COMMERCE COMMISSION

Recommendation to the Minister of Commerce regarding the type of regulation to apply to Transpower

Regulation Branch
Commerce Commission
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EXECUTIVE SUMMARY

Purpose

X1 The purpose of this paper is to provide the Commerce Commission's (Commission's) recommendation to the Minister of Commerce that individual price-quality regulation be applied to Transpower.

Commission's Recommendation to the Minister

X2 The Commission's view is that individual price-quality regulation should be applied to Transpower. In Transpower's particular case, individual price-quality regulation is considered likely to better promote the s 52A purpose statement than default/customised price-quality regulation. The Commission's key reasons why individual price-quality regulation better promotes the s 52A purpose statement, in Transpower's case, include the following:

- The Commission considers that a full building blocks approach is necessary to tailor the price-quality path to Transpower's expenditure requirements, and does not consider a default price-quality path would be suitable for the following reasons:
  - Accommodating Transpower's large and uncertain capital expenditure programme into a revenue path in a way that is consistent with statutory constraints on setting a default price path (such as low cost, and rates of change based on productivity analysis) is likely to be problematic;
  - Accommodating the approval of large projects, with uncertain timing and cost, would be difficult;
  - Tailoring an incentive mechanism to apply to operating expenditure and the base capital expenditure would be difficult;
  - Transpower would be very likely to propose a customised price-quality path to address its specific investment and operating expenditure needs, so costs of developing a default price-quality path would likely be wasted.
- A building blocks approach could be applied under either customised price-quality regulation or individual price-quality regulation. The Commission considers individual price-quality regulation would be superior to customised price-quality regulation for the following reasons:
  - It would avoid the costs of having to first set a default price-quality path, despite this path not being suitable for Transpower;
  - It would better allow the Commission to address the difficulties that arise because Transpower's forecasts may not be robust in the early regulatory periods. In particular, under individual price-quality regulation, the Commission could conduct an ex-post review of capital expenditure at the end of the regulatory period and reduce the impact of forecasting errors, by adjusting revenues in the subsequent regulatory period. This would limit Transpower's ability to extract excessive profits during a regulatory period as a result of it under-investing relative to forecasts. An ex-post review could help ensure that Transpower is held accountable for making the investments provided for in its revenue requirement. Such an ex-post review and revenue

adjustment would not be possible under a customised price-quality path;

- It would allow the Commission a more adequate period of time for reviewing and consulting on Transpower's allowed capital and operating expenditure;
- It would provide a more stable environment for setting and implementing long-term performance incentives, including targeted incentive mechanisms on operating expenditure and/or parts of Transpower's capital expenditure. Under a customised price-quality proposal, any incentives designed to improve capital planning and forecasting would be lost each time Transpower reverts back to default price-quality regulation.

X3 All parties that submitted on the type of regulation to be applied, including Transpower, agreed that individual price-quality was the most appropriate option.

Main features of individual price-quality regulation

X4 The main features of individual price-quality regulation are:

- capital and operational expenditure is examined and approved on an ex-ante basis;
- input methodologies, applicable to Transpower, are applied;
- a maximum allowable revenue model, based on a full building blocks approach, is used to set Transpower's maximum allowable revenue for the duration of the regulatory period;
- the maximum allowable revenue model factors cash-flows, approved capital and operational expenditures, as well as any necessary ex-post reviews and other adjustments into the revenue allowance;
- incentive mechanisms for operational expenditure and quality improvements can be applied; and
- quality standards are determined for each regulatory control period.

Process following this recommendation

X5 In preparing this recommendation, the Commission has considered:

- the steps, following this recommendation, that need to occur before the appropriate type of regulation can be imposed; and
- the timing for release of the Commission's s 52P determination to ensure this aligns with Transpower's pricing year and is in place before the expiry of the administrative settlement.

X6 The Commission intends to prepare its s 52P determination in parallel with determining input methodologies for Transpower. Development work for both of these work streams will be undertaken at the same time as the Minister is considering which type of regulation to apply. The primary reason for this approach is that, unless done in parallel, there would be insufficient time to develop the input methodologies and the s 52P determination before Transpower announces and sets its prices for the 2011/12 pricing year.

X7 The Commission's process is set out in more detail in Table 1 on page 3.

CHAPTER 1: INTRODUCTION

1.1 Purpose

1. This paper sets out the Commission's recommendation to the Minister of Commerce (Minister) regarding the type of regulation that should be applied to Transpower (following the expiry of the administrative settlement) as required under s 54M(3) of the Act. This paper also sets out the Commission's reasons for its recommendation, and the material provisions of the recommended type of regulation that would apply.

1.2 Background

Transpower

2. Transpower is the sole owner and operator of the New Zealand national electricity transmission grid. To address aging transmission assets and low levels of investment in the transmission grid over an extended period of time, Transpower is planning to undertake capital expenditure totalling more than $3 billion over the next five years. This investment includes large projects that are uncertain with respect to project costs and timing.

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

4. Before Transpower's administrative settlement expires, the Commission must recommend to the Minister of Commerce that Transpower be subject to either default/customised or individual price-quality regulation. Transpower will be subject to price-quality regulation once the Governor-General makes an Order in Council declaring which type of price-quality regulation applies to Transpower and once the Commission makes a s 52P determination applying that type of regulation to Transpower. Transpower is also subject to information disclosure regulation under Part 4 of the Act.

5. In addition, the Commission must determine input methodologies for the goods or services regulated under Part 4 no later than 31 December 2010.

New regulatory instruments

6. The Commerce Amendment Act 2008 introduced significant changes to Parts 4, 4A, 5 and 6 of the Act, putting in place a new regulatory framework for New Zealand. Among other things, the amendments directly affect the scope and role of the Commission in regulating electricity lines services.

7. The key features of the new regulatory framework, applicable to Transpower, are:

   - a new overall purpose statement common to all regulatory provisions under the Act, and additional purpose statements relating to specific regulatory instruments;
   - the option of either individual price-quality or default/customised regulation being applied to the electricity lines services that Transpower provides;

- new obligations for the Commission to set upfront regulatory methodologies, rules, processes, requirements and evaluation criteria (collectively and/or individually referred to as input methodologies) that are applicable to the regulatory instruments;
- new appeal provisions relating to Commission determinations on input methodologies, and to customised and individual price-quality path determinations; and
- new and amended penalty, compensation and offence provisions.

8. Previous instruments for regulation of electricity lines services, including those applying to Transpower, comprised information disclosure and a targeted control regime under Part 4A of the Act. The targeted control regime consisted of a set of performance thresholds for electricity lines businesses; the potential for control of prices, revenues and quality following a threshold breach; and the potential for a threshold breach to be resolved by an administrative settlement. The Commission followed this latter process after Transpower breached its thresholds, and the Commission negotiated a settlement agreement with Transpower. The settlement will expire on 30 June 2011.

