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## **Companion paper to final determination of Transpower's individual price-quality path for 2015-2020**

**The Commission:**

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This determination supersedes the <i>Commerce Act (Transpower Individual Price-Quality Path) Determination 2010</i> as it applies to Transpower.		

<sup>1</sup> Web site:  
<http://www.comcom.govt.nz/regulated-industries/electricity/electricity-transmission/transpower-individual-price-quality-regulation/transpowers-price-quality-path-from-2015-to-2020>

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## 1. Introduction

- 1.1 This companion paper accompanies the final Transpower individual price-quality path determination 2015 (RCP2 IPP determination).<sup>2</sup>

### Purpose of this paper

- 1.2 On 12 September, we released a draft of our final RCP2 IPP determination.<sup>3</sup> We received a submission from Transpower on 26 September 2014 on that draft and now provide our response to that submission in this paper.
- 1.3 We comment on the final numbers determined for the maximum allowable revenues, or forecast MAR, that can be recovered from customers by Transpower for RCP2, and how the numbers have been calculated, applying our 29 August 2014 decisions.<sup>4</sup>
- 1.4 This paper also records decisions we are required to make under the *Transpower Capital Expenditure Input Methodology Determination [2012] NZCC 2* (Capex IM) and Part 5 of the Transpower individual price-quality path determination 2010 regarding the EV account entries that are to be rolled forward into the regulatory period from 1 April 2015 to 31 March 2020 (RCP2) through the RCP2 IPP determination and the forecast MAR calculation.
- 1.5 We also outline and comment on issues left outstanding as at the publication of our 29 August 2014 reasons paper.<sup>5</sup> These include how amendments to the input methodologies have been given effect in the RCP2 IPP determination, and the likely consequential information disclosure amendments on which we expect to consult next year.

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<sup>2</sup> *Transpower Individual Price-Quality Path Draft Determination 2015 [2014] NZCC 35* (28 November 2014).

<sup>3</sup> Commerce Commission “Transpower Individual Price-Quality Path Draft Determination 2015 [2014] NZCC XX” (12 September 2014).

<sup>4</sup> In the RCP2 IPP determination, the ‘forecast MAR’ is defined as “...the forecast maximum allowable revenue for a **disclosure year** as determined by the **Commission**, and as amended in accordance with clause 3.7.5 of the **Transpower IM** and recorded in the list of **forecast MARs** in Schedule A: Forecast MAR summary”.

<sup>5</sup> On 29 August 2014 we released our paper *Setting Transpower’s individual price-quality path for 2015-2020 [2014] NZCC 23* (29 August 2014). That paper provided our decisions and supporting reasons for (i) why we have used Transpower’s existing individual price-quality path as a starting point and how we see the price-path evolving, (ii) the enhancements we have made to Transpower’s existing individual price-quality path, (iii) how we will calculate Transpower’s maximum revenues for each year of RCP2, and the effect of incentive mechanisms on Transpower’s revenues, (iv) certain key inputs to the individual price-quality path as required by the Commerce Act and the Capex IM, and (v) Transpower’s compliance reporting obligations, including the requirements to report on performance measure development and business improvement initiatives.

## Background to the RCP2 IPP determination

- 1.6 The RCP2 IPP determination sets an individual price-quality path for Transpower New Zealand Limited (Transpower) for the five pricing years beginning 1 April 2015. We have made this determination under Part 4 of the Commerce Act 1986 (Commerce Act). It succeeds the individual price-quality path that commenced on 1 April 2010 and that expires on 31 March 2015 (RCP1).
- 1.7 The RCP2 IPP determination sets out Transpower's price path in terms of its maximum allowable revenue (being the forecast maximum allowable revenue, or 'forecast MAR') for each pricing year in RCP2. Key input values used to calculate Transpower's forecast MAR were determined by us on 29 August 2014 as required by the Capex IM.
- 1.8 The RCP2 IPP determination also sets out the quality standards that Transpower must comply with for each year in RCP2. Transpower is incentivised to maintain or improve its quality of supply of electricity transmission services, as each quality standard is linked by a formula to Transpower's revenue: it will be rewarded by an increase in its maximum allowable revenue if it meets or exceeds a quality standard, and will be penalised by a reduction in its maximum allowable revenue if it fails to meet a quality standard.
- 1.9 For the purposes of monitoring compliance with Transpower's price-quality path, Transpower must provide us each year with a pricing compliance statement and an annual compliance statement (and associated information). The RCP2 IPP determination also requires Transpower to publicly disclose other information. Those information disclosure requirements are included within the RCP2 IPP determination (rather than in the *Transpower Information Disclosure Determination 2014* [2014] NZCC 5), because they give effect to an operational feature of the price-quality path, or are linked to Transpower's development plan for this regulatory period, rather than being enduring disclosures.
- 1.10 Under the Commission's compliance monitoring and information disclosure powers under the Commerce Act, the RCP2 IPP determination requires Transpower to:
- 1.10.1 state whether it has complied with the price path and demonstrate this with supporting information;
  - 1.10.2 disclose its performance against each of the quality standards;
  - 1.10.3 provide reasons for any non-compliance with the price path or variation (beyond cap or collar) from quality standards;
  - 1.10.4 disclose updated forecasts of Transpower's maximum allowable revenues calculated in accordance with methodologies specified by the Commission;
  - 1.10.5 disclose non-financial performance measures of asset health, as well as plans for further developing asset health quality performance measures;

- 1.10.6 disclose plans and forecasts for Transpower's development of initiatives; and
- 1.10.7 provide director certification and an auditor's report.
- 1.11 We conducted a comprehensive process of consultation before determining this RCP2 IPP determination. The determination and papers providing detailed background to, and analysis of, the determination can be found on our web site.<sup>6</sup>
- 1.12 Copies of the determination are available for inspection free of charge at our office, 44 The Terrace, Wellington, Level 6 (during ordinary office hours), on our website at the above link, and are available for purchase at a reasonable price at the Commission.

### **Process from draft decisions to final RCP2 IPP determination**

#### *Consultation on draft IPP determination*

- 1.13 On 12 September 2014, alongside the publication of our draft determination, we released a covering paper which sought the views and submissions of interested parties.
- 1.14 The purpose of this was to gauge parties' views on whether the draft determination gave effect to our 29 August 2014 decisions, subject to further amendments to input methodologies, and for the calculation of the forecast MAR.
- 1.15 We received only one submission, from Transpower. In addition to expressing views on whether the final draft determination gave effect to our 29 August 2014 decisions, Transpower also sought to amend some of those decisions. Our responses to Transpower's submission are set out in Chapter 4 of this paper.
- 1.16 We then called for cross-submissions on Transpower's submission, specifically seeking feedback on requested changes to revenue-linked asset health grid output measures (and consequential changes to the caps, collars, and grid output incentive rates), Transpower's request to incorporate a 7.5% productivity adjustment in calculating the incentive rates and the removal of our 2.5% reduction to Transpower's proposed Information Systems and Communications Technology (ICT) base capex expenditure. No cross-submissions were received.

#### *Calculation of the forecast MAR values in the determination*

- 1.17 On 12 September 2014 the Commission issued a s 53ZD 'Notice to Supply Information' information-gathering notice to Transpower, requesting it to calculate for us the forecast MAR for RCP2.

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<sup>6</sup> Web site:  
<http://www.comcom.govt.nz/regulated-industries/electricity/electricity-transmission/transpower-individual-price-quality-regulation/transpowers-price-quality-path-from-2015-to-2020>

- 1.18 The notice required two phases of forecast MAR calculations from Transpower:
- 1.18.1 Phase One involved using our then current (12 September) estimates of weighted average cost of capital (WACC) rates that may have been applicable in RCP2; and
  - 1.18.2 Phase Two replaced the estimated WACC and used the final vanilla WACC rate of 7.19%, determined by the Commission on 31 October 2014.
- 1.19 These two phases enabled us to review the Phase One calculations while the consultation on the WACC rate percentile was still in progress. The calculations were then updated once the WACC percentile was decided and the WACC rate was determined.
- 1.20 For an explanation of the methodology used to calculate the forecast MAR, refer to Chapter 2.
- 1.21 The forecast MAR values we have determined for RCP2 are summarised in Table 1.1 and are explained in more depth in Chapter 2. These values for the forecast MAR are reflected in *Schedule A: Forecast MAR summary* of the RCP2 IPP determination.

**Table 1.1: Forecast MAR determined for RCP2<sup>7</sup>**

	2015/16 (\$m)	2016/17 (\$m)	2017/18 (\$m)	2018/19 (\$m)	2019/20 (\$m)	Total forecast MAR (\$m)
<b>Forecast MAR</b>	881.6	918.6	951.8	949.4	956.8	4,658.3

- 1.22 The forecast EV adjustments in RCP2, which have the effect of clearing all RCP1 and prior EV account entries (except 2014/15, which has not yet been calculated) total \$42m (0.9%) of the forecast MAR.

*Estimated impact on consumer power bills*

- 1.23 We have used Transpower's calculations of the HVAC portion of the forecast MAR and estimated total revenues for RCP2 to estimate the following effects of our forecast MAR decisions (see Chapter 2):
- 1.23.1 An initial small step down in prices from the first year of RCP2 commencing on 1 April 2015. We estimate that this will result in an initial 0.4% reduction in the typical consumer bill in that first year of RCP2 as a result of the reduction in transmission charges.

<sup>7</sup> The forecast MAR values are nominal values, rather than real values. Some building blocks (such as the base capex allowance and the opex allowance) will be later adjusted in the wash-up calculations and incentive calculations for the difference between the forecast CPI or forecast FX and the actual CPI and FX rates.

- 1.23.2 Only very gradual increases in prices over the following five years. When these increases are factored into the typical power bill, we estimate that this will result in a 0.3% increase in the typical consumer bill from 1 April 2016 and a total increase of only 0.6% in total over RCP2.



## **2. Determination of the forecast maximum allowable revenue (forecast MAR)**

### **Purpose of this chapter**

- 2.1 This chapter describes out how we have calculated the forecast MAR that will apply to Transpower for RCP2, including a brief explanation about some of the amounts we have carried forward from RCP1 into the forecast MAR for RCP2.
- 2.2 We set out the values we have decided for the forecast MAR and include some observations on the impact of the forecast MAR on Transpower's maximum allowable revenues over RCP2.

### **Calculating the forecast MAR**

- 2.3 The forecast MAR that we set for RCP2 must be calculated in compliance with the Transpower input methodologies. In doing this, we have applied the building blocks approach set out in our 29 August 2014 reasons paper.
- 2.4 In the interests of practicality and efficiency, we have followed the same process used for the setting of the forecast MAR and the calculation of the MAR wash-up in RCP1; we have requested relevant calculations and information from Transpower and have asked that it be subject to an assurance opinion from an auditor, and that the final calculation result be certified by two directors of Transpower. These requests were made under the authority of a statutory notice under s 53ZD of the Commerce Act.
- 2.5 Under our 12 September 2014 information-gathering notice, Transpower was required to apply the input values we determined in our decisions of 29 August 2014 and the building blocks calculation methodology which we had also published at that time.
- 2.6 We requested that the calculations be provided to us in the two phases to enable us to progressively review the calculations and resolve any outstanding questions with Transpower on a timely basis. Transpower's Chief Executive certified to us that the first phase calculations had been made in accordance with our notice.
- 2.7 For the second phase of calculations, the initial calculations were updated for the final 67<sup>th</sup> percentile WACC rate we determined as applicable to Transpower for price-quality regulation purposes.<sup>8</sup>
- 2.8 Those calculations were certified by two of Transpower's directors and audited (with an assurance opinion provided).

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<sup>8</sup> *Cost of capital determination for electricity distribution businesses' default price-quality paths and Transpower's individual price-quality path* [2014] NZCC 28.

