INDIVIDUAL PRICE-QUALITY PATH TRANSPOWER

DRAFT REASONS PAPER

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COMMERCE COMMISSION

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TABLE OF ABBREVIATIONS

Abbreviation	Definition
Bill	Electricity Industry Bill 2009
EV account	Economic value account
HVAC	High voltage alternating current
HVDC	High voltage direct current
IMDP	Input Methodologies Discussion Paper 2009
MAR	Maximum allowable revenue
RAB	Regulatory asset base
RCP	Regulatory control period
TPM	Transmission pricing methodology

EXECUTIVE SUMMARY

Purpose

X1 Under Part 4 of the Commerce Act 1986 (the Act), once the Governor-General (upon the Minister's recommendation) makes an Order in Council declaring the type of regulation to apply to Transpower New Zealand Limited (Transpower), the Commerce Commission (Commission) is required to determine a price-quality path for Transpower of the type specified in the Order in Council. This must be done as soon as practicable after the Order in Council is made. The Commission intends to do this by no later than 30 November 2010.

X2 The purpose of this Draft Reasons Paper is to seek feedback on the Commission's draft decisions and reasons on matters that are relevant to the regulation of Transpower by way of individual price-quality regulation, should that type of regulation apply.

Purpose of the regulation

X3 Transpower is currently regulated under Part 4 of the Commerce Act by way of an administrative settlement with the Commission entered into on 13 May 2008. The administrative settlement expires on 30 June 2011. The Commission must, under Part 4, determine a price-quality path that will apply to Transpower to take effect once the settlement expires.

X4 The Commission has provided its recommendation to the Minister of Commerce that Transpower, at the expiry of the administrative settlement, be subject to individual price-quality regulation. The Commission recommended that price be specified in terms of a revenue cap determined using a full building blocks approach.

X5 As the Commission has not yet received the Minister's decision in respect of its recommendation, this Paper and the associated draft decisions, has necessarily been drafted on the basis of the Commission's recommendation to the Minister.

X6 The overall purpose statement for Part 4 is contained in s 52A of the Act. There is no express purpose statement in relation to individual price-quality regulation - there is only one section in subpart 7, that is s 53ZC. That section, however, requires the Commission to apply relevant input methodologies when setting an individual price-quality path. This effectively refers the Commission back to the purpose statement in s 52A, which is an important guide in determining appropriate input methodologies, as well as to s 52R which sets out the purpose of input methodologies.

X7 As noted in the Input Methodologies (Transpower) Draft Reasons Paper, the Commission's interpretation of the Part 4 purpose is that:

a. the overall purpose is to promote the long-term benefit of consumers in markets where there is little or no competition and little or no likelihood of a substantial increase in competition; and

b. this overall purpose is to be achieved by promoting outcomes consistent with outcomes produced in workably competitive markets such that ss 52A(1)(a) to (d) occur.[1]

X8 The Commission has sought to identify the relevant outcomes produced in workably competitive markets, and has sought to design an individual price-quality path that will promote such outcomes in respect of the regulated services that Transpower supplies.[2] The regulatory mechanisms described in this Paper, together as a package, promote over the long-term, the overall objectives of the Act as set out in s 52A(1)(a)-(d).

X9 The regulatory framework, described in the Commission's draft decisions below, promotes the long-term benefit of consumers by providing:

a. incentives to invest, by allowing Transpower to fully recover and earn an appropriate return on its investments, and by providing a penalty/reward framework around quality standards;

b. incentives for Transpower to become more efficient in its operating expenditure, as well as incentives to make efficiency improvements to outperform its targets for quality performance, and in the longer term, in its capital expenditures;

c. requirements for Transpower to share efficiency gains with consumers, such as through the incremental rolling incentive scheme for operating expenditure; and

d. limits on the economic gains that can be made by Transpower in any given regulatory period.

Form of control

X10 Under the proposed individual price-quality regulation that would apply to Transpower, the form of regulatory oversight is not dissimilar to that provided under the settlement.[3] Transpower will remain subject to a cap on revenue, although now the cap will apply to a five-year period instead of a one-year period (after the first control period). Transpower will remain subject to reviews of its operating and capital expenditure plans, performance against quality standards, and will retain a similar economic value framework. It should also be noted that the capital expenditure approach being proposed will be subject to change, pending the outcome of development of a capital expenditure input methodology, which will likely be required if the Electricity Industry Bill 2009 (Bill) is enacted.

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[1] Commerce Commission, *Input Methodologies (Transpower) Draft Reasons Paper*, 25 June 2010, p.vii.

[2] The Commission has discussed the concept of workable competition in further detail in its Input Methodologies (Electricity Distribution) Draft Reasons Paper, June 2010, Section 2.6.

[3] Note that individual price-quality regulation for a different supplier of regulated services may be different to that being applied to Transpower.

X11 The key aspects of the individual price-quality framework in this draft decision that would be applied to Transpower, include the following:

a. the length of the first regulatory period will be four years, with the first year of the four years (Transition Year) using a number of transitional mechanisms;

b. each subsequent regulatory control period (RCP) will be five years;

c. Transpower will be subject to a maximum allowable revenue for each year of each RCP, calculated using a building blocks approach as specified in the Commission's s 52P determination;

d. the Commission will undertake full ex-ante reviews of Transpower's proposed operating expenditure, and Minor capital expenditure prior to the start of each regulatory period.[4] The reviews will be designed to approve a level of efficient expenditure for each year of the regulatory period, to be included in calculating its maximum allowable revenue, and against which compliance will be assessed;

e. the current HVAC economic value (EV) account balance of $108.8 million must be returned to customers by the end of RCP1;

f. the current HVDC EV account balance of $102.8 million must be recovered from customers by the end of RCP2;

g. quality performance targets will be set for Transpower. These will be based on three measures, these being:

    i. loss of supply event frequency, measured by the number of events over 0.05 system minutes, and the number of events over 1.0 system minutes;

    ii. transmission circuit availability, separately for HVAC and HVDC circuits; and

    iii. total duration of interruptions, measured in system minutes;

h. Transpower will be subject to a penalty/reward scheme that applies to the quality standards set by the Commission;

i. assets may only be included in the regulatory asset base once approved (by the Commerce Commission or other appropriate regulatory body) and commissioned;

j. revenue and costs associated with System Operator services will be excluded from any individual price-quality path;

k. differences between forecast and actual capital expenditure will be included in a wash-up. In each RCP, annual wash-ups will apply:

    i. The first will occur in Year 1 of each RCP, and will calculate final ex-post economic gains or losses from the previous RCP; and

    ii. The last will occur in the final year of each RCP, and will calculate ex-post economic gains or losses during the RCP, up to that point, as well as

[4] Note that, as explained in X16, the Commission’s approach to reviewing capital expenditure may change if the Electricity Industry Bill passes.

include forecast ex-post economic gains or losses for the final year of the RCP;

l. the amount of each wash-up will be applied as an adjustment to the appropriate EV account;

m. to enable the wash-up that occurs in Year 1 of each RCP to be incorporated into revenues, an update of the maximum allowable revenue (MAR) (which was set prior to the start of the RCP) will occur prior to prices being set for Year 2. The purpose of this MAR update is to incorporate and net out any ex-post economic gains or losses from the previous regulatory period (that were transferred to the EV accounts);

n. in RCP1, no updates of the MAR will be undertaken. A MAR update is a calculation of the revenue impact of additional capital expenditure approved by the Commission during the RCP, and an opportunity for the Commission to take into account/make other adjustments as necessary;

o. in subsequent RCPs, a maximum of two MAR updates will be undertaken, with the first being in Year 1, and the second being in either Year 3 or 4; and

p. from RCP2 forwards, the second MAR update will only occur if requested by Transpower. At Transpower's option, it can be undertaken in Year 3 and applied from Year 4, or be undertaken in Year 4 and applied to Year 5. The second MAR update is primarily to adjust for contingent projects becoming certain.

Operating expenditure

X12 All operating expenditure allowances will be determined prior to the regulatory period for each year of the regulatory period. The operating expenditure allowance that will apply to the Transition Year (2011/12) will be $231.67 million (excluding pass-through costs and recoverable costs).

X13 The incremental rolling incentive scheme for operating expenditure does not apply to the Transition Year.

X14 Future operating expenditure allowances will be determined after the Commission has assessed the forecast operating expenditure proposed by Transpower, and will also exclude pass-through costs and recoverable costs. The operating expenditure allowed over the regulatory period will consist of separate allowances for each year of the regulatory period, and the incremental rolling incentive scheme for operating expenditure will apply.

X15 Wash-ups will not be applied to operating expenditure.

Capital expenditure

X16 Subject to the Bill passing into law, a capital expenditure input methodology will be developed during 2011 to apply from 1 October 2011. In this situation, the individual price-quality determination and any affected input methodologies will be amended, as necessary, to reflect the capital expenditure input methodology.

X17 Capital projects will be divided into Minor and Major categories. RCP1 will include a combined ex-ante capital expenditure allowances for Minor capital projects in each of the Transition Year (2011/12) and Remainder Period (2012/13 to 2014/15), and individual approvals for Major capital projects.

X18 The level of approved Minor capital expenditure for the Transitional year, inclusive of Business Support capital expenditure, will be set at $225.6 million.

X19 The category of Minor capital expenditure will comprise replacement, refurbishment and enhancement (RRE), Information Systems and Technology (IST) projects and Business Support capital expenditure, as follows:

a. replacement and refurbishment capital (with no limit on the size of any project);
b. IST capital (with no limit on the size of any project);
c. in the Transition Year if the value of an individual enhancement project is less than $1.5 million, or less than $5.0 million for a programme;
d. in the Remainder Period and subsequent RCPs, if the value of enhancement projects or programmes are less than $5.0 million; and
e. Business Support Capital expenditure (with no limit on the size of any project).

X20 Full substitution within the Minor project category will be allowed, including between years within a given RCP, except the Transition Year.

X21 Major capital expenditure projects will be subject to individual approval. Projects will be reviewed by the Electricity Commission (EC) prior to 1 October 2010, and by the Commerce Commission from that date (subject to the Bill passing into law). If Major projects are approved prior to the relevant MAR determination, these will be included in the MAR. If Major projects do not receive regulatory approval prior to the relevant MAR determination, these will be excluded from the MAR for the remainder of the RCP, but be included in the next wash-up, if commissioned during the RCP.

Input methodologies that apply

X22 The following input methodologies will be applied to Transpower under the individual price-quality determination made by the Commission in November 2010:

a. The cost allocation input methodology requires Transpower to allocate costs to all the other activities undertaken when supplying electricity lines services, after netting off the costs that have been allocated to system operator activities;
b. The asset valuation input methodology specifies that Transpower's opening RAB will be Transpower's closing RAB as at 30 June 2011, as determined under the settlement, including any capital additions as permitted under the settlement, as well as any residual value of the five pseudo assets approved under the settlement. Any assets that were excluded under the settlement would continue to be excluded from the RAB;
c. No indexation will be applied to Transpower's RAB;
d. The Cost of Capital input methodology, which applies a point estimate of WACC specifically for Transpower for each year of RCP1, will apply;

e. Transpower will be required to apply the 'tax payable' approach in calculating its tax obligations, as specified in the tax input methodology;

f. Rates on system fixed assets and Electricity Commission and Commerce Act levies will be treated as pass-through costs under individual price-quality regulation;

g. Instantaneous reserves, transmission alternatives operating expenditure, and costs resulting from the incremental rolling incentive scheme for operating expenditure, will be treated as Recoverable Costs; and

h. Provision has been made to allow the individual price-quality path to be re-opened in certain situations, including catastrophic events, material error, and changes to tax laws that have a material impact on Transpower.

Compliance framework

X23 The Commission’s draft decision implements a compliance framework that provides flexibility for Transpower to better manage its business across each year of the regulatory period. In this manner, actual costs, capital expenditure, and revenues in any given year, can be different to that specified in the Commission’s MAR determination without causing Transpower to ‘breach’ its requirements. This, however, is only the case if Transpower calculates ex-post economic gains or losses against the MAR determination in accordance with the s 52P requirements, and makes an equal adjustment to the appropriate EV account to offset this gain or loss.

X24 Transpower must on an annual basis publish and provide to the Commission, a written statement that confirms its compliance, or otherwise, with each of the requirements for calculating its ex-post economic gains or losses for each completed year of that RCP. This must include detail regarding performance against its quality standards, and any associated adjustments made to revenue (by way of EV account adjustments).

X25 While Transpower will not be constrained in its ability to undertake annual capital expenditure in any given year (i.e. to the pre-approved annual level), for the purpose of compliance at the end of each RCP, the sum of its Minor capital expenditure over the entire RCP may not exceed the sum of the annual approvals. Unapproved over-expenditure must be excluded from the calculation of ex-post economic gain or loss in the final year of the RCP.

X26 If Transpower's annual compliance statement identifies that Transpower has commissioned Minor capital expenditure in excess of the ex-ante approved level, Transpower may not seek ex-post approval for the amount of that capital expenditure until the last compliance statement for that RCP. Transpower must also exclude non-approved capital expenditure from its RAB unless;

a. it seeks and receives ex-post approval from the Commission for that capital expenditure; or

b. it calculates the revenue impact of that capital expenditure, over the life of those assets, including a reasonable allowance for maintenance, and makes an adjustment to the relevant EV account to fully offset this cost, and includes in its compliance statement an independent opinion that verifies Transpower’s estimates are reasonable and calculations are correct;

X27 All economic gains or losses, calculated annually, must be transferred to the appropriate EV account.

Next steps

X28 The Commission welcomes all submissions relevant to these draft decisions and reasons. Submissions are due by 5pm on Friday, 6 August 2010. Cross submissions are due by 5pm on Monday 23 August 2010. Chapter 1 provides details on how to make a submission.

X29 The Commission will make its final determination on all of these matters by no later than 30 November 2010

SECTION 1: FRAMEWORK

CHAPTER 1: INTRODUCTION

1.1 Purpose and Scope of this Paper

1.1.1 The purpose of this draft reasons paper (Paper) is to set out the Commerce Commission’s (Commission's) draft decisions and reasons on matters that are relevant to the regulation of Transpower under an individual price-quality path determination.

1.1.2 This Paper is primarily focused on non-input methodology-related matters. However, it also sets out a high level summary of each input methodology that will apply to Transpower. This is because the individual price-quality path determination will require Transpower to apply those input methodologies. More detailed discussion on those input methodologies is contained in the Input Methodologies (Transpower) Draft Reasons Paper.

1.1.3 This Chapter introduces this reasons paper by setting out:

- the overall process to determine the type of price-quality regulation to apply to Transpower from 1 July 2011, including the role of this Paper in the process; and
- the process for interested parties to make a submission.

1.1.4 Statutory references in this Paper are to the Commerce Act 1986 (the Act) unless otherwise specified.

1.2 Background

Scope of services

1.2.1 Transpower owns New Zealand’s high voltage electricity transmission system (i.e. ‘the national grid’). Transpower transmits electricity from generators to substations where it is supplied to local electricity distribution businesses or large industrial consumers.

1.2.2 Apart from the transmission of electricity throughout the national grid, Transpower manages the operation of the national grid as the System Operator and has a number of subsidiaries providing services, being Energy Market Services Limited, d-cypha Trade and Risk Reinsurance Limited. Transpower provides the system operator services under the System Operator Service Provider Agreement (SOSPA) between Transpower and the Electricity Commission.[5]

[5] System operator service provider agreement between the Electricity Commission and Transpower New Zealand Limited, 12 August 2009.

1.2.3 These activities give rise to the sharing of operating costs (e.g. expenses related to head office functions) and assets between those activities, and therefore to common costs, or 'shared costs'. Treatment of such costs is addressed in the Input Methodologies (Transpower) Draft Reasons Paper (Chapter 3 – Cost Allocation).

1.2.4 The Electricity Industry Bill 2009 (Bill) proposes to clarify that system operator services are included as part of the conveyance of electricity by line and hence are regulated services (clause 144).

1.2.5 However, where the Electricity Commission (or successor) and Transpower have an agreed contract for system operator services, the Commission considers that the revenue and costs associated with that contract should be excluded from any individual price-quality path.

Existing regulation under Part 4

1.2.6 On 13 May 2008, the Commission accepted an administrative settlement from Transpower in respect of breaches of the thresholds under Part 4A of the Act. Although Part 4A has now been repealed, under Part 4 of the Act Transpower continues to be subject to this administrative settlement until it expires on 30 June 2011.

1.2.7 Under Part 4 of the Act, the Commission is required to:

a. recommend to the Minister of Commerce that an Order in Council be made under s 52N declaring that Transpower is subject to either default/customised or individual price-quality regulation following the expiry of the administrative settlement between Transpower and the Commission on 30 June 2011; and

b. determine a price-quality path for Transpower, of the type specified in the Order in Council, as soon as practicable after the Order in Council is made (the Commission intends to do this by no later than 30 November 2010).

Proposed regulation under Part 4

1.2.8 In February 2010, the Commission consulted with interested parties on the type of price-quality regulation that should apply to Transpower. The Commission subsequently provided its recommendation to the Minister of Commerce that Transpower be subject to individual price-quality regulation under Part 4 of the Act.[6] The Commission recommended that price be specified in terms of a revenue cap determined using a full building blocks approach.

1.2.9 As the Commission has not yet received the Minister's decision in respect of its recommendation, this Paper has necessarily been drafted on the basis of the Commission's recommendation. The Commission’s draft decision will, however, no longer be applicable if the Minister's decision is to apply default/customised price-quality regulation.

[6] Commerce Commission, *Recommendation to the Minister regarding the type of regulation to apply to Transpower*, 13 April 2010.

Timing and implementation of individual price-quality regulation

1.2.10 Section 54M of the Act requires the Commission to provide its recommendation to the Minister before the expiry of the settlement. The recommendation was made well in advance of the expiry of the settlement to give the Commission sufficient time to develop regulation for Transpower to take effect from that expiry date. Once the Commission has received the Minister's decision and, as soon as practicable after an Order in Council has been made, the Commission must make its s 52P determination. The Commission must publish a summary of its determination at least four months prior to it taking effect.[7] The Commission considers that the determination should be made in November 2010, as Transpower will announce its prices for the pricing year commencing 1 April 2011 in December 2010.

1.2.11 Furthermore, Transpower will need time between when the Commission makes its final determination and when it can practically announce its 2011/12 pricing structure, using the Commission's revenue determination. Practically speaking, the Commission intends to have its determination made by early October 2010 (nine months prior to the Commission's statutory deadline). This poses problems, as under an individual price-quality path, using a full building blocks approach, the Commission would expect to undertake a full ex-ante review of both operating and capital expenditure, proposed by Transpower, for the full length of each entire regulatory control period (RCP). In the first instance, this would require Transpower to prepare and propose, and the Commission to assess Transpower's capital and operational expenditure plans, and provide its determination by a date that still provided Transpower sufficient time to develop and announce its prices for the 2011/12 pricing year (effectively by early October 2010).

1.2.12 The time constraints that arise from the lead time necessary for-price setting, led the Commission to propose separating the first regulatory control period (RCP1) into a Transition Year (1 April 2011 to 31 March 2012) and a Remainder Period (1 April 2012 to 31 March 2015).

1.2.13 For the Transition Year, the level of operating and capital expenditures used in setting Transpower's approved maximum allowable revenues (MAR) will be approved using an approach different to that for the Remainder Period. For operating expenditure, the Commission escalated the operating expenditure provision under the settlement, along with a number of other adjustments, rather than undertaking a full review. This is set out in more detail in Chapter 4. For capital expenditure, the Commission adopted a similar approach to that used under the settlement agreement for annual approvals of proposed capital expenditure. This is set out in more detail in Chapter 5. This approach was set out in the Commission's Process and Recommendation Discussion Paper, as well as its Emerging Views Paper, and received general support. [8]

7 Section 53M(7).

8 Transpower Workshop, 2/3 March 2010, Appendix B (Emerging Views Paper, 17 February 2010). This is also consistent with the Transition Year approach proposed in the Transpower Process and Recommendation Discussion Paper, June 2009, paragraph X9.

1.2.14 In contrast, for the Remainder Period, the Commission intends to undertake a full ex-ante review of both Transpower's operating expenditure and capital expenditure. This review will occur in early 2011.

Implications of the Electricity Industry Bill

1.2.15 In the Commission's Process and Recommendation Discussion Paper it considered that a pricing methodology under s52T(1)(b) should not apply to Transpower because the Electricity Commission is currently responsible for the Transmission Pricing Methodology (TPM). In its Recommendation to the Minister, the Commission considered that, because the Electricity Commission is responsible for Transpower's pricing methodology and that it has a mandatory pricing methodology in place, it would not be beneficial to set an input methodology in this regard.[9]

1.2.16 Since that time, the Bill, in its present form (clause 142), anticipates s 52T(1)(b) being amended to disallow the Commission to set pricing methodologies in relation to particular goods or services that are subject to regulation by an industry-specific regulator (such as the Electricity Authority). Irrespective of whether or not the Bill is enacted, the Commission's view is that it would not set a pricing methodology for Transpower.

1.2.17 The Commission is also mindful that the Bill anticipates the Commission setting an input methodology specifying an approval process for capital expenditure. The timeframe for this is specified in the Bill. As the Bill has not been enacted, and the timeframe to establish and implement this input methodology prior to the 2012/13 price setting process is insufficient, the Commission's preliminary view is that it will not establish the Bill's proposed input methodology as part of the Commission's initial s 52P determination. The Commission will, however, if required, establish a capital expenditure input methodology in accordance with the timeframes required by any amendments to current legislation.

1.2.18 The other impact of the Bill is to alter the restrictions on the Commission in respect of setting quality measures applying to Transpower. The limitation on the Commission to 'give effect to' the quality standards set by the Electricity Commission may be replaced with requirement to remain consistent with the standards set by the Electricity Commission. This is discussed in more detail in Section 6.2.4.

Statutory Framework

1.2.19 The overall purpose statement for Part 4 is contained in s 52A of the Act. There is no express purpose statement in relation to individual price-quality regulation. There is only one section in subpart 7, that is s 53ZC. That section, however, requires the Commission to apply relevant input methodologies when setting an individual price-quality path. This effectively refers the Commission back to the purpose statement in s 52A, which is an important guide in determining appropriate input

9 Commerce Commission, *Recommendation to the Minister of Commerce regarding the type of regulation to apply to Transpower*, 13 April 2010, p.31, paragraph A25.

methodologies, as well as to s 52R which sets out the purpose of input methodologies.

1.2.20 As noted in the Input Methodologies (Transpower) Draft Reasons Paper, the Commission's interpretation of the Part 4 purpose is that:

a. The overall purpose is to promote the long-term benefit of consumers in markets where there is little or no competition and little or no likelihood of a substantial increase in competition.

b. This overall purpose is to be achieved by promoting outcomes consistent with outcomes produced in workably competitive markets such that s 52A(1)(a) to (d) occur.[10]

1.2.21 The Commission has sought to identify the relevant outcomes produced in workably competitive markets, and has sought to design an individual price-quality path that will promote such outcomes in respect of the regulated services that Transpower supplies.[11] The regulatory mechanisms described in this Paper, together as a package, promote over the long-term, the overall objectives of the Act as set out in s 52A(1)(a)-(d).

1.2.22 The regulatory framework, described in the Commission's draft decisions below, promotes the long-term benefit of consumers by providing:

a. incentives to invest, by allowing Transpower to fully recover and earn an appropriate return on its investments, and by providing a penalty/reward framework around quality standards;

b. incentives for Transpower to become more efficient in its operating expenditure, as well as incentives to make efficiency improvements to outperform its targets for quality performance, and in the longer term, in its capital expenditures;

c. requirements for Transpower to share efficiency gains with consumers, such as through the incremental rolling incentive scheme for operating expenditure; and

d. limits on the economic gains that can be made by Transpower in any given regulatory period.

