</sup> Commerce Commission "Input methodologies review decisions: Introduction and process paper" (20 December 2016), para 23.

<sup>11</sup> The three areas we are yet to reach decisions on are: the Transpower Incremental Rolling Incentive Scheme (**IRIS**) IM; the IMs relating to customised price-quality path (**CPP**) information requirements for gas; and related party transactions provisions.

<sup>12</sup> Commerce Commission "Input methodologies review decisions: Introduction and process paper" (20 December 2016), para 18.

13. On 28 April 2017 we issued a notice of intention to commence this review of the capex IM.<sup>13, 14</sup> As the original capex IM was published in the *New Zealand Gazette* on 9 February 2012, the statutory deadline for completing the capex IM review is 11 February 2019.<sup>15</sup> We are commencing consultation on the capex IM review now in order to inform our view on what the most appropriate process for the capex IM review would be (within the bounds of the statutory deadline). We discuss this further in paragraphs 17-22.
14. We note that we have other work ongoing with respect to Transpower, which will remain ongoing during the capex IM review. For example:
- 14.1 We are considering a listed project capex proposal from Transpower in relation to the Central Park-Wilton B reconductoring project;<sup>16</sup>
- 14.2 We are completing our review of the Transpower incremental rolling incentive scheme (**IRIS**) IM as part of the 2015-2016 IM review;<sup>17</sup> and
- 14.3 In October 2017, Transpower will submit to us its annual individual price-quality path (**IPP**) compliance statement and annual forecast maximum allowable revenue (**MAR**) update proposal, following which we will determine the annual forecast MAR update in November 2017.<sup>18</sup>

#### Framework for the capex IM review

15. For the capex IM review, we propose to apply the same framework that we used for reaching decisions on the 2015-2016 IM review. As explained in more detail in our 2016 framework paper for that review, that means we will only change the IM where this is likely to:
- 15.1 promote the Part 4 purpose in s 52A more effectively;
- 15.2 promote the IM purpose in s 52R more effectively (without detrimentally affecting the promotion of the s 52A purpose); or
- 15.3 significantly reduce compliance costs, other regulatory costs or complexity (without detrimentally affecting the promotion of the s 52A purpose).

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<sup>13</sup> Commerce Commission “[Notice of Intention – Input Methodology Review: Transpower Capital Expenditure Input Methodology](#)” (28 April 2017).

<sup>14</sup> The IM under review is the *Transpower Capital Expenditure Input Methodology Determination 2012* [2012] NZCC 2 (31 January 2012) as amended by all subsequent amendments. Table B1 in Attachment B lists the principle determination and all subsequent determination amendments.

<sup>15</sup> Section 52Y of the Act requires that we review the IM no later than seven years after the date of its publication.

<sup>16</sup> See: <http://www.comcom.govt.nz/transpowers-price-quality-path-from-2015-to-2020/>.

<sup>17</sup> We are aiming to publish our decision on our review of the Transpower IRIS by 30 June 2016. See: Commerce Commission “Input methodologies review draft decision: Transpower Incremental Rolling Incentive Scheme” (24 March 2016).

<sup>18</sup> *Transpower Individual Price-Quality Path Determination 2015* [2014] NZCC 35.

16. Please see our 2016 framework paper for more detail on the IM review framework.<sup>19</sup>

### **The objectives and process for this stage of the capex IM review**

#### *Objectives for problem definition phase*

17. We want stakeholders to play a key role in defining the issues and problems to be addressed by the capex IM review. In many cases, suppliers, consumers, and other interested parties are better placed than us to identify specific problems and areas for improvement. Regulated suppliers have a rich understanding of businesses and the environments in which they operate. Likewise, some consumers of regulated services may be well placed to describe how the key issues and problems impact them.
18. We consider that this capex IM review will be most effective and efficient if the issues drive the process. We are seeking to adopt a process and timing that properly addresses the key issues and our review requirements, while managing costs and time commitments for all parties.
19. In particular, we are open to phasing the review to ensure it is fit for purpose. For example, we could complete our review of those aspects of the capex IM affecting the IPP for the 2020-2025 regulatory period (**RCP3**) on a shorter timeframe, and complete our review of all other aspects of the capex IM on a longer timeframe.<sup>20</sup> We are seeking stakeholders' views on the merits of this approach, whether the proposed date for completing IPP changes is appropriate, and whether there are any other timing constraints that would affect our process for the capex IM review.
20. We expect that the further development of the process and timing for the capex IM review will be influenced by the number, size, and interdependencies of the problems to be addressed by the capex IM review. As such, it is difficult to further refine the process for the capex IM review until we have a better understanding of the specific problems to be considered by the capex IM review.
21. The focus of this problem definition phase of the capex IM review is therefore on identifying the key focus areas for the capex IM review, clearly defining the problems relating to those focus areas that the capex IM review should consider, and identifying how potential changes to the capex IM might address these problems. We followed a similar process for our IM review in 2015-2016. It is about an upfront, collective attempt to identify and define problems that the capex IM review should consider, prior to considering what capex IM-related solutions might exist for those problems.

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<sup>19</sup> Commerce Commission "Input methodologies review decisions – Framework for the IM review" (20 December 2016).

<sup>20</sup> Any IM amendments that affect the price-quality path will generally not take effect until the next price-quality path reset (sections 53ZB and 53ZC of the Act). As such, it may be desirable to make any IM amendments that would affect the IPP in advance of RCP3 or else those changes would not take effect until RCP4. Further, because Transpower is required to submit its proposal for its IPP for RCP3 by 1 December 2018 it may be desirable to have any changes to the IMs that affect the IPP in place in advance of that date as well. See clause 2.2.1(3) of *Transpower Capital Expenditure Input Methodology Determination* [2012] NZCC 2.

22. At the end of this phase (ie, after the workshop and stakeholder submissions on this paper), we expect to have a much clearer picture of the problems that the capex IM review should consider. That will allow us to further develop the process and timing for the remainder of the capex IM review.