- 2.9 We have reviewed the calculations. On the basis of the calculations, together with auditor assurance and director certification of the calculations, we have concluded that the forecast MAR calculated by Transpower is appropriate to use as the initial forecast MAR that will be available to Transpower for setting its prices in RCP2.
- 2.10 We have published our s 53ZD notice, Transpower's calculation workbook for the phase two calculations, the assurance opinion from PricewaterhouseCoopers, and the director certification from Transpower on our web site.<sup>9</sup>

**The result of the 2013/14 MAR washup calculation is carried into prices in RCP2**

- 2.11 Under the RCP1 IPP determination an EV account entry is required to be made by Transpower for the ex-post economic gain or loss for 2013/14. The ex-post economic gain or loss forms part of the estimated EV account balance that is carried forward into the EV adjustments in the RCP2 forecast MAR. Table 2.1 summarises the calculation of that entry, with a breakdown into the HVAC and HVDC components.
- 2.12 Our review of the 2013/14 MAR wash-up calculations identified two interpretation issues regarding the Transpower input methodologies:
- 2.12.1 The asset valuation input methodologies require financing costs during construction on commissioned assets to be capped at the 75th percentile of the post-tax WACC, where the financing costs recorded for GAAP purposes are higher. This requires a direct adjustment to reduce the commissioned asset values and the associated depreciation on the difference.
- 2.12.2 Transpower has made this adjustment in RCP1 by posting the full amount of the reduction to depreciation in the year of commissioning. In the absence of other adjustments this accelerates the downward pricing effect of the reduction.
- 2.13 For the purpose of the capping, Transpower has used the 75th percentile vanilla RCP1 IPP WACC rate of 8.05%, determined by the Commission on 3 March 2011, and transformed it to a comparable post-tax WACC of 7.19%. In our view, the better interpretation of the Transpower input methodology is to use the 75th percentile post-tax WACC rate directly determined by the Commission for information disclosure each year, which is consistent with the rate that is required to be applied by other regulated suppliers. For 2013/14 the 75th percentile post-tax information disclosure WACC rate was 6.17%.
- 2.14 We understand how the construction of the relevant clauses in the input methodology has given rise to Transpower's interpretation and acknowledge that Transpower's use of the IPP rate was assented to in the first two years of RCP1 by the Commission in its information gathering notices.

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<sup>9</sup> Web site:  
<http://www.comcom.govt.nz/regulated-industries/electricity/electricity-transmission/transpower-individual-price-quality-regulation/transpowers-price-quality-path-from-2015-to-2020>

**Table 2.1: Summary of RCP1 2013/14 wash-up calculation**

	Description	HVAC	HVDC	Total
<b>MAR wash-up building block</b>		(\$m)	(\$m)	(\$m)
Opening regulatory asset base (RAB) value	Closing RAB value at 30 June 2013	3,350.5	649.0	3,999.5
Value of commissioned assets	Value of commissioned assets weighted to take into account their date of commissioning	234.7	73.0	307.7
<b>RAB</b>	Opening RAB value plus weighted value of commissioned assets	<b>3,585.2</b>	<b>722.0</b>	<b>4,307.1</b>
WACC rate	75 <sup>th</sup> percentile estimate of vanilla WACC for RCP1	8.05%	8.05%	8.05%
Capital charge	RAB x WACC rate	288.6	58.1	346.7
Opex allowance	Opex allowance, as specified in the RCP1 IPP determination	247.0	23.5	270.5
TCSD allowance	TCSD, as specified in the Transpower IM determination	1.9	0.4	2.3
Depreciation	Depreciation, as specified in the Transpower IM determination	176.8	45.4	222.2
Tax	Regulatory tax allowance, as specified in the Transpower IM determination	25.5	13.4	38.9
<b>MAR</b>	Sum of the capital charge, opex allowance, TCSD, depreciation and tax	<b>739.8</b>	<b>140.8</b>	<b>880.6</b>
Operating revenue	Sum of revenues, excluding the recovery of pass-through costs and recoverable costs	716.2	160.5	876.8
<b>Ex-post economic gain or loss</b>	Difference between the MAR and the operating revenue for the disclosure year	<b>23.6</b>	<b>(19.7)</b>	<b>3.8</b>
EV adjustments for pre-2011	Net of tax return to (from) customers included in revenues	(8.8)	17.6	8.8
EV adjustment for 2011/12 wash-up	Net of tax return to (from) customers included in revenues	(30.2)	7.1	(23.1)
<b>Net EV account entry for 2013/14</b>		<b>15.4</b>	<b>5.0</b>	<b>(10.5)</b>

- 2.15 We are comfortable on the basis of the information we have that, due to their offsetting effects, these approaches taken together have not given rise to any consumer harm with regards to their effect on the forecast MAR and pricing. With this in mind, and given it is not clear the extent to which capping will apply in RCP2, nor where annual information disclosure post-tax WACC rates will be relative to Transpower's derived RCP2 post-tax IPP rate during RCP2, we have decided not to make any adjustments to the forecast MAR for RCP2.
- 2.16 However, we will look further into this matter to determine what, if any, issues need to be addressed for the purposes of regulatory asset base disclosure under information disclosure and the setting of the price path for RCP3.

**The result of the 2013/14 major capex adjustments is carried into prices in RCP2**

- 2.17 Revenue effects from major capex adjustments for the 2013/14 disclosure year (other than the North Island grid upgrade project)<sup>10</sup> are incorporated within the forecast MAR we have set for RCP2. In particular, under clauses 3.3.6 and 3.3.7 of the Capex IM we are required to make and publish decisions in each disclosure year in relation to whether the major capex project outputs were met, and whether any revenue effects flow from this via the major capex overspend adjustment and major capex project output adjustment.<sup>11</sup>
- 2.18 This section sets out the decisions we made on these matters, prior to finalising the individual price-quality path.

*Some approved major capex project outputs have not been met*

- 2.19 Before making our decision on whether approved major capex project outputs were met in respect of Transpower's HVDC upgrade project and its Kawerau generation export enhancement project, we received relevant information disclosures from Transpower for the 2013/14 disclosure year in response to the s 53ZD information-gathering notice we issued on 16 May 2014.<sup>12</sup>
- 2.20 Transpower's information disclosures showed that three approved major capex project outputs for relevant major capex projects in the 2013/14 disclosure year were not met.
- 2.21 We decided that all approved major capex project outputs were met in respect of Transpower's HVDC upgrade project and Kawerau generation export enhancement project other than:

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<sup>10</sup> The Commission has received an application for amendment to the major capex allowance and major capex project outputs for the North Island grid upgrade project. We have deferred our decision on Transpower's application (to allow us to focus on setting Transpower's individual price-quality path for RCP2). We intend to make our decision by the end of August 2015. Our decisions on approved major capex project outputs and overspend and output adjustments relating to the North Island grid upgrade project are similarly deferred.

<sup>11</sup> Base capex adjustments under the Capex IM do not come into force until RCP2.

<sup>12</sup> No relevant information disclosures were received from Transpower in this regard pursuant to the *Transpower Information Disclosure Determination 2014* [2014] NZCC 5.

- 2.21.1 the approved major capex project outputs of:
- (a) decommissioning the existing control system for pole 2; and
  - (b) procurement and commissioning of a new control system, which were not met in respect of Transpower's HVDC upgrade project; and
- 2.21.2 the approved major capex project output of installation of a special protection scheme to manage loading on the Edgecumbe-Kawerau 1 and 2 circuits, which was not met in respect of Transpower's Kawerau generation export enhancement project.

*Overspend and output adjustments*

- 2.22 Transpower has not met some approved major capex project outputs for two projects that were commissioned in the 2013/14 disclosure year. However, the impact is not considered material to our decisions in respect of the RCP2 IPP determination.
- 2.23 In the case of the HVDC upgrade project, Transpower advised that the non-delivery of the two project outputs (firstly, the decommissioning of the existing control system for pole 2, and secondly the commissioning of a new control system) has the same root cause. For commercial reasons, Transpower removed the 'replacement of the converter valve based electronics' component from the Siemens contract for pole 3 and is now planning to do this during RCP2.
- 2.24 We considered this was a reasonable decision to take in the circumstances. Transpower did not commit funds to these outputs and, after allowing for the deduction of the estimated value of this work, Transpower was still within its adjusted major capex allowance for this project. We note that the decommissioning of the existing control system for pole 2 and the commissioning of a new control system was included in Transpower's RCP2 base capex proposal for a similar estimated cost. Transpower may carry out this work with funding from the RCP2 base capex allowance.
- 2.25 In the case of the Kawerau generation export enhancement project, Transpower advised that the non-delivery of the project output (installation of a special protection scheme to manage loading on the Edgecumbe - Kawerau 1 and 2 circuits) was because, during the design stage of the project, it concluded that the existing equipment could perform the function and did not need to be replaced.
- 2.26 We considered this was a reasonable decision to take in the circumstances. Transpower did not commit funds to this output and after allowing for the deduction of the estimated value of this work, Transpower was still within its adjusted major capex allowance for this project.

*Our 2013/14 major capex adjustment decisions*

2.27 Based on the information provided by Transpower:

2.27.1 We do not consider that there is any major capex project output adjustment required due to not meeting approved major capex outputs. That is, we agreed with Transpower that none of the capital expenditure in respect of the major capex project in question failed to deliver the approved major capex project outputs. The major capex project output adjustment for the 2013/14 disclosure year is therefore zero.

2.27.2 We consider that, after taking the effects of changes to Consumers Price Index (CPI) and FX into account, the major capex overspend adjustment for the 2013/14 disclosure year is zero.

2.28 As a result of the above decisions, no amounts are required to be carried forward from the 2013/14 major capex adjustments to the setting of the forecast MAR for 2015/16 in RCP2.

**The result of the 2014/15 MAR wash-up calculation will also be carried into prices in RCP2**

2.29 Attachment D provides illustrative examples that demonstrate how we will treat wash-ups and incentive adjustment calculations arising at the end of RCP1 that we will eventually carry over into RCP2 in updates to the forecast MAR that we determined on 28 November 2014.

**Forecast MAR and estimated total annual revenues for RCP2**

*The forecast MAR*

2.30 Table 2.2 shows the initial forecast MAR that we have set for each pricing year of RCP2, with a breakdown of how those numbers will be applied by Transpower through the transmission pricing methodology (TPM) in setting its prices for the HVAC and HVDC customer groups. The forecast MAR numbers shown in this table are the 'Initial determined value of the forecast MAR' in the RCP2 IPP determination, Schedule A, column 3.

**Table 2.2: Forecast MAR for RCP2**

Pricing years in RCP2 ending	Estimated HVAC portion of forecast MAR	Estimated HVDC portion of forecast MAR	Forecast MAR we set for RCP2
	(\$m)	(\$m)	(\$m)
31 March 2016 (Year 1)	733.1	148.6	<b>881.6</b>
31 March 2017 (Year 2)	776.7	142.0	<b>918.6</b>
31 March 2018 (Year 3)	808.7	143.2	<b>951.8</b>
31 March 2019 (Year 4)	805.7	143.7	<b>949.4</b>
31 March 2020 (Year 5)	814.6	142.2	<b>956.8</b>

- 2.31 As a result of these annual forecast MAR numbers, Transpower will be able to recover total maximum allowable revenues for RCP2 of \$4,658.3m. Transpower may also recover through its revenues the pass-through costs and recoverable costs permitted by the input methodologies.
- 2.32 Table 2.3 summarises how the forecast MAR is built up from the building block elements. These building blocks are described in more detail in Attachment A, which sets out the building blocks in the format required by the RCP2 IPP determination when Transpower makes an annual update of the forecast MAR during RCP2.<sup>13</sup>

<sup>13</sup> Refer clause 22 of the RCP2 IPP determination for the specification for the updates of the forecast MAR.