9. The regulatory instruments now available under Part 4, applicable to Transpower are:
   - information disclosure regulation; and
   - default/customised price-quality regulation or individual price-quality regulation.

10. Part 4 of the Act does not specify which type of price-quality regulation will apply to Transpower. As noted at paragraph 4, s 54M(3) requires that, before Transpower's administrative settlement expires (30 June 2011), the Commission must recommend to the Minister that an Order in Council be made under s 52N declaring that Transpower be subject to either:
    - default/customised price-quality regulation, under subpart 6; or
    - individual price-quality regulation, under subpart 7.

11. Transpower will be subject to price-quality regulation once the Governor-General (upon the Minister's recommendation) makes the Order in Council declaring the type of regulation to apply to Transpower and the Commission makes a s 52P determination applying the regulation to Transpower.

1.3 Structure of this paper

12. Chapter 2 of this paper outlines the Commission's statutory obligations in making its recommendation on the type of price-quality regulation to apply to Transpower.

13. Chapter 3 sets out the key elements of default/customised price-quality regulation and individual price-quality regulation, and provides the Commission's likely approach under each of these types of regulation.

14. Chapter 4 provides the Commission's analysis of which type of regulation, for the specific circumstances of Transpower, best promotes the purpose of Part 4 as set out in s 52A of the Act.

15. Chapter 5 sets out the Commission's conclusions and recommendation. The material provisions that would likely apply under individual price-quality regulation are provided in Appendix A.

1.4 Next steps

16. On 10 December 2009, the Commission consulted on a revised process for providing its recommendation, and the timeframes for applying the Minister's decision. The process the Commission adopted is set out in Table 1 below.

Table 1: Timetable for input methodologies and s52P determination

Phase	Task		Indicative date
Commission recommendation and draft input methodologies	Consultation on the draft recommendation to Minister.[1]	*(Completed)*	4 February 2010
	Submissions on draft recommendation to Minister.	*(Completed)*	19 February 2010
	Workshop on Transpower.	*(Completed)*	2&3 March 2010
	Commission's final recommendation to Minister.	*(Completed)*	April 2010
	Release draft Transpower input methodologies and draft decisions paper for the s 52P determination.		June 2010
Minister and Governor-General[2]	Minister's decision on regulation to apply to Transpower.		July/Aug 2010
	Governor-General's Order in Council.		Aug 2010
Commission s52P determination and Transpower input methodologies	Commission finalises Transpower input methodology determinations.		Oct 2010
	Consultation on s 52P determination including technical drafting.		Sep/Oct 2010
	Commission's final s 52P determination published in the Gazette.		Nov 2010
Expenditure review (if individual or customised price-quality regulation)[3]	Transpower submits expenditure information.		Q1 2011
	Release draft decision on expenditure for years 2, 3 and 4 of control period 1.[4]		Q3 2011
	Submissions on draft decision.		Q3 2011
	Commission's final decision on expenditure for years 2, 3 and 4 of control period 1.		Q4 2011
Transpower pricing	Calculates 2011/12 prices, based on Commission draft determinations.		Q4 2010
	Calculates 2012/13 prices, based on price-quality regulation.		Q4 2011
	Transpower advises customers of prices.		Q4 2011
	Transpower prices apply for 2012/13 pricing year.		Q2 2012

17. The process set out in Table 1 is likely to result in Transpower determining its maximum allowable revenue and setting its prices for the 2011/12 year based on the Commission's draft determinations, rather than the Commission's final determinations. This is due to the timing for the Commission's final input

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1 Submissions were received from 8 parties: Genesis Energy, Mighty River Power, Meridian Energy, Contact Energy, Orion Energy, Vector, Transpower and the Electricity Networks Association.

2 The proposed dates for the Minister undertaking a review of the Commission's recommendation and making a decision and the Governor-General making an Order in Council are dependent on the decision-making timeframes adopted by the Minister and the Governor-General. Any change to these indicative dates could impact on other dates in this table.

3 The relevant changes to the governance of the electricity industry that are proposed by the Electricity Industry Bill, including those regarding the assessment of Transpower grid upgrade plans, are set out in section 2.5 of this paper.

4 The Commission's current view is that the first control period will be for a period of 4 years from 2011/12.

methodology and s 52P determinations and the internal processes Transpower is required to complete prior to notifying its customers of prices. The internal Transpower processes include calculating and auditing prices and internal approval processes such as obtaining Board approval.

18. As is currently done under the administrative settlement, it is intended that the maximum allowable revenue for the 2011/12 year will be recalculated on an ex-post basis based on the final input methodology and s 52P determinations, and a wash-up provided to net off any difference between forecast and actual recovery. This approach gives Transpower sufficient time to calculate and announce prices and allows the Commission to align its input methodology determinations with those for other sectors.

CHAPTER 2: STATUTORY FRAMEWORK

2.1 Introduction

19. This chapter outlines the key requirements and obligations relating to the regulation of Transpower under Part 4 of the Act.

2.2 Purpose of regulatory provisions and instruments

20. Amongst the changes introduced by the Commerce Amendment Act is a new purpose statement for Part 4 (s 52A):

> *(1) The purpose of this Part is to promote the long-term benefit of consumers in markets [where there is little or no competition and no likelihood of a substantial increase in competition] by promoting outcomes that are consistent with outcomes produced in competitive markets such that suppliers of regulated goods or services—*
>
> *(a) have incentives to innovate and to invest, including in replacement, upgraded, and new assets; and*
>
> *(b) have incentives to improve efficiency and provide services at a quality that reflects consumer demands; and*
>
> *(c) share with consumers the benefits of efficiency gains in the supply of the regulated goods or services, including through lower prices; and*
>
> *(d) are limited in their ability to extract excessive profits.*

Commission's interpretation of the new purpose statement

21. The following illustrates the Commission's interpretation of the Part 4 Purpose.

- The *central 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.
- The central purpose is to be achieved by promoting *outcomes* consistent with outcomes produced in competitive markets. The Commission has sought to identify those outcomes produced in competitive markets and promote outcomes consistent with those outcomes, to achieve the central purpose.[5]
- The outcomes must achieve the *objectives* set out in s 52A(1)(a)-(d) of the Act. The Commission has adopted the terminology expressed in both the Explanatory Note to the Commerce Amendment Bill and the Select Committee Report on the Bill, that (a) to (d) are objectives under Part 4.[6] As clarified in the Explanatory Note to the Commerce

[5] Not all competitive market outcomes are relevant to markets with little or no competition (or those with little or no likelihood of a substantial increase in competition).