*This paper*

23. This paper describes our proposed focus areas for the capex IM review and calls for submissions. Ultimately we want to identify all issues to be addressed by the capex IM review, define specific problems and begin to identify potential solutions where possible. This will allow us to consider the best process to follow on with.

*Knowledge sharing workshop*

24. We plan to hold a knowledge sharing workshop for stakeholders on 24 May 2017. At this stage, we expect that the purpose of the workshop will be to:
- 24.1 explain how the capex IM works;
  - 24.2 share some lessons learned to date; and
  - 24.3 discuss the proposed focus areas for the review as outlined in this paper.
25. We hope that the workshop will provide an opportunity for stakeholders without a close understanding of the capex IM to better understand what it is, how it works, and how it might be relevant for them.
26. Details about how to register for the workshop are provided in Chapter 4 of this paper.

*Written submissions on this paper*

27. This paper seeks your written submissions to help define the focus areas and questions that the capex IM review should consider. As noted above, these submissions should be informed by discussions at the knowledge sharing workshop; although the workshop may not cover all issues and points that parties may want to raise.
28. While you will have the opportunity to put forward your views at the workshop, it is important that you follow that up by setting out your views in full in written submissions.
29. We have allowed three weeks following the workshop for you to prepare your written submissions, and then a further two weeks for cross-submissions.
30. More detailed instructions to submitters are set out in the Chapter 4 of this paper.

*We will then refine the process and timing for next phase of the capex IM review*

31. After considering submissions and cross-submissions on this paper we expect to have a much clearer picture of the topics and specific problems to be considered by the capex IM review. At that point, we expect to be in a good position to determine the process and timing for the next phase of the capex IM review.

**The structure of this paper**

32. Chapter 2 sets out the context for the capex IM review by providing an overview of the regulation that applies to Transpower and explaining the importance of Transpower's investment and efficiency performance for consumers.
33. Chapter 3 provides more detail around the focus areas and suggests some questions that might arise under each of these.
34. Chapter 4 outlines the next steps, which covers:
  - 34.1 the upcoming workshop;
  - 34.2 the submission process; and
  - 34.3 updates to the capex IM review on our website.
35. Attachment A gives an overview of the incentive regime that applies to Transpower.
36. Attachment B outlines the amendments we have made to the capex IM since it was set in January 2012 (Table B1), and sets out some key decisions made in setting the capex IM (Table B2) and decisions made in applying the capex IM (Table B3).
37. Attachment C provides an overview of the capex IM, including how it works and what it was designed to achieve.
38. Attachment D describes the suite of incentive mechanisms in the capex IM that collectively provide the incentive for Transpower to improve efficiency, to deliver outputs within approved expenditure, and to improve the outputs themselves.

## CHAPTER 2: Regulatory context

### Purpose of this chapter

39. The purpose of this chapter is to provide context for the capex IM review by:
- 39.1 providing an overview of the regulation that applies to Transpower; and
  - 39.2 highlighting the importance of Transpower’s investment and efficiency performance for consumers.

### Transpower’s role

40. Transpower is a state-owned enterprise that owns and operates New Zealand’s high voltage electricity transmission system (ie, ‘the national grid’). Transpower transmits electricity from generators to substations at grid exit points where it is supplied to local electricity distribution businesses or large industrial consumers.
41. Apart from the transmission of electricity throughout the national grid, Transpower also manages the real-time operation of the power system as the system operator. Transpower provides the system operator services under the System operator service provider agreement (**SOSPA**) between Transpower and the Electricity Authority.<sup>21</sup>

### How Transpower is regulated

42. Both we, and the Electricity Authority, have a role in regulating the electricity lines services provided by Transpower.<sup>22</sup>

#### *How we regulate Transpower*

43. We regulate Transpower under Part 4 of the Commerce Act 1986 (the **Act**). Part 4 “provides for the regulation of the price and quality of goods or services in markets where there is little or no competition and little or no likelihood of a substantial increase in competition.”<sup>23</sup>

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<sup>21</sup> System operator service provider agreement between the Electricity Authority and Transpower New Zealand Limited, February 2016.

<sup>22</sup> See our fact sheet about our role in the electricity sector: Commerce Commission “Electricity and the Commerce Commission’s role” (November 2012), available at: <http://www.comcom.govt.nz/dmsdocument/9673>.

<sup>23</sup> Section 52 of the Act.

44. The purpose of Part 4 is:<sup>24</sup>

... to promote the long-term benefit of consumers in markets referred to in section 52 by promoting outcomes that are consistent with outcomes produced in competitive markets such that suppliers of regulated goods or services—

(a) have incentives to innovate and to invest, including in replacement, upgraded, and new assets; and

(b) have incentives to improve efficiency and provide services at a quality that reflects consumer demands; and

(c) share with consumers the benefits of efficiency gains in the supply of the regulated goods or services, including through lower prices; and

(d) are limited in their ability to extract excessive profits.

45. Section 54Q of the Act is also relevant to the capex IM. Section 54Q requires us to promote incentives, and avoid imposing disincentives, for suppliers of electricity lines services to invest in energy efficiency and demand-side management and to reduce energy losses. Demand-side management and reduction of energy losses are of particular relevance to the capex IM. The capex IM provides for such matters to be taken into account in the assessment of Transpower's capital expenditure proposals. For example:<sup>25</sup>

45.1 loss reductions are included as a market benefit under our quantitative investment test for major capex.<sup>26</sup> This is intended to promote investment options that result in lower transmission losses over those that do not (other factors being equal);

45.2 we require close attention be given to the process for identification and consideration of transmission alternatives.<sup>27</sup> This is intended to result in greater consideration being given to investment options that improve network utilisation, for example, load shifting or peak shaving, demand-inter-trip schemes and operation of local generation.

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<sup>24</sup> Section 52A of the Act.

<sup>25</sup> Commerce Commission "Transpower Capital Expenditure Input Methodology: Reasons paper" (31 January 2012), para 1.3.11-1.3.12.

<sup>26</sup> The investment test is an assessment of the costs and benefits of potential investments using discounting of relevant costs and benefits in the electricity market over a defined calculation period to identify a preferred investment option (set out in schedule D of the capex IM).