1.2.23 The purpose of input methodologies, as set out in s 52R, is to promote certainty in relation to the rules, requirements and processes applying to regulation or proposed regulation. The Commission's preliminary view is that each of the input methodologies set out in s 52T(1)(a) are relevant to Transpower, and will assist in promoting certainty regarding the regulation of Transpower. Input methodologies are discussed in more detail in Chapter 2.

1.2.24 The Commission has a wide discretion with respect to the manner in which it may determine an individual price-quality path for Transpower. Under s 53ZC(1), it may

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10 *Input Methodologies (Transpower) Draft Reasons Paper, p.28, paragraph 2.5.2.*

11 The Commission has discussed the concept of workable competition in further detail in the *Input Methodologies (Transpower) Draft Reasons Paper*, at Section 2.5

determine the path using any process, and in any way, it thinks fit, provided it uses applicable input methodologies and the relevant price-quality provisions of the Act in ss 53M and 53N.

1.2.25 The Commission intends that matters relevant to determining Transpower's first price-quality path under individual price-quality regulation, excluding input methodologies, will be set out in its s 52P determination. The Commission's final reasons paper will include the approval processes for operating and capital expenditure, and setting of quality standards.

1.2.26 The Commission intends that, subsequent to the Commission's November 2010 s 52P determination, any non-framework changes to the s 52P that are necessary, such as setting a new price-quality path for the next RCP, or updating Transpower's MAR during an RCP, will likely be done by amending the s 52P determination under s 52Q of the Act. This is instead of revoking and replacing the entire s 52P determination that is in place at that time, when all that may be required is using the existing framework and processes to reset the MAR.

1.2.27 For the purpose of this Draft Reasons Paper, reference to the s 52P determination refers to the first determination that sets the overall regulatory framework. For the avoidance of doubt, this will also include the first individual price-quality path. Reference to subsequent MAR determinations refer to decisions being made by the Commission regarding a price-quality path to apply to Transpower for a given RCP, given effect via an amendment under s 52Q of the Act.

1.2.28 A more in-depth description and explanation of the regulatory framework that applies to Transpower has been provided in Chapter 2 of the Input Methodologies (Transpower) Draft Reasons Paper 2010. This includes the applicable framework for input methodologies, information disclosure, and individual price-quality regulation, as well as consideration of the Electricity Act 1992, the Minister's review of the electricity industry, and relevant Government policy statements.

Information disclosure

1.2.29 Section 53A of the Act provides that the purpose of information disclosure regulation is:

> to ensure that sufficient information is readily available to interested persons to assess whether the purpose of [Part 4] is being met.

1.2.30 In forming its draft decisions with regard to applying individual price-quality regulation to Transpower, the Commission has had regard to how the regulatory framework, when applied to information disclosure regulation, will assist interested persons assess whether the Part 4 Purpose is being met.

1.2.31 Under s 54I(1), a s 52P determination which specifies how information disclosure regulation applies to Transpower under Part 4 must be made as soon as practicable after 1 April 2009. The Commission intends to set new information disclosure requirements after applicable IMs have been determined. Until that time, s 54W provides that the current information disclosure requirements for Transpower (as set out in the Electricity (Information Disclosure) Requirements 2004) continue to apply.

1.3 Process: Next steps

Individual price-quality path determination

1.3.1 The s 52P determination, together with the input methodologies determination, sets out the approach to determining an individual price-quality path for Transpower for the regulatory period commencing 1 July 2011. This Paper provides the draft decisions and reasons relating to the s 52P determination. The s 52P Determination itself will be published for consultation in October 2010, and finalised by 30 November 2010. The Commission's Input Methodologies (Transpower) Draft Reasons Paper has been published for consultation alongside this Paper, with a view to making a final Determination no later than 30 November 2010.

1.3.2 Following receipt and consideration of all submissions and cross-submissions in relation to the draft decisions set out in this Paper, the Commission will consult on the technical drafting of the individual price-quality determination. A parallel process will involve receipt and consideration of submissions on the draft decisions set out in the Input Methodologies (Transpower) Draft Reasons Paper 2010. Timeframes are set out in detail below.

Table 1.1 Process and next steps

Key Step	Indicative Date
Consultation on the Individual Price-Quality Path (Transpower) Draft Decisions and Reasons Paper. Submissions due 6 August 2010 (6 weeks) Cross Submissions due 23 August 2010 (2 weeks)	28 June 2010
Consultation on the Input Methodologies (Transpower) Draft Reasons Paper. Submissions due 6 August 2010 (6 weeks) Cross Submissions due 23 August 2010 (2 weeks)	25 June 2010
Consultation on the Input Methodologies (Transpower) Draft Determination. Submissions due 6 August 2010 (4 weeks) Cross Submissions due 23 August 2010 (2 weeks)	9 July 2010
Consultation on the Individual Price-Quality Path (Transpower) Draft Determination Paper (consultation on the technical drafting of the determination). Submissions due October 2010 Cross Submissions due Nil.	September / October 2010
Final Individual price-quality path (Transpower) s 52P Determination.	November 2010
Final Individual price-quality path (Transpower) Decisions and Reasons Paper.	November 2010
Summary of s 52P Determination published in Gazette	November 2010
Input Methodologies (Transpower) Final Determination.	November 2010
Input Methodologies (Transpower) Final Reasons Paper	November 2010

1.4 Consultation on this Discussion Paper

Process for making a submission

1.4.1 Submissions are invited on this Paper, from all interested parties. Submissions should be received by the Commission no later than 5pm on Friday, 6 August 2010 (due-date).

1.4.2 The Commission is seeking submissions on any aspect of its draft decisions in relation to Transpower's individual price-quality determination. The Commission has not identified specific questions for submitters so that submitters do not feel constrained as to the matters they should discuss in their submissions. If possible, submissions should be structured according to the chapter headings in the Paper.

1.4.3 Where parties disagree with the Commission's draft decisions, submissions should set out the reasons for disagreeing and the alternative approach submitters suggest. This will assist the Commission in weighing up the arguments for and against the various approaches. The Commission requests that parties put forward all arguments and supporting documentation in their submissions so that the Commission can fully consider all relevant matters before it makes its final decisions.

1.4.4 In order to meet the timeframes prescribed by the Act, the Commission relies on submissions being provided by the due-date. The Commission will only allow extensions beyond the due-date if the submitter provides good reasons in writing. Unless an extension has been granted, the Commission may not be in a position to adequately consider submissions that are received after the due-date.

1.4.5 To foster an informed and transparent process the Commission intends to publish all submissions received on its website (www.comcom.govt.nz). Accordingly, the Commission requests an electronic copy of each submission and requests that hard copies of submissions not be provided (unless an electronic copy is not possible). Submissions should be emailed to regulation.branch@comcom.govt.nz by the due-date, with the subject heading '[Company Name] submission on individual price-quality (Transpower) Draft Reasons Paper.'

Confidentiality

1.4.6 The Commission discourages requests for non-disclosure of submissions, in whole or in part, as it is desirable to test all information in a fully public way. It is unlikely to agree to any requests that submissions in their entirety remain confidential. However, the Commission recognises there will be cases where interested parties making submissions may wish to provide confidential information to the Commission.

1.4.7 If it is necessary to include such material in a submission the information should be clearly marked and preferably included in an appendix to the submission. Interested parties should provide the Commission with both confidential and public versions of their submissions in both electronic and hard-copy formats. The responsibility for ensuring that confidential information is not included in a public version of a submission rests entirely with the party making the submission.

1.4.8 Parties can also request that the Commission makes orders under s 100 of the Act in respect of information that should not be made public. Any request for a s 100 order must be made when the relevant information is supplied to the Commission and must identify the reasons why the relevant information should not be made public. The Commission will provide further information on s 100 orders if requested by parties, including the principles that are applied when considering requests for such orders. A key benefit of such orders is to enable confidential information to be shared with specified parties on a restricted basis for the purpose of making submissions. Any s 100 order will apply for a limited time only as specified in the order. Once an order expires, the Commission will follow its usual process in response to any request for information under the Official Information Act 1982.

Cross-submissions

1.4.9 The Commission also invites cross-submissions on matters raised in submissions on this Paper. The purpose of these cross-submissions is to ensure that the Commission is aware of points of agreement or disagreement on matters raised by other submitters on the Commission's draft decisions prior to it making its final decisions in Q4 2010. Cross-submissions are due by 5pm on Monday 23 August 2010.

SECTION 2: DRAFT DECISIONS AND REASONS

CHAPTER 2: INPUT METHODOLOGIES THAT APPLY

The Commission's draft decision, as set out in the Input Methodologies (Transpower) Draft Reasons Paper, is that the following input methodologies will apply to Transpower:

- Cost allocation;
- Valuation of assets;
- Cost of Capital;
- Taxation; and
- Rules and Processes, which includes the Commission's approach to:
  - i. the specification and definition of prices, including identifying any costs that can be passed through to prices;
  - ii. identifying circumstances in which price-quality paths may be reconsidered within a regulatory period; and
  - iii. how a rolling incentive mechanism will operate for Transpower.

2.2 Introduction

2.2.1 This Chapter provides a brief summary of the draft decisions which have been set out in detail in the Commission's Input Methodologies (Transpower) Draft Reasons Paper. This Chapter does not provide an exhaustive coverage of those decisions, not does it provide reasons for those decisions. These have been provided in full in the Commission's Input Methodologies (Electricity Transmission) Draft Reasons Paper, and are repeated for the reader's convenience. This Chapter also does not cover any process or draft decision on other non-input methodology matter.

2.2.2 From 1 October 2011, if the Electricity Industry Bill passes and if the Commission is required to set a new capital expenditure input methodology, the Commission will likely publish a new s 52P determination containing any amended determinations, which will supersede the interim capital expenditure arrangements set out in this paper.

2.3 Cost allocation

Draft decision

2.3.1 The Commission's detailed draft decisions on matters relating to cost allocation are provided in Chapter 3 of the Commission's Input Methodologies (Electricity Transmission) Draft Reasons Paper. A summary of those draft decisions includes the following:

- Transpower is not required to adjust the total costs associated with supplying its regulated services;

- the system operator activities provided by Transpower are an activity that forms part of the electricity lines services regulated under Part 4 of the Act;
- where the EC and Transpower have an agreed SOSPA, the Commission will not interpose itself by requiring the revenue associated with the SOSPA to be subject to an individual price-quality path;
- Transpower is not required to adjust the costs of undertaking its regulated activities, other than for the costs of system operator activities;
- fixed assets used solely for the purposes of undertaking the system operator activities are to be excluded from Transpower's RAB. Any costs recovered through the SOSPA are to be excluded from any opex or capex forecasts used to determine Transpower's individual price-quality path;
- services provided by New Investment Contracts (NICs) fall under the Part 4 definition of electricity lines services as it involves the conveyance of electricity by line;
- the Commission will not interpose itself between Transpower and its contract counterparties by requiring the revenue associated with NICs to be subject to an individual price-quality path, provided certain conditions are met;
- fixed assets associated with NICs are to be excluded from Transpower's RAB. Any capex included in NICs is to be excluded from any capex forecasts used to determine Transpower's individual price-quality path; and
- Transpower should continue to include all operating costs associated with NICs within its total operating costs associated with providing regulated services.

Reasons

2.3.2 The Commission's reasons for its approach to cost allocation are provided in Chapter 3 of the Input Methodologies (Transpower) Draft Reasons Paper.

2.4 Asset valuation

Draft decision

2.4.1 The Commission's detailed draft decisions on matters relating to asset valuation are provided in Chapter 4 of the Commission's Input Methodologies (Electricity Transmission) Draft Reasons Paper. A summary of the Commission's draft decisions for establishing the initial RAB value for Transpower, and rolling the RAB forward, includes the following:

- the initial value of the RAB should be the RAB determined under the settlement agreement as at 30 June 2011;
- the initial value of the RAB should include the remaining value of the high voltage alternating current (HVAC) lines pseudo asset, established by the settlement agreement, as at 30 June 2011;
- the following assets should be excluded from the RAB:
    i. any assets not used to provide electricity lines services, as defined in s 54C;

ii. any asset that is part of a works under construction;

iii. working capital;

iv. easement land, that is land acquired for the purpose of creating an easement, and with the intention of subsequently disposing of the land;

v. assets provided under NICs; and

vi. assets used in the provision of the system operator services;

- Transpower may include in the RAB value only those intangible assets that meet the GAAP standard NZ IAS 38, using the cost model of recognition, with the exception of goodwill which must be excluded
- Transpower may include assets permitted by NZ IAS 17, that is finance leases, in the RAB value;
- Transpower must allocate asset values using the process set out in the cost allocation IM; and
- the Transpower RAB must be rolled forward for Commission approved capital additions at depreciated historic cost (DHC). No indexation is to be applied in rolling forward the RAB.

Reasons

2.4.2 The Commission's reasons for its approach to asset valuation are provided in Chapter 4 of the Input Methodologies (Transpower) Draft Reasons Paper.

2.5 Treatment of Taxation

Draft decision

2.5.1 The Commission's draft decision is that Transpower's tax obligations should be estimated using a 'tax payable' approach, and that:

- the cost allocation IM is to be applied, and tax legislation is to be applied (to the extent practicable and subject to other relevant provisions in the input methodologies), to calculate the regulatory taxable income;
- tax deductible debt interest should be calculated using a notional leverage of 40 percent;
- tax losses in Transpower's wider tax group should be ignored when estimating tax costs, and any tax losses generated in the supply of Transpower's regulated electricity lines services should be notionally carried forward to the following disclosure year;
- the regulatory tax asset value of assets acquired from Transpower or from a supplier of another type of regulated service should remain unchanged in the event of an acquisition of assets used to supply services under Part 4; and
- the initial regulatory tax asset value should be the same as that recognised by the Inland Revenue Department (IRD) for the relevant assets or share of assets used by Transpower to supply regulated electricity lines services, but not exceed the initial RAB value.

Reasons

2.5.2 The Commission's reasons for its approach to tax are provided in Chapter 5 of the Input Methodologies (Transpower) Draft Reasons Paper.

2.6 Cost of capital

Draft decision

2.6.1 The Commission's draft is that it will estimate the cost of equity using the simplified Brennan-Lally version of the Capital Asset Pricing Model (CAPM). Seven parameters are required to estimate the cost of capital. These include:

- Leverage: the Commission considers that a leverage of 40% (i.e. 40% of debt capital to debt and equity capital) is appropriate for all services in calculating the cost of capital using the simplified Brennan-Lally CAPM under Part 4 of the Act;
- Risk-free rate of return: Annually for Transpower, the Commission will estimate a five-year risk-free rate of return using the observed market yield to maturity of vanilla NZ government NZ$ denominated nominal bonds;
- Debt premium and debt issuance costs: Annually for Transpower, the Commission will estimate the debt premium as the difference between the corporate and the risk-free rate of return. The Commission will approximate the corporate rate of borrowing for Transpower using five-year publicly traded bonds, with a BBB+ Standard & Poors or similar long-term credit rating. Regarding debt issuance costs, the Commission considers that these justify a 30 basis point addition to the cost of debt;
- TAMRP: The Commission considers that a long-term rate of 7% would be appropriate. However, in light of the recent global financial crisis, the Commission considers that a temporary increase of the TAMRP to 7.5% is justified until 30 June 2011. The TAMRP will be expressed as a five-year composite rate. Hence, a TAMRP estimated for the 2010/11 financial year would be 7.1% and a TAMRP estimated for 2011/12 financial year would be 7%;
- Betas: The Commission will use an asset beta for Transpower of 0.34. Combining this estimate with a notional leverage of 40% equates to an equity beta of 0.57; and
- Tax rates: The Commission will assume both the investor and corporate tax rate to be 30% up until the last day of March 2011 and 28% thereafter.

2.6.2 The Commission considers that the degree of volatility with regard to the risk-free rate of return and the debt premium is sufficient to update these parameters when calculating suppliers' cost of capital. All other parameters that form part of the cost of capital estimation will be fixed in the Input methodologies determination and will not be updated on a regular basis.

2.6.3 For information disclosure, the Commission will annually calculate a range for the five-year term of the vanilla and post-tax cost of capital. The Commission considers it appropriate to apply a range between the 25th and 75th percentiles for assessing profitability.

2.6.4 For the purpose of the Individual Price-Quality path, Transpower is subject to a four-year regulatory period (made up of one transitional year and a three year period) followed by a five-year regulatory period. The Commission will, for both regulatory periods, select a single point estimate of the vanilla cost of capital with a five-year term. The Commission considers it appropriate to apply the 75th percentile of the vanilla cost of capital estimate.

Reasons

2.6.5 The Commission's reasons for its approach to estimating the cost of capital are provided in Chapter 6 of the Input Methodologies (Transpower) Draft Reasons Paper.

2.7 Rules and Processes

Specification of Price

2.7.1 Price for Transpower will be specified by a revenue cap. The Input Methodology will include an initial list of Pass-Through Costs and a process for adding new Pass-Through Costs as well as an initial list of Recoverable Costs for Transpower. The initial list of Pass-Through Costs includes local authority rates and regulatory levies. The initial Recoverable Costs for Transpower are instantaneous reserves, the costs of developing and funding transmission alternative services under some conditions, and the net incremental carry-forward amount under the incremental rolling incentive scheme.

Circumstances in which price-quality paths may be reconsidered

2.7.2 Transpower's Individual Price-Quality Path may be reconsidered if one of the following events has occurred:

- a catastrophic event, for which the costs of rectifying the impact of the event is material; or
- a material error is discovered in the determination; or
- Transpower has provided false or misleading information to the Commission, which the Commission has relied upon in making its determination; or
- a change in a legislative or regulatory requirement that has a material impact on costs.

2.7.3 In this context, material means that the impact of the event over the remainder of the regulatory period is at least 5% of the allowed revenue for the year in which the event occurs.

Incremental Rolling Incentive Scheme

2.7.4 The Commission will implement an IRIS for Transpower's IPP. The efficiency gain or loss for a particular year will be calculated as the difference between actual and forecast controllable opex for the current year, minus the difference in the preceding year, the result of which provides the incremental gain / loss for that year.

2.7.5 While both incremental gains and losses will be carried forward, only positive net balances will be carried forward (i.e. only net rewards will be carried forward).

2.7.6 The length of time Transpower is allowed to retain the efficiency gain is five years.

Reasons

2.7.7 The Commission’s reasons, in respect of rules and processes, are provided in Chapter 7 of the Input Methodologies (Transpower) Draft Reasons Paper.

CHAPTER 3: FORM OF CONTROL

In summary, the Commission's draft decisions on the form of control include:

- The length of the first regulatory period will be four years, with the first year of the four years (Transition Year) using a number of transitional mechanisms;
- Each subsequent regulatory period will be five years;
- Transpower will be subject to a maximum allowable revenue for each year of each RCP;
- Transpower must calculate its MAR using approved processes and specifications, and provide an independent audit report of the process and calculations used;
- Transpower will be required to calculate and provide its MAR:
  - for the Transition Year of RCP1, by 10 September 2010;
  - for the Remainder Period of RCP1, by 9 September 2011;
  - in RCP2 and subsequent RCPs, by the second Friday in the month of the September prior to the start of that RCP;
- Transpower must apply an adjustment of no less than 50% of the balance of the forecast 30 June 2011 closing HVAC EV account balance, when calculating its MAR for the Transition Period of RCP1;
- The forecast 30 June 2012 closing balance of the HVAC EV account, along with forecast interest charges over the remainder of RCP1, must be apportioned equally over the remaining years of RCP1;
- The forecast 30 June 2011 closing balance of the HVDC EV account, along with forecast interest charges over the remainder of RCP1 and RCP2, must be apportioned equally over each year of RCP1 and RCP2;
- The forecast 30 June 2015 closing balance of the HVDC EV account, along with forecast interest charges over the remainder of the RCP1 and RCP2, must be apportioned equally over RCP2;
- In each RCP, annual wash-ups will apply:
  - The first will occur in Year 1 of each RCP, and will calculate final ex-post economic gains or losses from the previous RCP;
  - The last will occur in the final year of each RCP, and will calculate ex-post economic gains or losses during the RCP, up to that point, as well as include forecast ex-post economic gains or losses for the final year of the RCP; and
- The amount of each wash-up will be applied as an adjustment to the appropriate EV account;
- The MAR will not be updated during RCP1;
- In subsequent RCPs, the MAR will be updated a maximum of twice per RCP, the first update being in Year 1 (changes applying from Year 2), and the

second update in year 3 with changes applying from year 4, or at Transpower's option, it can be undertaken in Year 4 and applied to Year 5;

- The second MAR update will only occur if Transpower requests it;
- Ex-post economic gains or losses are to be calculated on the basis that revenue received in the pricing year starting immediately prior to the start of the financial year is deemed to have been received in the financial year;
- All economic gains or losses, calculated annually, must be transferred to the appropriate EV account;
- From RCP2, when setting the MAR for each RCP, the balance of the EV account, plus forecast interest over the remainder of the RCP, must be fully apportioned equally over each year of the RCP;
- Ex-post economic gains or losses calculated for the last year of each RCP (these being transferred to the EV accounts), along with forecast interest charges on that gain or loss over the remainder of the RCP, must be apportioned equally over the remaining 4 years of that RCP when the MAR is updated in Year 1 of that RCP;
- Transpower must, on an annual basis, publish and provide to the Commission by the second Friday of each August, a written statement that confirms its compliance, or otherwise, with each of the requirements for calculating its ex-post economic gains or losses for each completed year of that RCP;
- Operating expenditure must be calculated in accordance with Chapter 4; and
- Capital expenditure must be calculated in accordance with Chapter 5.

3.1 Chapter Introduction

Scope of Decision

3.1.1 This Chapter sets out the Commission's draft decisions on all matters relating to Transpower's individual price-quality path, except for those matters relating to:

a. input methodologies, as described in Chapter 2;

b. operating expenditure, as described in Chapter 4;

c. capital expenditure, as described in Chapter 5; and

d. quality standards, as described in Chapter 6.

3.1.2 The Commission has sought to identify the relevant outcomes produced in workably competitive markets, and has sought to design a form of control that will promote such outcomes in respect of the regulated services that Transpower supplies.[12] The form of control described in this Paper promotes, over the long-term, the overall

[12] See paragraph 1.2.21.

objectives of the Act as set out in s 52A(1)(a)-(d). This Chapter identifies how the Commission's decisions are consistent with these objectives.

3.2 Length of the Regulatory Control Period

Draft decision

3.2.1 The Commission's draft decision is that the length of the first regulatory period will be four years. Subsequent regulatory periods will be five years.

Reasons

3.2.2 The Act (ss 53M(4) and (5)) requires that under individual price-quality path regulation the regulatory control period must be five years unless the Commission considers that a shorter period (of not less than four years) would better meet the purposes of Part 4.

3.2.3 The Commission considers that, in general, a longer regulatory period (i.e. five years) is more consistent with the Part 4 Purpose Statement than the alternative of 4 years, as it provides greater certainty for Transpower and its consumers and, therefore, helps to promote the long-term benefit of consumers. Given the uncertainty associated with Transpower's forecast capital and operating expenditure in the first regulatory period, however, the Commission considers it appropriate to set the initial regulatory period at four years. This four year period will include an initial Transition Year, during which Transpower's capital and operating expenditure proposals for the remaining three years of the regulatory period (Remainder Period) will be prepared, reviewed, and incorporated in a MAR determination.

3.2.4 This approach is consistent with the Commission's preliminary views as published in June 2009,[13] and which were supported by submitters.[14]

3.3 Pricing and financial year differences

Draft decision

3.3.1 The Commission's draft decision is that revenue received in the pricing year starting immediately prior to the start of a financial year will be deemed to have been received in the financial year. The revenue forecasts are based on the financial year, but are applied to the pricing year, which is three months earlier.