**Table 2.3: Breakdown of forecast MAR building blocks for RCP2**

	2015/16	2016/17	2017/18	2018/19	2019/20	RCP2 TOTAL	
	(\$m)	(\$m)	(\$m)	(\$m)	(\$m)	(\$m)	%
<b>Building blocks</b>							
Capital charge (based on RAB value and WACC rate)	332.7	339.2	342.8	346.1	346.8	1,707.6	36.7
Depreciation allowance	234.0	240.0	253.1	245.8	246.9	1,219.8	26.2
<b>Combined revenue effect of capex building blocks</b>	<b>566.7</b>	<b>579.2</b>	<b>596.0</b>	<b>591.9</b>	<b>593.7</b>	<b>2,927.4</b>	<b>62.8</b>
Opex allowance	277.7	285.7	293.5	295.1	297.5	1,449.4	31.1
Tax	39.0	39.6	48.2	48.3	51.5	226.5	4.9
TCSD	2.6	2.6	2.6	2.7	2.7	13.1	0.3
EV adjustments	(4.2)	11.6	11.6	11.6	11.6	42.0	0.9
<b>Forecast MAR</b>	<b>881.6</b>	<b>918.6</b>	<b>951.8</b>	<b>949.4</b>	<b>956.8</b>	<b>4,658.3</b>	

- 2.33 The forecast MAR that will actually be applied each year by Transpower in the TPM in setting prices for each pricing year (after the first pricing year) of RCP2 may vary from the values set out above to take account of adjustments for:
- 2.33.1 EV account entries from the MAR wash-up and capex incentive adjustments for the final disclosure year of RCP1 (2014/15);
  - 2.33.2 EV account entries arising from wash-ups and capex incentive adjustments in RCP2;
  - 2.33.3 The revenue impacts of our approval of further major capex projects in RCP2;
  - 2.33.4 The revenue impacts of our approval of base capex that relates to replacement or refurbishment 'listed projects' in RCP2;
  - 2.33.5 Any major capex incentive adjustments determined in respect of the North Island Grid Upgrade Project; and
  - 2.33.6 Any voluntary adjustments by Transpower to forego revenue.

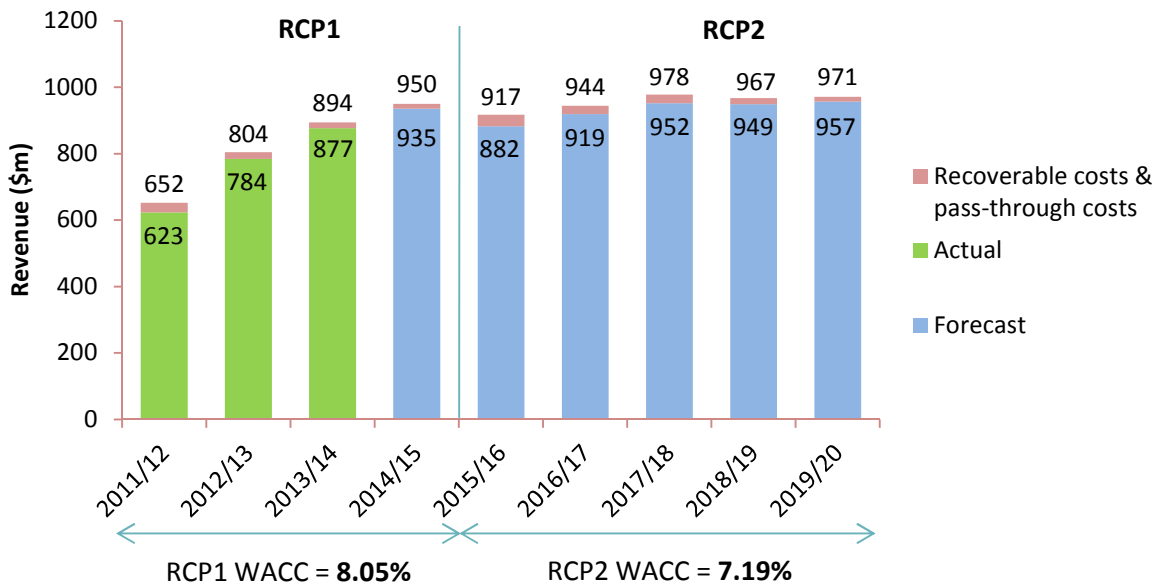


2.34 The EV adjustments that feed into the forecast MAR updates are set out in the RCP2 IPP determination (clause 22 for the additional approved major capex and the approved base capex that relates to listed projects, and clause 24 for all EV adjustments).

*Total estimated revenues*

2.35 Figure 2.1 sets out in diagram form the trend in maximum allowable revenues and estimated total revenues (inclusive of estimated past-through costs and recoverable costs) across RCP1 and RCP2.

**Figure 2.1: Trend in maximum allowable revenues in RCP1 and RCP2**



2.36 Pass-through costs include local authority rates, Electricity Authority levies and Commerce Commission levies.<sup>14</sup>

2.37 Recoverable costs include incentive amounts under the incremental rolling incentive scheme (IRIS) for operating expenditure, instantaneous reserves availability charges, transmission alternative operating costs and operating expenditure that relates to approved major capex projects and the approved net additional costs of catastrophic events.<sup>15</sup>

2.38 Table 2.4 provides a breakdown of the estimated total revenues by HVAC and HVDC customer groups. Table 2.4 then shows how the estimated total annual revenues in that diagram have been built up from the forecast MAR and the estimates of forecast pass-through costs, recoverable costs and Transpower’s estimates of the revenue which will be voluntarily foregone.

<sup>14</sup> Clause 3.1.2 of the *Transpower Input Methodologies Determination* [2012] NZCC 17, as amended up to 28 November 2014.

<sup>15</sup> Clause 3.1.3 of the *Transpower Input Methodologies Determination* [2012] NZCC 17, as amended up to 28 November 2014.

**Table 2.4: HVAC/HVDC breakdown of estimated total annual RCP2 revenues**

Pricing years in RCP2 ending	Estimated total annual revenues		
	HVAC (\$m)	HVDC (\$m)	Total (\$m)
31 March 2016 (Year 1)	766.6	149.9	916.6
31 March 2017 (Year 2)	799.7	143.9	943.6
31 March 2018 (Year 3)	832.6	145.8	978.3
31 March 2019 (Year 4)	817.2	149.4	966.6
31 March 2020 (Year 5)	825.9	144.7	970.6

### Observations on the forecast MAR and total estimated revenues

- 2.39 In this section we briefly comment on the main factors that have influenced the calculation of the forecast MAR (and hence total revenues) and make some observations on what this means for the likely revenue trends over RCP2.
- 2.40 Transpower's forecast revenue estimates for RCP2 are based on our decisions and a number of assumptions. The forecast revenue estimates:
- 2.40.1 include pass-through and recoverable costs (not included in forecast MAR), which are costs outside of Transpower's control; and
  - 2.40.2 are calculated using the base capex and opex allowances that we set on 29 August 2014, and include the revenue effects of assets under major projects and listed projects that are expected to be commissioned in RCP2.<sup>16</sup>

### *Influences on the size of the forecast MAR*

- 2.41 The determination of a new vanilla WACC rate for RCP2 has had the effect, absent the decision to reduce the WACC percentile, of reducing the total forecast MAR by approximately \$210m. This is the impact of setting a new WACC rate for each RCP and reflects the lower risk free rate now than when the WACC rate was set for RCP1.

<sup>16</sup> For an overview of the assumptions used, see Transpower's forecast of revenue at: [https://www.transpower.co.nz/sites/default/files/uncontrolled\\_docs/RCP2%20revenue%20-%20revised%20forecast%20%28July%202014%29.pdf](https://www.transpower.co.nz/sites/default/files/uncontrolled_docs/RCP2%20revenue%20-%20revised%20forecast%20%28July%202014%29.pdf).

- 2.42 Our reduction in the WACC percentile from the 75<sup>th</sup> to the 67<sup>th</sup> percentile WACC rate has further reduced the total forecast MAR for RCP2 by approximately \$118m below the total that would have applied if the same WACC 75<sup>th</sup> percentile had been used as for RCP1.
- 2.43 Our application of the cash flow timing factors in the forecast MAR building blocks has had the additional effect of reducing the total forecast MAR by approximately \$85m.
- 2.44 Overall, these three factors have reduced Transpower's forecast MAR for RCP2 by around \$413m.

*Voluntary revenue reductions by Transpower*

- 2.45 Transpower has proposed (and we have accepted) voluntary revenue reductions for RCP2 of \$48.5m for opex project scope adjustments concerning the IRIS that applies for RCP1. These adjustments can be seen in Table 2.5.

*The projected impact of our expenditure decisions on revenues*

- 2.46 Transpower will have relatively modest increases in its revenue over RCP2. Transpower's revenue is flattening off as it enters more 'business as usual' operations following the large capex projects in RCP1.

*Forecast RAB value*

- 2.47 The previous large major capex projects saw Transpower's regulatory asset base increase from \$2.8 billion to \$4.6 billion, and consequently its annual capital charge, annual depreciation allowance and maximum allowed revenue increased markedly. That phase has essentially ended. The total annual value of commissioned assets is forecast to decrease over RCP2.

**Table 2.5: Build-up of estimated total revenues for RCP2**

	2015/16	2016/17	2017/18	2018/19	2019/20	RCP2 TOTAL	
	(\$m)	(\$m)	(\$m)	(\$m)	(\$m)	(\$m)	%
<b>Forecast MAR</b>	<b>881.6</b>	<b>918.6</b>	<b>951.8</b>	<b>949.4</b>	<b>956.8</b>	<b>4,658.3</b>	97.5
Voluntary reductions	(8.5)	(9.1)	(9.7)	(10.3)	(11.0)	(48.5)	1.0
<b>Net revenue from forecast MAR</b>	<b>873.1</b>	<b>909.6</b>	<b>942.2</b>	<b>939.1</b>	<b>945.8</b>	<b>4,609.8</b>	96.5
Forecast pass-through costs	18.7	19.6	20.8	21.8	22.3	103.1	2.2
Forecast recoverable costs - IRIS	22.1	12.9	13.1	3.0	0.0	51.0	1.1
Forecast recoverable costs - other	1.7	1.6	2.3	2.7	2.5	10.8	0.2
Wash-ups of pass-through costs and recoverable costs	0.9	0.0	0.0	0.0	0.0	0.9	0.0
<b>Total forecast revenues</b>	<b>916.6</b>	<b>943.6</b>	<b>978.3</b>	<b>966.6</b>	<b>970.6</b>	<b>4,775.8</b>	100.0

- 2.48 Table 2.6 summarises the forecast RAB values that were used in the forecast MAR calculations. The capex building blocks account for \$2,927.4m (63%) of the forecast MAR (the capex building blocks comprise the capital charge and depreciation). The calculations of the capital charge and depreciation depend on:
- 2.48.1 the forecast RAB rolled forward from RCP1 of \$4,610.2m;
  - 2.48.2 the forecast commissioned capex for RCP2 of \$1,470.9m; and
  - 2.48.3 the forecast depreciation for RCP2 of \$1,219.8m.
- 2.49 Listed projects with \$248m of indicative base capex, that we have not yet approved, are estimated to have a RCP2 revenue effect of approximately \$30m (less than 1%) on the RCP2 forecast MAR if approved in RCP2.