<sup>27</sup> Transmission alternatives are alternatives to investment in the grid. Where use of a transmission alternative avoids a transmission investment that would otherwise be major capex, the transmission alternative is classified as a 'non-transmission solution'. See: Commerce Commission "Transpower Capital Expenditure Input Methodology: Reasons paper" (31 January 2012), para 2.8.1-2.8.6.

46. Under Part 4, Transpower is subject to two types of regulation:
- 46.1 IPP regulation:<sup>28</sup> This determines the maximum revenues that Transpower can recover from consumers, as well as the quality standards it must meet, for each year of each five-year regulatory period.<sup>29</sup> The IPP for the current 2015-2020 regulatory period (**RCP2**) is set out in the *Transpower Individual Price-Quality Path Determination 2015* [2014] NZCC 35 (the **Transpower IPP Determination**).
- 46.2 Information disclosure regulation (**ID**):<sup>30</sup> This sets requirements on Transpower to publicly disclose certain information to allow interested persons to assess whether the Part 4 purpose is being met. The ID requirements for Transpower are set out in the *Transpower Information Disclosure Determination 2014* [2014] NZCC 5 (the **Transpower ID Determination**).
47. These regulatory mechanisms are supported by input methodologies, which set out the underlying rules, requirements, and processes. There are two input methodologies determinations that apply to Transpower:
- 47.1 *Transpower Input Methodologies Determination 2012* [2012] NZCC 17 (the **Transpower IM Determination**). This determination was reviewed as part of the 2015-2016 input methodologies review.<sup>31</sup> It sets out methodologies for:
- 47.1.1 Cost allocation;
- 47.1.2 Asset valuation;
- 47.1.3 Treatment of taxation;
- 47.1.4 Cost of capital;
- 47.1.5 Specification of price;
- 47.1.6 IRIS; and
- 47.1.7 Reconsideration of the price-quality path.

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<sup>28</sup> The Commerce (Part 4 Regulation – Transpower) Order 2010.

<sup>29</sup> Under s 53M(4) of the Act, a regulatory period must be five years, but under s 53M(5) the Commission may set a period of four years if it considers this would better meet the Part 4 purpose.

<sup>30</sup> Section 54F of the Act.

<sup>31</sup> We published our decisions on the 2015-2016 IM review in December 2016. Those decisions covered all aspects of the Transpower IM Determination except for the incremental rolling incentive scheme, the review of which is ongoing.



47.2 *Transpower Capital Expenditure Input Methodology Determination 2012* [2012] NZCC 2 (**capex IM**). This determination sets out the capex IM and is the subject of the current review. Broadly, the Transpower capex IM currently does five things:

- 47.2.1 Sets out the process for submitting, assessing, and approving Transpower’s base capex proposals;
- 47.2.2 Sets out the process for submitting, assessing, and approving Transpower’s major capex proposals;
- 47.2.3 Sets out a number of capex-related incentives, which are applied through the IPP;
- 47.2.4 Sets out the requirements for Transpower to propose grid output measures, which are then set as quality measures in the IPP; and
- 47.2.5 Sets out the requirements for Transpower to provide an Integrated Transmission Plan (**ITP**). The purpose of the integrated transmission plan is to explain Transpower’s view of the long-term operation and development of the grid.

48. Part 4 applies to both the transmission services and system operator services supplied by Transpower.<sup>32</sup> However, we have not included the revenues and costs associated with Transpower’s system operator services in the IPP. This is because we consider the existence of a separate arm’s-length contract (the SOSPA referred to above) between Transpower and the Electricity Authority for these services should result in outcomes consistent with the Part 4 purpose for those services. As such, the capex IM does not currently apply to capital expenditure relating to the SOSPA.<sup>33</sup>

#### *The Electricity Authority’s role in regulating Transpower*

49. The Electricity Authority’s statutory objective is to promote competition in, reliable supply by, and the efficient operation of, the New Zealand electricity industry for the long-term benefit of consumers.<sup>34</sup> The Authority develops, administers and enforces market rules, contracts with service providers to operate the electricity market and system, and analyses and monitors performance of the electricity market and industry.

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<sup>32</sup> Section 150(1) of the Electricity Industry Act 2010 clarifies that system operator services are included as part of the conveyance of electricity by line and hence are regulated services under Part 4.

<sup>33</sup> For similar reasons, the capex IM will not usually apply to capital expenditure relating to contracts for transmission services between Transpower and another party where the party that is contracting with Transpower agrees in writing that the terms and conditions are reasonable or reflect workable or effective competition for the provision of the goods and services. These are referred to as ‘new investment contracts’. See: Commerce Commission “Transpower Capital Expenditure Input Methodology: Reasons paper” (31 January 2012), para 2.4.14.

<sup>34</sup> See: <http://www.ea.govt.nz/>.

50. The Electricity Authority's functions with respect to Transpower include:
- 50.1 Setting Grid Reliability Standards (**GRS**).<sup>35</sup> The GRS are a set of standards against which the reliability performance of the existing grid (or future developments to it) can be assessed.
  - 50.1 Setting the guidelines that Transpower must follow when developing the Transmission Pricing Methodology (**TPM**). The TPM sets out how Transpower's total transmission revenue (as approved by the Commission) is allocated between transmission customers that are required to pay the charges calculated under the TPM. The Electricity Authority is currently reviewing the TPM guidelines.
  - 50.2 Setting requirements regarding the use, and contents, of transmission agreements, including setting a default transmission agreement. Transmission agreements are the contracts Transpower has with distribution companies, major users that are directly connected to the grid, and generators that are directly connected to the grid.
  - 50.3 Establishing requirements regarding interconnection asset services – for example, providing information on capacity, reliability, and availability of those assets.<sup>36</sup>
  - 50.4 Contracting Transpower to provide system operator services. The system operator is responsible for the real-time operation of the power system, including scheduling and dispatching electricity, in a manner that avoids undue fluctuations in frequency and voltage on the transmission grid.
  - 50.5 Contracting Energy Market Services, a division of Transpower, to act as financial transmission rights (**FTR**) manager. The FTR manager is responsible for the creation and allocation of FTRs.