3.3.2 For this reason, the Commission considers that ex-post economic gains or losses in respect of the provision of electricity lines services by Transpower should be calculated at the end of each financial year on the basis that revenue received in the pricing year starting immediately prior to the start of the financial year is deemed to have been received in the financial year.

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13 Input Methodologies Discussion Paper, & Transpower Process and Recommendation Discussion Paper.

14 For example, refer to Transpower's submission on IMDP, Q.217; and MEUG's submission on IMDP, page 5, paragraph 18(g).

3.3.3 All other aspects of assessing compliance will be done on a financial year basis (such as operating costs and commissioned capital).

Reasons

3.3.4 As Transpower's regulatory accounts are aligned with its financial year (both beginning on 1 July each year) the regulatory framework needs to account for the fact that Transpower's pricing year starts on 1 April (which aligns with the pricing years of electricity distribution businesses).

3.3.5 This approach set out above is consistent with that taken under the administrative settlement. This provides a more cost effective approach than requiring Transpower to report against and audit two sets of accounts.

3.4 Approach for Setting the Maximum Allowable Revenue

Draft decision

3.4.1 The Commission's draft decision is to require Transpower to calculate its MAR for each year of each RCP. Transpower must do this by applying the Commission's specified building blocks, using the Commission-approved amounts for operating and capital expenditure specified in accordance with the process set out in this reasons Paper, the applicable input methodologies, and any other requirements specified by the Commission's s 52P determination.

3.4.2 Transpower will be required to provide to the Commission its calculated MAR for each year of the RCP, by the second Friday in the month of the September, prior to the first year of the RCP. In the case of RCP1, specifically, a MAR must be provided for the Transitional Year (Year 1) by 10 September 2010 and the MAR for years 2-4 (the Remainder Period) by 9 September 2011.

3.4.3 The Commission will require that Transpower's MAR calculation is supported by the assurance of a Commission-approved auditor, that the formula, calculations, inputs and process followed by Transpower in calculating the MAR accurately applies the specified requirements of the Commission's s 52P determination.

3.4.4 The Commission will make its decision on the MAR to be applied no later than 30 November in each instance.

3.4.5 Transpower will also be required to re-run its revenue model for the purposes of any wash-ups, as set out in the s 52P determination.

Reasons

3.4.6 The Commission considers that requiring Transpower to provide to the Commission its calculated MAR by the second Friday in the month of September allows sufficient time between financial year-end and the submission of the calculated MAR for the Commission to review, and if necessary, determine any necessary adjustments, before Transpower announces prices for the next pricing year.

3.4.7 In RCP1, because this has been separated into a Transition Year and Remainder Period, Transpower will be required to provide its calculated MAR for the Remainder Period by the second Friday in the month of the September prior to prices being set for the Remainder Period (9 September 2011). In future RCPs, if the Commission were to separate the period into more than one MAR determination, the Commission considers that the timing requirement set out above, would remain appropriate.

3.4.8 With regard to the process for setting Transpower’s MAR, the Commission considers that, if Transpower's processes for ensuring the integrity of an approved MAR model are sufficiently robust, and the process and model itself are accurate and sufficiently transparent, then the Commission may not need to develop its own MAR model.

3.4.9 Requiring Transpower to calculate its MAR, using the inputs specified by the Commission, the Commission would:

a. require Transpower to have its model audited;

b. approve Transpower's model for calculating MAR;

c. rely on Transpower's audited and approved internal processes each time the MAR is set;

d. require Transpower to apply the requirements and specifications set out in the relevant s 52P determination (which also applies the relevant input methodologies), as well as any determinations made by the Commission on other inputs, such as operating and capital expenditure, to calculate a MAR that would apply for each year of the RCP. This would be undertaken in sufficient time to enable inclusion in the pricing process for the first year of each RCP; and

e. review Transpower's calculated MAR and, if necessary, make adjustments prior to making its MAR determination.

3.4.10 The process for setting the MAR for each RCP will not include a consultation on the calculated MAR. This is because the calculation of the MAR is considered to simply be a mechanistic application of the specified inputs and formulae. As such, the Commission intends consulting only on the key inputs to the determination, i.e.

a. levels of operating expenditure and Minor capital expenditure to be provided for in the MAR; and

b. the case for each proposed Major capital project.

3.5 Calculating the Maximum Allowable Revenue

Draft decision

3.5.1 The Commission’s draft decision is that Transpower will be required to calculate its MAR for each year of the RCP, on the basis of:

a. a separate operating expenditure cap set by the Commission for each year of the RCP;

b. an ex-ante calculation of return on and of capital relating to the category of Minor capital expenditure that is expected to be commissioned during the regulatory period, taking into account the timing of the commissioning and the cap set by the Commission for each year of the RCP;

c. an ex-ante calculation of return on and of capital relating to approved Major capital projects that are expected to be commissioned during the regulatory period, taking into account the timing of commissioning;

d. an ex-ante calculation of return on and of capital on the closing balance of the RAB as at the 30 June immediately prior to the year for which the MAR is being set;

e. EV account adjustments to account for the reduction of the EV account to zero, over time, as specified by the Commission; and

f. the relevant input methodologies as set by the Commission.

3.5.2 The calculated MAR must not include approved pass-through costs or recoverable costs. Transpower will forecast these on an annual basis, these being added to its MAR. Any under or over recovery must be demonstrated in Transpower's annual compliance statement, and an adjustment to the EV account made equal to the over or under recovery. The treatment of pass-through costs and recoverable costs is set out in detail in Section 7.4 of the Input Methodologies (Transpower) Draft Reasons Paper.

Reasons

3.5.3 The Commission's draft decision requires a building blocks approach to be used, which involves determining the maximum revenues that would allow Transpower to recover the 'building block' cost components it faces. A general expression for the annual building blocks allowed revenue for Transpower, separately for the HVAC and HVDC, can be represented as follows:

Regulatory Asset Base × Regulated Rate of Return

+ Depreciation

+ Operating Expenditure (excluding pass through costs and recoverable costs)

+ Tax

± EV account Adjustments (including revenue adjustments based on quality performance)

= Building Blocks Allowed Revenue

3.5.4 Each building block cost component is intended to reflect realistically achievable efficiencies for the particular component in question during the regulatory period (e.g. operating expenditure). Nevertheless, a more important consideration is to ensure that appropriate incentives for efficiency are provided by application of the building blocks methodology as a whole, as opposed to any individual block.

3.5.5 The reasons for the approach reflected in this draft decision are discussed in more detail in the Commission's Process and Recommendation Discussion Paper,[15] as well as the Commission's Input Methodologies Discussion Paper.[16] The Commission considers that this approach will provide Transpower with an appropriate level of annual revenue, based on detailed reviews of both operating and capital expenditure proposals, and taking into consideration the Commission's decision on appropriate input methodologies. The Commission has sought to identify the relevant outcomes produced in workably competitive markets, and has sought to design an approach that will promote such outcomes in respect of the regulated services that Transpower provides. The approach to determining the MAR promotes, over the long term, the overall objectives of the Act as set out in s 52A(1)(a)-(d). It promotes s 52A(d) by limiting excess returns, s 52A(b) and (c) by requiring efficiency improvements, and the sharing of those gains with consumers. As Transpower will receive an appropriate return on its investment, s 52A(a) is also promoted by adopting this approach, and therefore, as a package, promotes the long term benefit of consumers.

3.6 Single Maximum Allowable Revenue to apply

Draft decision

3.6.1 The Commission's draft decision is that a separate MAR will be set for each year of the RCP at the start of the RCP. The MAR for each year will be the total of Transpower's approved annual HVAC revenue requirements and approved annual HVDC revenue requirements.

3.6.2 Transpower will continue to be required to disclose its costs, adjustments and charges to both the HVAC and HVDC customers through annual compliance statements (refer section 3.7). For the purpose of compliance with the individual price-quality path, Transpower will be assessed against a single MAR only.

Reasons

3.6.3 Meridian Energy, in its November 2007 submission to the Commission suggested that Transpower should be subject to a separate MAR for HVAC and HVDC.[17] Meridian suggested Transpower should be constrained in its ability to increase prices and operating costs, as well as being constrained in its ability to cross-subsidise between the two classes of assets at its discretion.

3.6.4 The Commission has considered whether Transpower should be subject to separate MARs for HVAC and HVDC. The key rationale and advantages of such an approach appear to be to constrain price increases and prevent inappropriate allocation of costs between HVAC and HVDC customers.

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[15] Commerce Commission, *Transpower Process and Recommendation Discussion Paper*, 19 June 2009, p.35.

[16] Commerce Commission, *Input Methodologies Discussion Paper*, 19 June 2009, p.485.

[17] Meridian Energy Limited, *Submission to the Commerce Commission on its draft decision not to declare control of Transpower,* 9 November 2007, p.4.

3.6.5 The Commission considers it can address concerns about the treatment of HVAC and HVDC customers by assessing and consulting on the reasonableness of the HVAC and HVDC costs, in aggregate, as part of its review of Transpower's operating expenditure proposal. It could also require Transpower to report its methodology for allocating costs to HVAC and HVDC, and the resulting costs in its compliance statement. This will allow the Commission to identify and test any movements in operating expenditure between the HVAC and HVDC operating expenditure categories.

3.6.6 This approach is likely to provide comfort that operating expenditure is being charged to the appropriate customers, but also allow Transpower the flexibility to reprioritise its operating expenditure during the RCP. In this manner, Transpower will be able to reflect movements in costs in the annual pricing of the HVAC and HVDC, while remaining constrained by the overall operating expenditure cap. The Commission notes that the allocation of operating expenditure is likely to be a key concern for generators. Instantaneous reserve charges, being a large component of this (under the settlement) have been addressed by making these charges ‘recoverable costs’ (refer paragraph 4.3.13).

3.6.7 Likewise, Meridian's concern that prices may be increased at an inappropriate rate is addressed by the fact that the MAR is based on approved building blocks. Prices will be set based on approved capital and operating expenditure allowances. In RCP1, forecasts of capital expenditure to be commissioned will be washed-up and replaced with actual commissioned capital expenditure. In the case of operating expenditure, the Commission's draft decision is to apply an incremental rolling incentive scheme after the Transition Year, rather than apply a full wash-up to operating expenditure (refer paragraph 4.4.2). In the Transition Year, Transpower will bear the risks of over or under expenditure.

3.6.8 The Commission considers that its draft decision not to set two separate MARs for HVAC and HVDC customers is consistent with proposed changes to the Act. While the Commission is currently able to set separate MARs for HVAC and HVDC, it considers that it may be precluded from doing so if the Electricity Industry Bill is enacted.

3.6.9 The Bill proposes to amend the Act to prevent the Commission from setting pricing methodologies where these are set by an industry-specific regulator (such as the Electricity Authority) and to provide that it is the role of the Electricity Authority to set pricing methodologies for Transpower. Under the Act, pricing methodologies are defined as including methodologies for setting different prices (which is defined as including revenues) for different customer groups.

3.6.10 As noted above, however, the Commission is only proposing that Transpower be required to disclose its costs, adjustments and charges to both the HVAC and HVDC customers as part of its annual compliance statement under the individual price-quality path determination. This is to provide transparency in relation to the way Transpower allocates its costs and reflects the terminology used in the transmission pricing methodology, which currently requires Transpower to separately calculate its HVAC and HVDC revenue requirements.

3.6.11 The Commission considers that there is some ambiguity in the definition of pricing methodologies in the Act. While it may be argued that the Commission's proposed approach may amount to setting pricing methodologies for Transpower, the Commission considers that, although these rules may have some impact on Transpower's revenue in respect of each customer group, the proposal does not equate to setting revenues for each of those customer groups. For this reason, the Commission considers this approach does not amount to setting pricing methodologies for Transpower. The Commission is of the view that requiring Transpower to separately calculate and disclose its HVAC and HVDC revenue requirements is consistent with, and supports the approach taken under the current transmission pricing methodology.

3.6.12 The Commission is also mindful that the Electricity Commission is currently reviewing the transmission pricing methodology. If the Electricity Commission (or, in future, the Electricity Authority) were to revise the transmission pricing methodology to remove the distinction between HVDC and HVAC customers, the Commission would likely review its own approach.

3.7 MAR updates

Draft decision

3.7.1 The Commission's draft decision is that:

a. in RCP1, no updates of the MAR will be undertaken;

b. in subsequent RCPs, a maximum of two MAR update will be undertaken, with the first being in Year 1, and the second being in either year 3 or 4;

c. in each RCP, the first MAR update will be applied to the MAR from year two onwards; and

d. in each RCP, the second MAR update will only occur if requested by Transpower. At Transpower's option, it can be undertaken in Year 3 and applied from Year 4, or undertaken in Year 4 and applied to Year 5.

Reasons

3.7.2 A MAR update is not a full recalculation of the price-quality path set for Transpower. The MAR update is a calculation of the revenue impact of additional capital expenditure approved by the Commission during the RCP, and an opportunity for the Commission to take into account/make other adjustments as necessary (such as to build the results from the wash-up of Year 5 (via changes to the EV account balances) into the MAR from year two onwards.[18] The Commission intends to give effect to any MAR update by amending the determination under s 52Q of the Act.

3.7.3 Adjustments to the MAR may be necessary, for example, to incorporate contingent projects into the price-quality path once commissioned, or to take into account wash-ups from the previous RCP. Adopting an approach that provides updates of the

[18] Appendix C represents this diagrammatically.

MAR allows Transpower appropriate recovery of costs, yet minimises the risk to consumers of, for example, paying in advance for large capital expenditure that is uncertain in nature or timing.

3.7.4 MAR updates are considered unnecessary in RCP1, however, given that it is only 4 years long, and that it already has two MARs being set (one for the Transitional Year and one for the Remainder Period).

3.7.5 In subsequent RCPs, two MAR updates are provided. As a general rule, however, the purpose of the first MAR update in each RCP is to incorporate and net out any ex-post economic gains or losses from the previous regulatory period. It is intended that this update will occur in Year 1 of each regulatory period, and apply from Year 2. To the extent that contingent projects have become certain at this stage, the revenue impact of these will also be included in the MAR update.

3.7.6 The second MAR update is primarily to adjust for contingent projects becoming certain. The Commission is of the view that it is not necessary to provide annual updates of the MAR for this purpose. Given the time for assets to be constructed and commissioned, a MAR update to cater for contingent projects is unlikely to be required more than once during each RCP. Furthermore, unless contingent projects have eventuated, a MAR update in the middle of the RCP may not be necessary at all. Providing the option for the second MAR update to be available to some extent balances the tradeoff between offering flexibility to Transpower and certainty to consumers.

3.7.7 For this reason, the Commission's draft decision is that the second MAR update will only be undertaken at Transpower's request. Transpower must inform the Commission in writing that it is seeking a MAR update by no later than the start of the pricing year (1 April) prior to the pricing year for which the MAR update will apply.

3.8 Wash-ups

Draft decision

3.8.1 The Commission's draft decision is that in each RCP, wash-ups will occur annually.

3.8.2 The first wash-up in each RCP (Year 1), will calculate final ex-post economic gains or losses from the previous RCP. The amount of the wash-up will be applied as an adjustment to the EV account, which will be included in the MAR update prior to prices being set for Year 2 of that RCP.

3.8.3 The last wash-up will occur in the final year of the RCP. This wash-up will take into account expenditure during the RCP (using actual financial information for all but the final year of the RCP), as well as include forecast ex-post economic gains or losses for the final year of the RCP (using latest forecast information for the final year of the RCP). The amount of this wash-up will be applied as an adjustment to the EV account (the full amount of which is used in calculating the MAR for the next RCP).

3.8.4 Each wash-up will contribute to calculating ex-post economic gains or losses for the years to which it applies. The Commission's draft decision is that the following building block components will be subject to a full wash-up:

a. pre-approved Minor capital expenditure, this being replaced by the lesser of the actual or approved and commissioned Minor capital expenditure (but not ex-post approvals);

b. pre-approved Major capital expenditure, this being replaced by the lesser of actual or approved and commissioned Major capital expenditure (taking into account timing of commissioning, as well as approved additional expenditure); and

c. pass-through costs, recoverable costs, asset sales, asset stranding, re-opener events, tax, depreciation and costs changes resulting from a and b above.

Reasons

3.8.5 A wash-up is a year-end process whereby certain forecasts of future expenditure, used in setting Transpower's MAR, are replaced with actual expenditure. The purpose of this is to recalculate the MAR for that past year, and assess performance of that past year against actual expenditure, rather than forecast expenditure.[19] Transpower's actual revenues are then assessed against this recalculated MAR, and any resultant ex-post economic gains or losses can then be identified. Transpower is then required take any gain or loss to its EV account.

3.8.6 The purpose of this process is to ensure Transpower receives the correct return on its actual investment (rather than forecasts of investment), and to remove the forecasting risk relating to costs over which it has no control. Areas in which Transpower should not be exposed to costs which it cannot control, include, for example, approved recoverable costs, pass-through costs, and other matters which are not included in the setting of the MAR, such as asset sales and the stranding of assets.

3.8.7 Certain forecasts of costs, such as operating expenditure, are not included in the proposed wash-ups. Such costs are not included because the Commission considers it more appropriate to expose Transpower to the risk, and reward, of managing these cost, than consumers. Incentive mechanisms are often provided for those elements of risk that a regulated business is able to manage, (for example, the incremental rolling incentives scheme that applies to Transpower's operating expenditure).

3.8.8 In deciding whether to apply a wash-up to Transpower's forecasts of capital expenditure, the Commission has considered the problems Transpower has faced in recent years with respect to forecasting and implementing its capital expenditure plans. The Commission considers these are unlikely to be resolved prior to the Remainder Period capital expenditure review, and therefore, the Commission's draft

[19] For the avoidance of doubt, the recalculation of the MAR for that particular year is solely for assessing whether any ex-post economic gains or losses have been made in that year. This recalculated MAR does not replace nor alter the Commission's MAR determination for that or any other year of the RCP. However, when the Commission undertakes one of the two possible MAR updates, the results from any previous wash-ups which have resulted in adjustments to the EV balances, may contribute to an adjustment of the Commission's MAR determination.

decision for RCP1, is that consumers should not bear the risk of Transpower spending significantly less than forecast. Transpower also supported a wash-up of capital expenditure to minimise its own risk in the case of under-forecasts. Providing a wash-up of Minor capital for RCP1 removes the risk of forecast inaccuracy, including the timing of commissioning, faced by customers, and for the most part, by Transpower.[20] As noted in Chapter 1, however, the approach to capital expenditure is an interim approach, and the Commission will revisit whether or not wash-ups to capital expenditure should apply in later RCPs.

3.8.9 Wash-ups will occur annually, for the purpose of Transpower calculating its gains or losses. By making appropriate EV adjustments, Transpower will be able to demonstrate compliance with its MAR (refer paragraph 3.10.7).

3.8.10 In RCP1, the first wash-up will occur in 2011/12, and will address ex-post economic gains or losses in the final year of the settlement. This will, amongst other things, compare actual commissioned capital expenditure against the capital expenditure allowances, with the difference used to calculate any ex-post economic gains or losses, according to the settlement terms. This may result in an adjustment being made to the EV accounts, which will be taken into account when setting the MAR for the Remainder Period. In a similar manner, in subsequent RCPs, the final wash-up of each RCP (for Year 5, and in the case of RCP1, Year 4), which takes into account performance over the entire regulatory period, will calculate overall ex-post gains or losses for that RCP.[21] An adjustment (via the EV account) to the MAR (MAR update 1) will be made, and will apply from Year 2 and onwards (refer paragraph 3.7.5).

3.8.11 Note that in the event of any over-expenditure relative to the Minor capital allowance, the Commission's draft decision is that such over-expenditure will not be included in any wash-up. The purpose of ex-post approval is to allow such capital expenditure to be entered into the RAB for recovery in subsequent RCPs (not to provide recovery in the current RCP).[22]

3.8.12 Major project ex-ante approvals will include approved cost and expected commissioning date. In the case of projects which are approved prior to the Transition Year or Remainder Period MAR adjustment, a return on and return of capital expenditure will be included in the MAR based on the expected commissioning date. If, however, an approved project is not commissioned as forecast (i.e. either not at all, commissioned later or earlier than forecasted, or at lower cost) the wash-up will ensure a return on capital and depreciation only from the date of commissioning on the lesser of approved or actual cost.

[20] Refer discussion on ex-post review in Section 5.9.

[21] The diagram in Appendix C displays the timing of these wash-ups. In the diagram, wash-up C is the first wash-up of RCP2, and takes into account overall performance in RCP1. This feeds into MAR update 1, and therefore, prices for the remaining four years of RCP2.

[22] See Section 3.10.4 for entering Minor capital expenditure in excess of the approved level into the RAB. Recovery will only begin from when the MAR is next set or updated, once entered into the RAB. Timing issues for such capital expenditure will not be included in any wash-up.

3.8.13 In contrast to the approach of not allowing wash-ups of additional Minor capital expenditure, the Commission does consider it should allow a full wash-up of additional Major capital expenditure, if Transpower receives ex-ante approval for that expenditure. The reason for the difference in approach is that Major projects are approved individually on an ex-ante basis, and cannot be substituted. With regard to Minor projects, Transpower is provided the flexibility to fully prioritise and substitute its capital expenditure programme between each year of the RCP. As explained in section 5.9.4, the Commission considers Transpower should fully manage within its approved allowance.

3.8.14 This approach will help ensure that, for the first regulatory period, customers pay for a project only once it is commissioned, and based on actual cost (capped at the approved expenditure level), reducing project risk for both Transpower and its customers.

3.9 Economic Value Framework

Draft decision

3.9.1 The Commission's draft decision is that the current approach of using separate EV accounts, for HVDC and HVAC customers, will be continued.

3.9.2 All economic gains or losses must be calculated annually, and must be transferred to the relevant EV account.

3.9.3 After RCP1, when setting the MAR for each RCP, the closing balance of each customer EV account from the previous financial year, plus forecast interest over the remainder of the RCP for which the MAR is being set, must be fully apportioned equally over each year of the RCP.

3.9.4 Ex-post economic gains or losses calculated for the last year of each RCP, these being calculated in Year 1 of the subsequent RCP, will be transferred to the appropriate EV account, and along with forecast interest charges over the remainder of the current RCP, must be apportioned equally over the remainder of the current RCP (i.e. over the remaining four years) when the MAR is updated in Year 1 of that RCP.

3.9.5 The balance of the HVAC and HVDC EV accounts will accrue interest at a rate equivalent to Transpower's cost of capital as specified by the Commission in the cost of capital input methodology.

Draft decision - HVAC

3.9.6 The Commission's draft decision is that the balance of the HVAC EV account, which is currently approximately $109 million in credit (owed to customers), should be returned to customers by the end of the first regulatory control period (30 June 2015).

3.9.7 Transpower must apply an adjustment of no less than 50% of the forecast 30 June 2011 closing balance of the HVAC EV account, when calculating its MAR for the Transition Period of RCP1.

3.9.8 The forecast 30 June 2012 closing balance of the HVAC EV account, along with forecast interest charges over the remainder of RCP1, must be apportioned equally over the remaining years of RCP1.

3.9.9 For each subsequent RCP, the forecast closing balance of the HVAC EV account, along with forecast interest, must be apportioned equally across each year of that RCP so as to return the HVAC EV account balance to zero by the end of that RCP.

Draft decision - HVDC

3.9.10 In respect of the HVDC EV account, the Commission's draft decision is that the balance, which is currently approximately $103 million in debit (owed by certain generators that are HVDC customers), should be recovered by Transpower from HVDC customers by the end of RCP2.