**Table 2.6: Forecast RAB values used in the forecast MAR calculations**

	2015/16	2016/17	2017/18	2018/19	2019/20	RCP2 TOTAL
	(\$m)	(\$m)	(\$m)	(\$m)	(\$m)	(\$m)
Forecast opening RAB value - HVAC	3,876.4	4,008.6	4,111.5	4,193.4	4,252.5	
Forecast opening RAB value - HVDC	733.8	699.9	672.3	638.2	608.6	
<b>Total forecast opening RAB value</b>	<b>4,610.2</b>	<b>4,708.6</b>	<b>4,783.8</b>	<b>4,831.6</b>	<b>4,861.1</b>	
<b>Total forecast depreciation</b>	<b>234.0</b>	<b>240.0</b>	<b>253.1</b>	<b>245.8</b>	<b>246.9</b>	<b>1,219.8</b>
<b>Forecast value of commissioned assets (excluding base capex that relates to listed projects) - weighted to reflect months of commissioning</b>	<b>339.4</b>	<b>322.6</b>	<b>309.0</b>	<b>283.3</b>	<b>216.7</b>	<b>1,470.9</b>
<i>Forecast value of commissioned assets that relate to listed projects (indicative timing and amounts) – not used yet to calculate forecast MAR</i>	<i>0.0</i>	<i>26.0</i>	<i>37.0</i>	<i>102.0</i>	<i>83.0</i>	<i>248.0</i>

### Opex

2.50 The opex allowance at \$1,449.4M (31%) in total for RCP2 is a material influence on the total forecast MAR. However, apart from the adjustment to true up the difference in the CPI estimate, it is fixed at this total opex allowance, which was determined on 29 August 2014.

### Tax and TCSD

2.51 Tax and TCSD account comprise only \$239.5M (5%) of the forecast MAR and are a relatively fixed proportion of the total revenues.

### EV account balances carried forward from RCP1

2.52 The forecast EV adjustments in RCP2, which have the effect of clearing all RCP1 and prior EV account entries (except 2014/15, which has not yet been calculated) total \$42m (0.9%) of the forecast MAR.

*Our observations on the likely actual revenues for RCP2*

- 2.53 There is an initial step down in revenues between the final year of RCP1 (2014/15) and the first year of RCP2 (2015/16). The step down in the forecast MAR of approximately \$53m (5.7% reduction) between those years feeds into a net \$33m (3.5%) reduction in estimated total revenues between those years. This is largely attributable to the reduction in the WACC rate from RCP1 (8.05%) to RCP2 (7.19%) and to our application of the cash flow timing factors when calculating the RCP2 forecast MAR (the factors did not apply in RCP1).
- 2.54 The average yearly increase in the forecast MAR over RCP2 is 1.7% p.a., or an overall increase over RCP2 of 8.5%. As a comparison, CPI inflation can be expected to be greater than 10% over the period.
- 2.55 As seen above in Figure 2.1, this average annual increase reflects an initial increase of 4.2% between 2015/16 and 2016/17, followed by a much lower rate of increase in revenues in the later years of RCP2 as the capital charge and the operating expenditure amount flatten out.
- 2.56 A potential source of variation in these figures is the new listed projects mechanism, which will allow Transpower to apply for approval of additional base capex during RCP2. However, the indicative timing for the commissioning of assets that relate to the five listed projects results in an increase in the total forecast MAR for RCP2 of not more than 1%, and we expect this will fall across the later years.
- 2.57 At this time, based on the information provided by Transpower, there are no additional projected major capex projects that are expected to increase the forecast MAR for RCP2.

*The forecast MAR will be updated during RCP2*

- 2.58 The RCP2 IPP determination (at clause 9) includes the ability to update the forecast MAR for the results of wash-ups and incentive calculations during RCP2. These will ultimately also influence the final values that will be applied to the TPM to set pricing during RCP2. In Attachment D we describe the key determination references for the wash-up and incentive calculation processes that will apply in RCP2.

**Our estimate of the impact of changes in the forecast MAR from RCP1 to RCP2 on the average consumer**

- 2.59 This section briefly outlines the effects of our decisions on the forecast MAR on the typical consumer power bill. These are indicative only, as circumstances will vary between consumers.
- 2.60 The HVAC component is the portion of Transpower's estimated total revenues that will fall most directly on consumers. It is estimated those Transpower transmission charges comprise approximately 7.4% of the typical consumer power bill.

2.61 We have used Transpower's calculations of the HVAC portion of the forecast MAR and estimated total revenues for RCP2 to estimate the following effects of our forecast MAR decisions:<sup>17</sup>

2.61.1 A small step down in prices from 1 April 2015 (see Figure 2.2):

- (a) There is an initial step down in HVAC revenues between the final year of RCP1 (2014/15) and the first year of RCP2 (2015/16). The step down in the HVAC part of the forecast MAR of approximately \$56m between those years will feed into a net \$42m reduction in estimated total annual HVAC revenues on 1 April 2015.
- (b) We estimate that this will result in a 0.4% reduction in the typical consumer bill in that first year of RCP2 as a result of the reduction in transmission charges.

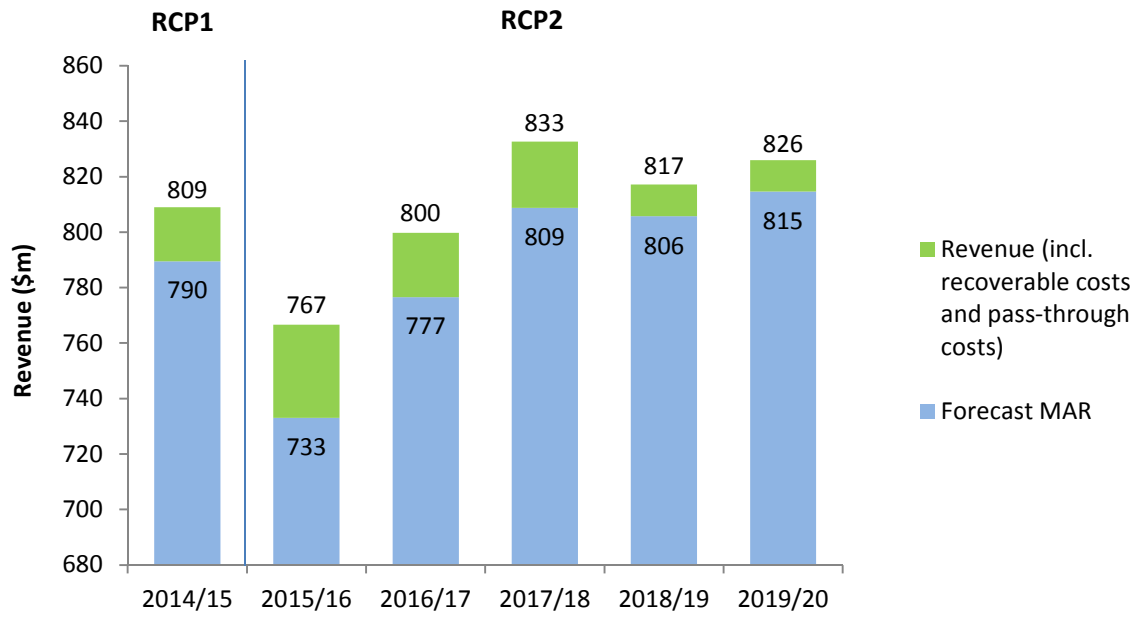
2.61.2 Only very gradual increases in prices over the following five years (see Figure 2.2):

- (a) The average yearly increase in the estimated total annual HVAC revenues from 2015/16 to 2019/20 is 1.5%, or an overall increase over RCP2 of 7.7%. This average annual increase reflects an initial increase of 4.3% between 2015/16 and 2016/17, followed by a much lower rate of increase in revenues in the later years of RCP2.
- (b) When these increases are factored into the typical power bill, we estimate that this will result in a 0.3% increase in the typical consumer bill from 1 April 2016 and a total increase of only 0.6% in the power bill over RCP2.

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<sup>17</sup> The attribution of the building blocks and the resulting forecast MAR and estimated revenues between HVAC and HVDC customers is carried out in accordance with the TPM and the split is therefore not a proportionate calculation. The revenue trends for the HVAC and HVDC customers over RCP2 will therefore differ.

**Figure 2.2: Trend in HVAC estimated total revenues in RCP1 and RCP2**





### **3. How we have dealt with outstanding matters from our decisions of 29 August 2014**

#### **Purpose**

- 3.1 On 29 August 2014 we published decisions and reasons on how Transpower's individual price-quality path for the 2015-2020 regulatory period will operate.
- 3.2 We set out in that paper a number of matters to be carried out before we could finalise the IPP determination for RCP2:
  - 3.2.1 Issue an information-gathering notice to Transpower to apply our decisions to calculate its forecast MAR for RCP2 (see Chapter 2);
  - 3.2.2 Consult on whether the draft RCP2 IPP determination reflected our decisions of 29 August 2014;
  - 3.2.3 Finalise any amendments to the WACC input methodologies;
  - 3.2.4 Finalise amendments to the IRIS input methodology; and
  - 3.2.5 Finalise any amendments to the input methodologies to give effect to the 'listed projects' mechanism.
- 3.3 In this Chapter 3 we describe how each of those matters has been resolved and has been applied in the RCP2 IPP determination.

#### **WACC rate**

- 3.4 At the time of our 29 August 2014 decisions, we were consulting on potential input methodology amendments relating to the WACC percentile to be applied in calculating the WACC for RCP2. Our decision on the WACC percentile was published on 29 October 2014.<sup>18</sup>
- 3.5 On 31 October 2014, we also published our cost of capital determination, which applies to both electricity distribution businesses (EDBs), and to Transpower for the purposes of the individual price-quality path in RCP2.
- 3.6 We have determined a 67<sup>th</sup> percentile vanilla WACC estimate (as at 1 September 2014) of 7.19% for the 5 year regulatory period beginning on 1 April 2015.<sup>19</sup>

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<sup>18</sup> *Electricity Lines Services and Gas Pipeline Service Input Methodologies Determination Amendment (WACC percentile for price-quality regulation) 2014* [2014] NZCC 27 (29 October 2014). The Commission has also released a revised draft decision which proposes that, under information disclosure regulation, the profitability of electricity lines and gas pipeline businesses is assessed against the existing 25<sup>th</sup> to 75<sup>th</sup> percentile WACC range, as well as the 67<sup>th</sup> percentile point estimate.

<sup>19</sup> *Cost of capital determination for electricity distribution businesses' default price-quality paths and Transpower's individual price-quality path* [2014] NZCC 28 (31 October 2014).

### **Incremental rolling incentive scheme (IRIS)**

- 3.7 At the time of making our 29 August 2014 decisions, we were consulting on potential input methodology amendments relating to the IRIS that would apply during RCP2.
- 3.8 IRIS input methodology amendments were determined on 27 November 2014.
- 3.9 The effects of the IRIS IM amendments as they apply to the RCP2 IPP determination are set out below.
- 3.10 The IRIS for RCP1 will continue to apply so far as the recoverable costs for RCP2 are concerned. The IRIS for RCP1 is asymmetric, such that the incentive mechanism only rewards Transpower for outperforming the level of the opex allowance set for RCP1.
- 3.11 The IRIS for RCP2 will apply so far as the calculation of recoverable costs for RCP3 is concerned. The IRIS for RCP2 is a symmetric incentive (ie, it deals with both outperformance of the opex allowance and underperformance against the allowance). It has no effect on Transpower's revenues for RCP2.
- 3.12 To implement the IRIS for RCP2, the RCP2 IPP determination (in clause 11) specifies the amount of operating expenditure that is to be used as the benchmark value for each disclosure year when calculating the IRIS incentive amounts that will apply in RCP3. That value is the opex allowance used in the forecast MAR calculation, then adjusted to reflect the difference between the forecast CPI values used when the opex allowance was set on 29 August 2014 and the actual CPI value that applies to the disclosure year. This has the effect of using in the IRIS calculation a benchmark opex value that reflects the actual CPI.
- 3.13 The adjustment of the opex allowance for the CPI difference in the IRIS calculation is consistent with the CPI adjustment made in the annual wash-up calculation in the RCP2 IPP determination Schedule E.