*Linkages between our regulation of Transpower and that of the Electricity Authority*

51. Section 54V of the Act sets a number of requirements for us and the Electricity Authority to interact on certain matters relating to our respective roles in regulating the electricity industry, including Transpower. We also have a memorandum of understanding with the Electricity Authority with respect to our respective roles in the electricity industry.<sup>37</sup>

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<sup>35</sup> The GRS are set out in Schedule 12.2 of the Electricity Industry Participation Code 2010 (the **Code**).

<sup>36</sup> Subpart 6 of Part 12 of the Code.

<sup>37</sup> Memorandum of Understanding between the Electricity Authority and the Commerce Commission, (December 2010), available at: <http://www.comcom.govt.nz/dmsdocument/9414>.

52. Some aspects of the Electricity Authority's role with respect to Transpower are particularly relevant to the capex IM review:
- 52.1 The GRS that the Electricity Authority has set in the Code are incorporated by reference into our definition of major capex as well as the investment test we apply when assessing major capex proposals.<sup>38</sup>
- 52.2 The Electricity Authority's concept of 'good electricity industry practice' is incorporated by reference into the capex IM as follows:<sup>39</sup>
- 52.2.1 as a factor we may consider when evaluating a major capex proposal;<sup>40</sup>
- 52.2.2 Transpower must demonstrate how a proposed major capex investment reflects good electricity industry practice;<sup>41</sup> and
- 52.2.3 under the investment test for major capex, Transpower must quantify its project costs using good electricity industry practice.<sup>42</sup>
53. The Electricity Authority is currently reviewing the TPM guidelines and considering new TPM guidelines that would lead to a change in the way transmission charges are shared among transmission customers.<sup>43</sup> Relevantly, the Electricity Authority's proposal would involve changes that are more service-based and cost-reflective. If the proposed changes are adopted, we expect this would heighten the interests of parties that would benefit from (and pay for) specific transmission investments in our processes for assessing Transpower's capex proposals.

### **The importance of Transpower's investment and efficiency performance**

54. As the national grid operator, Transpower's investment decisions and efficiency performance have a significant impact on consumers.
55. Two major functions of the capex IM are to provide for the scrutiny of Transpower's decisions about proposed and actual investment, and to incentivise Transpower to deliver those investments efficiently. As context for the review of the capex IM, it is therefore useful to briefly outline the importance to consumers of Transpower's investment and efficiency performance.

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<sup>38</sup> Capex IM, clause 1.1.5, Schedule D.

<sup>39</sup> 'Good electricity industry practice' is defined in Part 1 of the Code as: **good electricity industry practice** in relation to transmission, means the exercise of that degree of skill, diligence, prudence, foresight and economic management, as determined by reference to good international practice, which would reasonably be expected from a skilled and experienced **asset** owner engaged in the management of a transmission network under conditions comparable to those applicable to the **grid** consistent with applicable law, safety and environmental protection. The determination is to take into account factors such as the relative size, duty, age and technological status of the relevant transmission network and the applicable law [bold terms in original].

<sup>40</sup> Capex IM, clause C2(a)(i).

<sup>41</sup> Capex IM, clause G5(12).

<sup>42</sup> Capex IM, clause D7(6).

<sup>43</sup> See: <http://www.ea.govt.nz/development/work-programme/pricing-cost-allocation/transmission-pricing-review/>.

- 56. Good investment performance means investing in the right assets, at the right time, alongside the right operational solutions (ie, consideration of both capex projects and opex (transmission alternatives)).
- 57. Good efficiency performance means that costs are no higher than necessary to install and operate assets used to provide services to consumers.
- 58. This is consistent with the Electricity Authority's concept of 'good electricity industry practice' (see paragraph 52.2 above).

#### *Investment*

- 59. Investment is likely the area of Transpower's performance that has the single biggest impact on consumers. Transpower's investment performance is about whether its investment is targeting the right areas, in the right way, at the right times.
- 60. Investment is closely linked to quality performance. The risks to consumers if Transpower was to under-invest, or to fail to invest in the right areas, would be significant. Failing to invest in the right places at right times could result in:
  - 60.1 Failure of aspects of the national grid, which could cause interruptions to supply;
  - 60.2 Catch-up investment being required in future, costing future consumers more than would otherwise have been necessary;
  - 60.3 Capacity constraints on the national grid, which could mean that the national grid is unable to meet the demand for electricity;
  - 60.4 Not appropriately trading off opex and capex to minimise lifecycle costs; and/or
  - 60.5 Consumers paying for investments that are not made, which could occur if we allowed for the necessary investments in setting the IPP but Transpower then did not deliver them.
- 61. Failure to invest in the right areas could occur if:
  - 61.1 Transpower does not identify where, when and what investment is needed; or
  - 61.2 Transpower does identify the right investment, but is unable to deliver that investment.

62. Over-investment (within which we include investing too soon) by Transpower would also pose risks for consumers. For example, the potential impacts of over-investment, or investing too soon, could include:
- 62.1 The national grid being overbuilt in aggregate too soon, in which case consumers may pay more than necessary for transmission charges;<sup>44</sup>
  - 62.2 The grid being overbuilt in certain areas, at the expense of under-investment in other areas. This could result in declining quality performance in some areas;
  - 62.3 Losing option value with respect to future investment (ie, becoming 'locked in' to going down a particular investment path). The result of this would be that consumers pay more than necessary for transmission charges; and/or
  - 62.4 Being locked into traditional grid solutions (capex) where transmission alternatives would produce greater net benefits for consumers.<sup>45</sup> This would result in consumers paying more than necessary for transmission services.
63. The changing energy landscape increases the challenge when it comes to identifying the right investments, and completing them at the right times. Transpower's work on Transmission Tomorrow identifies these challenges, and highlights the need for Transpower's investment approach to anticipate and rapidly respond to changes in the energy landscape.<sup>46</sup>

### *Efficiency*

64. Once Transpower has selected its investments and the timing thereof, there is still the cost-effectiveness with which the investment is carried out to consider (ie, productive efficiency). While there are a number of types of efficiency (dynamic, allocative, and productive), in the context of the capex IM, productive efficiency appears the most relevant as it relates to Transpower's investment and operating decisions.
65. Inefficient performance by Transpower (ie, Transpower not delivering investment and operations at lowest cost) would mean that consumers pay more than necessary for the quality of transmission services they receive (and/or the shareholder bears some unrecovered costs).
66. However, inefficiency is difficult to observe and measure – in large part because it is difficult to know, even in retrospect, what efficient performance would have looked like.