[6] The *Explanatory Note to the Commerce Amendment Bill (201-1), Government Bill, as introduced to the House of Representatives*, Wellington, 13 February 2008 (Explanatory Note) refers to (a) to (d) as objectives when setting out the rationale that informed the Part 4 Purpose. References include that at page 4, under the heading 'Test and processes for imposing regulation'. This is also done at page 17 as follows: "[t]here is also debate about whether the current purpose statement for Part 4A of the Act is appropriate given that there is no explicit reference to a key regulatory objective of providing for incentives to invest." At page 19, the Explanatory Note similarly refers

Amendment Bill, promoting the long-term interests of consumers by promoting outcomes consistent with competition "requires suppliers to have incentives to invest and innovate, have incentives to improve efficiency and provide services at a quality required by consumers, share the benefits of efficiency gains with consumers, and limit excessive profits".[7] These 'requirements' are set out in (a) to (d) of s 52A(1) of the Act.

Regulatory instrument purpose statements

22. Input methodologies, as well as information disclosure and default/customised price-quality regulation, have their own secondary purpose statements:

- Input Methodologies: to promote certainty for suppliers and consumers in relation to the rules, requirements, and processes applying to the regulation, or proposed regulation, of services under Part 4 (s 52R);
- Information Disclosure Regulation: to ensure that sufficient information is readily available to interested persons to assess whether the purpose of Part 4 is being met (s 53A); and
- Default/Customised Price-Quality Regulation: to provide a relatively low-cost way of setting price-quality paths for suppliers of regulated services, while allowing the opportunity for individual regulated suppliers to have alternative price-quality paths that better meet their particular circumstances (s 53K).

23. There is no specific purpose statement for individual price-quality regulation. The Commission has been given discretion and flexibility under individual price-quality regulation to set price-quality paths in any way it sees fit, so long as it applies relevant input methodologies (s 53ZC(1)):

> the Commission may set the price-quality path for that supplier using any process, and in any way, it thinks fit, but must use the input methodologies that apply to the supply of those goods or services.

2.3 Regulation of Transpower

Price-quality regulation

24. As noted in paragraph 10, Part 4 of the Act does not specify which type of price-quality regulation will apply to Transpower. Before Transpower's administrative settlement expires, the Commission must recommend to the

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to "a purpose statement that explicitly states that the objective of regulation is to improve efficiency and to protect consumers from excessive prices." Finally, at page 20, it notes that the purpose statement was adopted because it "includes both efficiency and distributional objectives, to provide for an appropriate balance between the protection of consumers and that of producers and investors." This approach of referring to (a) to (d) as objectives is also evident at page 2 of the Select Committee Report (refer: *Commentary to the Commerce Amendment Bill (201-2), Government Bill, as reported from the Commerce Committee*, Wellington, 28 July 2008) and also at page 5 where the report explicitly refers to "regulatory objectives set out in the purpose statement" when recommending the new s 53A, which was subsequently adopted.

[7] Explanatory Note, supra n 5, p. 5.

Minister that an Order in Council be made under s 52N declaring that Transpower be subject to either:

- default/customised price-quality regulation, under subpart 6; or
- individual price-quality regulation, under subpart 7.[8]

25. Section 54M(4) provides that Subpart 2 of Part 4 (Regulating Particular Goods or Services), except the provisions relating to inquiries, applies to the process for imposing price-quality regulation and making the s 52P determination for Transpower. This is discussed in paragraphs 29 to 36 below.

26. Section 54M(5) provides that if the Order in Council declares Transpower is subject to default/customised price-quality regulation, the Commission must set a default price-quality path in accordance with s 53P. If the Order in Council declares Transpower is subject to individual price-quality regulation, the provisions under subpart 7 (individual price-quality regulation) apply.

27. Section 54M(6) provides that the only requirements that may be set in respect of Transpower's quality standards are requirements that give effect to quality standards set by the Electricity Commission. However, the Electricity Industry Bill, clause 147, proposes to repeal s 54M(6).

28. The appropriate type of price-quality regulation will be applied to Transpower once the Commission makes its s 52P determination. This determination must be made as soon as practicable after the Order in Council is made (s 52P(2)), and s 53M requires the Commission to provide a summary of its determination four months prior to it taking effect. The Commission has calculated that, to avoid a gap in the price-quality regulation of Transpower, by determining a price-quality path to take effect at the end of the settlement, the s52P determination will have to be made in November 2010 (as prices that take effect on 1 April 2011 are announced in December 2010).

Application of Subpart 2 of Part 4 of the Act

29. As stated above, s 54M(4) provides that Subpart 2 of Part 4 (Regulating Particular Goods or Services), except the provisions relating to inquiries, applies to the process for imposing price-quality regulation and making the s 52P determination for Transpower.

30. The Commission considers that s 52G (When Goods or Services May be Regulated) does not apply to the recommendation process, because Transpower's electricity line services are already subject to regulation under the Act.

31. The Commission considers that s 52H to s 52J relate to inquiries and therefore do not apply to the Commission's recommendation process.

32. The Commission considers that s 52K also relates to inquiries and, therefore, the Commission is not required to comply with it in making its

[8] Section 52C states price to mean any one or more of individual prices, aggregate prices, or revenues (whether in the form of specific numbers, or in the form of formulas by which specific numbers are derived).

recommendation. However, as there is no other guidance in the Act on what the recommendation to the Minister, with regard to Transpower, should contain, the Commission considers s 52K provides useful guidance. Section 52K requires recommendations to state the following:

(a) how the goods or services should be specified;
(b) which type of regulation should apply to the goods or services;
(c) what input methodologies apply;
(d) if information disclosure is recommended, the material provisions of the information disclosure requirements;
(e) if negotiate/arbitrate regulation is recommended, the material provisions of the negotiation process and arbitration process;
(f) if default/customised price-quality regulation is recommended, the default price path and quality standards;
(g) if individual price-quality regulation is recommended, the material provisions to apply.

33. The Commission considers that s 52K(2)(b) (which type or types of regulation should apply) must be included in the Commission's recommendation by virtue of s 54M(3). As set out in the Commission's updated process paper[9], however, the Commission does not consider it necessary to have completed development of full input methodology determinations applicable to the regulation of Transpower prior to making its recommendation to the Minister. Instead, this paper provides the Minister with information regarding the material provisions to apply to the recommended type of regulation, including a summary of what the applicable input methodologies are likely to be (subject to consultation on those methodologies).