3.9.11 The forecast 30 June 2011 closing balance of the HVDC EV account, along with forecast interest charges over the remainder of RCP1 and RCP2, must be apportioned equally over each year of RCP1 and RCP2 (therefore spreading the cost over a nine year period).

3.9.12 The forecast 30 June 2015 closing balance of the HVDC EV account, along with forecast interest charges over the remainder of the RCP1 and RCP2, must be apportioned equally over RCP2.

3.9.13 For each subsequent RCP, the forecast closing balance of the HVDC EV account, along with forecast interest, must be apportioned equally across each year of that RCP so as to return the HVDC EV account balance to zero by the end of that RCP.

Reasons

3.9.14 At the commencement of the administrative settlement agreement between the Commission and Transpower (on 1 July 2008), the balances in the EV accounts were a debit of $88.1 million and a credit of $125.8 million for HVDC and HVAC customers, respectively. Since that time, changes to the EV accounts have been carried out in accordance with the requirements of the settlement. The Commission is of the view that the balances at the end of the settlement, including any ex-post economic gains or losses for the 2010/11 financial year, should be carried forward to be the opening balances for the start of the regulatory period 2011/12.

3.9.15 The net balance of the EV accounts, as at 30 June 2009, was $6.0 million to the credit of customers. This comprises:

- HVAC customer credit balance of $108.8 million; and
- HVDC customer debit balance of $102.8 million.

3.9.16 The settlement currently sets constraints on how quickly a debit balance can be recovered by Transpower, being a maximum of 10% of forecast revenue. At the same time, the HVDC EV account balance is accruing interest at the rate of the allowed WACC (7.8%). Based on current balances and revenues, and assuming that existing constraints were retained, it could take Transpower approximately 20 years to recover the current HVDC liability, assuming that no further adjustments are made to that balance (although the Commission notes that Transpower's forecasts of future revenues include increases due to additional capital expenditure). The Commission is of the view that this is not allocatively efficient, and that it is appropriate to maintain the EV account balances as near to zero as possible.

3.9.17 Allowing the balance of the EV accounts to remain unpaid for substantial lengths of time may give rise to a situation where new South Island entities, injecting electricity into the grid, become liable to pay a portion of the HVDC EV account, despite this being essentially a liability owed by another party. An example of this is the current proposed asset swaps between Meridian Energy Limited and Genesis Energy Limited. Likewise, if the Transmission Pricing Methodology were to be altered,[23] these liabilities may be allocated in a different manner, and therefore, potentially to different customers than those that currently owe the liability. The Commission considers that this is not ideal, and to avoid this situation, it should require these liabilities to be paid as soon as possible, and that EV account balances should be maintained as close to zero as possible in future.

3.9.18 The approach of fully apportioning the EV account balances across each year of the first regulatory period was supported by the single submission received on the subject (Transpower).[24] The Commission considers its proposed approach for reducing the HVAC balance to be appropriate. Returning the HVAC balance of $108.8 million, constrained to a rate of no more than 10% to 15% of annual HVAC revenue (estimate for 2011/12 at approximately $600 million), would allow annual repayments of approximately $60 million (based on 10%). With payments around this size, it would take approximately two years to return the full HVAC EV account balance to zero. This is comparable to the level of payments Transpower has made in the past when setting its own revenue requirements ($50 million in 2008, and $32 million in 2009).

3.9.19 The Commission's decision to require an adjustment of no less than 50% to the Transition Year is to ensure the bulk of the balance is addressed in a timely manner, and is consistent with the approach above. Spreading the balance over the next three years was considered appropriate as to some extent, it may help smooth increases in HVAC transmission charges.

3.9.20 In contrast, using a symmetrical approach to that applied to HVAC, returning the HVDC balance of $102.8 million, constrained to a rate of no more than 10% of annual HVDC revenue (using Transpower's latest estimates for revenue until 2015/16,), would allow annual repayments of up to approximately $12 to $13 million. With payments around this size, it would take approximately nine years to return the full HVDC EV account balance to zero. Annual adjustments of this size are slightly higher, but still comparable to those Transpower has set in the past when setting its own revenue requirements ($8.9 million in 2008, and $7.5 million in 2009). Given this, the Commission considers it should remove the constraint on how

[23] The Commission notes that the TPM is currently under review, and the new Electricity Authority will likely continue the review if not completed by the Electricity Commission.

[24] Transpower, Submission to Commerce Commission on: *Transpower Process and Recommendation Discussion Paper and Input Methodologies Discussion Paper*, p.34, response to Q.199.

quickly Transpower may recover the HVDC balance, but apply a similar (but not exact) constraint (10% to 15%) when assessing the approximate timeframe over which to require Transpower to zero the account balance. This provides consistent treatment between the HVAC and HVDC balances, and a similar timeframe to that which would be expected under the current framework.

3.9.21 Subsequent to current balances having been returned to zero, the Commission's draft decision is to require Transpower to fully apportion all remaining balances over each regulatory period. This differs from what is currently provided under the settlement, which is that if the balance of a customer account is less than $20 million, Transpower may decide not to make an EV adjustment.

3.9.22 While the Commission's draft decision is to set rules around cost recovery in respect of the EV balances attributable to the HVAC and HVDC, the Commission does not consider this amounts to setting pricing methodologies for the reasons set out in Sections 3.6.8 to 3.6.11.

3.10 Compliance framework

Draft decision

3.10.1 The Commission's draft decision is that Transpower must, on an annual basis and pursuant to s 53N of the Act, publish and provide to the Commission by the second Friday of each August, a written statement that confirms its compliance, or otherwise (Compliance Statement), with the individual price-quality path set by the Commission.

3.10.2 Each Compliance Statement must be audited and must disclose Transpower's performance, and provide evidence to this effect that fully supports and explains the disclosure, with regards to:

a. the total year-end MAR for that period, calculated by providing separately its HVDC revenue requirement and HVAC revenue requirement, against actual costs and revenues;

b. capital spend (commissioned) versus approved capital spend (commissioned), and an explanation of changes from forecast, as well as reforecast annual spends for the remainder of the RCP;

c. actual operating expenditure versus approved expenditure, broken down by category, as well as reforecast annual spends for the remainder of the RCP;

d. quality performance, including:

   – performance against the specified performance measures;
   – the impact of quality performance on revenue (i.e. the amount of any positive or negative adjustments to future revenue);
   – an explanation of variances from initial forecasts; and
   – provisions of reforecast performance for the remainder of the RCP, and reasons for any variance between initial and reforecast performance;

e. ex-post economic gains or losses for that period, and the net economic gains or losses over the RCP (movements over each year);

f. recoverable, pass through, and other costs and adjustments, as well as reforecast cost for the remainder of the RCP; and

g. all relevant performance data, such as those in (a), (b), (c), (e), and (f) above, as well as historical performance of the quality measures in (d) above, over the previous four years (thereby providing a rolling five years of performance for each compliance statement).[25]

3.10.3 If Transpower's annual compliance statement identifies that Transpower has commissioned Minor capital expenditure in excess of the ex-ante approved level, Transpower may not seek ex-post approval for the amount of that capital expenditure until the last compliance statement for that RCP.

3.10.4 If Transpower's final compliance statement for a given RCP identifies that Transpower has undertaken and commissioned Minor capital expenditure in excess of the combined level approved ex-ante, then:

a. such expenditure must be excluded from Transpower's RAB unless:

i. Transpower seeks and receives ex-post approval from the Commission for that capital expenditure;[26] or

ii. Transpower calculates the revenue impact of that capital expenditure, over the life of those assets, including a reasonable allowance for maintenance, and makes an adjustment to the relevant EV account to fully offset this cost, and includes in its compliance statement an independent opinion that verifies Transpower’s estimates are reasonable and calculations are correct.

3.10.5 Transpower's annual compliance statement must demonstrate each adjustment in respect of quality that must be made to the EV account. As the rewards/penalties for out-performing or under-performing with respect to the quality standards after RCP1 set by the Commission are made through an adjustment to the relevant EV account on an annual basis, these will, therefore, accrue interest at a rate equivalent to the cost of capital applied to Transpower.

Reasons

3.10.6 Transpower’s level of compliance will be assessed on an annual basis. Transpower is primarily subject to process-based requirements, and if Transpower makes appropriate calculations and adjustments in response to its annual performance, it will not breach its MAR nor the quality standards set. This is explained below.

3.10.7 The Commission’s draft decision implements a compliance framework that provides flexibility for Transpower to better manage its business across each year of

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25 As noted in paragraph 4.12.1, the final compliance statement will be assessed following the close of the RCP. The assessment will take place prior to setting prices for Year 2 of the following RCP (i.e. between July and November of Year 1 of each RCP) with any adjustments be made at the first MAR update.

26 Refer to Section 5.9.

regulatory period. In this manner, actual costs, capital expenditure, and revenues in any given year, can be different to that specified in the Commission's MAR determination without causing Transpower to 'breach' its requirements. This, however, is only the case if Transpower calculates ex-post economic gains or losses against the MAR determination in accordance with the s 52P requirements, and makes an equal adjustment to the appropriate EV account to offset this gain or loss.

3.10.8 The same approach also applies to other aspects of compliance. For example, pre-approved levels will be specified for capital expenditure, these being used in the calculation of Transpower's MAR. Transpower, however, will have the ability to increase or decrease its level of capital expenditure on an annual basis. These movements in annual spend will affect its performance against the MAR, and the associated EV adjustment made each year will vary accordingly. This approach takes into account Transpower's actual expenditure and the timing of that expenditure on an annual basis, and ensures Transpower will not make inappropriate gains.

3.10.9 While Transpower will not be constrained in its ability to undertake annual Minor capital expenditure in any given year to the pre-approved annual level, for the purpose of compliance, the sum of its expenditure over the RCP may not exceed the sum of the annual approvals (unless ex-post approval is provided). Unapproved over expenditure must be excluded from the calculation of ex-post economic gain or loss (refer paragraph 3.8.11).

3.10.10 With respect to performance against the quality standards, as with the above, better or worse performance does not result in a breach of Transpower's obligations. As long as Transpower makes an appropriate adjustment to its EV accounts, thereby accounting for the financial penalty or reward on an annual basis, it will be considered to have complied with the quality standards. Transpower must, therefore, demonstrate in its compliance statement that it has made the appropriate adjustments, resulting from its quality performance, to the relevant EV account. This is to ensure each adjustment is made on an annual basis, and to ensure each adjustment is made in a transparent and appropriate manner.[27]

3.10.11 With respect to revenues, under this approach all economic gains or losses in one year will be offset against those in other years. Accordingly, higher revenue in one year will offset lower revenue in another. Likewise, consistently high, or consistently low revenues, will result in consistently high or low economic value adjustments. In this manner, the results remain neutral. For matters such as performance against capital spend, however, it will not be until the final year of the RCP that overall performance against the pre-approved level of capital for that RCP can be determined.

3.10.12 Although Transpower's level of compliance with its approved level of Minor capital expenditure can only be assessed at the completion of the last year of each RCP, the Commission considers the disclosure of this and other information regarding

[27] Refer to Chapter 6 for further details on quality performance requirements.

Transpower's performance in each financial year is necessary. This disclosure serves various purposes, including, but not limited to;

a. creating a public record of actual performance, this being useful to interested parties;

b. informing the Commission of Transpower's quality performance and any associated adjustment to future revenue (by way of EV adjustment); and

c. providing necessary information for the Commission to assess Transpower's compliance with its MAR, capital expenditure, the annual wash-up and associated EV adjustments.

3.10.13 As was required under Part 4A, the Commission considers it important that Transpower support its compliance statement by provision of an audit report.

3.10.14 While the Commission does not consider it should set a separate revenue requirement for HVAC and HVDC (refer paragraph 3.6.1), the Commission does consider Transpower should demonstrate the appropriate allocation of costs and adjustments to each. In this manner, for the purpose of compliance, Transpower must include the calculation of and performance against both HVAC and HVDC accounts, including EV adjustments to the appropriate EV accounts,[28] in its compliance statement, but will only be assessed against its combined MAR.

3.10.15 While the Commission's intention is to move to a regime where capital expenditure is not subject to a wash-up, the Commission's draft decision is that when calculating the ex-post economic gains or losses for RCP1, Transpower's compliance statement must demonstrate the full wash-up of both Minor and Major capital expenditure categories. The Commission's intention, at this stage, is not to use any ex-post wash-ups in RCP2, however, the Commission will consider this further when developing its capital expenditure input methodology.

[28] Although Transpower will be required to make adjustments to the appropriate EV account for any economic gains or losses, the Commission does not consider this amounts to setting pricing methodologies for the reasons set out in Sections 3.6.8 to 3.6.12.

CHAPTER 4: OPERATING EXPENDITURE

Draft decisions include:

a. Operating expenditure allowances will be determined prior to the regulatory period for each year of the regulatory period.

b. With regard to the Transition Year (2011/12):

   i. an operating expenditure allowance of $231.67 million will apply (excluding pass-through costs and recoverable costs); and

   ii. the incremental rolling incentive scheme for operating expenditure does not apply.

c. Future operating expenditure allowances (beginning with the Remainder Period, then future RCPs):

   i. will be determined after the Commission has assessed the forecast operating expenditure proposed by Transpower, and will exclude pass-through costs and recoverable costs; and

   ii. the operating expenditure allowed over the regulatory period will consist of separate allowances for each year of the regulatory period; and

   iii. the incremental rolling incentive scheme for operating expenditure will apply; and

   iv. the operating expenditure review for the Remainder Period will be undertaken during the first half of 2011.

d. No wash-up will apply to operating expenditure.

e. Pass through cost and recoverable cost decisions are set out in Section 2.7.1.

4.1 Chapter Introduction

Scope of Decision

4.1.1 This Chapter sets out the Commission's draft decisions on matters relating to the operating expenditure framework that will be applied to Transpower. This includes separate provisions for the Transition Year and the Remainder Period, and the intended timing for operating expenditure provisions in future RCPs. This Chapter, however, does not cover the incremental rolling incentive scheme, as specified in the input methodologies, other than to set out when the mechanism applies. Detail of the rolling incentive scheme is set out in Section 7.8 of the Input Methodologies (Transpower) Draft Reasons Paper.

4.1.2 This Chapter first defines operating expenditure, then sets out the framework for the Transition Period, and finally provides the framework for the Remainder Period. This Chapter also explains how the Commission's decisions with regard to the operating expenditure mechanism promote outcomes that are consistent with those found in workably competitive markets such that, over the long-term, the overall objectives of the Act as set out in s 52A(1)(a)-(d) are met.

4.2 Operating expenditure definition

Draft decision

4.2.1 The Commission's draft decision is that operating expenditure means expenditure incurred by Transpower in the provision of specified services that is not capital expenditure. For the avoidance of doubt, operating expenditure:

a. includes departmental costs, investigations, communications and control, IT&T operations, and transmission and substation maintenance; but

b. excludes depreciation; tax; revaluations; operating lease costs; pass-through costs; recoverable costs; any operating costs associated with transmission alternative services that have been approved by the EC (or any other regulatory body); operating expenditure that is the result of an insurance event and has been recovered by insurance income (or is expected to be recovered); and costs associated with unregulated businesses and expenses related to the system operator function.

Reasons

4.2.2 The Commission's preliminary view, as set out in the Input Methodologies Discussion Paper was that the definition of operating expenditure would be based on the definition included in the settlement agreement.[29] The Commission sought feedback on this preliminary view, including asking submitters which costs they considered should be included or excluded from Transpower's base operating expenditure allowance.

4.2.3 Transpower agreed with the Commission's proposed definition of operating expenditure, and no other submissions were received on this matter.[30]

4.2.4 The definition above (paragraph 4.2.1) is based on, and is consistent with the definition used in the settlement.

4.3 Operating expenditure allowance for the Transition Year

Draft decision

4.3.1 The Commission's draft decision is that:

a. the operating expenditure allowance for the Transition Year (2011/12) will be $231.67 million, comprising:

i. base operating expenditure under the settlement agreement escalated annually at CPI-0 ($225.1 million);

[29] Commerce Commission, *Input Methodologies Discussion Paper*, 19 June 2009, paragraph 12.265.

[30] Transpower, *Input Methodologies Discussion Paper and Transpower Process and Recommendation Discussion Paper*, June 2009, response to Q.205. Note that in the same response, Transpower proposed that instantaneous reserves availability costs be included as a pass-through cost rather than within the operating expenditure allowance.

ii. an additional allowance of $8.9 million, for Transpower's proposed increase in maintenance expenditure for the 2011/12 year;

iii. a reduction of $0.78 million to exclude the provision in the base operating expenditure for Commerce Act levies, which have been defined as pass-through costs; and

iv. a reduction of $1.55 million to exclude the provision in the base operating expenditure for instantaneous reserves availability charges, which have been defined as 'recoverable costs'; and

b. the incremental rolling incentive scheme for operating expenditure does not apply to the Transition Year. Any under-spend or over-spend relative to the allowance for the year will be to the benefit or cost of Transpower's shareholder; and

c. operating expenditure will not be included in any wash-ups.

Reasons

4.3.2 As a result of time constraints (paragraph 1.2.11), the Commission is unable to undertake operating and capital expenditure reviews covering the entire regulatory period prior to commencement of any individual price-quality path determination. [31] For this reason, the Commission set out an emerging view that it would be appropriate to undertake separate reviews and set separate operating expenditure allowances for the Transition Year and the Remainder Years.[32]

4.3.3 Also in its emerging views, the Commission proposed setting the operating expenditure allowance for the Transition Year based on the allowance established under the settlement agreement. As such, the 2010/11 operating expenditure allowance would be the settlement base operating expenditure, escalated to the 2011/12 year at CPI and adjusted for any amendments to pass-through costs.

4.3.4 At the Commission's Transpower workshop, however, Transpower presented a proposal seeking an increase in operating expenditure for the 2011/12 year. This provided for a significantly increased level of maintenance expenditure which Transpower expects will need to continue at least for several years. The settlement agreement operating expenditure allowances escalated at CPI for another year would not be adequate to undertake the necessary maintenance.[33]

[31] The timing issues as they relate to operating expenditure specifically were set out in the Commission's Emerging Views Paper and discussed at the Transpower workshop in March 2010. Participants supported the approach proposed by the Commission of using the most recent available inputs to the revenue setting process.

[32] Transpower Workshop, 2/3 March 2010, Appendix B (Emerging Views). This is also consistent with the transition year approach proposed in the Transpower Process and Recommendation Discussion Paper, June 2009, paragraph X9.

[33] This is consistent with Transpower 's earlier submission (Transpower, *Submission to the Commerce Commission on Transpower process and recommendation discussion paper, Input Methodologies Discussion Paper*, August 2009, p.29, question 183) which agreed with basing the price-quality path for the Transition Year on the settlement agreement, but noted a need to update the operating expenditure allowance.

4.3.5 Transpower explained the drivers for increased maintenance expenditure as resulting from:

a. increased scope of work on aging assets (in particular the replacement of components of transmission line conductors and towers);

b. accumulation of work from previous years that cannot be delayed further without significant risk;

c. increased complexity of undertaking work (tree regulations, RMA requirements, and so on);

d. limited availability of skilled labour and increased input costs;[34] and

e. growth in the number of substation assets to be maintained.

4.3.6 Transpower submitted that the primary area of increased cost is in transmission line project work (as opposed to routine work). Table 4.1 shows Transpower's expenditure allowances (maintenance, non-maintenance, and total operating expenditure) escalated at CPI-0 against actual and forecast expenditure for both the settlement period and the Transition Year (2011/12).[35] The figure shown for the Transition Year is the figure obtained by deducting Transpower's under-expenditure during the settlement on the non-maintenance components of the operating expenditure allowance from Transpower's proposed allowance.

[34] Transpower has subsequently provided information showing that the hourly contract labour rates it pays have, on average, increased at a rate higher than the CPI increase allowed for under the settlement. Increases in lines maintenance contractor rates increased approximately 20% over the period 2006-10, while station maintenance rates increased by 7-10% over the same period. Transpower notes that 85-90% of maintenance costs are labour-related. Drivers of increased labour rates include increased leave entitlements, Kiwisaver, increased training requirements for safety and quality.

[35] Note that the operating expenditure allowance as a whole is escalated at CPI-0; the escalation in the maintenance and non-maintenance components at CPI is for information purposes only.

Table 4.1 Actual and forecast total operating expenditure and maintenance components[36]

Item	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Maintenance - threshold component (at CPI)	*82*	*85*	*87*	*89*	*91*	*93*
Maintenance - actual/forecast	86	89	99	102	113	117
Non-maintenance operating expenditure - threshold component	*116*	*121*	*123*	*125*	*129*	*132*
Non-maintenance - actual/forecast	100	111	119	109	117	117
Total operating expenditure - threshold (at CPI)	*198*	*206*	*210*	*214*	*220*	*225*
Total operating expenditure - actual/forecast	186	200	218	211	230	234
Shortfall (under-spend) relative to threshold	(12)	(6)	8	(3)	10	9

4.3.7 Table 4.1 shows that:

a. maintenance costs over the four years of the settlement (to date) have increased by 18.6%, relative to a CPI increase of 11%;

b. non-maintenance costs over the same period have increased by 9%; and

c. if instantaneous reserve costs were excluded, Transpower would have under-spent its threshold in three out of the four years during the settlement, providing a net gain to its shareholder. However, once reserves costs are taken into consideration (not shown), the net impact is a loss to Transpower's shareholder.

4.3.8 In addressing the level of increased maintenance, Transpower has expressed confidence in its capability to undertake this additional expenditure.[37] In terms of non-maintenance expenditure, it has noted that while it expects IT operation costs, particularly in the telecommunications area, to continue to increase at a rate greater than CPI, it believes that, overall, it can constrain non-maintenance expenditure to within a CPI increase.

4.3.9 In a post-workshop submission, Genesis noted that there could be a case for penalising Transpower for the extra remedial expenditure needed because of the

[36] Sourced from Transpower Board paper, 22 April 2010. Updated from presentation at Transpower workshop to include actual expenditure for the current year, and incorporate latest CPI forecasts.

[37] Transpower Workshop Transcript, 2 March 2010, p.26, lines 12-20.

deteriorated condition of the assets (in order to provide incentives to minimise asset life cycle costs). Genesis accepted, however, that separating costs out in this way may not be possible and it may be preferable simply to allow Transpower full recovery of its forecast additional expenditure.[38] Participants in the workshop discussion did not state a position on whether the additional maintenance should or should not be allowed.

4.3.10 While the Commission has not undertaken a full review of the reasonableness of the planned maintenance cost increase or Transpower's capability to carry out the works (as it considered it was unlikely to be cost-effective to do so for a single regulatory year) the Commission notes that:

a. the increase appears consistent with information provided by Transpower on increased input (labour) costs over the period. This data showed increases in line and station maintenance contract rates over the period 2006-2010 of 20% and 7-10%, respectively, relative to CPI increase of 11%; and

b. there is a need for increased maintenance expenditure to deal with the backlog of work and to operate and maintain an increasing volume of aging assets.

4.3.11 Taking these factors into consideration, and in light of the relatively small proposed increase, the Commission's draft decision is to accept Transpower's proposed increase in the operating expenditure allowance for the Transition Year, by the amount of the proposed maintenance cost increase.

4.3.12 The Commission proposes that operating expenditure is not included in the ex-post wash-up (consistent with the settlement agreement). Therefore, any gains (under-spend) are to the benefit of Transpower's shareholder, and any losses, (over-spend) are costs to Transpower's shareholder. Such gains or losses are limited to the Transition Year, as the rolling incentive mechanism proposed for operating expenditure will not apply to the Transition Year.[39]

4.3.13 A reduction of $2.33 million will be required from the base operating expenditure, for the following items:

a. $1.55 million for instantaneous reserves availability charges.[40] As discussed in the Specification of Price input methodology, these charges will be allowed as a 'recoverable cost' for the first regulatory period, meaning the costs can be passed through to customers in full, outside the operating expenditure allowance;[41]

b. Transpower's $0.78 million provision for Commerce Act levies.[42] As discussed in the Specification of Price input methodology, Commerce Act

[38] Genesis Energy, Post-Workshop Submission (Transpower Regulation Workshop), 24 March 2010.