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<sup>44</sup> For example, MEUG observed that "For NIGUP the expected benefits over the next few years were expected to be far less than the level of transmission charges...", see: MEUG "MEUG submission on Transpower application and the Commission issues paper" (17 January 2014), para 6.

<sup>45</sup> The issue of low benefits mentioned by MEUG is typical of very large projects. In the early stages, the annual costs of the projects to customers exceed the benefit derived from them. For this reason, in a changing environment smaller incremental projects may be more appropriate.

<sup>46</sup> Transpower "Transmission Tomorrow" (2016), available at: <https://www.transpower.co.nz/resources/transmission-tomorrow-2016-0>.

67. We want to incentivise Transpower to continue to increase efficiency – to find new opportunities to make efficiency gains. The Part 4 regime is not the only driver of Transpower’s efficiency – but it does play an important role, including through the capex IM.
68. Transpower has identified the importance of continuing to become more efficient in its Transpower Tomorrow publication.<sup>47</sup> We have recently seen Transpower identifying new opportunities to improve efficiency, including through its current work on enhancing its asset management framework.<sup>48</sup>

*Investment and efficiency are important considerations for the capex IM review*

69. Promoting good investment and efficiency performance are key objectives of the capex IM. For example, in our 2012 capex IM reasons paper we noted:<sup>49</sup>

We have developed an incentive regime whereby Transpower is offered incentives to deliver the outcomes valued by consumers. A suite of mechanisms will collectively provide incentives for Transpower to improve efficiency, to deliver outputs within approved expenditure, and to improve the outputs themselves.

Exposing Transpower to incentives will encourage downward pressure on costs, as well as consideration of non-transmission solutions. The benefits of any cost efficiencies achieved will be shared between Transpower and consumers.

An output mechanism has been developed to counter any incentives for Transpower to under-invest. This will help ensure the appropriate level of service is delivered. The mechanism links Transpower’s actual delivery of outputs to those outputs agreed at the time the Commission sets the Base capex allowance or approves a Major capex project. This will also provide visibility to stakeholders of the outputs delivered.

70. This focus on investment and efficiency performance has informed the proposed focus areas for the capex IM review, which are discussed in the next chapter of this paper.

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<sup>47</sup> Transpower “Transmission Tomorrow” (2016), available at: <https://www.transpower.co.nz/resources/transmission-tomorrow-2016-0>; Transpower, Presentation to the Commerce Commission on Asset Management (6 March 2017), available at: <https://www.transpower.co.nz/industry/regulatory-control-periods/rcp2/updates>.

<sup>48</sup> Transpower “Asset Management Plan” (2016), p. 5-7.

<sup>49</sup> Commerce Commission “Transpower Capital Expenditure Input Methodology: Reasons paper” (31 January 2012), para X7-X9.

## **CHAPTER 3: Proposed focus areas for the capex input methodology review**

### **Purpose of this chapter**

71. The purpose of this chapter is to describe the proposed focus areas for the capex IM review, and to suggest some questions that might arise under each of these.
72. We welcome your views on whether you think that these would be valuable focus areas, and on whether you think there would be other valuable areas to focus on.

### **The proposed focus areas presented in this paper**

73. We are proposing five key focus areas for the capex IM review:
  - 73.1 Focus area 1: Given the changing landscape in the energy sector, are there adjustments that could be made to the capex IM to better ensure the right transmission investments are being made, including non-transmission solutions?
  - 73.2 Focus area 2: Does the capex IM support a proportionate approach to scrutiny?
  - 73.3 Focus area 3: Once expenditure has been approved, does the capex IM appropriately deal with changing circumstances?
  - 73.4 Focus area 4: Are the incentive mechanisms in the capex IM effective?
  - 73.5 Focus area 5: Are aspects of the capex IM too complex and prescriptive?
74. These proposed focus areas are based on:
  - 74.1 Our view that the extent to which Transpower invests in the right areas at the right times, and does so efficiently, can have a significant impact on the prices and quality consumers receive;
  - 74.2 A desire to maximise the value we provide through our assessment of Transpower's capex – ie, to make sure that the scrutiny we apply to Transpower's capex is proportionate with the potential benefits to consumers of doing so; and
  - 74.3 Lessons learned from working with the capex IM to date.

75. At this stage, we do not think the capex IM requires wholesale change. Rather, we are only intending to make changes where doing so would be consistent with our framework for the review. That is, we will only change the capex IM where this is likely to:
- 75.1 promote the Part 4 purpose in section 52A more effectively;
  - 75.2 promote the IM purpose in section 52R more effectively (without detrimentally affecting the promotion of the section 52A purpose); or
  - 75.3 significantly reduce compliance costs, other regulatory costs or complexity (without detrimentally affecting the promotion of the section 52A purpose).
76. While we must review the capex IM in its entirety, this paper sets out proposed focus areas so we can identify key issues for the review and develop these into problem definitions we can consider as we move through the review process.

**Proposed focus area 1: Given the changing landscape in the energy sector, are there adjustments that could be made to the capex IM to better ensure the right transmission investments are being made, including non-transmission solutions?**

77. The first proposed focus area is about ensuring that the right transmission investments are being made, particularly given the changing environment in the energy sector.
78. The energy sector has gone through, and is still going through, significant changes since the capex IM was determined in January 2012. New and emerging technologies, such as distributed and grid electricity storage, distributed electricity generation including solar photovoltaic (PV) and wind, electric vehicles, and home automation systems, will contribute to the evolution towards a smart grid.<sup>50</sup>
79. As we discussed in our 2015-2016 IM review topic paper on emerging technologies,<sup>51</sup> these developing technologies will enable new business models, and seem destined to enjoy consumer acceptance, both by giving consumers greater options and choice over how they use energy (and how much), and as they facilitate continued global moves to greater use of renewable energy.
80. These technologies, business models, and consumer behaviours are interrelated with policy and regulations that affect market structure (eg, separation between electricity generation/retailing, distribution/transmission and other energy-related services), conduct (eg, pricing and investing), and performance (eg, profitability).