34. Sections 52L to s 52O relate to the process for imposing regulation. These sections must be applied by the Minister and the Governor-General when considering the Commission's recommendation on the type of regulation to apply to Transpower and making an Order in Council. In particular, the Minister must consult with the Minister of Energy as part of considering this recommendation, and the Minister may request further information or advice from the Commission, in accordance with s 52L(2).

35. In addition, s 52L provides that if the Minister proposes that the goods or services should be subject to a type of regulation not recommended by the Commission, the Minister must ask the Commission for written advice on what the material provisions of the relevant s 52P determination would likely be (s 52L(3)).

36. Under s 52P(2)(a), the Commission must make a determination specifying how the relevant type of price-quality regulation applies to Transpower as soon as practicable after the Order in Council is made. However, there are a number of practical steps required between the Order in Council being made and the Commission making a s 52P determination setting the appropriate type of regulation for Transpower. These steps are set out in Table 1 (page 3).

[9] Commerce Commission, Revised process paper, 10 December 2009, p.10, paragraph 3.19.

Input methodologies

37. On 10 December 2009, the Minister extended the deadline for determining input methodologies under Part 4 of the Act from 30 June 2010 to 31 December 2010 (the extension was granted under section 52U(2) of the Act).

Information disclosure

38. Transpower is subject to information disclosure regulation under s 54F. A s 52P determination which specifies how the new information disclosure regulation will apply to Transpower must be made as soon as practicable after 1 April 2009. The Commission intends to set new information disclosure requirements after the applicable input methodologies have been determined. Until that time, s 54W provides that the current information disclosure requirements for Transpower (as set out in the current Electricity (Information Disclosure) Requirements 2004) continue to apply.

2.4 Government Policy Statements

GPS on incentives to invest

39. In August 2006, the Government provided the Commission with a statement of its economic policy relating to the incentives of regulated businesses to invest in infrastructure (the 2006 GPS).[10] The 2006 GPS states that the Government's economic policy objective is for regulated businesses to have incentives to invest in replacement, upgraded and new infrastructure and in related businesses for the long-term benefit of consumers.

40. The 2006 GPS states that the Government considers this objective will be achieved by: (a) regulatory stability, transparency and certainty giving businesses the confidence to make long-life investments; (b) regulated rates of return being commercially realistic and taking full account of the long-term risks to consumers of underinvestment in basic infrastructure; and (c) regulated businesses being confident they will not be disadvantaged in their regulated businesses if they invest in other infrastructure and services.

41. The 2006 GPS also states that the Government considers it is important that regulatory control ensures that: (a) the consumers of regulated businesses are not disadvantaged by the investments of regulated businesses in other infrastructure and services; (b) regulated businesses are held accountable for making investments in that business where those investments have been provided for in regulated revenues and prices; and (c) regulated businesses provide infrastructure at the quality required by consumers at an efficient price. Some of the elements of the 2006 GPS have now been reflected in the changes to the Act introduced through the Commerce Amendment Act. The Commission has had regard to the 2006 GPS in forming its recommendation on the type of price-quality regulation to apply to Transpower.

[10] New Zealand Government, *Statement to the Commerce Commission of economic policy of the Government: Incentives of regulated businesses to invest in infrastructure*, 7 August 2006.

GPS on electricity governance

42. On 29 October 2004, the Government issued a GPS in relation to electricity governance. Further revisions to the GPS have been made in October 2006, May 2008 and May 2009 (2009 GPS).[11] The 2009 GPS was transmitted by the Minister of Commerce to the Commission pursuant to s 26 of the Act.

43. The 2009 GPS states that a key priority of the Government is maintaining the security of electricity supply, which is vital to achieving its objective of sustainable economic development.

2.5 Ministerial review of electricity market performance

44. The Commission is also mindful of the announcements on the Electricity Market Review by the Minister of Energy and Resources. In April 2009, the Minister of Energy and Resources set up a Ministerial Review of the Electricity Market (the Review) in response to concerns about security of supply and rising electricity prices. The Review was undertaken by an Electricity Technical Advisory Group and officials (ETAG).

45. On 12 August 2009, the Minister of Energy released ETAG's preliminary report (ETAG Report).[12] The ETAG Report made a number of recommendations, including:

- the Electricity Commission's approval of major transmission grid upgrades should be transferred to the Commerce Commission as part of its overall regulation of Transpower under Part 4 of the Act;
- the reliability and service standards, transmission pricing methodologies, and the grid investment test (GIT) should be set by a new Electricity Authority,[13] that replaces the Electricity Commission;
- the GIT should be amended to make it clearer, simpler and less prescriptive; and
- the Minister would no longer be involved in accepting/rejecting the Electricity Authority's rules covering technical matters.[14]

46. Following the ETAG Report, the Minister of Energy and Resources announced a number of changes to the electricity industry.[15] These included the following governance initiatives:

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[11] Ministry of Economic Development: *Government Policy Statement on Electricity Governance,* May 2009.

[12] Electricity Technical Advisory Group and the Ministry of Economic Development, *Improving Electricity Market Performance Volume one: Discussion paper,* August 2009.

[13] The Minister of Energy and Resources and the Electricity Industry Bill refer to the Electricity Authority while the ETAG Report originally referred to the Electricity Market Authority.

[14] Electricity Technical Advisory Group and the Ministry of Economic Development, *Improving Electricity Market Performance Volume one: Discussion paper*, August 2009, summary of the key recommendations set out on pages 35 and 36.

[15] Minister of Energy and Resources, Energy Sector Transformation to Benefit Consumers, 9 December 2009.

- abolishing the Electricity Commission and replacing it with the Electricity Authority, which would have fewer objectives and functions than the current Electricity Commission;
- establishing a Security and Reliability Council to monitor Transpower's performance and advise on security of supply; and
- transferring responsibility for transmission grid upgrade approvals to the Commerce Commission.

47. The majority of the changes announced by the Minister of Energy are contained in the Electricity Industry Bill which was introduced to the House of Representatives in December 2009. The Bill is currently before the Finance and Expenditure Select Committee.

48. The Electricity Market Review and the changes announced by the Minister of Energy and Resources may impact on the treatment of Transpower's capital expenditure going forward and, therefore, how the capital expenditure mechanism will operate within the regulatory regime applying to Transpower. Until the passage of the Electricity Industry Bill, however, and until any consequent changes to the Act that have a bearing on the implementation of price-quality regulation for Transpower have been made, the Commission must proceed on the basis of the Act as it stands. Nevertheless, the proposed changes to the treatment of capital expenditure make it difficult for the Commission to determine, with any certainty, the eventual capital expenditure mechanism that would apply to Transpower under either default/customised or individual price-quality regulation prior to the Minister's decision on the type of regulation to apply.