[39] Refer to Input Methodologies (Transpower) Draft Reasons Paper, p 101, paragraph 7.8.18.

[40] $1.4m provision made in the 2006/07 year escalated at CPI for the period of the settlement agreement.

[41] Refer to Input Methodologies (Transpower) Draft Reasons Paper, p 88, paragraph 7.4.10.

[42] $0.7m provision made for the 2006/07 year, escalated at CPI for the period of the settlement agreement.

levies payable under s 53ZE of the Commerce Act will be allowed as a pass-through cost.[43]

4.3.14 In summary, the Commission proposes accepting Transpower's proposed $8.9 million increase in its operating expenditure allowance for the Transition Year to allow for additional maintenance expenditure, less existing provisions (in the operating expenditure allowance) for instantaneous reserves and Commerce Act levies. Under this approach, the total operating expenditure allowance for the Transition Year will be $231.67 million, calculated as follows:

Table 4.2 Calculation of Transition Year operating expenditure allowance

	$ million	
2006/07 operating expenditure allowance	$ 198.10	
CPI adjustment 2006/07-2011/12		13.6%
2011/12 operating expenditure allowance (based on settlement)	$ 225.11	
plus		
Increased maintenance allowance	$ 8.89	
subtotal	**$ 234.00**	
less		
Provision for IR availability charges	$ 1.55	
Provision for Commerce Act levies	$ 0.78	
Proposed Transition Year operating expenditure allowance	**$ 231.67**	

4.3.15 The Commission's draft decision is for the determination to reference the total operating expenditure allowance ($231.67 million) as this will not change based on actual (versus forecast) CPI.[44]

4.4 Operating expenditure allowance for the Remainder Period

Draft Decision

4.4.1 The Commission's draft decision is to adopt the approach set out below for setting future operating expenditure allowances, beginning with the Remainder Period (2012/13 to 2014/15). Operating expenditure allowances will:

[43] Refer to Input Methodologies (Transpower) Draft Reasons Paper, p 87, paragraph 7.4.3.

[44] The $225.11m is based on a forecast of CPI over the period until the new regulatory regime commences. If the CPI were higher than forecast, then the shortfall faced by Transpower without allowance of additional maintenance ($8.89m in the above table) would decrease; similarly if CPI was lower than forecast, the incremental maintenance amount would be greater. However, the total requirement does not change.

a. be determined by the Commission after an ex-ante assessment of operating expenditure forecasts for the RCP submitted by Transpower;[45]

b. reflect what the Commission considers to be a reasonable and efficient level of operating expenditure for Transpower;

c. take into consideration Transpower's performance in the previous regulatory period (or in the Transition Year in the case of the 2012/13-2014/15 allowances);

d. be set in a manner to provide Transpower with incentives to improve efficiency and identify and realise appropriate cost savings;

e. consist of separate allowances set by the Commission for each year of the regulatory period; and

f. exclude pass-through costs and recoverable costs.

4.4.2 Incentives for Transpower to seek additional efficiency gains (relative to the allowance) will be provided through a combination of the operating expenditure allowance and the application of the incremental rolling incentive scheme. The carry forward period will be five years.

4.4.3 The Commission's draft decision is also that there will be no ex-post wash-up of operating expenditure, and that the operating expenditure review for the Remainder Period will be undertaken during the first half of 2011 (with consultation in July 2011).

Reasons

4.4.4 The approach set out above accords with the Commission’s emerging view, published in February 2010, and discussed at the electricity transmission workshop in March 2010. The approach, together with a proposed scope for the ex-ante review, was generally supported by participants at the workshop. In developing its proposed approach, the Commission has taken into consideration the regulatory treatment of operating expenditure in overseas jurisdictions.

4.4.5 The Commission considers that, by setting a limit on the operating expenditure that Transpower can reasonably recover, it will require Transpower to become more efficient over time and will also constrain Transpower’s ability to extract excess profits. This will promote outcomes consistent with those found in workably competitive markets which, in turn, will promote the objectives set out in s 52A(b) and (d). Likewise, the incentives provided by the rolling incentive scheme should encourage Transpower to make efficiency savings. This should reveal, over time, a more efficient level of costs, with savings being shared with consumers at each reset of the individual price-quality path.

4.4.6 The choice of a rolling incentive mechanism was supported by workshop participants. Major Electricity Users Group (MEUG), however, noted that it should be part of Transpower's normal business practice to seek efficiency gains and

[45] Appendix C shows the timing of future operating expenditure reviews.

accordingly, any incentive mechanism should only reward superior performance.[46] In other words, the operating expenditure allowance should be set at a level that represents efficient expenditure only, taking account of efficiency gains that Transpower would reasonably be expected to achieve. Gains in excess of this efficient level would be subject to the incremental rolling incentive scheme. The Commission supports this approach and considers this is reflected in its draft decision.

[46] Commerce Commission, *Electricity Transmission Workshop Transcript*, 2 March 2010, p.30, line 10 to p.32, line 7.

CHAPTER 5: CAPITAL EXPENDITURE

Draft decisions include:

a. subject to the Electricity Industry Bill passing into law, a capital expenditure input methodology will be developed during 2011 to apply from 1 October 2011. As such, the individual price-quality determination and any affected input methodologies may be amended, as necessary, to reflect the capital expenditure input methodology.

b. capital projects will be divided into Minor and Major categories;

c. RCP1 will include separate ex-ante capital expenditure allowances for Major and Minor capital projects in both the Transition Year and Remainder Period;

d. the level of approved Minor capital expenditure for the Transition Year will be set at $225.6 million;

e. the category of Minor capital expenditure will comprise RRE, IST projects and Business Support capital expenditure, as follows;

   i. replacement and refurbishment capital (with no limit on the size of any project);

   ii. IST capital (with no limit on the size of any project);

   iii. in the Transition Year if the value of an individual enhancement project is less than $1.5m, or less than $5.0 for a programme;

   iv. in the Remainder Period and subsequent RCPs, if the value of enhancement projects or programmes are less than $5.0m; and

   v. Business Support Capital expenditure (with no limit on the size of any project);

f. full substitution within the Minor project category will be allowed, including between years within a given RCP, except the Transition Year;

g. all Minor capital expenditure must have fully completed Transpower’s internal approval process prior to expenditure being undertaken to be entered into Transpower’s RAB;

h. Major capital expenditure projects will be subject to individual approval. Such projects:

   i. will be reviewed by the Electricity Commission prior to 1 October 2010, and by the Commerce Commission from that date (subject to the Bill passing into law);

   ii. may be submitted for approval during the RCP;

   iii. if approved prior to the relevant MAR determination, will be included in the MAR; and

   iv. if not approved prior to the relevant MAR determination, will be excluded from the MAR for the remainder of the RCP, but be included in the next wash-up, if commissioned during the RCP; and

i. Annual wash-ups will apply to both Major and Minor capital expenditure for each year of RCP1. Each will be used to wash-up approved versus actual capital expenditure allowances, for the purpose of calculating ex-post economic gains or losses

5.1 Introduction

5.1.1 This Chapter sets out the Commission's draft decisions on the approach to approving Transpower's capital expenditure allowance for RCP1. It also sets out how these draft decisions promote outcomes that are consistent with Part 4 of the Act.

5.1.2 As discussed in Chapter 1 (paragraph 1.2.12), the four-year RCP1 will effectively be implemented as two separate periods: a Transition Year (one Year 2011/12) and a 'Remainder Period' (three years 2012/13 to 2014/15 inclusive).

5.1.3 Each of the two separate periods within RCP1 will have a separate ex-ante capital expenditure allowance for projects categorised as Minor capital.[47] The overall approach to Minor capital expenditure is discussed in Section 5.3. Section 5.4 describes the classification of Minor and Major capital expenditure, The proposed aggregation of Minor capital is outlined in Section 5.5.

5.1.4 The total capital expenditure allowance for the Transition Year will be specified at the same time as the publication of the individual price-quality determination. This is necessary to allow the Commission's determination for the Transition Year capital expenditure to be incorporated into Transpower's price setting process (prices are announced in December 2010 for the 2011/12 pricing year).

5.1.5 For this reason, the Commission requested Transpower to provide a forecast of its proposed capital expenditure for the 2011/12 year by early 2010. Transpower has provided a proposal, and the Commission has assessed that proposal. Section 5.5 sets out the Commission's draft decision on the Transition Year capital expenditure. Following this, the process and approach for setting Minor capital expenditure allowances for the Remainder Period is described (Section 5.6).

5.1.6 Each Major project will be subject to individual scrutiny by the Electricity Commission (until 1 October 2010) and by the Commerce Commission thereafter (assuming the Bill is passed). The Commission will determine an ex-ante allowance to be included in the MAR, based on approved projects, as at 3.5.1. Issues relating to Major project approvals are discussed in more detail in Section 5.7.

5.1.7 Processes that are applicable to both Minor and Major capital expenditure, such as the decisions regarding substitution of approved capital expenditure (Section 5.8), and the use of ex-post wash-ups (5.9), are provided.

5.1.8 This Chapter does not address the approach to determining capital expenditure allowances in future regulatory periods. This is because the current wording of the Bill requires the Commission to determine an input methodology for Transpower's capital expenditure proposals by no later than 1 October 2011. The Bill provides that

[47] Future regulatory periods are likely to be five years and may have a single ex-ante allowance for Minor capital expenditure.

the Minister may, on written request of the Commission, extend the deadline once by a period of up to three months. It states that the capital expenditure proposals input methodology determined by the Commission must include:

- requirements that must be met by Transpower, including the scope and specificity of information required, the extent of independent verification and audit, and the extent of consultation and agreement with consumers; and
- the criteria the Commission will use to evaluate capital expenditure proposals; and
- timeframes and processes for evaluating capital expenditure proposals, including what happens if the Commission does not comply with those timeframes.

5.1.9 Given that the Bill has not yet passed this Chapter does not cover the capital expenditure proposals IM. Should the Bill pass in its present form, these issues will be addressed as part of the proposed capital expenditure input methodology (Capital expenditure IM), which would be developed and consulted on during the 2011 calendar year, to apply from 1 October 2011. The capital expenditure input methodology that would be developed would likely include approaches for approval and implementation of both Minor and Major capital expenditure allowances.

5.2 Overall Approach

Draft decision

5.2.1 The Commission's draft decision is that a one-year Minor capital expenditure allowance will be reflected in Transpower's MAR for the Transition Year. This allowance will be $225.6 million, and will be set using a similar process to that used under the settlement agreement.

5.2.2 The Commission's draft decision is that a three year ex-ante allowance (return on and of capital) for Minor capital expenditure commissioned during the Remainder Period will be included in Transpower's MAR for the Remainder Period, as will an allowance for individually approved Major capital expenditure. Under this ex-ante approach Transpower will need to justify its Minor capital expenditure proposals by linking forecast expenditure to cost drivers, customer preferences, asset management strategies and good electricity industry practice, and in relation to Major capital expenditure, Transpower will need to demonstrate they meet the Grid Investment Test (GIT).

5.2.3 The Commission considers that the degree of oversight of investment decisions should reflect the scale and complexity of a particular investment. Forecasts should demonstrate robust controls on expenditure and apply appropriate cost-benefit tests to planned expenditures. In summary, the capital expenditure approvals processes for RCP1 will work as follows:

a. proposed projects will be assessed using two broad methods: for Minor capital expenditure, a process-based approach will apply; Major capital expenditure projects will be subject to individual review;

b. there will a separate Minor capital expenditure allowance provided for the Transition Year and a Minor capital expenditure allowance (based on commissioned expenditure) provided for the Remainder Period;

c. individual approval is required for Major Projects, and approved costs on Major Projects cannot be substituted or applied to other projects;

d. Major capital expenditure will be included in the calculation of each MAR (via an estimate of the return of and on capital from the date of commissioning) on an individual project basis;

e. the Minor capital expenditure review process commences with Transpower submitting process and policy information for review, followed by, for the Remainder Period, its multi-year proposal of Minor capital expenditure works (on a commissioned basis). The Commission will then review Transpower's proposed programme of work and set an allowance for the multi-year regulatory period which will be reflected in the allowed MAR (via an estimate of the return of and on capital from the date of commissioning of projects);

f. wash-ups of actual capital expenditure against allowances will occur immediately prior to setting the MAR in 2011/12 and 2014/15, covering all but the final year, with the outcome reflected in revenues for the Remainder Period and RCP2 respectively. Actual capital expenditure in the final year of RCP1 (2014/15) will be incorporated in the first wash-up in RCP2 (2015/16);

g. the wash-ups will take into account any additional expenditure approved by the Commission during the RCP;

h. only projects forecast to be commissioned during a given RCP may be included in capital proposals for that RCP;

i. only approved and commissioned capital projects may be added to the RAB; and

j. projects that have already been approved at the time any capital expenditure input methodology is determined (by 1 October 2011) will not be affected i.e. they will be allowed to enter the forecast MAR if forecast to be commissioned during the RCP and will not be subject to the new Capital expenditure input methodology. Unapproved projects, however, will be subject to any new processes set out in that input methodology.

Reasons

5.2.4 The regime proposed to apply for the Remainder Period is an interim approach. This recognises the timing difficulties and concerns relating to Transpower's capital expenditure forecasting and planning processes. This allows Transpower three further years to improve its forecasting performance before the regime to be set out in the capital expenditure input methodology is implemented for the second and subsequent regulatory periods. This latter regime is likely to be much more incentive-based than the interim approach.[48]

[48] Incentive-based approaches generally set an ex-ante allowance based on an assessment of what may be an efficient level of capital expenditure, and allow the supplier to retain the benefits (or bear the losses) of variations from the allowance.

5.2.5 The approaches to Minor and Major capital expenditure projects are discussed in further detail in the following sections.

5.3 Capital Expenditure Classification: Major and Minor

Draft decision

5.3.1 The Commission's draft decision is that for both the Transition Year and the Remainder Period, any capital expenditure that does not fit into the category of Minor capital is to be classified as Major capital.

5.3.2 The following expenditure is to be classified as Minor capital expenditure:

a. asset replacement;

b. asset refurbishment;

c. during the Transition Year, enhancement projects less than $1.5 million or enhancement programmes with a value of less than $5.0 million;

d. during the Remainder Period, enhancement projects less than $5.0 million or enhancement programmes with a value of less than $5.0 million;

e. information and system technology (IST); and

f. Business Support capital expenditure;

5.3.3 These expenditure types are defined below.

Asset Replacement

5.3.4 Asset replacement means capital expenditure which will be commissioned during the regulatory period due to the condition or performance of an asset but where replacement of the asset/works does not materially improve the original service potential (beyond that attributable to using the modern equivalent assets).

Asset Refurbishment

5.3.5 Asset refurbishment means capital expenditure which will be commissioned during the regulatory period on an asset, or sub-component of an asset, and that materially extends its original economic life but does not improve its original service potential (e.g. tower painting).

Minor Enhancements

5.3.6 Asset enhancement projects with an expected value of less than $1.5 million (or programmes with a value of less than $5.0 million) for the Transition Year, and any project or programme less than $5.0 million in the Remainder Period, that will be commissioned during the regulatory period, and involve either work on existing assets or investment in new assets, in order to:

- bring the performance of the asset up to the appropriate standard where asset performance is below a modern standard of service and/or industry good practice; or

- in general, increase capacity, reliability, or quality of supply, consistent with customer needs.

5.3.7 If, during the regulatory period, Minor enhancement projects receive scope or cost variations from that forecasted, Transpower will be not be permitted to seek approval for additional funding. The Commission's expectation is that Transpower will manage within its overall Minor Capital expenditure allowance.[49]

Information System and Technology (IST)

5.3.8 IST capital expenditure relates to expenditure which will be commissioned during the regulatory period, relating to the upgrade or replacement of IST infrastructure where this is used in operating or supporting the operation of the grid, including:

- telecommunications network;
- SCADA EMS (including devices which provide data to SCADA)[50]; and
- network systems.

5.3.9 IST capital expenditure also includes capitalised TNP operating leases.[51]

Business Support capital expenditure

5.3.10 Business Support capital expenditure means non grid-related capital expenditure that will be commissioned during the regulatory period, and is required for the efficient operation of transmission grid services. This may include expenditure such as on office furniture, computer hardware and software, and other such non-grid capital expenditure.

Reasons

5.3.11 The Commission's emerging view was that any individual categories for asset replacement, asset refurbishment and asset enhancement projects were unnecessary, and that any project in excess of $1.5 million should be classified as a Major Project.[52] The Commission's emerging view also provided Transpower the option of aggregating programmes of work to the value of $10 million, the benefit of which was to provide approvals based on an overall strategy where capital expenditure was unlikely to be for individual projects.

5.3.12 The Commission's reason for the $1.5 million cut-off was that it considered it reasonable to expect that as projects increase in size and cost, they should receive an increasing level of scrutiny. This was instead of previous arrangements that separated capital expenditure by the nature of the work. This concept was supported

[49] For the avoidance of doubt, the clarification that Transpower cannot seek additional funding for Minor Enhancement projects is made because this limitation does not apply, at least initially, to Transpower's enhancement projects that are subject to the current Part F approval process (GIT).

[50] SCADA EMS refers to Supervisory Control and Data Acquisition / Energy Management System.

[51] Transpower's telecommunications and Networks Programme (TNP) will replace its existing, largely radio-based telecommunications infrastructure with fibre-optic cable. Transpower has built and owns 920 kilometres of fibre, and leases a further 3,350 kilometres of the approximately 6,000 kilometres of fibre required for its Telecommunications and Networks Programme.

[52] Commerce Commission, *Emerging Views Paper*, 17 February 2010, p.15.

at the Commission's electricity transmission workshop in general, but participants did not support the level at which the Commission had proposed to separate Minor and Major projects. Transpower suggested that the cut-off should be closer to between $20 and $50 million, depending on the nature of the project.[53] Genesis Energy also submitted that $1.5 million was too low, but did not provide its view on what would be more appropriate.[54]

5.3.13 The decision on the cut-off for defining Minor and Major projects is also complicated by decisions on the appropriate level of substitutability between categories of expenditure. The Commission's emerging view on substitutability was that Transpower should be unconstrained within the Minor project category, with the exclusion of not being able to substitute between the aggregated programmes category and other projects.[55] The Commission was also of the view that Transpower should not be able to substitute freely between Minor and Major projects. The Commission remains of the view that any decision on the appropriate cut-off for defining Minor and Major projects must consider what is allowed in terms of substituting individually approved capital projects for general expenditure on unrelated matters.

5.3.14 The Commission's draft decision is to increase Transpower's flexibility to substitute projects (i.e. the emerging view of preventing substitutions between aggregated programmes, and between aggregated programmes and other Minor capital expenditure sub-categories, has been discarded). MEUG supported the idea the Transpower should be provided a greater level of substitutability.[56] However, the Commission also remains of the view that Transpower should not be able to substitute between Minor and Major projects.

5.3.15 Although its emerging view was to remove the categories of expenditure (replacements, refurbishment, enhancement, IST), this concept being supported by Transpower in its post-workshop submission,[57] the Commission's draft decision is to adopt an approach that distinguishes enhancement projects from other minor expenditure. This is because it considers that the level of interest from stakeholders in enhancement projects is likely to be much greater than for replacement and refurbishment and IST projects. Options for replacing and refurbishing existing assets are likely to be more limited, and less contentious than enhancement projects. In line with this, and considering the feedback provided at the workshop and in post-workshop submissions, the Commission's draft decision is to remove the $1.5 million cap for replacement, refurbishment and IST expenditure completely. As such, no cap will apply for such expenditure, which will be included in the Minor projects category, and can be fully and freely substituted. However, it should be noted that this decision does not mean that very large projects in the Minor category will not receive additional attention. Under the review approach for Minor projects,

53 Commerce Commission, *Electricity Transmission Workshop Transcript*, 3 March 2010, p.98, lines 22-28.

54 Genesis Energy, *Submission on Electricity Transmission Workshop*, 24 March 2010, p.4.

55 Commerce Commission, *Emerging Views Paper*, 17 February 2010, p.14.

56 Commerce Commission, *Electricity Transmission Workshop Transcript*, 3 March 2010, p.145, lines 7-14.

57 Transpower, *Submission on Electricity Transmission Workshop*, 24 March 2010, p.5.

the Commission is able to, and will likely, closely scrutinise the largest projects included in Transpower's proposal.[58]

5.3.16 The Commission considers that, in general, there are considerably more options for enhancement projects, including non-transmission alternatives that must be considered, and therefore, these should be treated differently. The Commission's draft decision to increase the existing cut-off from $1.5 million per project to $5 million for the Remainder Period, represents an increase from the value used under the settlement. This is also an increase from that proposed in the Commission's emerging views.

5.3.17 This overall approach will reduce the likely number of projects requiring individual regulatory approval, and is consistent with ultimately moving toward a less onerous ex-ante capital expenditure regime. These decisions, however, will be revisited when the Commission consults on the capital expenditure input methodology.

<u>Business Support Assets</u>

5.3.18 Under the settlement agreement, the Commission accepted Transpower's proposal that the category of capital expenditure, Business Support Assets, would not be subject to regulatory scrutiny. The Commission's decision not to declare control of Transpower observed that although there would be no constraint in the short-term on this expenditure, the Commission was of the view that this risk was acceptable.[59] The Commission noted that Transpower's practical ability to inefficiently substitute between operating expenditure and this category of capital expenditure, thereby making a windfall gain from its operating expenditure allowance, was not clear, but was unlikely to be significant. The Commission also noted that efficient substitution is to be encouraged and the benefits of any substitution would be available to be passed on to consumers at the next reset of the thresholds. The approach under the settlement was accepted on a 'short-term' basis, and the Commission's draft decision is to not continue with this approach.

5.3.19 Under Part 4, the Commission is moving to an approach whereby all operating and capital expenditure is approved on an ex-ante basis. The Commission considers it practical to consider expenditure on Business Support Assets using the same approach as for other Minor capital expenditure. This will also provide Transpower additional flexibility to manage its portfolio of Minor capital expenditure by including an additional category of capital expenditure (Business Support Assets) with which other Minor capital expenditure will be able to be substituted.

5.3.20 Transpower's actual expenditure from 2006/07 until 2008/09, as well as Transpower's forecast of commissioned expenditure for 2009/10 until 2011/12, is provided in Table 5.1 below:

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[58] As noted previously, this is an interim approach. Cut-off levels and the matter of substitution will be re-examined, and re-consulted upon when the Commission develops its capital expenditure input methodology.

[59] Commerce Commission, *Decision and Reasons for Not Declaring Control of Transpower New Zealand Limited,* 13 May 2008, pp 49-50.

Table 5.1 Business Support Capital expenditure

Year	Amount ($$ millions)
2006/07	$12.1m
2007/08	$7.9m
2008/09	$12.1m
2009/10	$16.1m (forecast)
2010/11	$12.1m (forecast)
2011/12	$13.6m (forecast)

5.4 Aggregation of Minor Projects

Draft Decision

5.4.1 The Commission’s draft decision is that it will allow Transpower to combine minor works into programmes of work, for the purpose of seeking regulatory approval of Minor capital expenditure.

5.4.2 Once a programme has been approved by the Commission it will be treated as a single project under the Minor capital expenditure approval process. Programmes of work will be subject to sampling and review by the Commission in the same way as other projects in the Minor capital expenditure category.

5.4.3 Aggregated programmes will not be subject to a maximum value, except for that specified for enhancement projects ($5 million), and can be freely substituted with other projects in the Minor capital expenditure category.