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<sup>50</sup> MBIE's Smart Grid Forum defines a Smart Grid as follows: "A Smart Grid is an electricity network that can intelligently integrate the actions of all users connected to it – generators, consumers and those that do both – in order to efficiently deliver sustainable, economic and secure electricity supplies". See: Smart Grid Forum "Architecting a future electricity system for all New Zealanders" (April 2014), p. 1. Available at: <http://www.mbie.govt.nz/info-services/sectors-industries/energy/electricity-market/nz-smart-grid-forum/meeting-1/final-tor-scope-definition.pdf/view>.

<sup>51</sup> Commerce Commission "Input methodologies decisions: Topic paper 3 – The future impact of emerging technologies in the energy sector" (20 December 2016).



81. All these changes will inevitably lead to changes in the way the transmission grid is used, and what investment in the grid is needed.<sup>52</sup>
82. This suggests we might consider:
- 82.1 Whether any changes to our process or analytical approach for assessing Transpower's capex proposals are warranted by the changing landscape in the energy sector.
  - 82.2 The extent to which Transpower is adapting how it assesses its capex proposals to allow for the changing landscape.
  - 82.3 The extent to which Transpower considers transmission alternatives, and interactions with transmission and nodal prices, so that the best solution is identified and adopted;
  - 82.4 Whether the requirement for Transpower to consider transmission alternatives should be extended to base capex and whether any consequential incentives adjustments would be required; and
  - 82.5 Whether improvements could be made to the investment test.

**Proposed focus area 2: Does the capex IM support a proportionate approach to scrutiny?**

83. The second proposed focus area is about ensuring that the time and cost that we, and other parties, spend on scrutinising Transpower's investment proposals of different sizes and different levels of complexity is commensurate in each case with the potential benefits to consumers of doing so.
84. This 'proportionate scrutiny principle' is a balance we have always tried to achieve with our regulation, and we consider that it should guide our scrutiny of Transpower's investment proposals as well as the setting of individual price-quality paths more generally.
85. As well as being consistent with promoting the long-term benefit of consumers, the proportionate scrutiny principle is consistent with Treasury's regulatory good practice principle of proportionality. That is, "the burden of rules and their enforcement should be proportional to the benefits that are expected to result".<sup>53</sup>

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<sup>52</sup> Transpower has published its view of how it can prepare for the changing environment in "Transmission Tomorrow" available at: <https://www.transpower.co.nz/about-us/transmission-tomorrow/about-transmission-tomorrow>.

<sup>53</sup> See: <http://www.treasury.govt.nz/regulation/bpr/bpregpa-feb15.pdf> at p. 80.

86. We have previously applied the proportionate scrutiny principle when considering our level of scrutiny of investment proposals, such as:
- 86.1 when we set the capex IM in 2012. Our application of the proportionate scrutiny principle led to the current division between base capex and major capex; and
  - 86.2 when we reviewed the customised price-quality path (**CPP**) requirements as part of the 2015-2016 IM review and considered improvements to the way default price-quality paths and CPPs work together.<sup>54</sup>
87. In essence, this principle is about ensuring that the level of scrutiny we apply is commensurate with the price and quality impact on consumers of the investment proposal (or element thereof) being scrutinised.
88. In relation to the capex IM, Transpower’s investments fall into three categories:<sup>55</sup>
- 88.1 base capex – these are replacement or refurbishment projects (excluding listed projects as described below), or projects costing less than \$20 million which are needed to meet the grid reliability standards or provide a net electricity market benefit;
  - 88.2 major capex – projects costing more than \$20 million which are needed to meet the grid reliability standards or provide a net electricity market benefit; and
  - 88.3 listed projects – replacement or refurbishment projects costing over \$20 million and which have no specific project commencement date and/or uncertain costs.

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<sup>54</sup> Commerce Commission “Input methodologies decisions: Topic paper 2 – CPP requirements” (20 December 2016), Chapter 3.

<sup>55</sup> The processes by which capex is proposed and approved under each of these categories is set out in Attachment C.

89. Therefore, in applying the proportionate scrutiny approach to the capex IM we might consider:
- 89.1 Whether we should revisit the criteria that determine when we will scrutinise different types of projects so that we increase the magnitude of the benefits we generate through more targeted scrutiny. For instance, this could be by:
- 89.1.1 changing the \$20 million threshold for base capex projects or programmes;<sup>56</sup>
- 89.1.2 changing which *types* of capex are subject to major capex project approval; or
- 89.1.3 introducing discretion for us to decide not to scrutinise a project that exceeds the base capex projects or programmes threshold if we do not consider there to be material benefit in us doing so.
- 89.2 Whether the requirement for Transpower to consider options and consult is appropriate for all major capex proposals.
- 89.3 Whether we are getting the information we need, when we need it, and in the form that we require it, so we can effectively assess potential investments at the right times. For example:
- 89.3.1 Are the base capex proposal information requirements clear and unambiguous so that we receive accurate and reliable information with which to set the price path?
- 89.3.2 Do the base capex incentives provide the right incentives for Transpower to provide us with accurate forecasts for the setting of the base capex allowances, and not to overstate its base capex expenditure needs?
- 89.3.3 Should we retain the 'listed projects' mechanism for future regulatory periods after RCP2 to avoid an incentive on Transpower to overstate its expenditure needs when there is base capex project timing and/or scope uncertainty at the time of submitting its base capex proposal?
- 89.3.4 Do the content requirements for each major capex proposal (**MCP**) enable us to efficiently evaluate and make a decision on whether to approve a given MCP?