49. In addition, it is currently proposed under the Electricity Industry Bill [16] that an additional input methodology be required for reviewing Transpower's capital expenditure, with the due date for this input methodology being 1 October 2011 (which may be extended by up to 3 months) than that required for other input methodologies (which are required to be completed by 31 December 2010).

50. Despite uncertainty regarding possible changes to the Act, knowing in advance the eventual details of the capital expenditure mechanism to be adopted would unlikely impact the Commission's recommendation to the Minister regarding the type of regulation that should be applied to Transpower. This is because the Commission's primary concern is to recommend a type of regulation that allows approved capital expenditure to be built into the price path, rather than to ensure capital expenditure is approved in any particular manner.

[16] Electricity Industry Bill, clause 148 proposes a new Section 54S of the Act – "Commerce Commission to prepare input methodologies for grid upgrade plans and capital expenditure proposals"

CHAPTER 3: DEFAULT/CUSTOMISED AND INDIVIDUAL PRICE-QUALITY REGULATION

3.1 Introduction

51. Chapter 3 examines default/customised price-quality regulation and individual price-quality regulation, and their suitability for application to Transpower. It provides the Commission's view on the appropriate type of price-quality regulation to apply to Transpower.

3.2 Default/customised price-quality regulation

52. Section 53K sets out the purpose of default/customised price-quality regulation as:

> to provide a relatively low-cost way of setting price-quality paths for suppliers of regulated services, while allowing the opportunity for individual regulated suppliers to have alternative price-quality paths that better meet their particular circumstances.

53. The main features of default/customised price-quality regulation are:

- a default set of regulatory provisions (e.g. starting prices, rates of change and quality standards) that apply for the regulatory period and are set in a relatively low cost way, using readily available information;
- the ability for individual suppliers to make proposals to the Commission for a customised price-quality path, that better meet their particular circumstances; and
- penalty provisions for a breach of default/customised price-quality regulation provisions.

54. The default price-quality path automatically applies to all suppliers of electricity lines services that are not 'consumer-owned' (as that term is defined in the Act), unless a supplier has proposed a customised price-quality path and the Commission has made a customised price-quality path determination in respect of that supplier.

55. Section 53M specifies the required content and timing of default/customised price-quality paths, including s 53M(4) to (6) which specifies that the regulatory period for a default price-quality path is 5 years, unless the Commission considers that a shorter period, of not less than 4 years, would better meet the purposes of Part 4. The regulatory period may be different for suppliers subject to a customised price-quality path, which is set in accordance with s 53W (maximum of 5 years and minimum of 3 years).

Default price-quality paths

Requirements for default price-quality path

56. Sections 53O and 53P of the Act set out the parameters for setting and resetting a default price-quality path. These parameters relate mainly to how the Commission sets starting prices, rates of change in prices, and quality standards.

57. A general limitation on the Commission is that it may not use comparative benchmarking on efficiency in setting starting prices, rates of change, quality standards or incentives to improve quality of supply (s 53P(10)).

Starting prices

58. Section 53P(3) requires starting prices must be either:

- the prices that applied at the end of the preceding regulatory period; or
- prices, determined by the Commission, based on the current and projected profitability of each supplier.

59. Under s 53P(4), these starting prices must not seek to recover excessive profits made during any earlier period.

Rates of change

60. Under s 53P(5), the Commission must usually set only one rate of change in prices (X factor) per type of regulated goods or services (subject to s 53P(8)). Section 53P(6) requires the X factor to be based on the long-run average productivity improvement rate achieved by either or both of suppliers in New Zealand and other comparable countries, using appropriate productivity measures. The Commission may take into account the effects of inflation on supplier inputs in setting the X factor (s 53P(7)).

61. An alternative rate of change may be set under s 53P(8) for a particular supplier, as an alternative (in whole or in part) to the starting prices if, in the Commission's opinion, this is necessary or desirable to minimise any undue financial hardship to the supplier or to minimise price shock to consumers, or as an incentive to improve quality of supply. Section 53P(9) allows these alternative rates to include step changes.

Likely approach for setting a default price-quality path for Transpower

62. For a default price-quality path, the Commission must set starting prices based on one of the approaches in s 53P(3). As Transpower has a significant and changing profile of capital expenditure, the Commission would set a specific rate of change for Transpower rather than applying the same rate of change as for electricity distribution businesses. The intention, in setting the rate of change, would be to provide incentives for Transpower to make appropriate efficiency gains, whilst still allowing it to make adequate returns over the regulatory period.

63. Under s 53M(3), quality standards may be prescribed in any way the Commission considers appropriate, such as targets, bands, or formulae. However, with respect to Transpower quality standards, s 54M(6) provides that the only quality standard requirements that may be included in a s 52P determination are requirements that give effect to quality standards set by the Electricity Commission.[17]

[17] Under the Electricity Industry Bill, clause 147, s 54M(6) may be repealed. Although s 54M(6) is proposed to be replaced with a new 54V(4), such amendments are still under consultation. The Commission will monitor all changes, and ensure its s 52P determination is consistent with the requirements of the Act.

64. The approach to regulating quality standards under default price-quality regulation would likely be to set a small number of key measures that give effect to Electricity Commission standards, that Transpower would be required to target and achieve. These measures would be selected to provide an overall indication of performance at an aggregate level, and be measures that Transpower can influence through its operations, maintenance and capital expenditure. Similar to that determined for electricity distribution businesses, the Commission would likely set appropriate dead-bands around each of the key performance measures, with performance exceeding the target in two out of three years being considered a breach.

65. Actual performance to the quality standards set under s 53M(3) may also be directly linked to the pricing mechanism under s 53(2). The Commission may, in addition, be able to incorporate a quality performance incentive into the price-path mechanism if default price-quality regulation is applied to Transpower (as provided for under s 53M(2)).

Customised price-quality path

Customised price-quality path applications and determinations

66. Section 53Q(1) provides that:

> At any time after a default price-quality path is set by the Commission, a supplier that is (or is likely to be) subject to the default price-quality path may make a proposal to the Commission for a customised price-quality path to apply to that supplier.

67. Subpart 6 of Part 4 of the Act specifies the decision-making process and statutory timeframes for the Commission to assess and make customised price-quality path determinations.

68. Suppliers may only submit customised price-quality path proposals within the period or by the annual date specified in the default price-quality path determination (s 53Q(2)(b)). The Commission then has 40 working days to assess proposals and to determine their compliance with input methodologies relating to the process for, and content of, customised price-quality path proposals (s 53S). If a proposal has any deficiencies, the Commission may ask the supplier to remedy the deficiencies within 40 working days or it may discontinue its consideration of the proposal. If a supplier is requested but fails to provide additional information, the Commission may discontinue its consideration of the proposal.