### **Listed projects**

- 3.14 At the time of our 29 August 2014 decisions, we were consulting on how best to give effect to a listed project mechanism that would allow Transpower to apply, within a regulatory period, for approval of additional base capex relating to pre-identified large reconductoring projects.
- 3.15 Our earlier view had been that the listed projects mechanism should form part of the individual price-quality path determination. But by 29 August 2014 we:
- 3.15.1 considered that the process requirements should instead be set out in the input methodologies, as this is more consistent with s 54S of the Act; and
  - 3.15.2 determined a base capex allowance which did not make provision for five large reconductoring projects identified by Transpower as shown in Table 3.1.

**Table 3.1: Transpower's proposed listed projects and indicative costs for RCP2**

Line for reconductoring (and section)	Indicative cost in RCP2 <sup>20</sup> (\$m)	Indicative total project cost (\$m)
BPE-WIL A (WIL-JFD section)	49	49
OTB-HAY A (Churton Park section 45A-68)	28	28
CPK-WIL B (complete line)	26	26
BRK-SFD B (complete line)	11	65
BPE-WIL A (BPE-JFD section)	4	107
<b>Total indicative costs</b>	<b>118</b>	<b>275</b>

3.16 Amendments to the input methodologies that apply to Transpower were made on 27 November 2014 to provide for a listed project mechanism. The mechanism requires listed projects to meet certain requirements before the Commission can, at its discretion and before the start of a regulatory period, identify them as such in an individual price-quality path determination. A project or programme may only be identified as a listed project if it is a base capex project or base capex programme:

3.16.1 that the Commission considers:

- (a) will require capital expenditure of greater than \$20 million; and
- (b) is reasonably required by Transpower, with at least one (or more) assets likely to be commissioned in the regulatory period;

3.16.2 for which the base capex forecast to be incurred relates to asset replacement or asset refurbishment;

3.16.3 for which a commencement date within the regulatory period is anticipated but cannot be forecast with specificity; and

3.16.4 that is not already accommodated in the base capex allowance for the regulatory period.

<sup>20</sup> The indicative costs for these listed projects reflect the amounts initially advised to us by Transpower. Until Transpower completes the required planning and consultation, and then submits its request to the Commission for approval under the listed projects mechanism, the amounts will remain only indicative of the expected scale and timing of the projects.

- 3.17 We have decided that the five reconductoring projects identified in Table 3.1 above should be listed projects for RCP2. However, if a project ceases to be a base capex project or base capex programme, it will no longer be a listed project. This decision has been reflected primarily in clause 12 and Schedule I of the IPP determination.
- 3.18 As noted above, the RCP2 base capex allowance that we set on 29 August 2014 made no allowance for the five projects identified by Transpower. Based on the information currently available to us we make the following observations:<sup>21</sup>
- 3.18.1 We expect that these projects will be base capex projects or base capex programmes and the base capex forecast to be incurred relates to large reconductoring projects, ie, relates to asset replacement or asset refurbishment.
- 3.18.2 We consider—on the basis of the indicative numbers in the table above being the current best guess of indicative costs—that the five projects identified by Transpower will require capital expenditure of greater than \$20 million.
- 3.18.3 We consider that the level of expenditure forecast to be committed by Transpower on project investigations within RCP2 indicates that at least one (or more) assets are likely to be commissioned in RCP2 for each of the five projects identified by Transpower.<sup>22</sup>
- 3.18.4 A commencement date within RCP2 is anticipated—as indicated in the table above—but cannot be forecast with specificity (as explained in Transpower’s earlier submissions and acknowledged by others such as the Major Electricity Users Group).<sup>23</sup>
- 3.19 We are conscious that, in its December 2013 expenditure proposal, Transpower focused particularly on the potential for an enhancement component as one of its reasons for proposing that these five large reconductoring projects be submitted separately to the Commission for approval.<sup>24</sup>

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<sup>21</sup> This information includes Transpower “Expenditure proposal: regulatory control period 2” (December 2013) and the Conductors and Insulators Fleet Strategy accompanying it, the various submissions provided by Transpower in the context of our consultation processes for determining the RCP2 individual price-quality path and IM amendments to give effect to approval of base capex that relates to listed projects, and further information provided by Transpower on 24 October 2014 in response to information requests from the Commission.

<sup>22</sup> These forecasts were contained in the further information provided by Transpower on 24 October 2014 in response to information requests from the Commission.

<sup>23</sup> See Major Electricity Users Group “Submission on proposed Transpower IM amendments October 2014” (7 November 2014).

<sup>24</sup> Transpower “Expenditure proposal: regulatory control period 2” (December 2013) at page 45.

- 3.20 If, after detailed technical studies, Transpower determines that a listed project should include an enhancement component (ie, improve the original service potential of the assets), that project may no longer meet the definition of ‘base capex’ project.<sup>25</sup>
- 3.21 In this case (ie, a previously ‘listed’ project is no longer a base capex project or base capex programme), the Commission cannot determine an approved amount of base capex that relates to that listed project for RCP2.<sup>26</sup> This is because there is no base capex that the Commission could approve. Instead, Transpower may submit a major capex proposal.<sup>27</sup>
- 3.22 Similarly we recognise that there remains the potential, at some point after the Commission has determined an approved amount of base capex that relates to a listed project, for a listed project to become a major capex project due to forecast scope or cost variations.
- 3.23 In such instances, there is provision—within the base capex expenditure adjustment—to identify an amount of the adjusted base capex allowance (or commissioned base capex) to which the base capex incentive rate does not apply, and therefore net out the listed project component of approved base capex from the incentive mechanism.<sup>28</sup>

#### *Implications of existence of listed projects in RCP2*

- 3.24 For the five listed projects for RCP2:
- 3.24.1 During RCP2 Transpower may submit an application to the Commission for approval of base capex that relates to a listed project.<sup>29</sup> The requirements that must be met by Transpower, and the criteria the Commission will use to evaluate expenditure in respect of a listed project in RCP2, are those set out in the Capex IM.

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<sup>25</sup> *Setting Transpower’s individual price-quality path for 2015-2020* [2014] NZCC 23 (29 August 2014) at D11 where it refers to the respective paragraphs (b) of the definitions of ‘asset refurbishment’ and ‘asset replacement’ in Capex IM, clause 1.1.5(2). These effectively exclude projects whose aggregate forecast capital expenditure exceeds \$20 million from the definition of ‘base capex’ and includes it in ‘major capex’ if the project improves the original service potential (for asset refurbishment) or materially improves the original service potential (for asset replacement).

<sup>26</sup> Capex IM, clause 3.2.4(4) only allows the Commission to determine an approved amount of base capex (not major capex).

<sup>27</sup> Capex IM, clause 3.3.2.

<sup>28</sup> The rationale for this approach is discussed, in relation to previously approved base capex projects or programmes originally accounted for in the base capex allowance for a particular regulatory period, at greater length in Commerce Commission “Transpower Capital Expenditure Input Methodology” (reasons paper, 31 January 2012) at 2.6.1 to 2.6.4.

<sup>29</sup> Implementation considerations mean that, in practice, any application would need to be received by the Commission by June 2018. This timing allows the Commission time to consider and potentially approve it before November 2018 (which is the last available opportunity to update the forecast MAR for RCP2).

3.24.2 The revenue impact of any base capex approved by the Commission relating to a listed project will feed into Transpower's individual price-quality path in RCP2 through updates to the forecast MAR in a manner consistent with the Transpower IM reconsideration provisions for newly-approved major capex projects.<sup>30</sup>

3.24.3 The amendment to the price path will not take effect until the relevant pricing year relating to the disclosure year in which assets in respect of the project are forecast to be commissioned, and the update to the forecast MAR will only be available:

- (a) if Commission approval is given prior to November in a disclosure year, in the pricing year beginning the following April; or
- (b) if Commission approval is given in or after November, in the relevant pricing year beginning after the disclosure year in which approval is given.<sup>31</sup>

3.24.4 The final date in RCP2 for submission of an application to the Commission for approval of base capex relating to a listed project will be 30 June 2018. This lines up with the timing for the setting of prices for the final year of RCP2 and the required submission by Transpower in December 2018 on expenditure for RCP3.

3.25 Base capex that relates to listed projects will be subject to the base capex expenditure incentive framework in the Capex IM for RCP2.

### **Consequential information disclosure (ID) amendments**

3.26 Consequential amendments to the ID determination are being considered and we anticipate a consultation programme will begin early in 2015.

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<sup>30</sup> The revenue effect of the base capex approved in respect of a listed project will be used to update the forecast MAR for the years in which the assets to which the base capex relates are forecast to be commissioned. The Commission will amend the price path (ie, forecast MAR) to take account of the revenue impact of base capex in respect of the listed project. Later when the assets funded as base capex are actually commissioned, the MAR washup process in the individual price-quality path determination will replace the forecast base capex with the actual base capex, which may result in an ex-post economic gain or loss and a resulting EV account entry. That entry will result in an EV adjustment to the forecast MAR in a later year, so that over time Transpower's revenue will be based on the actual base capex value of the commissioned assets.

<sup>31</sup> The term 'relevant pricing year' is defined in the individual price-quality path determination as meaning, in relation to a disclosure year, the pricing year commencing on 1 April immediately before the start of the disclosure year.

- 3.27 Principal changes to existing information disclosure requirements under consideration may include:
- 3.27.1 alignment of reporting dates with the timing requirements finalised in the RCP2 IPP determination;
  - 3.27.2 asset health reporting (to align with final requirements of the RCP2 IPP determination);
  - 3.27.3 reporting of progress in meeting the commissioning targets for the approved base capex that relates to listed projects;
  - 3.27.4 an update of the ROI formula for consistency with the cash flow timing factors used in the forecast MAR and MAR washup formulae in the RCP2 IPP determination;
  - 3.27.5 a review of the reporting requirements for 'other regulated income' to ensure this aligns with the final definition for the RCP2 IPP determination; and
  - 3.27.6 reporting requirements for IRIS values that will apply in RCP3.

## 4. Transpower's proposed amendments to our 29 August 2014 decisions

### Purpose

- 4.1 This chapter sets out our decisions in response to Transpower's suggested amendments to some of the input decisions we made under the Capex IM on 29 August 2014.
- 4.2 In addition to expressing views on whether the final draft determination gave effect to our 29 August 2014 decisions, Transpower also sought to amend some of those decisions. Specifically Transpower sought:
  - 4.2.1 changes to the grid output targets (and consequential adjustments to the caps, collars and grid output incentive rates) associated with most of the revenue-linked asset health grid output measures to restore consistency between the targets and asset volumes used to set the base capex allowance;<sup>32</sup>
  - 4.2.2 adjustments to the grid output incentive rates for asset health grid output measures so that they are based on unit rates that incorporate the 7.5% productivity adjustment used to set the base capex allowance;
  - 4.2.3 removal of the 2.5% reduction of ICT capital expenditure (which would correspondingly increase the base capex allowance);
  - 4.2.4 a clarification to the HVDC energy availability grid output measure;
  - 4.2.5 extensions to the exclusions from the measures of grid performance; and
  - 4.2.6 slight changes to the description of the asset health grid output measures relating to tower coating.
- 4.3 This chapter sets out the decisions we made on each of these requests, prior to finalising the individual price-quality path.

### Revenue-linked asset health grid output measure targets, productivity adjustments and ICT reductions

- 4.4 On 14 October 2014 we released a supplementary paper setting out our preliminary views on Transpower's requests to change:
  - 4.4.1 the grid output targets (and consequential adjustments to the caps, collars and grid output incentive rates) for revenue-linked asset health grid output measures;
  - 4.4.2 revenue-linked grid output measure incentive rates; and

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<sup>32</sup> The changes were sought by Transpower because the targets set by the Commission were drawn from the target measures submitted by Transpower, and Transpower has since identified errors in some of the volume targets it provided to the Commission for the asset health grid output measures.