Reasons

5.4.4 The Commission considers that some Minor projects may be more effectively assessed as part of an aggregated programme of work. 'Aggregated programmes' have the following features:

- works are repetitive in nature (e.g. tower painting, re-conductoring) such that one project is broadly similar to another in the programme;
- works are bound by an underlying strategy that is consistent with good industry practice and has been economically tested; and
- works are to be carried out over a number of years or regulatory periods.

5.4.5 Aggregated programmes are likely to be reviewed by the Commission based on the asset management strategy and the economic testing that has been applied to them. The asset management strategy would be expected to identify and address issues such as, but not limited to:

- current asset condition and its impact on grid reliability and risk;
- cost to maintain current condition (evidenced by historical spend);
- benchmarking and identification of good industry practice;

- target asset condition and its impact on grid reliability and risk;
- cost to achieve and maintain target asset condition;
- economic analysis of options (cost benefit of improved asset condition);
- planned timeframes and approach for achieving output objectives;
- key performance indicators and measures; and
- capacity management issues identified and addressed.

5.5 Transition Year Minor Capital Expenditure Allowance

Draft decision

5.5.1 The Commission's draft decision is that Transpower's Transition Year Minor capital expenditure allowance will be set at $225.6 million.

Reasons

5.5.2 In order to set an allowance for Transition Year Minor capital expenditure, the Commission requested that Transpower provide a forecast of its proposed capital expenditure for the 2011/12 year, consistent with the approach taken under the settlement agreement,[60] by early 2010. Transpower provided its proposal, seeking a Minor capital expenditure allowance of $243 million.

5.5.3 The Commission has undertaken an assessment of that proposal, following a similar process to that provided for under the settlement. The Commission notes, however, that it is not constrained by the settlement in reaching its decision with regards to setting the level of approved capital expenditure for 2011/12 for the individual price-quality path for Transpower.

5.5.4 The Commission engaged Strata Energy Consulting Limited (Strata) to assist it in its review and to provide its independent opinion on what a reasonable level of Minor capital expenditure would be for 2011/12.

5.5.5 Strata found that Transpower had, for the most part, forecast its capital expenditure in a manner consistent with the approach under the settlement. Strata found that in terms of implementing process improvements (e.g. targeting least cost efficient interventions), Transpower had made significant progress in the 2009/10 year.[61] Strata also advised the Commission, however, that it considered further savings could be achieved. Strata concluded that, because of the significant difference between the projects planned to be undertaken and those projects actually undertaken in 2009/10 (as at the time of Strata's review), as well as Transpower's history of under-spending, it is difficult to rely on Transpower's business plan. Because of this, Strata considered it would be appropriate for the Commission to set a threshold lower than that proposed by Transpower.

[60] New Zealand Gazette, *Commerce Act (Transpower Thresholds) Notice 2008*, 26 June 2008, Issue 106, Schedule 2 Part 2, p. 2816.

[61] The 2009/10 is the most recent year for which actual performance can be reviewed.

5.5.6 Strata found that the level of expenditure that had been fully subject to Transpower's internal review and approval processes was too low to rely on Transpower's processes to ensure the proposed level of capital expenditure is appropriate. Only 29.9% of replacement, refurbishment and enhancement expenditure (RRE) and 3.2% for Information Systems and Technology expenditure (IST) had completed Transpower's approval process. As a result, Strata conclude that Transpower's proposal is not an appropriate basis for setting an approved level of capital expenditure. Strata suggested, as an alternative, that the Commission base the 2011/12 Minor capital expenditure allowance on the level approved for the 2010/11 year (the final year of the settlement). Strata noted that Transpower's proposed level of capital for 2011/12 ($243m) was only $3 million lower than what it had proposed for 2010/11 ($246m).[62]

> …many aspects of the 2011/12 Business Plan are a continuation of key categories of capex in the 2010/11 Business Plan e.g. tower painting, grillage refurbishment, single-phase transformer replacement, circuit breakers, reconductoring, etc. Also the level of capex is almost identical ($176.3m in 2010/11 and $177.0m in 2011/12).

5.5.7 Strata concluded that the Commission should apply the same threshold to the Transition Year as it had determined under the settlement for non-Part F expenditure for the 2010/11 year:

> Given the extent of the similarities between the Business Plans for each year and the absence of a better alternative, Strata recommends the Commission applies the same Threshold as is established for the 2010/11 year, to the 2011/12 year.[63]

5.5.8 The Commission has considered Transpower's proposal, the advice it has received from Strata, as well as submissions on its consultation on the non-Part F threshold to be set for Transpower for 2010/11. As noted in its decision on Transpower's 2010/11 non Part F capital expenditure, the Commission remains somewhat concerned about Transpower's history of under-delivering capital expenditure and its capacity to increase its delivery of Minor capital expenditure to the levels proposed.[64]

5.5.9 The Commission has no further information on historical performance to that considered when setting the non-Part F capital expenditure threshold for 2010/11. Given it relied on Transpower's assurances to the Commission that it had improved its capacity to deliver the forecast expenditure, the Commission is of the view that Strata's proposed approach to setting the level for approved capital, is a pragmatic solution.

5.5.10 Since completing its review of Transpower's proposed 2011/12 capital expenditure, the Commission has moved away from providing its approval based on forecast

62 Strata Energy Consulting Limited, *Review of Transpower's 2011/12 Non Part F Capital Expenditure Plans (Asset Replacement, Refurbishment & Enhancement and Information Services & Technology)*, May 2010, Section 3.4.2, p.29.

63 Strata Energy Consulting Limited, *Review of Transpower's 2011/12 Non Part F Capital Expenditure Plans (Asset Replacement, Refurbishment & Enhancement and Information Services & Technology)*, May 2010, Section 3.4.2, p.29.

64 Commerce Commission, *Regulation of Electricity Lines Businesses: Decision on 2010/11 Non-Part F Capital Expenditure Threshold for Transpower New Zealand Limited*, 3 June 2010, p.2.

capital expenditure for a given period, in favour of approving a level of capital expenditure that is forecast to be commissioned during that given period. Previously, under the settlement, Transpower's revenue requirement was based upon approved forecasts of capital expenditure, with the year-end wash-up taking into account actual assets commissioned. An approach based on commissioned capital expenditure provides consistency of approach between the forecasts and that used at year-end. Likewise, as this approach will be used for the Remainder Period and subsequent RCPs, the Commission considers it should use this approach for the Transition Period.

5.5.11 Transpower's forecast of assets to be commissioned in 2011/12 is approximately $204 million, along with approximately $17 million of IST operating leases (providing a combined total of $221 million). Transpower's forecast of assets to be commissioned is approximately $22 million less than Transpower's proposed level of capital expenditure of $243 m (which was provided to the Commission for review as the basis of Strata's assessment).

5.5.12 In comparison, Transpower proposed a threshold of $246 million for the 2010/11 year, and the Commission set the threshold at $225.6 million ($20.4 million less than Transpower's proposal).

5.5.13 As the Commission is proposing to now include Transpower's forecast of Business Support Assets of approximately $14 million into the category of Minor capital expenditure, this would increase the forecast level to a combined total of approximately $235 million. This is comprised of:

- capital to be commissioned $204 million;
- IST operating leases $17 million; and
- Business Support Assets $14 million.

5.5.14 Given that in 2010/11 the Commission made a $20 million downward adjustment to the level of capital expenditure, and noting the similarities between the expenditure programme in 2010/11 and 2011/12 (paragraph 5.5.7) and that the findings of Strata's review also apply to 2011/12, another downward adjustment of similar magnitude appears appropriate. However, given the Minor category now includes an allowance for Business Support Assets, the downward adjustment must be at least partially offset to accommodate this. Given the changeover from forecasting on an expenditure basis, to an 'as commissioned' basis, the Commission recognises that previous forecasts and adjustments are not entirely comparable with Transpower's forecasts of commissioned assets. On this basis, and conservative in Transpower's favour, the Commission considers it a pragmatic solution for the Transition Year, to set the Minor capital allowance at $225.60 million, inclusive of the amount forecast by Transpower for Business Support Assets expenditure.

5.5.15 This draft decision is, however, contingent on Transpower delivering on its assurance to the Commission that its capacity issues have been resolved. If Transpower fails to deliver to its 2009/10 year targets, the Commission is likely to revise the allowance downwards. Transpower would then need to rely on an ex-post approval process for any additional expenditure (and the Commission would need to reconsider its draft decision on the use of the ex-post approval mechanism). This, however, is not the Commission's preferred approach (refer paragraph 5.9.4).

5.5.16 Taking into account Transpower's historical and more recent performance, Strata's advice and submissions on the Commission's 2010/11 non Part F capex decision, the Commission's preliminary view is that it is appropriate to set the Minor capital expenditure allowance for the Transition Year at $225.60 million.

5.6 Remainder Period Minor Capital Expenditure Allowance

Draft Decisions

5.6.1 Transpower will be required to submit a Minor capital expenditure proposal for the capital expenditure it intends to carry out during each year of the Remainder Period. The proposal must be based on expected commissioned expenditure and include:

a. an amount for each year of the Remainder Period;

b. a director's certificate assuring the Commission that its proposed Minor capital expenditure is reasonable and achievable; and

c. a report by an independent expert verifying that this is the case.

5.6.2 The Commission will review Transpower's proposal, and determine an allowance for Minor capital expenditure for each of the three years of the Remainder Period. This will be included in the calculation of Transpower's MAR (via the return on and of the commissioned capital).

5.6.3 The Commission's draft decision is that all future Minor capital expenditure is expected to have completed Transpower's internal approval processes.[65] Any capital expenditure not complying with this requirement must be fully excluded from the RAB.

Reasons

5.6.4 The draft decision to undertake a single review of Transpower's planned Minor capital expenditure for the three-year Remainder Period in 2011 is consistent with the Commission's view that it should move, over time, to a regime where all capital expenditure is approved on an ex-ante basis.

5.6.5 The approach to Minor capital expenditure is based on the view that the projects included in Transpower's Minor capital expenditure proposal will provide a sound basis for the Commission to establish an allowance to be included in the MAR for the Remainder Period if Transpower can provide sufficient justification that:

[65] For the avoidance of doubt, this requirement is a condition for determining whether an asset may be entered into the RAB, not whether it can be submitted to the Commission for approval. See Section 5.6.9 for the process for submitting Minor capital expenditure for approval.

- its internal policies and processes are effective in delivering technically appropriate capital expenditure projects and programmes at least cost;[66]
- the processes are properly and consistently applied; and
- Transpower has demonstrated capability to implement the capital expenditure programme.

5.6.6 A key focus of the process review will be on assessing the adequacy of Transpower's capital expenditure policies and processes for achieving least-cost capital expenditure outcomes. The term ‘least-cost’ reflects the May 2009 Government Policy Statement on Electricity Governance (GPS). Key factors in achieving least-cost capital expenditure are considered to be the use of:

- accurate and complete asset condition monitoring and assessment processes;
- effective options analysis, including non-transmission alternatives where appropriate;
- cost-benefit analysis and economic testing;
- accurate costing methodologies;
- effective challenge processes;
- effective procurement processes; and
- targeted capital expenditure cost reduction/containment efforts (such as demonstrating efforts to provide cost reduction incentives to contractors, i.e. sharing of cost savings).

5.6.7 In addition to the process review, a relatively detailed technical examination of a sample of individual Minor projects will be undertaken. This will seek to test Transpower's adherence to relevant policies and processes through examining business cases and other project documentation. It will be used to establish whether, and to what extent the policies and processes have been properly and consistently applied, and whether, in the case of the sampled projects, the capital expenditure is reasonable or not.

5.6.8 These findings would be used to provide a view on the reasonableness of Transpower's Minor capital expenditure proposal as a whole. The advantage of this approach is that it avoids the need to undertake highly detailed technical and economic reviews of a large number of individual projects while maintaining a degree of targeted oversight.

5.6.9 In terms of whether or not expenditure forecasts have been prepared in accordance with Transpower’s capital works and IST planning processes and policies, the Commission considered what proportion of Minor capital expenditure it should reasonably expect to have completed the requisite internal approval steps by the time the Minor capital expenditure proposal is submitted. It considers that, given the inherent uncertainties and the multi-year scope of the assessment, and the lead time required for Transpower to prepare and submit its expenditure plans, it would not be

[66] Least cost refers to the lowest whole of life cost, taking into account an economic assessment of all quantitative and qualitative costs over the life of the asset, including reliability, risk, and maintenance costs.

reasonable or cost-effective to require Minor projects to have completed all internal approval steps by the time of providing the proposal. For example, scoping or costing projects in advance may result in the need for rework if specifications, costs, or priorities change.

5.6.10 The Commission is relying on the rigour of Transpower's approved policies, processes and asset management strategies to ensure the reasonableness of its forecasts, to ensure appropriate least-cost outcome. Given its reliance on this, but noting that Transpower will not be expected to have fully applied those processes by the time of its proposal, the Commission considers it reasonable to expect that 100% of projects and programme work will have gone through Transpower's internal approval processes prior to the expenditure commencing. For this reason, the Commission's draft decision is that no capital expenditure in the Minor capital expenditure category may be entered into the RAB unless it fully complies with, and has been subject to, the approval processes.

5.6.11 Appendix A provides additional detail on the approach for reviewing Transpower’s proposed Minor capital expenditure for the Remainder Period.

5.7 Major Capital Expenditure Projects

Draft Decision

5.7.1 The Commission’s draft decision is that Major projects will be subject to individual approval utilising an economic investment test. Until the capital expenditure input methodology is determined, the GIT set out under Part F of the Electricity Governance Rules (EGRs) will be used. Projects will be reviewed by the Electricity Commission prior to 1 October 2010, and by the Commerce Commission from that date (subject to the Bill passing into law).

5.7.2 Projects approved prior to the relevant MAR determination will be included in the MAR. Projects not approved prior to the relevant MAR determination will be excluded from the MAR for the remainder of the RCP, but will be included in the next wash-up, if commissioned during the RCP (and commissioned prior to that wash-up).[67]

5.7.3 Transpower must, at the time it provides to the Commission its operating and capital expenditure proposal, also provide to the Commission a list of any Major projects it considers should be recorded as contingent projects, that is, those projects whereby:

- the costs of certain large investments are excluded from the MAR, where the need, timing, or cost of the project are uncertain;
- the expenditure would only be recovered if the project proceeds.

5.7.4 Major capital expenditure assets may only be included in the RAB if these receive ex-ante regulatory approval, once commissioned, and only at the lesser of approved or actual cost.

[67] MAR determination, as made under s 52Q (see paragraph 1.2.26).

5.7.5 The Commission will not provide ex-post approval for any Major projects.

Reasons

5.7.6 As discussed in Chapter 1 (paragraph 1.2.17), the proposed capital expenditure input methodology will be developed and consulted on during the 2011 calendar year. The Commission's draft decision on the Major projects approval approach, therefore, is an interim approach until that new input methodology is determined. This interim approach is largely based on that which applies under the administrative settlement. The Commission's approach and any individual price-quality path determination will be amended, as necessary, during Year 2 of RCP1 to reflect the capital expenditure input methodology. Projects approved prior to the capital expenditure input methodology determination will retain their approval.

5.7.7 If any Major projects have not received regulatory approval prior to the initial MAR determination (so they are not incorporated in the MAR at the start of the regulatory period), they may be assessed during the regulatory period. Major projects that are approved and commissioned during RCP1 will be included in the first available ex-post wash-up processes. If approved but not commissioned during the RCP, these Major projects will be included in the next appropriate MAR based on expected commissioning date.

5.7.8 The approach in RCP2 will be determined by the capital expenditure input methodology, but the Commission's current view is that RCP2 will include a mid-RCP update of the MAR, specifically to take into account recently approved Major capital approvals of contingent projects (refer paragraphs 3.7.5 to 3.7.7).

5.7.9 The Commission's draft decision is also that all Major capital expenditure projects must have ex-ante approval from the appropriate regulatory agency (i.e. the Electricity Commission or the Commerce Commission) prior to being included in the RAB. The Commission will not engage in any ex-post approvals, as discussed in Section 5.9.

5.7.10 Any Major projects that are approved and commissioned during the Transition Year, prior to setting the MAR for the Remainder Period, will be incorporated into the Remainder Period MAR.

<u>Remainder Period approvals</u>

5.7.11 As noted previously, if the Bill is enacted, the Commission will assume responsibility for approving Major capital expenditure projects from 1 October 2010. Projects submitted prior to 1 October 2010 will be reviewed by the Electricity Commission under the Part F processes.

5.7.12 The Bill proposes that projects submitted between 1 October 2010 and 30 September 2011 will be reviewed by the Commerce Commission under the processes currently set out in Part F of the EGRs. After 1 October 2011, projects will be reviewed under the processes set out in the capital expenditure input methodology yet to be determined by the Commission.

5.7.13 Consistent with the Commission's view that it should move, over time, to a regime where capital expenditure is approved on an ex-ante basis, the Commission will incorporate all Major capital expenditure projects into Tranpower's MAR if they have received approval prior to the relevant MAR determination. Assets may only be included in the RAB if these receive ex-ante regulatory approval, once commissioned, and at the lesser of approved or actual cost.

Contingent Projects

5.7.14 Transpower's Major capital investments, i.e. those that are subject to the GIT, are often large and infrequent. The timing, cost, and even whether the need for these large investments will eventuate, is often dependent on events beyond Transpower's control. This introduces uncertainty as to the need, timing and/or cost of these large investments, and the question arises as to whether to allow for such costs when setting Transpower's MAR.

5.7.15 In RCP1, the Commission has not placed any restriction on Transpower's ability to seek approvals for Major capital expenditure during the RCP. For this reason, as large uncertain projects become more certain, Transpower may seek regulatory approval for that expenditure, and recover its costs via the wash-up process. The Commission's decision to require Transpower to provide a forecast of contingent projects, is effectively implementing a 'dry-run' of the contingent project mechanism that might be implemented in RCP2.[68]

5.8 Substitution of Approved Capital Expenditure

Draft decision

5.8.1 The Commission's draft decision is that, for RCP1, Transpower will be provided the flexibility to:

a. fully substitute and reprioritise Minor capital expenditure within (i.e. between the subcategories of Minor enhancement, replacement and refurbishment and IST); and

b. fully substitute and reprioritise Minor capital expenditure within the Remainder Period, but not between the Transition Year and Remainder Period, nor between RCPs.

5.8.2 In contrast, Transpower will not be able to substitute any capital expenditure approved for an individual Major project, to any other project.

5.8.3 The approach to substitution for RCP2 onwards will be determined as part of the Commission's capital expenditure input methodology by October 2011, if the Bill is enacted.

[68] The use of contingent projects in RCP2 depends upon the capex expenditure input methodology that is set by the Commission in late 2011.

Reasons - Minor Capital substitution

5.8.4 To minimise negative incentives which may exist where capital expenditure cannot be prioritised from one regulatory year to another, the Commission considers it appropriate to provide Transpower with flexibility to, where efficient, prioritise by deferring projects from one year to another, and bringing other projects forward. Flexibility to do this across years within a regulatory period may help minimise inefficient expenditure and the incentives for Transpower to simply spend the full amount of its allowance.

5.8.5 The decision regarding the level of substitutability must be made together with the decision regarding the appropriate cut-off between Minor and Major project categories. Achieving this balance is discussed in Section 5.3.13 to 5.3.17. The Commission also considers its draft decision on the level of substitutability is appropriate for RCP1 due to the inherent level of uncertainty in Transpower's forecast Minor capital expenditure, and the magnitude of its recent and proposed increases in capital spend. This approach will provide Transpower with appropriate operational freedom to manage its investment plans and respond in a timely way to changes arising in its business and operational environment.

Reasons - Major Capital substitution

5.8.6 The Commission does not consider that it would be appropriate for Transpower, having undertaken detailed analysis and gained regulatory approval for specific Major projects, to use the approved costs of that project for other work. Likewise, the magnitude of Major capital projects is likely to be such that, if substitution with the Minor capital category was allowed, substitution of even a single Major project could potentially swamp the Minor category and undermine the efficiency incentives being provided.

5.8.7 Providing the ability to substitute approved Major capital may also undermine the need to effectively consult different third parties where projects costs can be transferred from one approved project to one that has not been approved. This would also effectively avoid the need for regulatory approval on certain projects.

5.9 Ex-post approvals for Major and Minor Capital Expenditure

Draft Decision

5.9.1 The Commission's draft decision is that Transpower should manage its level of Minor capital expenditure within the allowance determined by the Commission. Accordingly, ex-post approval for Minor capital expenditure will only be provided in exceptional circumstances, where Transpower can demonstrate that it was unable to foresee it and that it is essential to maintain the security of supply of the national grid and cannot be deferred. This will apply from, and to RCP1.

5.9.2 The amount of any ex-post approval of Minor capital expenditure must not be included in any wash-up, but will be entered into Transpower’s RAB.

5.9.3 The Commission does not intend to provide ex-post approval for Major capital expenditure. Any Major capital expenditure that does not receive ex-ante approval must not be included in any wash-up, and must not be entered into Transpower's RAB.

Reasons

5.9.4 The Commission intends in future, to move to a regime under which Transpower's revenue allowance is set on an ex-ante basis, with minimal use of wash-ups and ex-post reviews. A step in this direction is to not allow ex-post approval of expenditure over and above the Minor capital expenditure allowance, unless exceptional circumstances are presented. The Commission considers it appropriate to limit the use of the ex-post approval to exceptional circumstances only, to ensure the correct discipline and incentives are provided for Transpower to manage project costs and make efficient prioritisation decisions, as well as ensure it provides an accurate forecast of its capital expenditure requirements.

5.9.5 The Commission's reason for retaining the ex-post wash-up mechanism for Minor capital expenditure in RCP1 is solely to ensure consumers are not disadvantaged if Transpower under-delivers against its Minor capital expenditure allowance.

5.9.6 The purpose of ex-post approvals is that where any exceptional situations do arise, the Commission may approve additional capital expenditure to be included in Transpower's RAB, for the purpose of allowing Transpower recovery in future periods. The amount of that approval will not, however, be included in any wash-up (refer paragraph 3.8.11).

5.9.7 As with other Minor capital expenditure, the Commission expects that, prior to undertaking, commissioning and submitting for ex-post approval any capital expenditure over and above the approved level, that it would have been fully subject to Transpower's internal approval processes.

5.9.8 As noted in Section 3.10.4, in the event that Transpower's Minor capital expenditure exceeds its ex-ante approved level, such expenditure must be excluded from Transpower's RAB unless;

a. Transpower seeks and receives ex-post approval from the Commission for that capital expenditure; or

b. Transpower calculates the revenue impact of that capital expenditure, over the life of those assets, including a reasonable allowance for maintenance, and makes an adjustment to the relevant EV account to fully offset this cost.

5.9.9 The Commission's reason for not providing ex-post approval for Major capital expenditure is that it does not consider it a good and appropriate process for Transpower to seek regulatory approval for capital expenditure that it has already incurred. Part of the approval process is to ensure options are considered, economics have been tested, and to allow and ensure appropriate consultation. Seeking approval on an ex-post basis undermines the intended regulatory approval process, the ability for the Commission to undertake these steps, and to ensure correct process. For this reason, the Commission's draft decision is that it will not engage on any Major capital expenditure approval process except on an ex-ante basis. This is consistent with the current approach adopted by the Electricity Commission.