69. Subject to any prioritisation in relation to any other customised price-quality path applications and any extensions agreed to under s 53U, the Commission must make a determination within 150 working days of receiving a complete customised price-quality path proposal (s 53T).

70. Section 53Q establishes other limitations around making customised price-quality path applications. These include that every customised price-quality path proposal must comply with the relevant input methodologies, a supplier may make only one proposal during a regulatory period, and a supplier may not make a proposal in the 12 months preceding a reset of the default price-quality path. Under s 53R, proposals cannot be withdrawn once submitted to the Commission.

71. The Commission may determine any customised price-quality path it considers appropriate (s 53V), and a supplier is bound by any customised price-quality path that the Commission sets for the duration of the regulatory period to which it applies (s 53R).

72. Under s 53W, a customised price-quality path applies for 5 years, or a shorter period not less than 3 years if the Commission considers this would better meet the purpose of Part 4 of the Act.

73. When a customised price-quality path expires, the supplier automatically moves to the relevant default price-quality path unless it has proposed and received approval for a new customised path (refer to s 53X).

Likely approach for setting a customised price-quality path for Transpower

74. The Commission considers that the determination of a customised price-quality path for Transpower would likely involve the use by Transpower of a full building blocks approach, consistent with the input methodologies relevant to the preparation of a customised price-quality path proposal.[18] The building blocks would be underpinned by a s 52P determination, which, amongst other things, would state which input methodologies will apply to Transpower.

75. Transpower's maximum allowable revenue, calculated from the building block methodology, would likely take account of Transpower's specific forecast investment requirements over the regulatory period.

76. The building blocks approach involves determining allowable regulated revenues that are expected to recover the following 'building block' cost components faced by the regulated business, namely:

- payments to capital, comprising:
  - a 'return on' efficiently invested capital (i.e., on the value of the regulatory asset base (RAB)—updated each year for depreciation and efficient capital expenditure—multiplied by the cost of capital, which is typically the Weighted Average Cost of Capital, or WACC); and
  - a 'return of' efficiently invested capital (i.e., depreciation of the RAB); and
- non-capital costs (e.g., operating expenditure and tax).

77. A general expression for the annual building blocks allowed revenue for a regulated supplier can be represented as follows:

Regulatory Asset Base × Cost of Capital
+ Depreciation
+ Operating Expenditure
+ Tax
– Revaluation Gains (or + Revaluation Losses)
– Other income
= Building Blocks Allowable Revenue

[18] Commerce Commission, *Transpower process and recommendation discussion paper,* 19 June 2009, p.29

78. Each building block cost component is generally intended to reflect realistically achievable efficiencies for the particular component in question during the period of analysis (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. For example, financial incentives to encourage improved grid reliability performance would be provided.

79. When setting quality standards for Transpower under a customised price-quality path, the same restrictions as set out in paragraph 63 apply. The likely approach for setting quality standards (and assessing performance) under a customised price-quality path would be to implement the same key measures as for the default price-quality path that would have already been set (see paragraph 64).

3.3 Individual price-quality regulation

80. The provisions for individual price-quality regulation, set out in subpart 7 of Part 4 of the Act, are less prescriptive than the default/customised provisions. The provisions give the Commission the discretion to set individual price-quality paths as it sees appropriate, provided that it uses applicable input methodologies (s 53ZC(1)):

> the Commission may set the price-quality path for that supplier using any process, and in any way, it thinks fit, but must use the input methodologies that apply to the supply of those goods or services.

81. No specific purpose statement applies to subpart 7 beyond the overall purpose statement for Part 4.

Likely approach for setting an individual price-quality path for Transpower

82. As with the approach under a customised price-quality path, the Commission considers that under an individual price-quality path, the determination for setting Transpower's maximum allowable revenue would use a full building blocks approach. The building blocks approach is described in paragraphs 76-78 above. The building blocks will be underpinned by a s 52P determination, which, amongst other things, will state which input methodologies apply to Transpower.

83. Similar to the approach under a customised price-quality path, under individual price-quality regulation, the building blocks approach would likely take account of Transpower's specific forecast investment requirements over the regulatory period. However, under an individual price-quality path any forecasting errors are able to be corrected through an adjustment to revenues in the subsequent control period.

84. Under an individual price-quality path, actual performance is, in addition to the quality standards set under s 53M(3), able to be directly linked to the pricing mechanism under s 53(2). As such, a financial penalty/reward could provide strong incentives to carefully manage and balance price/quality tradeoffs.

CHAPTER 4: COMMISSION'S ANALYSIS

4.1 Introduction

85. Chapter 3 provided an overview of the likely approach the Commission would take under the two types of price-quality regulation. This Chapter 4 examines the suitability of both default/customised and individual price-quality regulation for Transpower, as well as the likely merits of each option. The Commission has assessed the extent to which each type of regulation addresses the unique characteristics and needs of Transpower, being the sole provider of the national electricity transmission grid.

86. In identifying which type of regulation is the most appropriate, it is particularly important to take into account Transpower's likely capital investment programme. This is outlined first, followed by an analysis of the suitability of each of the two types of regulation, in the case of Transpower.

4.2 Transpower's capital expenditure programme

Background

87. To address aging transmission assets and low levels of investment in the transmission grid over an extended period of time, Transpower is planning to undertake capital expenditure totalling more than $3 billion over the next 5 years. This investment includes large projects that are uncertain with respect to project costs and timing, with such projects currently subject to review and approval by the Electricity Commission under Part F of the Electricity Governance Rules. Transpower is also currently undertaking major upgrade projects, in various stages of development or construction, costing around $2 billion.

88. One of the key issues associated with allowing for Transpower's planned investment programme within any price-quality path is Transpower being able to provide robust forecast expenditure information for a four or five year regulatory period. This issue was also identified by Transpower in its submission on the Commission's Input Methodology Discussion Paper, where Transpower stated that, for the first regulatory period that it is subject to price-quality regulation under Part 4, it would be developing its forecasting systems and this may result in some uncertainty with respect to its efficient capital expenditure profile (and possibly operating expenditure as well).[19]

89. Any determination of a price-quality path would need to take into account Transpower's forecast expenditure and set a level of revenue that adequately reflected efficient expenditure, to the extent possible under the particular type of price-quality path. The determination would also need to include a mechanism that incorporates expenditure on the large and uncertain projects currently approved by the Electricity Commission.