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<sup>56</sup> For context we note that the current \$20 million project and programme threshold translates to annual revenues of between 0.14% and 0.24% of the annual forecast MAR in RCP2, the forecast MAR being the approved revenues each year. This range varies because it depends on the asset life of the assets acquired with the base capex. In comparison with the total regulatory asset base (RAB) the threshold represents approximately 0.44% of the 2016 RAB disclosed by Transpower in its annual information disclosures.

89.3.5 Are the verification and certification requirements appropriate so that we can rely on the information provided by Transpower?

89.4 Whether the requirements for the ITP are clear and allow stakeholders to gain a transparent picture of Transpower's strategy and expenditure requirements.

**Proposed focus area 3: Once expenditure has been approved, does the capex IM appropriately deal with changing circumstances during a regulatory period?**

90. The third proposed focus area is about making sure the capex IM is flexible enough to deal with changing circumstances during a regulatory period.

91. This differs from focus area 1 above because:

91.1 focus area 1 is about how the capex IM takes into account the changing environment *before* investments are approved; whereas

91.2 focus area 3 is about how the capex IM deals with changing circumstances *after* investments are approved.<sup>57</sup> This includes both:

91.2.1 after investments are approved and before they are made; and

91.2.2 after investments are approved and once investment has started.

92. In our decision to amend Transpower's approved expenditure allowance for the North Island Grid Upgrade Project (**NIGUP**), we noted the merits of a 'stage gate process', which the capex IM does not currently provide for. We observed that:<sup>58</sup>

In the stage gate approach the project only has approval to proceed to a certain point and then additional funding is provided after justification is provided and assessment has been carried out. This ensures that changing circumstances are considered and the project is developed with the best information available.

In most cases the initial stage funding will be for investigations to refine costs and properly account for risks. This will allow Transpower to develop proposals only as far as is required. This means options can be kept open while necessary investigations, the costs of which Transpower can recover, are carried out.

This may allow us to put in less effort and have a faster turnaround for some proposals. This is relevant for proposals with a high level of risk, eg, if a large expenditure decision was required with higher uncertainty of costs and the future environment.

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<sup>57</sup> For an overview of the current incentive mechanisms under the capex IM and the Transpower IPP that apply to changing circumstances, see Attachment A.

<sup>58</sup> Commerce Commission "Amending Transpower's allowance and outputs for the North Island Grid Upgrade Project (NIGU Project): Final decision" [2015] NZCC 21, paras 123-125.

93. We consider that further exploring the ability of the capex IM to better deal with changing circumstances during regulatory periods would be a useful focus for the capex IM review. For example, we might consider:
- 93.1 Whether we should have a ‘set and forget’ approach to some capex.
  - 93.2 Whether we should introduce a ‘staged approval’ option for major capex. This might allow Transpower to apply for, and us to approve, major capex projects one stage at a time.
  - 93.3 Whether we, or other parties, should be able to initiate a reassessment of major capex once it has been approved. Currently, once we have approved major capex, Transpower can initiate a process to amend the allowance or decide to discontinue the project.<sup>59</sup>
  - 93.4 How the capex IM deals with Transpower not spending its base capex allowance for a regulatory period.
  - 93.5 How effectively the capex IM deals with changes in input costs that are outside of Transpower’s control (for example, whether Transpower should be exposed to these risks, such as changes in the consumer price index (**CPI**) and foreign exchange (**FX**) rates, and whether any risk faced should be treated on a symmetrical basis).
  - 93.6 Whether the capex IM should allow Transpower to undertake ‘enabling works’ in anticipation of major capex projects using the base capex allowance if those works fall under the base capex project threshold (currently \$20 million).

**Proposed focus area 4: Are the incentive mechanisms in the capex IM effective?**

- 94. The fourth proposed focus area is on whether the incentive mechanisms in the capex IM and their associated implementation in the IPP are effective in meeting the objectives outlined below.
- 95. The capex IM includes a suite of incentive mechanisms that are intended to collectively provide the incentive for Transpower to improve efficiency, to deliver outputs within approved expenditure, and to improve the outputs themselves. These are described in Attachment D.
- 96. Exposing Transpower to these incentives is intended to encourage downward pressure on costs. The benefits of any cost efficiencies achieved are then shared between Transpower and consumers.

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<sup>59</sup> For amendments to major capex projects and for sunk cost adjustments to abandoned major capex projects, see the overview in Attachment A.

97. Output mechanisms in the capex IM aim to counter any incentives for Transpower to under-deliver on any outputs agreed at the time we set the base capex allowance or approve major capex.<sup>60</sup> This is intended to help ensure the appropriate level of service is delivered, and also provides visibility to stakeholders of the outputs delivered.
98. An overview of all of the incentive mechanisms that apply to Transpower in the capex IM, the Transpower IMs and the RCP2 IPP is included in Attachment A of this paper.
99. Questions we might consider under this proposed focus area include:
  - 99.1 Whether the incentive mechanisms described in Attachment A are targeting the right things and whether there is evidence that they influence Transpower's behaviour in the ways we intended.
  - 99.2 Whether or not these incentive mechanisms, individually or together, have been shown in practice to reward Transpower (or penalise it, if appropriate) for things over which it has control, rather than those things over which Transpower has little or no control.
  - 99.3 Whether the incentive rates are set at an appropriate level.
  - 99.4 Whether any of the incentives that are currently in the capex IM are ineffective or would be better addressed outside of the capex IM and IPP processes.
  - 99.5 Whether the capex IM incentives work well with the quality standards that we set in the Transpower IPP Determination and whether any changes need to be made for them to work better together.
  - 99.6 Whether or not any of the capex IM incentive mechanisms are now redundant and no longer required on their own or in support of other incentive mechanisms.
  - 99.7 Whether there is a requirement for additional incentive mechanisms to provide support for the existing package of incentives.

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<sup>60</sup> See 'grid outputs' for base capex and 'major capex project outputs' as defined in clause 1.1.5 of the capex IM.