- 4.4.3 ICT costs.<sup>33</sup>
- 4.5 Our preliminary view was that:
- 4.5.1 It would be appropriate to correct for Transpower's errors in relation to the grid output targets (and consequential adjustments to the caps, collars and grid output incentive rates) for revenue-linked asset health grid output measures.<sup>34</sup>
- 4.5.2 It would not be appropriate to amend the revenue-linked grid output measure incentive rates, and ICT costs.
- 4.6 We sought submissions on these matters by 21 October 2014. We received no submissions from any party.
- 4.7 We decided to confirm our preliminary views.
- 4.8 The amended grid output targets (and consequential adjustments to the caps, collars and grid output incentive rates) for revenue-linked asset health grid output measures have been reflected in Table 4.1 of the RCP2 IPP determination.

#### **Other amendments sought**

- 4.9 The other minor amendments sought by Transpower focused on suggestions to clarify aspects of the grid output measures determined through:
- 4.9.1 clarification to the HVDC energy availability grid output measure;
- 4.9.2 extensions to the exclusions from the (unplanned interruptions) measures of grid performance; and
- 4.9.3 slight changes to the description of the asset health grid output measures relating to tower coating.

#### *HVDC energy availability grid output measure*

- 4.10 Transpower considered that embedding the term HVDC link in the HVDC availability grid output measure introduces ambiguity as it could be interpreted to include assets other than HVDC poles 2 and 3 (thus rendering the associated grid output targets determined by the Commission unachievable).<sup>35</sup>

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<sup>33</sup> Commerce Commission, "Consultation paper for cross-submissions on Transpower's submission on final drafting for IPP regulation for RCP2" (14 October 2014).

<sup>34</sup> The revised numbers are included in "Transpower submission on legal drafting of revised draft determination" (26 September 2014), Appendix A.

<sup>35</sup> Transpower, "Transpower submission on legal drafting of revised draft determination", page 2.

- 4.11 The term ‘HVDC link’, which is drawn from the Electricity Industry Participation Code, is defined as:

**HVDC link** means the converter stations at Benmore in the South Island and Haywards in the North Island and the high voltage transmission lines and undersea cables linking them (and including all associated equipment).

- 4.12 The grid output targets that we set for the HVDC availability grid output measure anticipated excluding the effect of any associated equipment on the capacity of the HVDC link.<sup>36</sup> To avoid any ambiguity that might be introduced by the reference within the HVDC link definition to “including all associated equipment”, we have decided to amend the HVDC availability grid output measure so that it refers directly to the HVDC poles.
- 4.13 The amended grid output measure has been reflected in clauses 14.3.1 and 16.3.4 of the RCP2 IPP determination.

*Exclusions from the (unplanned interruptions) measures of grid performance*

- 4.14 In addition to the exclusions from the measures of grid performance that were specified on 29 August 2014, Transpower requested that both load and generator categories exclude unplanned interruptions to the auxiliary load used for internal purposes by electricity generators.<sup>37</sup>
- 4.15 We decided on 29 August 2014 that unplanned interruptions grid output measures should exclude unplanned interruptions to the auxiliary load used by electricity generator assets for all generator points of service. At this time neither we nor Transpower had considered there was a need to provide for unplanned interruptions arising from non-generator categories of points of service.
- 4.16 In its submission in September 2014, Transpower identified a point of service (OTA022) for a non-generator point of service where this sort of unplanned interruption might occur. Extending this exclusion to non-generator categories of points of service is consistent with our principled approach to excluding interruptions that were outside Transpower’s control (ie, those caused by third parties). We have decided to extend the exclusion so that it applies to all (unplanned interruptions) measures of grid performance.
- 4.17 This amendment has been reflected in clauses 16.5 and 16.6 of the RCP2 IPP determination (and consequential amendments to clause 14.2—to remove cross-references to clause 16.5—have also been made).

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<sup>36</sup> This was because Transpower based its expenditure proposal targets on only two components – SEU3 and FEU3. Refer Transpower “Service Performance Measures (1 October 2013), Table 23.

<sup>37</sup> Transpower, “Transpower submission on legal drafting of revised draft determination” (26 September 2014), Appendix A, page 20.

*Description of tower coating*

- 4.18 Transpower suggested the description of tower coating of transmission towers should be revised (to “protective coating of steel lattice transmission towers”) in the context of the pilot reporting for the (non-revenue-linked) asset health grid output measures.<sup>38</sup> Transpower did not suggest a similar revised description for defined grid output measures AH1 and AH1RL (which, respectively, incorporate the terms “transmission towers” or “tower coating of transmission towers”).
- 4.19 We have decided not to make such amendments. The subject matter of the grid output measures AH1 and AH1RL is the same as that being reported on as part of the asset health pilot reporting. We consider that consistency of description is preferable between the revenue-linked asset health grid output measures, the non-revenue-linked asset health grid output measures, and the framing of reporting obligations against non-revenue-linked asset health grid output measures.

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<sup>38</sup> Transpower, “Transpower submission on legal drafting of revised draft determination” (26 September 2014), Appendix A, pages 35 and 36.

## 5. Requested change to asset health reporting and minor RCP2 IPP determination drafting changes

### Purpose of this chapter

- 5.1 This chapter sets out our response to Transpower's request to remove the RCP2 IPP determination requirements in relation to our 29 August 2014 decision to implement pilot reporting on asset health measures that are not linked to revenue.
- 5.2 We also comment on minor RCP2 IPP determination drafting amendments suggested by Transpower in the appendix to its submission.

### *Asset health reporting requirements*

- 5.3 Transpower requested that the "live" asset health model reporting should be replaced with a commentary on overall drivers for the difference in remaining life using the frozen model, and that the requirement for a separate asset health model plan should be removed, with reliance being placed instead on voluntary business initiatives plan reporting.
- 5.4 Key points Transpower argued were that:
  - 5.4.1 the reporting requirements assume a constant approach, but new models for optimising tower maintenance may characterise asset health in some way other than average remaining life of coating;
  - 5.4.2 the reporting demands data and resource-intensive reconciliations that are unlikely to add value; and
  - 5.4.3 key people resources to enable further improvement will be diverted to low value reporting.
- 5.5 Our 29 August 2014 decision to implement pilot reporting on asset health measures that are not linked to revenue reflected our concern that the asset health incentive scheme proposed by Transpower<sup>39</sup> based on average remaining life was not sufficiently developed to use as a practical tool for linking improvements in asset health as a result of capital expenditure and the capital expenditure incentive scheme.
- 5.6 In our view it is unlikely that remaining asset life will cease to be useful as an indicator of tower asset health during RCP2, particularly as a base for analysis of the improvement in asset health across the regulatory period.
- 5.7 The pilot reporting will provide assurance that Transpower is achieving desirable outcomes in average remaining life, given that the revenue-linked grid output measures have volumetric targets.
- 5.8 We consider that this will allow both Transpower and ourselves to gain confidence with using asset health for base capex incentive schemes in the future.

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<sup>39</sup> Transpower, "Response to IPP Draft Decision" (27 June 2014), page 39.

- 5.9 In our view it is reasonable to expect that by RCP3 we will be able to implement an asset health incentive mechanism linked to revenue and based on average remaining life measures. We note that our final decisions reinstated \$9.4 million of investigations opex to assist the completion of business improvement and performance measure development.
- 5.10 We have therefore decided not to amend the asset health reporting requirements.

*Minor RCP2 IPP determination drafting amendments*

- 5.11 In its submission Transpower provided a marked-up version of our draft determination which incorporates a number of drafting changes that we consider to be minor.<sup>40</sup>
- 5.12 Our comments and reasons for accepting or rejecting these minor drafting amendments are included in the schedule at Attachment B.
- 5.13 We have also, in the schedule at Attachment C, set out our comments and reasons for any additional drafting amendments we have made (over and above those sought by Transpower) because we consider they provide better clarity.

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<sup>40</sup> Transpower, "Transpower submission on legal drafting of revised draft determination" (26 September 2014), Appendix A.

## Attachment A: Forecast MAR building blocks with input values for RCP2

### Purpose

A1 Table A1 of this Attachment A sets out the building block values calculated for the setting of the forecast MAR. The calculation is carried out in accordance with the forecast MAR calculation schedule in the RCP2 IPP determination, Schedule D, which will also later be used by Transpower to calculate updates of the forecast MAR. The values described are after the application of cash flow timing factors based on the WACC rate, using the formulas defined in Schedule D of the RCP2 IPP determination.

**Table A1: Forecast MAR building block values**

Forecast MAR building block (as per Schedule D of the RCP2 IPP determination)	Forecast MAR building block value calculated per Schedule D of the RCP2 IPP determination (\$m)				
	2015/16	2016/17	2017/18	2018/19	2019/20
[Column 1]	[Column 5]	[Column 5]	[Column 5]	[Column 5]	[Column 5]
	(\$m)	(\$m)	(\$m)	(\$m)	(\$m)
WACC	7.19%	7.19%	7.19%	7.19%	7.19%
WACC return on forecast opening RAB value	321.3	328.1	333.4	336.7	338.7
WACC return on forecast VCA <sub>JUL</sub> <sup>41</sup>	1.7	0.9	0.0	0.0	0.1

<sup>41</sup> VCA<sub>month</sub> in each case from July to June means the forecast value of commissioned assets for the 'month' calculated in accordance with the Transpower input methodologies and weighted to reflect the time from the month of commissioning to the end of the disclosure year.

Forecast MAR building block (as per Schedule D of the RCP2 IPP determination)	Forecast MAR building block value calculated per Schedule D of the RCP2 IPP determination (\$m)				
	2015/16	2016/17	2017/18	2018/19	2019/20
[Column 1]	[Column 5]	[Column 5]	[Column 5]	[Column 5]	[Column 5]
WACC return on forecast VCA <sub>AUG</sub>	0.0	0.5	0.0	0.0	0.0
WACC return on forecast VCA <sub>SEP</sub>	0.0	0.2	0.0	0.0	0.0
WACC return on forecast VCA <sub>OCT</sub>	0.2	0.0	0.0	0.0	0.0
WACC return on forecast VCA <sub>NOV</sub>	0.7	0.0	0.0	0.0	0.0
WACC return on forecast VCA <sub>DEC</sub>	7.1	8.8	8.9	9.3	7.9
WACC return on forecast VCA <sub>JAN</sub>	0.8	0.0	0.0	0.0	0.0
WACC return on forecast VCA <sub>FEB</sub>	0.4	0.3	0.2	0.0	0.0
WACC return on forecast VCA <sub>MAR</sub>	0.1	0.0	0.0	0.0	0.0
WACC return on forecast VCA <sub>APL</sub>	0.3	0.2	0.2	0.0	0.0
WACC return on forecast VCA <sub>MAY</sub>	0.0	0.0	0.0	0.0	0.0

Forecast MAR building block (as per Schedule D of the RCP2 IPP determination)	Forecast MAR building block value calculated per Schedule D of the RCP2 IPP determination (\$m)				
	2015/16	2016/17	2017/18	2018/19	2019/20
[Column 1]	[Column 5]	[Column 5]	[Column 5]	[Column 5]	[Column 5]
WACC return on forecast VCA <sub>JUN</sub>	0.1	0.1	0.1	0.1	0.0
<b>Total forecast capital charge</b>	<b>332.7</b>	<b>339.2</b>	<b>342.8</b>	<b>346.1</b>	<b>346.8</b>
Forecast depreciation	234.0	240.0	253.1	245.8	246.9
Operating expenditure	277.7	285.7	293.5	295.1	297.5
Forecast tax	39.0	39.6	48.2	48.3	51.5
Forecast TCSD	2.6	2.6	2.6	2.7	2.7
EV adjustment	(4.2)	11.6	11.6	11.6	11.6
<b>Total Forecast MAR</b>	<b>881.6</b>	<b>918.6</b>	<b>951.8</b>	<b>949.4</b>	<b>956.8</b>



## Attachment B: Response to Transpower’s submission on drafting of the IPP determination

### Purpose

B1 Table B1 of this Attachment B summarises the minor submission points made by Transpower on the draft IPP determination which we released for public consultation on 12 September 2014.<sup>42</sup> It also shows how we have addressed those points in finalising the determination.