[19] Transpower, *Submission to the Commerce Commission on Transpower process and recommendation discussion paper, Input Methodologies Discussion Paper,* August 2009, p.33.

90. The next sections of this analysis examine the extent to which default, customised and individual price-quality paths can appropriately provide for Transpower's large capital expenditure programme.

Default price-quality path

91. A default price-quality path is intended to be set in a relatively low-cost way using readily available information. Consequently, there are statutory constraints on the analytical approach that the Commission is able to use to set rates of change in prices (X-factors) for default price-quality paths (s 53P). These constraints require the X-factors to be based on the long-run average productivity improvement rate achieved by suppliers of the relevant regulated services in New Zealand and/or other comparable countries, using appropriate productivity measures.

92. If the Commission was required to set a default price-quality path for Transpower, both the need to provide a relatively low-cost price-quality path and the constraints on the analytical approach that the Commission is able to use to set rates of change in prices (X-factors) would likely result in the Commission using a combination of industry-wide and firm-specific data to derive default price-quality paths for Transpower. This could include using key components of the input methodologies to establish the starting prices and a productivity-based approach to set the X-factor. This type of approach is sometimes referred to as a 'partial' building blocks approach and traditionally does not include a detailed review of forecast capital expenditure.

93. The Commission considers that it is unlikely that a low-cost partial building blocks type approach would be able to take into account Transpower's specific capital expenditure requirements, including providing a mechanism that addresses the large Transpower projects that are uncertain with respect to timing and cost. If the price-quality path does not adequately reflect Transpower's forecast revenue requirement, this may adversely affect Transpower's incentives to invest in regulated services, including replacing and upgrading assets.

94. Given the magnitude of Transpower's forecast expenditure, historic information is likely to be of limited use in understanding the level of forecast expenditure and, therefore, the level of forecast revenue required. In addition, there are few Transpower comparators within New Zealand and overseas, which, together with the level of Transpower's forecast capital expenditure, makes it unlikely that a long-run average productivity improvement rate based on comparators and historical information would be suitable for Transpower.

95. Indeed, Transpower's administrative settlement was accepted partly because the thresholds set between 2003 and 2007 were based on historic information concerning productivity and, therefore, could not necessarily fully accommodate the level of capital investment required by Transpower in upcoming years. Transpower's investment programme was recognised in the administrative settlement, and any future regulatory instruments will similarly need to be sufficiently flexible to accommodate this need.

96. The Commission considers that if Transpower was subject to default/customised price-quality regulation, Transpower would very likely propose a customised price-quality path to address its specific investment and expenditure needs.

Customised price-quality path

97. As noted above, if a default price-quality path was set that Transpower considered did not meet its particular requirements, Transpower could propose a customised price-quality path. Section 52T(1)(d) requires that the Commission set information requirements and evaluation criteria for such proposals in advance as part of the input methodologies.

98. Any customised price-quality path proposal is likely to combine input methodologies in a similar fashion to a full building blocks analysis. In evaluating this proposal, however, the Commission would be constrained by the timeframes set out in the Act, which include 40 working days to assess the proposal and to determine its compliance with the relevant input methodologies, and 150 working days to make a determination following receipt of a complete proposal.

99. In comparison to a default price-quality path, which is unlikely to be able to take into account Transpower's large capital expenditure programme, the Commission considers that customised price-quality paths are mostly unrestricted, and individual price-quality paths are completely unrestricted in the manner in which these can be set (except for those restrictions that apply to setting quality standards (see paragraph 27) and the requirement to use applicable input methodologies). The Commission is, therefore, best able to ensure appropriate mechanisms are in place to deal with Transpower's unique circumstances under individual price-quality regulation.

100. Given the size and uncertainty associated with Transpower's capital expenditure, a key limitation of a customised price-quality path is that of timing. Under a customised price-quality path, the Commission would likely lack sufficient time to establish a full ex-ante review process for approving capital expenditure, including implementing ex-ante reviews of proposed capital, in particular, investments subject to the grid investment test (or equivalent test) for the entire period. This is primarily due to the magnitude and nature of the investments, for example, assessing a large number of projects that require a grid investment test be applied.

101. Furthermore, any approval processes (for small and large capital expenditure), excluding the grid investment test, would only apply for the length of the customised proposal (3-5 years) before Transpower reverted back to a default price-quality path, and the processes become redundant, unless Transpower was to make a further customised price-quality path proposal. As a result of Transpower moving between default and customised price-quality paths, the Commission might be limited in its ability to conduct ex-ante and ex-post reviews of capital expenditure, meaning that prices would not be as reflective of planned and actual expenditure as desirable.

102. The Commission also considers that if Transpower was subject to default/customised price-quality regulation, Transpower would very likely propose a customised price-quality path, as a full building blocks approach

will best address its specific investment and expenditure needs. As such, the Commission does not consider it the most efficient approach to set a default price-quality path for Transpower, and then require it to apply for a customised price-quality path (using full building blocks).

103. In addition, however, the Commission's ability to fully assess and set an appropriate customised price-quality path may be somewhat time-constrained, and may not promote the purpose of Part 4 as well as the results that may be produced under individual price-quality regulation.

Individual price-quality path

104. As noted in paragraph 99 above, in terms of appropriately taking into account Transpower's capital expenditure programme, an individual price-quality path provides a very similar level of flexibility to that provided under a customised price-quality path. However, individual price-quality regulation has four advantages over default/customised price-quality regulation. First, the timeframes and process for assessing customised proposals do not apply. As discussed in paragraph 100, the Commission would unlikely have sufficient time to undertake an ex-ante review of all capital expenditure proposed, particularly those project that are required to go through the grid investment test.

105. Second, individual price-quality regulation is easier to roll over, and is likely to provide more regulatory continuity than a customised price-quality path, as a customised price-quality path has a fixed expiry date at which point a default price-quality path applies, unless a new customised price-quality proposal has been received and approved prior to the current customised price-quality path expiring. The value of continuity is demonstrated, for example, in the capital expenditure approval processes that would be established under an individual price-quality path for capital expenditure projects. The capital expenditure approval processes would remain applicable, providing continuity and certainty of process across regulatory periods, whereas under default/customised regulation, unless a new customised price-quality proposal was obtained each regulatory period, the capital approval process would not be used.

106. A third advantage of individual price-quality regulation is that the Commission is better able to establish ongoing targeted incentive mechanisms to encourage Transpower to achieve efficiency improvements in both capital and operating expenditure and share these with consumers.

107. Fourth, under or over-recovery would initially be effected, in part through an end of period wash up. This process, described more fully in Section 4.3 below, cannot be carried out under default/customised price-quality regulation.