100. The following are some examples of incentive issues that might be considered under the above questions:
- 100.1 The annual base capex expenditure adjustment does not currently take into account whether planned project outputs are delivered. Due to the substitutability of each year's base capex allowance between years in the regulatory period, this linkage does not typically get made until near the end of the regulatory period, which is when the next price-quality reset decision is made. Should a more direct annual linkage of the base capex allowance with the grid output mechanism be made?
  - 100.2 The base capex annual policies and processes adjustment is an asymmetric penalty (ie, one way incentive) that requires Transpower to bear a portion of the cost of base capex assets where the applicable capex has not been subject to Transpower's policies and processes. The quantification under this penalty mechanism relies on disclosure by Transpower and on judgement by the Commission. There is a natural incentive on Transpower to minimise the amount that is disclosed as being non-compliant with the policies and processes. How effective is this incentive mechanism?
  - 100.3 The major capex efficiency adjustment is an asymmetric reward to Transpower following each regulatory period for delivering efficiency savings across its major capex project portfolio. The quantification under this incentive mechanism again relies on disclosure by Transpower and on judgement by the Commission. There is a natural incentive on Transpower to overstate the efficiencies disclosed as qualifying for the incentive and understate any counterbalancing inefficiencies. How effective is this incentive mechanism?

100.4 The major capex overspend adjustment is an asymmetric penalty on Transpower for expenditure in excess of the approved allowance. Is this mechanism continuing to perform a useful function and, if so, are drafting changes needed to better reflect the policy intent? The incentive adjustment may not be effective due to:

100.4.1 Transpower's ability to apply under the capex IM for an increase in the major capex allowance;

100.4.2 The restriction on our ability to reduce the expenditure allowance below the original approved amount when we consider Transpower's application for an increase; and

100.4.3 The overspend adjustment being asymmetrical in Transpower's favour. This is because it does not apply unless Transpower exceeds its original approved allowance, irrespective of the fact that it would have exceeded its allowance had favourable CPI and FX movements been taken into account (ie, the disparities when the actual amounts of these indices are lower than the forecast values used in setting the major capex allowance). Transpower's ability to utilise favourable CPI and FX variances may not create the right incentives for Transpower.

100.5 The quality standards determined in the RCP2 Transpower IPP Determination currently include the following revenue-linked grid output measures:<sup>61</sup>

100.5.1 Measures of grid performance;

100.5.2 Asset performance measures;

100.5.3 Annual asset health grid output measures; and

100.5.4 Periodic (five-year) asset health grid output measures.

To what extent should quality standards be linked to revenue?

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<sup>61</sup> The capex IM also provides for asset capability grid outputs measures to be included in the IPP as a revenue-linked quality standard, if proposed by Transpower (*Transpower Capital Expenditure Input Methodology Determination* [2012] NZCC 2, clause 2.2.2(1)). However, for RCP2 Transpower did not propose including asset capability grid outputs measures in the IPP (*Transpower Individual Price-Quality Path Determination 2015* [2014] NZCC 35, clause 14.1).



**Proposed focus area 5: Is the capex IM too complex and prescriptive?**

101. The final proposed focus area is about exploring opportunities to reduce complexity and compliance costs.
102. This differs from focus area 2 because:
- 102.1 focus area 2 is about ensuring we (and other stakeholders) focus our scrutiny where the greatest benefits are likely to result from that scrutiny; and
  - 102.2 focus area 5 is about improving clarity, removing unnecessary complexity and reducing the costs (for Transpower and us) of complying with the capex IM.
103. For example, here we might consider:
- 103.1 Are there opportunities to streamline the process requirements for making and assessing capex proposals?<sup>62</sup>
  - 103.2 Are there opportunities to simplify the incentive mechanisms without reducing their effectiveness?<sup>63</sup>

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<sup>62</sup> For example, some of the process, information and evaluation requirements, such as Transpower seeking amendments to components, may be able to be simplified.

<sup>63</sup> The major capex efficiency incentives as specified are not easy to apply. There may be scope to make these more useful, incentivising Transpower to focus on areas that provide highest benefits such as innovation.

## CHAPTER 4: Next steps

### Purpose of this chapter

104. This chapter sets out the next steps and timeline for this phase of the capex IM review. It invites your submissions and cross-submissions on this paper, and also shows where on our website you can find information about the capex IM review.

### Next steps

105. The next steps and timeline for this phase of the capex IM review are:
- 105.1 Knowledge sharing workshop – 24 May 2017.
  - 105.2 Submissions on this paper due – 14 June 2017.
  - 105.3 Cross-submissions on this paper due – 28 June 2017.
  - 105.4 Once we have considered submissions and cross-submissions, we expect to issue an update outlining the next steps for the capex IM review – Q3 2017.

### Knowledge sharing workshop

106. As discussed at paragraphs 24 to 25 above, to help inform your submissions on this paper, we plan to hold a knowledge sharing workshop for stakeholders on 24 May 2017.
107. Although we originally requested parties to register for the workshop by 12 May 2017, we are able to accept a limited number of late registrations. If you would like to attend the workshop, and have not yet registered, please RSVP by 5pm on 17 May 2017 to [regulation.branch@comcom.govt.nz](mailto:regulation.branch@comcom.govt.nz).
108. Those attending the knowledge sharing workshop should be aware that it will not be transcribed or recorded, and any points that submitters wish to make in response to this paper should be formalised in written submissions.

### Submissions

109. We invite submissions on:
- 109.1 What the proposed focus areas for the review should be; and
  - 109.2 Any specific problems that should be considered within those focus areas.
110. We invite your submissions by **5pm on 14 June 2017**. We then invite cross-submissions by **5pm on 28 June 2017**.

111. Please address submissions and cross-submissions to:

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**Updates to website**

112. This paper and all other material relating to the capex IM review can be found on our website at: <http://www.comcom.govt.nz/regulated-industries/input-methodologies-2/transpower-input-methodologies/capex-input-methodology-review/>.

## **Attachment A: Overview of the Transpower incentives regime**

**Attachment B: Decisions tables**

**Attachment C: How capital expenditure is proposed and approved under the capex IM**

## **Attachment D: Capex IM incentives**