**Table B1: Response to Transpower submission on the draft RCP2 IPP determination**

Comment no.	Basis of comment	Agree/ disagree	Commission comment
1 (and cover submission)	Transpower suggests all relevant terms be defined within the IPP determination	Disagree	The IPP determination is not a standalone document – it works together with the Commerce Act and IMs and (before exercising powers) the Commission must take into account provisions of the Code. An approach of cross-referencing is used for all other Part 4 price-quality path determinations. Defining a term in one document (eg. IMs) and referencing to that document reduces potential for accidental error between documents, as well as enhancing stability in the event of changes to a defined IM term (because it avoids the need to amend multiple determinations via multiple consultation processes). The approach taken in the IPP determination (ie, cross references with a glossary) is consistent with the Transpower ID determination.
2	Transpower notes definition for Director’s Certificate removed, considers this is not an issue	Agree	We removed the definition because it was not referenced anywhere in the IPP determination.
3	Transpower notes the definitions for HVAC customer and HVDC customer removed, considers this is not an issue	Agree	We removed the definitions to avoid circularity with the HVAC revenue and HVDC revenue definitions.

<sup>42</sup> Transpower, “Submission on final drafting for Individual Price Quality (IPP) regulation for RCP2” (26 September 2014).

5,10	Transpower notes that “electricity lines services” and “transmission lines services” do not explicitly include revenue for non-transmission solutions provided under the Capex IM. However, as the 2010 RCP1 IPP determination uses similar definitions it may not be an issue	Disagree	Non-transmission solutions may involve Transpower incurring costs incremental to the operating expenditure allowance, and are an appropriate cost that Transpower should be able to recover. Transmission alternative operating costs, approved by the Commission, are classified by the Transpower IM to be ‘recoverable costs’. The IPP determination enables Transpower to build these recoverable costs into its forecast revenue – Schedules D, E and H of the IPP determination shows that the calculation of forecast revenues and the wash-up accommodate recoverable costs (of which one category is transmission alternative operating costs). See discussion in Capex IM reasons paper at [6.7.12]-[6.7.13].
8	There is no definition for ‘Maximum Allowable Revenue’	Disagree	No definition required as maximum allowable revenue is not referenced anywhere in the IPP determination. The price path is based around ‘forecast MAR’ – which is a defined term. Wash-up calculation in Schedule E is based around other defined revenue terms and does not directly reference maximum allowable revenue either.
9	Transpower notes ‘planned outage’ and ‘planned interruption’ definitions removed, considers this is not an issue	Agree	We removed the definitions because they were only used in the “other GOMs” reporting – which we decided to generalise and make voluntary.
14	Grid output target and cap for GP1E (unplanned interruptions for N-security) are incorrect and do not reflect final decisions in 6.25	Agree	Typo.
15	Transpower suggests removing ‘key’ for consistent terminology with Schedule G	Agree	Typo.

Untracked change	Cap and collar for AH3 (16/17, 17/18, 18/19 number of insulators commissioned) are incorrect and do not reflect final decisions	Agree	Typo.
18	Formatting issue with sub-paras to clause 16.3	Agree	Formatting.
22	Transpower suggests base capex allowances should be defined to include both numerical values determined as at 29 August 2014 and approved base capex that relates to listed projects	Disagree	Base capex allowances were determined on 29 August 2014 and did not make provision for the approved base capex that relates to listed projects. Provision is made in this context for the incremental revenue effect of approved base capex that relates to listed projects to feed into updates of the forecast MAR as a separate component.
25	Transpower suggests base capex allowances should be defined to include both numerical values determined as at 29 August 2014 and approved base capex that relates to listed projects	Disagree	Base capex allowances were determined on 29 August 2014 and did not make provision for the approved base capex that relates to listed projects. Incremental approved base capex that relates to listed projects does not change the base capex allowance. The calculation of the annual base capex expenditure adjustment takes into account both the approved base capex that relates to listed projects and the base capex allowance (through the definition of 'adjusted base capex allowance'). The approved amount base capex that relates to a listed project will only be identified during the regulatory process.
27	US/NZ exchange rates for each disclosure year should be specified	Agree	Typo.
28	Table 5.1 is missing a line item for NZD exposure to FX	Disagree	NZ FX rates were used to estimate real price effects and there is no wash-up for this – only explicit FX components of imported parts of capex projects are washed up through the FX disparity adjustment.

Untracked change	Substitute “asset fleet category” for the defined term “base capex category” in cl 28.4.1	Agree	Intent was to capture categories of assets within the base capex portfolio at a level similar to tower coating, grillages, insulators, outdoor-to-indoor conversions, outdoor circuit breakers, transformers etc.
36,38	Change headings to forecast MAR summary and Approved base capex summary to specifically match redetermination dates	Agree	Increases specificity, reflecting amendments to IPP determination from draft (May 2014) to final draft (Sept 2014).
39	Transpower suggests some of the cashflow timing calculation figures in the forecast MAR building blocks calculation need adjustment (items I, K, L and M)	Disagree	Cashflow timing calculation figures have been tested. They reflect intent.
40	Transpower suggests two cashflow timing calculation figures in the wash-up building blocks calculation needs adjustment (items E and H)	Agree for line item E	Typo.
41	Brownhill circuits are accounted for by Pakauranga – Whakarmaru 1 and 2 in Schedule G, as indicated, so do not need to be identified separately	Agree	Typo.
42	Glossary: ‘auditor’ definition – defined differently in IPP and IM determinations, please clarify reason for different definitions	Clarified	Have amended definition in IPP determination to clearly distinguish. Rationale for 'assurance auditor' requirements in IPP determination is to ensure that the audit of disclosed information is carried out by an appropriate person in terms of skills, independence from compilation, and familiarity with information required as part of annual compliance statement.

43	Glossary: 'code' definition – more direct to refer to Electricity Industry Act than the Capex IM (because Capex IM just on-refers)	Disagree	Maintain one primary source of defined terms at Commerce Act or IM level.
44	Glossary: 'forecast MAR' definition primarily in Transpower IPP determination as Transpower IM says 'has same meaning as defined in an IPP determination'	Agree	Simplifies.
45	Glossary: 'grid' definition – more direct to refer to Code, as Capex IM just on-refers	Disagree	Maintain one primary source of defined terms at Commerce Act or IM level.
47	Glossary: 'major capex adjustments' definition – in IPP, not Capex IM	Agree	Typo.
48	Glossary: 'MAR' definition – not defined anywhere (IPP, Capex IM, IM determination, or Act)	Agree	Typo – should not have been listed in glossary as it is not used anywhere in IPP determination.
50	Glossary: 'regulatory period' definition – more specific in IPP determination so redundant to state its location in the IM determination	Agree	Simplifies.
51	Glossary: 'regulatory tax allowance' definition – in IPP determination, not IM determination	Agree	Typo.
52	Glossary: 'system operator' definition – more direct to define in IPP as glossary refers to Transpower IM which refers to Electricity Industry Act	Disagree	Maintain one primary source of defined terms at Commerce Act of IM level.

53	Glossary: 'Transpower' definition – beneficial to define in IPP as referring to Transpower IM just on-refers to Commerce Act definition	Disagree	Maintain one primary source of defined terms at Commerce Act or IM level – Commerce Act has precedence here.
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## Attachment C: Commission drafting changes for workability of the IPP determination

### Purpose

C1 Table C1 of this Attachment C sets out our comments and reasons for additional drafting amendments we have made to the final IPP determination (compared to the draft released for technical review on 12 September 2014) to ensure its workability. The drafting changes set out below are in addition to those outlined in Attachment B.

**Table C1: Drafting changes made in finalising the RCP2 IPP determination**

Clause no.	Subject matter	Commission comment
7	definition of EV account	We have given explicit recognition of Transpower's existing practice of maintaining EV account on a post-tax basis.
7	definition of ex-post economic gain or loss	We have removed the redundant reference to Schedule E from this definition (given that clause 21.1 requires Transpower to use the approach and formula specified in Schedule E).
7	definition of opex allowance	We have made slight wording changes to more accurately reflect what Commission is doing - 'amount' instead of 'level', 'specified' instead of 'approved'.
7	definition of WACC	In light of amendments to WACC IMs, we have explicitly clarified that all references to WACC within the IPP refer to the WACC determined under Part 3 of the Transpower IM (ie, IMs that apply to individual price-quality path).
11, 21.1.6, Schedule D, Schedule E	Opex allowance	We have specified the opex allowance up front in this clause as it links into the forecast MAR, the wash-up and the incremental rolling incentive scheme. Provisions that set out how the forecast MAR and wash-up are calculated then link to the provision that specifies what the opex allowance is.

11.2 and 11.3	Incremental rolling incentive scheme	We have specified the amount of forecast operating expenditure for the purpose of calculating an opex incentive amount (a key component of the incremental rolling incentive scheme that applies to operating expenditure).
20.1.14	Pass-through and recoverable costs	We have made slight wording changes to more accurately reflect the nature of the subject matter, and that (in any given year) some categories of pass-through or recoverable costs may not eventuate.
22.3	Revenue impact of approved major capex or of base capex	Addition of the word 'of' to improve readability.
22.3.2	Listed projects	We have simplified the reference to listed project.
23.1.1, 23.1.2, 24.1.1, 24.1.2, 24.1.3, 24.1.4 25.3, Schedule B	Transpower maintains EV account on post-tax basis	We have given explicit recognition to Transpower's existing practice of maintaining EV account on a post-tax basis.
24.1.2	Major capex project output adjustment	Typo - the major capex project output adjustment was previously not included on the list of incentive adjustments for the final disclosure year of RCP2 (and cross-referencing has been updated to accommodate this).
24.1.3	EV adjustment for minor capital expenditure in RCP1	Cross-referencing has been updated.
24.1.4(b)	Interest on major capex adjustments for North Island grid upgrade project	We have clarified that the period for which interest should be calculated is 1 July 2013 to 30 June 2015
24.1.4, Schedule B	Major capex adjustments for final year of RCP2	We have made provision for the (unlikely) event that the Commission does not meet the timeframes specified in Part 3 of the Capex IM for making major capex adjustments. This provision provides the ability for those to flow through if they are determined at a later point in time.



28.1.3	Asset health pilot reporting	Typo - now includes the precision (three decimal places) of reported measures.
Schedule B	EV account summary	We have made slight wording changes to improve readability.
Schedule E	Wash-up building blocks calculation	Typo - the first line item identifying the WACC had previously been omitted.  The cross-referencing for the tax line item has been corrected.  The description of the after-tax ex-post economic gain or loss has been simplified.
Schedule F	Quality standards - points of service, by category	Typo - we have corrected the spelling of transformer in the N-security row.
Schedule H	Pass-through and recoverable costs summary	We have clarified the link to the recoverable costs provisions within the Transpower IM.
Glossary	WACC	Typo - should refer to IPP determination rather than Transpower IM.