CHAPTER 6: QUALITY STANDARDS

In summary, the Commission's draft decision is to include a performance incentive regime that links Transpower's regulated revenue to the quality of service it provides. The performance incentive regime includes the following:

- a symmetrical approach allowing for penalties or rewards based on a sliding scale;
- the revenue at risk/reward set at 0% for RCP1, with the revenue at risk for subsequent regulatory periods set by the Commission prior to the start of Transpower's first pricing year in the regulatory period;
- the starting point for setting targets for RCP1 will be average performance over the period 2004/05 to 2008/09 (previous five years), with caps and collars set at two standard deviations either side of the target except where the data set for the five years is skewed by a single event or year in which case the Commission will consider a longer period of up to seven years;
- weighting factors set by the Commission to calculate the revenue reward or penalty for each year of the regulatory control period;
- targets, caps, collars and weightings for subsequent regulatory control periods set by the Commission prior to the start of the first pricing year of the regulatory control period;
- the following five quality measures linked to the revenue at risk for each regulatory control period:
  - total duration of interruptions, expressed in terms of 'system minutes' of unserved energy;
  - loss of supply event frequency, expressed as the number of unplanned interruptions over 0.05 system minutes;
  - loss of supply event frequency, expressed as the number of unplanned interruptions over 1.0 system minutes;
  - availability, expressed as the HVAC circuit unavailability (unplanned); and
  - availability, expressed as HVDC bi-pole availability; and
- No targets, caps and collars set for HVDC bi-pole availability in RCP1.

The targets, caps, collars and weightings for each of the quality measures for the first year of RCP1 are set out in the table below.

Parameter	Loss of Supply Event Frequency		Availability		Total Duration of Interruptions
	Number of events >0.05 system minutes	Number of events >1.0 system minute	HVAC circuit unavailability (unplanned) %	HVDC bi-pole %	Total system minutes
Target	21	3	0.056	Not in RCP1	16.69
Cap	10	1	0.029	Not in RCP1	4.30
Collar	31	5	0.083	Not in RCP1	29.10
Weighting	25%	25%	25%	Not in RCP1	25%

6.1 Introduction

6.1.1 This Chapter sets out the Commission's draft decision on the quality measures that will apply to Transpower under the s 52P determination. In setting the quality measures for Transpower the Commission has sought to promote outcomes consistent with outcomes produced in workably competitive markets such that the objectives in s 52A(1)(a) to (d) occur. This Chapter identifies how the Commission's decisions are consistent with that overall purpose.

6.1.2 Section 53M(3) of the Act provides that quality standards may be prescribed in any way the Commission considers appropriate. However, any quality standards proposed must give effect to quality standards set by the Electricity Commission.[69]

6.1.3 In March 2010 the Commission released its Emerging Views Paper and held the Transpower Workshop. With regard to quality, the Commission proposed applying a performance incentive mechanism, based on a basket of quality measures, that places a portion of Transpower's revenue at risk (in the case of underperformance) and offers potential rewards (in the case of performance better than the target).

6.2 Performance Incentive Regime

6.2.1 The approach to individual price-quality regulation for Transpower involves setting a maximum allowed revenue for each year of a regulatory period based on forecasts of capital and operating expenditure assessed by the Commission. During the regulatory period Transpower can maximise its profits by reducing costs below the allowable revenue. While cost reductions could occur because of improved efficiency, they could also result from reduced service quality.

6.2.2 The Commission's inclusion of a performance incentive regime aims to address the incentive to lower quality standards in order to maximise profits by linking Transpower's regulated revenues to the quality of the service it provides.

6.2.3 The proposed approach is consistent with overseas regulatory approaches in which regulators seek to ensure that reductions in expenditure by electricity transmission businesses are not achieved to the detriment of quality standards. Both Ofgem and the AER link regulated revenue of transmission businesses to the quality of the service transmission businesses provide using measures similar to the draft decisions set out in this Chapter.

6.2.4 The Act (s 54M(6)) limits the Commission's ability to set its own quality standards with respect to Transpower:

> The only requirements that may be included in a section 52P determination in respect of the quality standards of Transpower are requirements that give effect to quality standards set by the Electricity Commission.

6.2.5 However, the Electricity Industry Bill proposes to repeal s 54M(6) and include new s 54V(4), which states:

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[69] Section 54M(6) of the Act.

> Requirements relating to quality standards for Transpower in a section 52P determination must be based on, and be consistent with, quality standards for Transpower that are set by the Electricity Authority; but the Commission may prescribe them in any way it considers appropriate, as authorised by section 53M(3).

6.2.6 It is currently unclear to the Commission which of the quality measures that the Electricity Commission sets can be considered quality ‘standards’ and, therefore, what the Commission should either give effect to, as currently set out in the Act, or be based on and be consistent with, as proposed by the Electricity Industry Bill.

6.2.7 For the purposes of meeting the requirements of the Act, the Commission has reviewed the quality measures used by the Electricity Commission against the quality measures the Commission proposes to include in the performance incentive regime. The relationship between the quality measures used by the Electricity Commission and the quality measures proposed by the Commission in the performance incentive regime are discussed in the quality measure sections in this Chapter (Section 6.7).

6.2.8 Section 53M(2)(c) of the Act allows the Commission to require consumer compensation payments under an individual price-quality path as a type of incentive scheme related to the setting of quality standards. However, the Commission notes that providing compensation to specific consumer groups would present a number of challenges. Challenges include asymmetric compensation, with compensation paid to specific consumers that suffer quality deficits being unlikely to be balanced by additional payments to Transpower following over delivery of quality to particular consumer groups. The Commission does not plan to consider consumer compensation until the performance incentive regime is operational and the revenue at risk has been set.

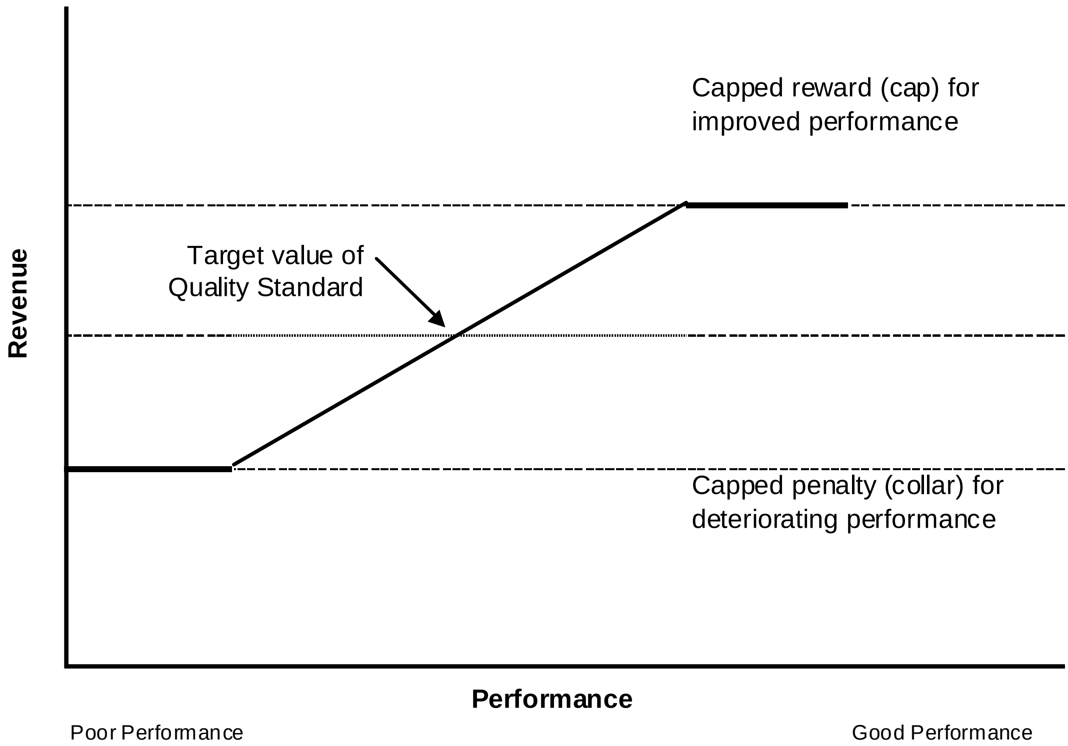
6.2.9 The Commission notes that the Electricity Commission is considering an unconditional service guarantee approach that looks to provide compensation to users of the transmission grid in the event of loss of supply. The Commission will need to work with the Electricity Commission, and subsequently the Electricity Authority, to ensure the Commission’s approach to Transpower’s quality complies with the Act.

6.3 Framework Design

6.3.1 The Commission considers that the impact of the incentive mechanism on the revenue allowance would be determined by:

- the type and number of quality measures used in the mechanism;
- the target, cap and collar applicable to each quality measure;
- the relative weighting of the quality measure compared to other quality measures; and
- the revenue percentage at risk (or reward) under the mechanism.

6.3.2 A generic performance profile linking a quality measure to revenue is set out in the diagram below. The impact on revenue will be separately calculated for each quality measure, and then aggregated using quality specific weighting factors. The approach for setting targets, caps, collars and weightings for each quality measure is set out in the sections below.



6.4 Revenue at risk

Draft Decision

6.4.1 The Commission's draft decision is that:

- the quality performance regime should be symmetrical, i.e. it should allow for both penalties and rewards as a result of performance below or above a set target (additional revenue over-and-above maximum allowable revenue);
- penalties and rewards relating to quality performance should be based on a sliding scale, with the percentage of revenue that can be gained or lost set prior to the regulatory period;
- for the first regulatory period, performance will be assessed and reported against a specified set of measures and levels, but the revenue at risk/reward will be set at 0%; and
- for subsequent regulatory periods, the percentage of revenue at risk/reward will be set by the Commission prior to the start of Transpower’s first pricing year of each regulatory period.

Commission's Reasons

6.4.2 While Transpower has historically reported on various components of its quality performance, this has not previously been explicitly linked to revenue.

6.4.3 As discussed above, the Commission considers an incentive mechanism linking Transpower's quality performance with revenue is an integral part of an individual price-quality path. Any quality incentive mechanism should be symmetrical, such that Transpower can potentially earn rewards as well as incurring penalties.

6.4.4 The incentive mechanism requires setting a percentage of annual maximum allowable revenue that can be gained (on top of maximum allowed revenues) in the event of superior performance or lost in the event of under-performance against specified quality measures.

6.4.5 The Commission's draft decision also includes a transition period in which performance is reported but no revenue is at risk. While Transpower has historically reported on most of the proposed measures, or variants of them (refer subsequent sections), it has not set and assessed performance against target levels linked to revenue at risk. Establishing a quality performance regime, but setting the maximum penalty/reward at 0% for the first regulatory period allows the Commission and Transpower to gain experience with setting statistically valid parameters, and better understand the inter-relationships between the various factors, without undue risk.

6.4.6 The link between revenue and quality will be established for RCP2 by setting a percentage of Transpower's revenue at risk. The level of revenue at risk in RCP2 will be set by the Commission following consideration of the information Transpower submits for quality targets and revenue at risk, as well as Transpower’s forecasts of operating and capital expenditure for RCP2.

6.4.7 Transpower has expressed support for a performance incentive regime that links its quality performance to its revenue.[70]

6.5 Setting targets, caps and collars

Draft Decision

6.5.1 The Commission's draft decisions are that:

a. targets, caps and collars for each of the measures for the first regulatory period will be determined using historical performance data for the period 2004/05 to 2008/09, unless the data for the five years is skewed by a single event or year in which case the Commission will consider using a longer historic period of up to seven years;

b. the starting point for setting targets will be average performance over that period, with caps and collars set at two standard deviations either side of the target, unless two standard deviations results in unrealistic numbers, such as greater than 100% or less than zero. In this case the cap and collar would be set at a lower value, for example, at one standard deviation. The Commission will also take into account any adjustments necessary to achieve desired future performance, or make allowances for activities on the grid;

[70] Transpower, *Submission to Commerce Commission on Electricity Transmission Workshop*, 24 March 2010, p.12.

c. a sliding scale (slope) rewards or penalises performance relative to the target level for each measure, in proportion to the level of performance. Caps and collars reflect the performance levels beyond which further decreases (below the collar) or increases (above the cap) in performance result in no further penalty or reward;

d. targets, caps and collars will not be set for HVDC bi-pole availability for RCP1, however, Transpower will be required to disclose performance on this measure in its annual compliance statement;

e. dead-bands around target levels will not be used;

f. Transpower will provide forecasts of quality performance to the Commission, as well Transpower’s views on what reasonable targets, caps and collars applicable to each of the quality measures prior to the start of the regulatory control period may be, supported by sufficient information and evidence, including, and in conjunction with, its proposed operating and capital expenditure forecasts; and

g. the Commission will determine and set the targets, caps and collars for each RCP prior to the start of the first pricing year of each regulatory period.

Commission's Reasons

6.5.2 The Commission considers that the data set used to calculate the targets, caps and collars should reflect the circumstances that the grid would operate under during the relevant regulatory period including the level of constraints on the system and the volume of capital works undertaken on the grid.

6.5.3 The Commission has given consideration to using up to seven years of historical data to calculate the targets, caps and collars. The Commission considers that basing the targets, caps and collars on the last five years is likely to provide a reasonable representation of the operating conditions over the first regulatory period. However, the Commission acknowledges that a five year data set could be adversely impacted by one-off events that may skew the calculation of targets, caps and collars. For this reason the Commission considers that a longer data set, up to seven years, may be more appropriate in some cases.

6.5.4 Transpower supports the use of a five year historical data set. However, it notes that the process to determine performance parameters must be sufficiently flexible to allow for modifications to the dataset where it does not adequately reflect the conditions expected going forward.[71] In particular, Transpower noted the following:

a. all proposed measures may be negatively affected by Transpower's increased capital programme over the next regulatory period(s);

b. extrapolating past HVDC performance is not a valid means of establishing parameters for future HVDC performance;

[71] Transpower, *Electricity Transmission Post Workshop Submission*, 24 March 2010, p.33.

c. changes to Transpower's policies on reclosing circuits after trippings has had a significant impact on times to return assets to service.[72] This affects all three of the proposed measures; and

d. the scheme should allow for parameters to be modified to take account of factors that would reasonably be expected to affect future performance, such as increases or decreases in capital and operating expenditure (including maintenance), aging of the total asset stock, and change to the regulatory environment.[73]

6.5.5 The target level of performance for a particular measure is the level of performance in a particular year that results in Transpower receiving neither reward nor penalty.[74] Higher or lower performance levels will produce rewards or penalties, determined by the slope of the sliding scale. To avoid doubt, the target level does not represent an optimal or acceptable level of performance; rather it is an expected level of performance, given the circumstances the system will operate under. In addition the targets, caps and collars set for RCP1 are being used to test the performance incentive mechanism during RCP1. For these reasons, the Commission proposes using historical averages for setting target levels.

6.5.6 The sliding scale (slope) rewards or penalises performance relative to the target level for each measure, in proportion to the level of performance. Caps and collars reflect the performance levels beyond which further decreases (below the collar) or increases (above the cap) in performance result in no further penalty or reward.

6.5.7 The Commission’s draft decision is to set caps and collars at two standard deviations from the target level for the first regulatory period, if two standard deviations provides caps and collars within a meaningful range. The Commission recognises this approach has a number of imperfections such as that some of the measures are not normally distributed. However, the Commission considers this to be a pragmatic approach to setting a performance range within which Transpower can influence its performance during a regulatory period. If two standard deviations does not provide a meaningful range for a specific measure (such as resulting in a collar value below zero system minutes) the Commission will consider using one standard deviation to set the cap and collar.

6.5.8 The Commission considered the use of 'dead-bands' around the target, within which no rewards or penalties would apply. This would avoid rewarding or penalising Transpower for normal fluctuations in performance. However, the Commission did not consider that this increase in complexity would produce any real benefits due to the likely unders and overs across measures and between years within the regulatory control period. Transpower supported this view, further noting that the use of dead-

[72] Following a ‘conductor drop’ incident in Auckland in February 2009, Transpower revised its policy on reclosing circuits after trippings, an outcome of which has been markedly increased times to restore circuits to service. This is not reflected in the historical data on which the Commission proposes establishing targets and other parameters.

[73] Transpower, *Electricity Transmission Post Workshop Submission,* 24 March 2010, p.12.

[74] Note that while this is discussed in aggregate terms, performance is assessed against the parameters for each measure, and weightings applied, to determine the aggregate penalty or reward.

bands appears to be declining in the Australian regime.[75] The Commission also considers the sliding scale should be based on a linear relationship between the target and the cap and collar for each quality measure as this is the most straight forward option.

6.6 Weightings

Draft decision

6.6.1 Weightings set the relative impact of each quality measure on the revenue at risk. The Commission's draft decision is that:

a. weighting factors will be applied to each of the quality measures to calculate the revenue reward or penalty for each year of the regulatory control period;

b. a higher weighting should be placed upon loss of supply measures relative to outage measures;

c. a higher weighting should be placed on HVAC availability relative to HVDC (in proportion to the value of the asset base);

d. Transpower will propose the weighting to be applied to each of the quality measures. The Commission will assess Transpower's proposal and determine and set the weightings it considers appropriate for the control period; and

e. When setting the weightings for each quality measures the factors the Commission takes into account will include (but will not be limited to):

   i. the extent to which each quality measure provides an incentive to improve performance most valued by consumers;

   ii. the availability of accurate and reliable data for determining values for each quality measure;

   iii. scope that Transpower has to improve its performance, as measured by each of the quality measures; and

   iv. the extent to which the quality measures overlap.

6.6.2 Transpower agreed that the consumer impact measures such as loss of supply event frequency should be more heavily weighted.[76]

6.7 Quality Measures

6.7.1 In its Emerging Views Paper the Commission set out four potential quality measures, noting that, due to some overlaps, a subset of the measures was likely to be appropriate. The four quality measures were:[77]

- total duration of interruptions, expressed in terms of 'system minutes' of unserved energy;

[75] Transpower workshop transcript, 2 March 2010, pp.33-34.

[76] Transpower workshop transcript, 2 March 2010, pp.38

[77] Commerce Commission, Emerging Views and Workshop Agenda, February 2010.

- loss of supply event frequency, expressed as the number of unplanned interruptions over a certain size;
- unavailability, expressed as the percentage of grid assets that are unavailable, on average, as a result of outages; and
- average outage duration, in minutes.

6.7.2 This section provides a discussion regarding each of the four proposed measures of which the Commission proposes the first three (or variations on them) be included in the basket of measures for the performance incentive regime. Draft decisions and definitions applying to the proposed measures, are included within each sub-section and Appendix B.

6.7.3 The Commission's preference is that the incentive mechanism should include a small number of relatively high-level parameters which together provide an indication of Transpower's overall quality performance from year to year. It does not see value in including a larger number of disaggregated measures in the incentive regime at this stage.

6.7.4 The Commission notes that Transpower currently reports on a significant number of aggregated and disaggregated measures as required under the EGRs, the Act (information disclosure) and of its own volition. Therefore, this more detailed information is already available to interested parties.

Total duration of interruptions

<u>Draft Decision</u>

6.7.5 The Commission's draft decision is that total duration of interruptions (both planned and unplanned) will be included in the performance incentive regime.

6.7.6 The definition of the total duration of interruptions measure is the same as that used in the Transpower administrative settlement and is set out in Appendix B to this Paper.

6.7.7 Transpower will also be required to separately report total duration of interruptions (planned and unplanned), duration of planned interruptions and duration of unplanned interruptions within the information disclosures requirements.

<u>Commission's reasons</u>

6.7.8 Total duration of interruptions measures the annual total supply interruptions (planned and unplanned) in system minutes (i.e. the unserved energy resulting from an outage, expressed in terms of an equivalent system-wide impact).

6.7.9 Total duration of interruptions is a key quality measure in the administrative settlement and was included as a potential quality measure in the Commission's Emerging Views Paper. It provides a high level view of the extent to which events have negatively affected consumers.

6.7.10 The inclusion or otherwise of this measure was discussed at the Transpower workshop in March 2010. Transpower proposed continuing to report this measure, but did not support its inclusion in a performance incentive regime because:

- a single event can have a disproportionately large impact on the result; and
- as currently (and historically) recorded by Transpower, this measure includes all events, regardless of whether they are within Transpower's control. For example, while an event may originate on the Transpower system, the configuration of a customer's network can affect the restoration of supply to customers, and therefore the amount of unserved energy.[78]

6.7.11 MEUG commented that total interruptions is a 'headline statistic', and as such, should not be entirely excluded from the regime. It queried whether there might be ways to work around the issues identified by Transpower.[79]

6.7.12 The Commission has considered the basket of measures that could be used to reflect overall quality performance, including the extent to which the total duration of interruptions measure overlaps with other measures (discussed in subsequent sections). It also considered how the total duration of interruption historical data could be used to produce a quality measure target, cap and collar that could be included in an incentive regime. The Commission considers that:

- there is overlap between the measures of total duration of interruptions, average outage duration and loss of supply event frequency (discussed below) as all three measures cover the impact on consumers from supply interruptions;
- the average outage duration does not, however, provide consumers a direct measure of supply interruptions as some unplanned outages do not affect supply (due to redundancy);
- the total duration of interruptions and loss of supply event frequency measures will together provide appropriate targeted incentives for Transpower to reduce the number and length of supply interruptions; and
- because of the overlap between the three measures and the incentives provided by the total duration of interruptions and loss of supply event frequency measures the measure of average outage duration is not required in the incentive regime.

6.7.13 The Commission also considered whether the total duration of interruption measure should be limited to unplanned interruptions only (as opposed to an aggregate of planned and unplanned interruptions). Planned outages (some of which will result in supply interruptions) are managed and controlled by existing processes, such as the outage protocol, that Transpower must comply with. In addition, as Transpower will be undertaking a large number of required maintenance and construction projects over RCP1, at least some of which will require planned interruptions, the Commission needs to ensure it does not create incentives that could result in that work being delayed or reduced.

6.7.14 The Commission concluded that including planned interruptions in the total interruption measure will not provide incentives for Transpower to limit the work it undertakes due to:

78 Transpower Workshop Transcript, 2 March 2010, pp.42-43

79 Transpower Workshop Transcript, 2 March 2010, p.43

- the number of planned interruption system minutes being relatively small compared to unplanned interruption system minutes;[80] and
- the historic information used to set the total duration of interruption target is likely to include planned interruptions similar in size to Transpower's planned interruptions going forward, resulting in the RCP1 targets recognising the duration of the planned interruptions required.

6.7.15 The Commission also recognises that the current Transpower settlement agreement includes total duration of interruptions (aggregate of planned and unplanned) as a key quality measure and that it is important to retain consistency between quality measures used in the administrative settlement and the quality measures within the Transpower performance incentive regime.

6.7.16 For the reasons set out above the Commission proposes to include total duration of interruptions (planned and unplanned) in the Transpower performance incentive regime.

6.7.17 Because the total duration of interruptions measure is a high level performance indicator for transmission consumers, Transpower will likely be required to separately report on the total duration of interruptions, duration of planned interruptions and duration of unplanned interruptions under the information disclosure regime.

Act Requirements

6.7.18 As discussed in paragraph 6.2.4, the setting of quality standards by the Commission is limited by the Act (including as it is proposed to be amended by the Electricity Industry Bill). The Commission notes that the EGRs require Transpower to establish targets and report on the aggregate loss of connection in system minutes due to planned and unplanned interruptions at customer point of service.[81] Therefore, the Commission considers that including total duration of interruptions in system minutes in the incentive regime is giving effect to quality standards set by the Electricity Commission (as currently required under s 54M(6) of the Act).

Loss of supply event frequency

<u>Draft Decision</u>

6.7.19 The Commission's draft decision is that loss of supply event frequency will be included in the performance incentive regime. This will comprise two sub-measures:

- number of interruptions over 0.05 system minutes; and
- number of interruptions over 1.0 system minutes.

80 The five year average (2004/05 to 2008/09) for the duration of planned interruptions is 2.96 with a standard deviation of 0.53. The five year average (2004/05 to 2008/09) for the duration of unplanned interruptions is 18.08 with a standard deviation of 12.28.