## Attachment D: Wash-ups and incentives for the last two disclosure years of RCP1 carried to RCP2

### Purpose

- D1 This Attachment D provides illustrative examples that demonstrate how we will treat wash-ups and incentive adjustment calculations arising at the end of RCP1 that are carried over into RCP2. We reference how those matters are dealt with in the determinations.<sup>43</sup>
- D2 The key determination references for the wash-up and incentive calculation processes within RCP2 itself are also briefly summarised at the end of this Attachment D. The wash-up processes for disclosure years in RCP2 are described in detail in our 29 August 2014 reasons paper.<sup>44</sup> The incentive calculation processes for RCP2 are described in detail in the Capex IM reasons paper.<sup>45</sup>

### Two illustrative examples

- D3 The two examples described below are:
- D3.1 Example 1: The results of the MAR washup and major capex adjustment calculations arising from the second to last disclosure year of RCP1 (ie, the 2013/14 disclosure year) which were applied in setting the forecast MAR for the first pricing year of RCP2 (the 2015/16 pricing year).
- D3.2 Example 2: The results of the MAR washup, minor capital expenditure adjustments and the major capex adjustment calculations arising from the last disclosure year of RCP1 (ie, the 2014/15 disclosure year) which will be applied in updating the forecast MAR for the second pricing year of RCP2 (the 2016/17 pricing year).
- D4 The examples also describe how adjustments for either of those two disclosure years of RCP1 will be made in RCP2 if circumstances require extra time to quantify any adjustment amounts.
- D5 A timeline showing the examples is set out in Figure D1.

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<sup>43</sup> The determinations referred to in the examples are the *Commerce Act (Transpower Individual Price-Quality Path) Determination 2010*, Decision No.714 (the 'RCP1 IPP'), the *Transpower Individual Price-Quality Path Determination 2015* [2014] NZCC 35 (the 'RCP2 IPP determination') and the *Transpower Capital Expenditure Input Methodology Determination* [2012] NZCC 2 (the 'Capex IM').

<sup>44</sup> *Setting Transpower's individual price-quality path for 2015-2020* [2014] NZCC 23 (29 August 2014), Attachment C.

<sup>45</sup> Commerce Commission, "Transpower Capital Expenditure Input Methodology – Reasons Paper" (31 January 2012).

**Figure D1: Timeline for examples**

	RCP1								RCP2																RCP3									
Calendar Year	2013		2014				2015				2016				2017				2018				2019				2020							
	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec				
Disclosure Year	2013/14 (4)				2014/15 (5)				2015/16 (1)				2016/17 (2)				2017/18 (3)				2018/19 (4)				2019/20 (5)									
Pricing Year	2013/14 (4)		2014/15 (5)				2015/16 (1)				2016/17 (2)				2017/18 (3)				2018/19 (4)				2019/20 (5)				2020/21 (1)							

-  2013/14 MAR wash-up and Capex IM incentive adjustments applied in the initial setting of the RCP2 forecast MAR (November 2014).
-  2014/15 MAR wash-up, minor capital expenditure adjustments and Capex IM incentive adjustments applied to the first update of the RCP2 forecast MAR (November 2015).
-  Initial setting of the RCP2 forecast MAR (November 2014).

**Example 1: The results of the MAR washup and major capex adjustment calculations arising from the 2013/14 disclosure year were applied in setting the forecast MAR for the 2015/16 pricing year**

- D6 In this example, the 2013/14 entries to the EV account were carried forward (with interest calculated at the WACC rate) to the forecast EV adjustment in the 2015/16 forecast MAR calculation.<sup>46</sup>
- D7 The 2013/14 entries to the EV account that could potentially have been included are shown in Table D1.

**Table D1: Possible EV account entries for 2013/14**

<b>EV account entry</b>	<b>Determination references</b>	<b>Applicable to 2013/14</b>
The ex-post economic gain or loss from the MAR washup for the 2013/14 disclosure year	Definition of 'EV account entry', paragraph (a), in the RCP1 IPP	Yes. Included in the setting of the forecast MAR for RCP2
The after-tax gain or loss for the 2013/14 disclosure year in respect of an instrument that ceases to be an effective hedge	Definition of 'EV account entry', paragraph (b), in the RCP1 IPP	No. Transpower advises that there were no applicable entries
The after-tax gain or loss for the 2013/14 disclosure year in respect of a commodity instrument that is not an effective hedge	Definition of 'EV account entry', paragraph (c), in the RCP1 IPP	No. Transpower advises that there were no applicable entries
The major capex project output adjustment for major projects where the last asset was commissioned in the 2013/14 disclosure year	Clause 3.3.7 and Schedule B5 of the Capex IM; the definition of 'EV account entry', paragraph (c), the definition of 'major capex adjustments', paragraph (b), and clause 5.3(4)(e) of the RCP1 IPP	No. No adjustments for the two major capex projects that were finally commissioned in 2013/14 (HVDC grid upgrade project and Kawerau generation export enhancement project)

<sup>46</sup> Refer our decision in *Setting Transpower's individual price-quality path for 2015-2020* [2014] NZCC 23, Table 3.1.

The major capex overspend adjustment for major capex projects where the last asset was commissioned in the 2013/14 disclosure year	Clause 3.3.7 and Schedule B4 of the Capex IM; the definition of 'EV account entry', paragraph (c), the definition of 'major capex adjustments', paragraph (c), and clause 5.3(4)(e) of the RCP1 IPP	No. No adjustments for the two major capex projects that were finally commissioned in 2013/14 (HVDC grid upgrade project and Kawerau generation export enhancement project)
A major capex sunk costs adjustment	Clause 3.3.5 and Schedule B6 of the Capex IM; the definition of 'EV account entry', paragraph (d), the definition of 'major capex adjustments', paragraph (d), and clause 5.3(4)(e) of the RCP1 IPP	No. No application made by Transpower

- D8 An exception to this example is the treatment of major capex adjustments relating to the North Island grid upgrade project.
- D9 At the time of setting the forecast MAR for RCP2, we were in receipt of an application for amendment to the major capex allowance and major capex project outputs for the North Island grid upgrade project. We have deferred our decision on Transpower's application (to allow us to focus on setting Transpower's individual price-quality path for RCP2). While a decision on Transpower's application remains outstanding, our decisions on approved major capex project outputs and overspend and output adjustments relating to this project are similarly deferred.
- D10 This means that, while the North Island grid upgrade project was finally commissioned in prior to our setting of the forecast MAR for RCP2, the quantum of any resulting major capex project output adjustment or major capex overspend adjustment associated with this project has not yet been calculated or applied in the forecast MAR for RCP2. We have made provision for this anomaly in the IPP determination. Clause 24.1.4(a) allows for the forecast MAR updates in any of the 2016/17 to 2019/20 pricing years to include any resulting EV adjustment reflecting our decisions on approved major capex project outputs and overspend and output adjustments relating to this project once they are made.

**Example 2: The results of the MAR washup, minor capital expenditure adjustments and major capex adjustment calculations arising from the 2014/15 disclosure year will be applied in updating the forecast MAR for the 2016/17 pricing year**

- D11 In this example, the 2014/15 entries to the EV account will be carried forward (with interest calculated at the WACC rate) to the EV adjustment in the 2016/17 forecast MAR update calculation.<sup>47</sup>
- D12 The 2014/15 entries to the EV account will potentially include some or all of the EV account entries described in Table D2.

**Table D2: Possible EV account entries for 2014/15**

<b>EV account entries</b>	<b>Determination reference for EV account entry</b>	<b>RCP2 IPP determination reference for resulting EV adjustment</b>
The ex-post economic gain or loss from the MAR washup for the 2014/15 disclosure year	Definition of 'EV account entry', paragraph (a), in the RCP1 IPP determination	Clause 24.1.2(a)
The after-tax gain or loss for the 2014/15 disclosure year in respect of an instrument that ceases to be an effective hedge	Definition of 'EV account entry', paragraph (b), in the RCP1 IPP determination	Clause 24.1.2(b)
The after-tax gain or loss for the 2014/15 disclosure year in respect of a commodity instrument that is not an effective hedge	Definition of 'EV account entry', paragraph (c), in the RCP1 IPP determination	Clause 24.1.2(c)
A major capex efficiency adjustment	Clause 4.1.1 and Schedule B7 of the Capex IM; the definition of 'EV account entry', paragraph (d), the definition of 'major capex adjustments', paragraph (a), and clause 5.3(4)(e) of the RCP1 IPP determination	Clause 24.1.2(d)

<sup>47</sup> Refer our decision in *Setting Transpower's individual price-quality path for 2015-2020* [2014] NZCC 23, Table 3.1.

The major capex overspend adjustment for major capex projects where the last asset is commissioned in the 2014/15 disclosure year	Clause 3.3.7 and Schedule B4 of the Capex IM; the definition of 'EV account entry', paragraph (c), the definition of 'major capex adjustments', paragraph (c), and clause 5.3(4)(e) of the RCP1 IPP determination	Clause 24.1.2(e)
The major capex project output adjustment for major projects where the last asset is commissioned in the 2014/15 disclosure year	Clause 3.3.7 and Schedule B5 of the Capex IM; the definition of 'EV account entry', paragraph (c), the definition of 'major capex adjustments', paragraph (b), and clause 5.3(4)(e) of the RCP1 IPP determination	Clause 24.1.2(f)
A major capex sunk costs adjustment for the 2014/15 disclosure year	Clause 3.3.5 and Schedule B6 of the Capex IM; the definition of 'EV account entry', paragraph (d), the definition of 'major capex adjustments', paragraph (d), and clause 5.3(4)(e) of the RCP1 IPP	Clause 24.1.2(g)
The revenue impact of minor capital expenditure in RCP1 in excess of the aggregate approved minor capital expenditure, or any minor capital expenditure in RCP1 that has not been subject to Transpower's internal approval processes	The definition of 'EV account entry', paragraph (d), and clause 5.3(4)(d) of the RCP1 IPP	Clause 24.1.2(h)

- D13 Also relevant to this example would be, at the time of setting the forecast MAR for RCP2, the possibility that one or more of the major capex adjustments for the 2014/15 disclosure year will require extra time beyond November 2015 to finalise. We have drafted the RCP2 IPP determination (at clause 24.1.4(c)) so that it can accommodate such an outcome should it occur.

### RCP2 wash-ups and incentives reflected in EV adjustments in RCP2 forecast MAR updates

- D14 The wash-up processes for the disclosure years in RCP2 are described in our 29 August 2014 reasons paper. The key determination references for those processes and the Capex IM adjustments for major capex and base capex commissioned in RCP2 are summarised in Table D3.
- D15 Although the EV account entry amounts in Table D2 are expressed as after-tax amounts in the RCP2 IPP determination, the EV adjustments are grossed up at the corporate tax rate to the corresponding pre-tax revenue amount when they are applied to the update of the forecast MAR.<sup>48</sup>
- D16 The EV adjustment also includes interest calculated at the WACC rate from the year in which the applicable EV account entry first arises, to the year in which the EV adjustment is included in a forecast MAR update.<sup>49</sup>

**Table D3: RCP2 EV adjustments from wash-ups and Capex IM adjustments**

<b>EV account entries resulting in an EV adjustment</b>	<b>Forecast MAR update references in RCP2 IPP determination</b>
Ex-post economic gain or loss not yet recovered or returned for any preceding disclosure year in RCP2	Clause 7, definition of 'EV account entry', paragraph (a), and clause 24.1.3(a)
After-tax gain or loss on capital expenditure commitments not yet recovered or returned for any preceding disclosure year in RCP2	Clause 7, definition of 'EV account entry', paragraph (b), and clause 24.1.3(b)
Major capex adjustments under Schedule B4 to B7 of the Capex IM not yet recovered or returned for any preceding disclosure year in RCP2	Clause 7, definition of 'EV account entry', paragraph (c), and clause 24.1.3(c)
Base capex adjustments under Schedule B1 or B2 of the Capex IM not yet recovered or returned for any preceding disclosure year in RCP2	Clause 7, definition of 'EV account entry', paragraph (c), and clause 24.1.3(d)
Grid output adjustment under Schedule B3 of the Capex IM not yet recovered or returned for any preceding disclosure year in RCP2	Clause 7, definition of 'EV account entry', paragraph (c), and clause 24.1.3(e)

<sup>48</sup> Clause 24.1.5 of the RCP2 IPP determination.

<sup>49</sup> Clauses 24.1.2(i), 24.1.3(g) and 24.1.4(d) of the RCP2 IPP determination.