81 Schedule F2 of Section II of Part F of the EGRs and Section VI of Part F of the EGRs.

6.7.20 This measure includes only events which result in actual loss of supply. The detailed definition of the loss of supply event frequency measures is set out in Appendix B to this Paper.

Commission's reasons

6.7.21 Loss of supply event frequency measures the *number* of unplanned interruption events that occur which have an impact greater than a specified threshold(s). This measure is useful because it is directly related to the impact of loss of supply on customers, and is highly visible.

6.7.22 The Commission's Emerging Views Paper included loss of supply event frequency as a potential measure to be included in the quality incentive regime, and proposed that it comprise the number of interruptions over 0.05 and 1.0 system minutes. This approach is similar to that used in the Australian regime, and was supported by Transpower at the March 2010 Electricity Transmission workshop, and by Genesis Energy in its post-workshop submission.[82]

6.7.23 The Commission considers that inclusion of these measures will provide incentives for Transpower to reduce the number of short or small impact interruptions to supply (over 0.05 system minutes) and the number of loss of supply events which cause substantial inconvenience to a large number of consumers (over 1.0 system minutes).[83]

6.7.24 As this measure includes only events which result in actual loss of supply, it does not include interruptions to generators or outages that do not result in any loss of supply. A detailed definition of the measure, including inclusions and exclusions, is set out in Appendix B.

Act requirements

6.7.25 As discussed in paragraph 6.2.4, setting of quality standards by the Commission is limited by the Act (as proposed to be amended by the Electricity Industry Bill). The Commission notes that the EGRs require Transpower to establish targets and report on the annual number of planned and unplanned interruptions for a number of different asset categories.[84] Therefore, the Commission considers that including loss of supply frequency measures in the incentive regime is giving effect to quality standards set by the Electricity Commission (as required under s 54M(6) of the Act).

Availability

Draft Decision

6.7.26 The Commission's draft decision is that availability will be included in the performance incentive regime, in the form of two measures:

82 Transpower Workshop Transcript, 2 March 2010, pp.35-38.; Genesis Energy, *Submission on Transpower Regulation Workshop*, 24 March 2010, p.5.

83 Transpower has stated that one system minute is roughly equivalent to an interruption affecting the whole of Hamilton for 40 minutes over a winter evening peak.

84 Schedule F2 of Section II of Part F of the EGRs and Section VI of Part F of the EGRs

a. HVAC circuit unavailability (unplanned) (%), being the percentage of a year that HVAC circuits are unavailable, on average, due to unplanned outages; and

b. HVDC bi-pole availability (%), being the proportion of energy that could have been transmitted, except for limitations of capacity, due to unplanned outages.

6.7.27 As a transition measure, HVDC bi-pole availability will be reported during the first regulatory period, but targets, caps and collars will not be set and the measure will be excluded from the incentive mechanism.

6.7.28 The detailed definition of availability is set out in Appendix B to this Paper.

Commission's reasons

6.7.29 System availability measures the percentage of the grid that was unavailable, during the regulatory period, due to outages. Availability measures are useful because they provide a broad measure of the risk of supply interruptions. Low levels of availability are not necessarily associated with poor reliability, though lower availability would, in general, be expected to lead to more interruptions. Availability also has an effect on prices in the wholesale electricity market.

6.7.30 Availability measures were included in the list of potential quality measures in the Commission's emerging views Paper.

6.7.31 Availability measures are used universally (for regulated transmission businesses) in the Australian regime, where measures include total availability as well as disaggregated by critical/non-critical circuits, peak/off-peak hours, and transformer/ circuit/ reactive plant availability. The measures that apply to each business are tailored to the nature of the system, and disaggregation of measures has increased over time, with experience.

6.7.32 The Commission considered whether there would be value in disaggregating HVAC availability on such bases as criticality. However, it considered that aggregated measures are preferable for the first regulatory period. It notes that a large number of more disaggregated measures are reported by Transpower under the EGRs and information disclosure requirements.

6.7.33 The aggregate availability measures will be split into HVDC and HVAC assets, and will, in both cases, focus on availability due to unplanned outages only. In the case of HVAC, the measure will be circuit availability only (as opposed to transformer and other equipment availability). The following sub-sections discuss these draft decisions, and other inclusions and exclusions.

Planned and unplanned outages

6.7.34 A primary consideration around availability measures is whether they should include both planned and unplanned outages. Limiting the measure to unplanned outages reduces the impact that planned work, and associated outages, has on the performance incentive regime during a regulatory period.

6.7.35 Alternatively, including both planned and unplanned outages provides a measure of the total risk to consumers of loss of supply, given a planned outage can result in a lower level of supply security. Transpower originally proposed including both planned and unplanned outages in the availability measures, and continues to support this approach. Transpower notes that:

a. unplanned outages make a very small contribution to unavailability relative to planned outages, so excluding planned outages will result in a considerably more variable measure;[85] and

b. excluding planned outages results in a measure which is closely related to the average outage duration measure about which Transpower has expressed concern.

6.7.36 The Commission considers that unplanned outages are more likely to have a negative impact on consumer supply than planned outages. For this reason the Commission considers that consumers are likely to place a higher value on monitoring and incentives to reduce unplanned outages over incentives to control and reduce planned outages. Although planned outages can affect consumers supply and costs, the planned outages are managed and controlled by existing processes, such as the outage protocol, that Transpower must comply with. The outage protocol includes situations and times at which Transpower must reconsider the timing of proposed planned outages, the processes for Transpower to consult with designated transmission customers and to determine an outage plan setting out planned outages for each year, processes for the outage plan to be updated, and the matters for Transpower to consider when planning for outages, in order to give effect to a net benefit principle.[86]

6.7.37 The Commission also notes that planned outages are under Transpower's control and the Commission does not want to provide strong incentives for Transpower to reduce such outages if work is required on the network.

6.7.38 The Commission considers that the measure should focus on unplanned outages. Unplanned outages will be defined as fault trippings and forced outages within 24 hours of discovering the problem requiring the outage.

HVDC bi-pole availability measure

6.7.39 The Commission considers HVDC bi-pole availability to be a key measure in the incentive regime, due to the criticality of the HVDC assets to the New Zealand electricity system. However, its draft decision is to exclude the measure from the incentive regime for the first regulatory period, primarily due to difficulty in establishing relevant parameters for the measure. Unlike the other measures, historical data on HVDC availability will not sufficiently reflect the operating conditions during the first regulatory period.

6.7.40 This is primarily due to the significant work on the HVDC link scheduled for the first regulatory period, including removal of Pole 1 from service, commissioning of the new Pole 3, half-life refurbishment of Pole 2, and an upgrade of the control systems

85 This comment applies primarily to HVAC availability; in the case of the HVDC assets, levels of forced outages have a much greater impact on aggregate unavailability.

86 Electricity Commission, Consultation Paper: Proposed Connection Code and Outage Protocol 19 October 2007.

to enable integrated operation of Poles 2 and 3. These events will have a significant impact on bi-pole availability.

6.7.41 In addition, historical data will be based on performance of aging assets, which have radically different outage profiles to the new assets. Finally, as the HVDC link comprises a small number of assets, there will be no 'averaging' effect from variations in maintenance and faults as for HVAC.

6.7.42 The Commission considers there is little benefit to be derived from setting targets and monitoring performance against those targets given the lack of useable historic information and the level of work required on the assets.

6.7.43 The Commission expects that Transpower will report HVDC bi-pole availability under information disclosure. HVDC bi-pole availability will then be included in the performance incentive regime in the second and subsequent regulatory periods.

Circuit availability

6.7.44 The Commission proposes that, at least for the first regulatory period, HVAC availability measures should focus on circuit availability, i.e. exclude transformer availability. The key reasons for excluding transformer availability are:

- most of Transpower's fleet of supply transformers are connection assets provided under individual customer agreements. As a result, third parties can have a significant influence on performance of the assets; and
- HVAC transformer outages that affect supply are captured by the circuit availability measure.[87] It is the Commission's view that the benefit of adding a separate transformer measure is limited.

6.7.45 Transpower will be required to capture the data required for this measure over this time, to enable possible future inclusion of transformer availability measures in the incentive regime in subsequent periods.

Inclusions/ exclusions

6.7.46 A detailed definition of the measure is provided in Appendix B, including a listing of the types of events that are specifically excluded from the measure. For example, in addition to planned outages and transformer availability, this measure excludes momentary interruptions, outages that did not originate on the Transpower system, events caused by system operator instructions to reconfigure the grid, correct operation of boundary equipment, and a number of other events.

6.7.47 Force majeure events and events caused by third parties are included, as they are represented in historical data.

[87] The only transformer outages that are not captured in the circuit availability measure are those that do not impact on supply, as a result of redundancy.

Act requirements

6.7.48 As discussed in paragraph 6.2.4, setting of quality standards by the Commission is limited by the Act (including as it is proposed to be amended by the Electricity Industry Bill).

6.7.49 The EGRs require Transpower to set service levels for annual unavailability of aggregate connection assets relating to the customer point of service, due to planned and unplanned outages, of any of those connection assets that are a duration of one minute or longer.[88] Therefore, the Commission considers that including availability measures (as set out above) in the incentive regime is giving effect to quality standards set by the Electricity Commission (as required under s 54M(6) of the Act). It does not expect this to change as a result of the proposed changes to the Act in this regard.

Average unplanned outage duration

Draft Decision

6.7.50 The Commission's draft decision is that an average (unplanned) outage duration measure will not be included in the performance incentive regime.

Commission's reasons

6.7.51 The Commission's emerging views on potential measures for the quality incentive mechanism included a measure of average outage duration. This is the total duration of outages divided by the number of outages contributing to total duration. The average outage duration measure is included in the Australian quality performance scheme for some transmission providers.

6.7.52 Subsequently the Commission has considered the basket of measures that could be used to reflect overall quality performance, including the extent to which the average outage duration measure overlaps with other quality measures and the importance of average outage duration measure to consumers.

6.7.53 At the Commission’s Transpower workshop Transpower stated that:

- it has not traditionally used average outage duration as a key performance indicator, but does recognise the potential value of this measure;
- it has no experience to date in the analysis of average outage duration as a measure and that establishing reasonable targets, caps and collars is problematic;
- there could be uncertain effects on the unplanned outage measure as a result of changes in safety practices and changes in manual reclose policy to improve public safety; and

[88] Section VI of Part F of the EGRs requires Transpower to propose and report the unavailability of each interconnection branch, shunt asset and the HVDC link due to planned and unplanned outages (separate measures) of one minute or longer in hours per year, expressed as a percentage.

- it plans to commence monitoring and reporting this parameter to provide a basis for possible future inclusion in the basket of measures.

6.7.54 The Commission considers that:

- there is overlap between the measures of average outage duration, total duration of interruptions, and loss of supply event frequency (discussed above) as all three measures cover the impact on consumers from supply interruptions;
- the average outage duration does not, however, provide consumers with a direct measure of supply interruptions as some unplanned outages do not affect supply (due to redundancy);
- the total duration of interruptions and loss of supply event frequency measures will together provide appropriate targeted incentives for Transpower to reduce the number and length of supply interruptions; and
- because of the overlap between the three measures and the incentives provided by the total duration of interruptions and loss of supply event frequency measures the measure of average outage duration is not required in the incentive regime.

6.7.55 However, the Commission recognises that it is testing the performance incentive regime during RCP1, including assessing the appropriateness of the quality measures, and that average outage duration may play a role in the performance incentive regime in future control periods. For this reason the Commission will likely require that Transpower report its the average outage duration measure within the information disclosure regime.

Act requirements

6.7.56 As discussed in paragraph 6.2.4, setting of quality standards by the Commission is limited by the Act (as proposed to be amended by the Electricity Industry Bill).

6.7.57 The EGRs do not require Transpower to record and report average unplanned outage duration directly, but do require Transpower to record and report the two components that make up this measure, being the aggregate system minutes and the number of events. Therefore, the Commission considers that it is able to include average outage duration in the performance incentive regime in future control periods if the Commission considers this is required.[89]

6.8 Setting targets for first year of RCP1

Draft Decision

6.8.1 The Commission's draft decisions on quality measure targets, caps, collars and weighting for the first year (2011/12) of the RCP1 are set out in Table 6.1 below.

[89] Schedule F2 of Section II of Part F of the EGRs and Section VI of Part F of the EGRs.

Table 6.1 Quality measures to apply

Parameter	Loss of Supply Event Frequency		Availability		Total Duration of Interruptions
	Number of events >0.05 system minutes	Number of events >1.0 system minute	HVAC circuit unavailability (unplanned) %	HVDC bi-pole %	Total system minutes
Target	21	3	0.056	Not in RCP1	16.69
Cap	10	1	0.029	Not in RCP1	4.30
Collar	31	5	0.083	Not in RCP1	29.10
Weighting	25%	25%	25%	Not in RCP1	25%

Commission's reasons

6.8.2 The targets, caps and collars for the first year of RCP1 (2011/12) have been determined using the approach set out in this Chapter, including the following:

a. targets, caps and collars for loss of supply event frequency and availability, based on historical performance data for the period 2004/05 to 2008/09 (previous five years);

b. caps and collars for the loss of supply event frequency and availability quality measures are set at two standard deviations either side of the target;

c. targets, caps and collars for total duration of interruptions have been based on historical performance data for the period 2002/03 to 2008/09 (previous seven years) because the five year data set is somewhat skewed by the large event at Otahuhu in 2005/06 ((29.8 system minutes), which resulted in an annual total interruptions for the 2005/06 year of 40.81 system minutes;

d. the target for the total duration of interruptions is set at the average performance over the seven year period as the Commission considers this longer period provides a better indication of operating conditions that the grid will operate under during the first year of RCP1;

e. the cap and collar for total duration of interruptions are set at one standard deviation either side of the target as two standard deviations does not provide a meaningful range for this quality measure including resulting in the collar value being below zero system minutes;

f. weightings for the first year of RCP1 have been set evenly across the quality measures as all measures are related to supply interruptions; and

g. targets, caps and collars have not been set for HVDC bi-pole availability.

6.8.3 The target for the total duration of interruptions in the administrative settlement was 8.3 system minutes, which is the five year average total duration of interruptions from 1998/99 to 2002/03. As set out above the total duration of interruptions for the first year of RCP1 is 16.69 system minutes, which is the seven year average from 2002/03 to 2008/09.

6.8.4 While the total duration of interruptions target is a material increase from the settlement agreement the Commission considers that the target reflects the circumstances that the grid will operate under during the first year of RCP1. The Commission also considers that the purpose of the targets, caps and collars set for the RCP1 is to test the operation of the performance incentive regime including the interactions between the quality measures.

6.8.5 The targets, caps and collars for the Remainder Period of RCP1 (2012/13 to 2014/15) will be set by the Commission prior to the start of Transpower's 2012/13 pricing year.

SECTION 3: APPENDICES

APPENDIX A: APPROACH FOR REVIEWING PROPOSED MINOR CAPITAL EXPENDITURE

A1 Draft Decision on Review Approach for Remainder Period

A1.1 In reviewing Transpower's forecast of the capital expenditure for Minor projects that will be commissioned each year of the RCP, documentation and evidence supporting the proposed level will be required by the Commission. As the approach is based on Transpower's application of approved processes to ensure the proposal is an efficient use of capital, Transpower must provide details of the policies and processes in effect, and a description of changes to these over time.

A1.2 By close of business on 14 February 2011, Transpower must provide policy and process information to the Commission, including, but not limited to:

a. all material changes to its asset management, business planning, and capital works policies or processes relating to Minor capital expenditure that have occurred since the Commission's previous review;

b. a schedule that shows, for Minor projects completed in the second half of the 2010 calendar year, a comparison of actual expenditure in that period versus budgeted expenditure. Reasons for variations are to be provided for all projects that have exceeded 10% of budgeted cost;

c. a schedule which sets out significant movements of Minor capital expenditure projects into and out of the capital works plan which (those which were forecast to be commissioned) occurred during the second half of the 2010 calendar year as well as a forecast of similar movements for the first half of the 2011 calendar year;

d. evidence that Transpower has actively pursued and made process improvements, and sought to ensure appropriate least-cost, efficient, interventions;

e. evidence that Transpower has actively pursued project cost management and cost reduction strategies, ensuring that both internal and external (contractors and suppliers) have incentives to perform well and identify cost savings; and

f. any other information the Commission requests in writing.

A1.3 By close of business on 14 February 2011, Transpower must also provide its Minor capital expenditure proposal (based on a forecast of commissioned capital expenditure only) for the Remainder Period, supported by;

a. evidence that the proposal has been prepared in full accordance with its approved capital works and business planning processes and policies;

b. evidence that contingency sums are adjusted to zero for all IST and RRE;[90]

[90] The Commission notes that excluding contingency sums for IST is a change from that allowed under the settlement agreement. The Commission considers it appropriate to adopt a consistent approach between

c. project approval documentation for all projects requested in writing by the Commission. This request will be provided to Transpower at least two weeks prior to the due date above; and

d. a final schedule of all projects making up the Minor project capital expenditure proposal, together with the project approval status, in final (non-draft) form; and

e. any other information the Commission requests in writing.

A1.4 The Commission will review (or engage an independent third party to review) Transpower's Minor project capital expenditure proposal for the Remainder Period. The Commission will take into account the information provided by Transpower in response to the requests outlined above, and will pre-approve an amount of Minor Capital expenditure for the purpose of inclusion in the MAR for the regulatory period. The Commission will consult on its preliminary decision, and after taking into account all submissions on this matter, will make its final determination.

RRE and IST, and noting that IST projects often have more certain costs established by the time these receive Transpower's internal approval, suggests that removing this provision is appropriate.

APPENDIX B: DETAILED DEFINITIONS OF MEASURES

B1 Loss of supply event frequency

B1.1 This measure includes:

a. force majeure;

b. third party events;

c. automatic under-frequency load shedding (AUFLS) and automatic under-voltage load shedding (AUVLS);

d. some load restrictions;

e. Transpower contribution to customer caused interruptions; and

f. events caused by project activities.

B1.2 This measure excludes:

a. planned interruptions;

b. interruptions to generators, where the only impact is the loss of auxiliary load used for internal purposes;

c. momentary interruptions (< 1 minute in duration); and

d. correct operation of Transpower equipment for fault in an external system.

B2 Availability

B2.1 Force majeure events and forced outages caused by third parties, that originate on Transpower's system, will be included in the measures.

B2.2 In addition to excluding planned outages and focusing on circuit availability, the following exclusions will apply (further explanation provided below, as necessary):

a. outages required by the system operator in order to meet its Principle Performance Obligations under the EGRs. Under certain circumstances the system operator may require Transpower (as asset owner) to remove additional circuits from service when undertaking a planned outage, or to remove plant from service to enable the System Operator to control voltage on the system during light load periods;

b. momentary outages of less than 1 minute duration (successful auto-reclose);

c. outages that did not originate on the Transpower system;

d. correct operation of boundary equipment;

e. outages at the request of, or caused by, customers (if material);

f. in the case of HVDC availability, outages originating on the HVAC system; and

g. in the case of HVAC outages, any period in excess of seven days, i.e. outages will be capped at seven days. This will avoid the results being skewed by very long duration outages, and is consistent with Transpower's historical data collection. This approach has the effect of lowering the target and narrowing the cap/collar range.

B3 Total Duration of Interruptions

B3.1 Total duration of interruptions is a measure of unserved energy resulting from planned and unplanned outage to supply customers. It is expressed as system minutes. It is intended to estimate the impact on end users of total duration of interruptions within the Transpower system.

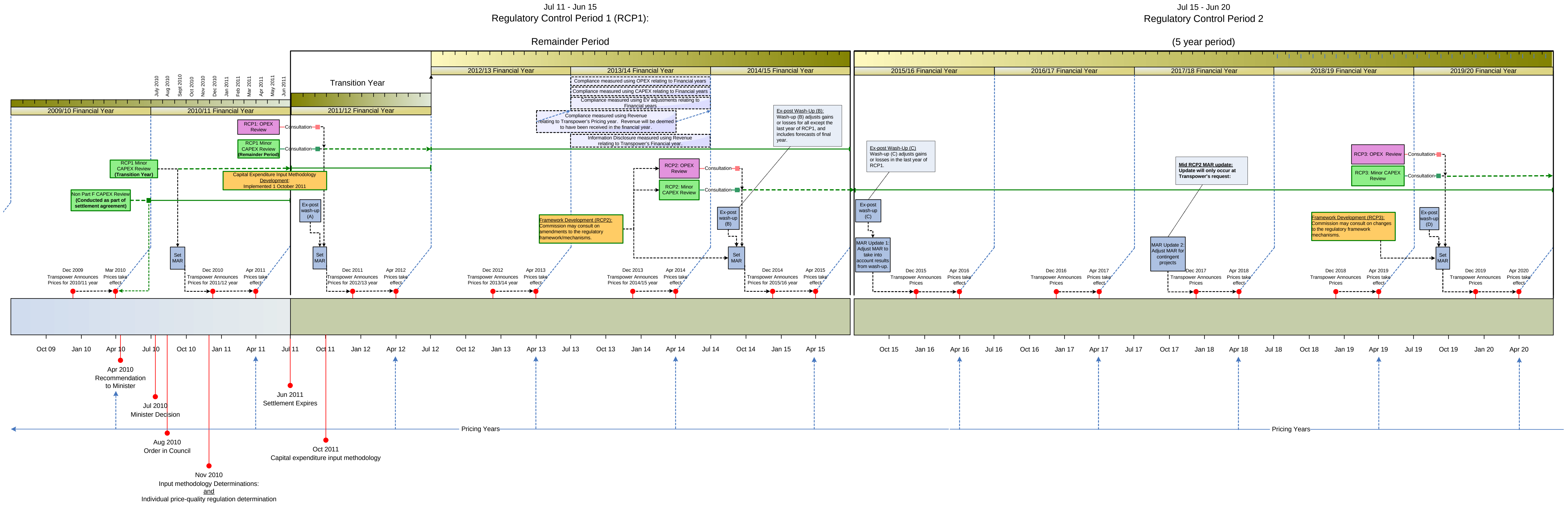
B3.2 Total interruptions is a measure of all unserved energy experienced by the Transpower customer as a result of total interruptions, including:

- force majeure;
- third party events; and
- customer sub-optimal configuration.

B3.3 This measure excludes:

- energy supplied from an alternative source such as back-feed or embedded generation; and
- any unserved energy that would have been incurred by the customer even if Transpower had not interrupted their supply.

APPENDIX C: REGULATORY CONTROL PERIOD TIMEFRAMES



RCP1 Items	Year undertaken	Cross reference
Minor Capex Review to apply to Transition Year	2010	5.2.1
Minor Capex Review to apply to Remainder Period	2011	5.6
Opex Review to set Opex allowance for Remainder Period	2011	4.4
Setting of MAR for Transition Year	2010	3.4.2
Setting MAR for Remainder Period	2011	3.4.2
Ex-post Wash-up A (washes up last year of settlement)	2011	3.8.10
Ex-post Wash-up B (washes up first 3 years of RCP1)	2014	3.8.10
Development of a capital expenditure input methodology.	2011	1.2.17

RCP2 Items	Year undertaken	Cross reference
Minor Capex Review to apply to RCP2	2014	5.6
Opex Review to set Opex allowance for RCP2	2014	4.4
Setting of MAR for RCP2	2014	3.4.1
Ex-post Wash-up C (washes up last year of RCP1)	2015	3.8.10
Ex-post Wash-up D (washes up first 4 years of RCP2)	2019	3.8.10
MAR update 1 (takes into account adjustment from wash-up C)	2015	3.7 and 3.7.5
MAR update 2 (optional at Transpower's request (see para 3.7.7)	2017 or 2018	3.7 and 3.7.6
Framework development for RCP2	2013	N/a
Framework development for RCP3	2019	N/a