108. Under individual price-quality regulation, the Commission can set a range of long-term performance incentives and processes designed to improve capital expenditure efficiency. Providing a stable set of operating parameters offers more certainty to Transpower's customers, and to Transpower. Under default/customised price-quality regulation, Transpower would, at the end of each customised proposal, automatically revert back to default price-quality paths, with subsequent proposals potentially being subject to new

determinations. These incentives are discussed in more detail in Section 4.4 below.

4.3 Ability to address capital expenditure forecasting errors

109. Given the level of uncertainty with regard to Transpower's current capital expenditure forecasts, the Commission considers that an ex-post review is required at the end of the regulatory period to address errors in Transpower's forecasts, at least for the first regulatory period. The Commission considers it necessary at this stage to ensure the type of regulation selected allows ex-post reviews and to wash up the results of an ex-post review within the calculation of the price path for the following regulatory period.

110. In respect of a default price-quality path, s 53P(4) states that starting prices must not seek to recover any excessive profits made during any earlier period. This appears to preclude the Commission from using the results of an ex-post review to address any over recovery during the regulatory period as a result of forecasting errors by adjusting the revenue requirement for the upcoming regulatory period. However, it may be used to address under-recovery.

111. Under default/customised price-quality regulation, Transpower reverts back to the default price-quality path at the end of the customised price-quality proposal, unless it has obtained a new customised price-quality path to apply from that date. This means that the actual performance in the last year of the customised price-quality period cannot be washed up, because under a default price-quality path starting prices cannot be adjusted to take into account over recovery in any earlier period (s 53P(4)).

112. The Commission considers that individual price-quality regulation, however, is able to consider the results of ex-post reviews when setting the price-quality path in subsequent regulatory periods. Furthermore, individual price-quality regulation can be designed to take into account in the revenue setting, lumpy, uncertain capital expenditure projects as they are approved. The result of this is that the magnitude of any forecasting errors is likely to be significantly less than would be the case under a default price-quality path.

113. As such, the inclusion of a full ex-post review would limit Transpower's ability to extract excessive profits during a regulatory period, as a result of forecasting error, or under-investment relative to forecasts, as well as ensure that Transpower is held accountable for making investments for which provision had been made in its revenue requirement.

114. In order to minimise the errors arising from forecasting uncertainty, the Commission considers that a shorter forecasting horizon would better meet the purposes of Part 4. A four year regulatory period is proposed in preference to the standard five year period (s 53M(5)).

4.4 Incentive mechanisms

115. As noted in paragraph 60, under a default price-quality path, the Commission must usually set only one rate of change in prices (X factor) per type of regulated goods or services, based on the long-run average productivity improvement rate achieved by either or both of suppliers in New Zealand

and/or other comparable countries. If Transpower was subject to default price-quality regulation, an X factor would be set specifically for Transpower under s 53P(8). Although a default price-quality path, by its very nature, encourages efficiency improvements, the Commission would be unable to set a number of explicit incentive mechanisms to encourage efficiency improvements in targeted areas such as operating and capital expenditure.

116. The Commission's preliminary view is that, overtime, it should implement tailored incentive mechanisms to encourage Transpower to meet or beat approved capital and operating expenditure allowances. The incentives may work by allowing Transpower to retain part of any savings and bear some of the forecasting risk.

117. Although tailored incentive mechanisms can be incorporated into the regulatory design under both customised and individual price-quality paths, this is not possible for a default price-quality path. As Transpower would revert back to a default price-quality path at the expiry of any customised price-quality path (unless Transpower applies for a new customised price-quality path), default/customised price-quality regulation does not appear as appropriate, in this regard, as individual price-quality regulation.

118. Another factor that sets individual price-quality regulation apart from default and customised price-quality regulation is the Commission's ability to set *ongoing* incentives designed to improve operational performance (i.e., Transpower's capital forecasting and planning). This means that incentive arrangements can be devised which span regulatory periods and efficiency carry-over mechanisms can be designed for more than one regulatory period. Under a customised price-quality proposal, any incentives designed to improve capital planning and forecasting are lost each time Transpower reverts back to default price-quality regulation. This approach offers more certainty, as well as a more cost-effective approach, to Transpower's consumers, and to Transpower, than continually moving between a default price-quality path and a customised price-quality path.

119. Although default/customised price-quality regulation could allow the regulated company to propose explicit incentive mechanisms as part of a customised price-quality proposal, and also could allow the Commission to determine any customised price-quality path that the Commission considers appropriate for the particular supplier that made the proposal, in Transpower's case this does not provide the same level of flexibility to ensure a balanced package over the long term.

4.5 Flexibility of the regulatory mechanisms

120. As noted in paragraph 3, the settlement agreement between Transpower and the Commission will expire on 30 June 2011 i.e., part way through Transpower's 2011 pricing year (which runs from 1 April to 30 March).

121. For the Commission to make its s 52P determination with sufficient time for Transpower to set and announce prices, and for these prices to take effect on 1 April 2011, the Commission intends to make its s 52P determination by no later than November 2010. This, however, does not allow sufficient time for the Commission to undertake a full, ex-ante review of Transpower's capital

and operational expenditure forecast requirements (for the entire regulatory period) prior to the commencement of the first regulatory period. Likewise, this does not allow Transpower sufficient time to prepare robust four-year proposals before that date.

122. A benefit of individual price-quality regulation is that it allows the Commission flexibility to set the price-quality path using any process, and in any way, it sees fit, so long as it uses applicable input methodologies. For example, to address concerns regarding the remaining time available to review and set allowances for operational and capital expenditure prior to the commencement of the first regulatory period, the Commission, under individual price-quality regulation, can use a process for setting the price path in the first year of the regulatory period that is different to the process used during the remainder of the regulatory period. Under this scenario, the Commission could roll over some or all of the settlement for one year, providing Transpower time to prepare forecasts of its operational and capital expenditure required for the remaining three years of the regulatory period, and the Commission time to undertake full ex-ante reviews of Transpower's forecasts.

123. A default price-quality path would not provide the flexibility, needed in Transpower's case, for the Commission to adopt this approach, and the Commission could not ensure the price-quality path addressed Transpower's specific circumstances.

4.6 Regulation for single suppliers of goods or service

124. The Commission considers that individual price-quality regulation may be an appropriate type of regulation to use where the goods or services are provided by only one supplier. The Commission's view, in this regard, is supported by CRA (on behalf of Unison), who stated that 'individual price-quality regulation should be the preferred form of price-quality regulation for single supplier sectors'.[20]

125. Also in support of the Commission's position, Eastland Networks noted that individual price-quality regulation might be the most suitable mechanism to meet business-specific needs, and noted that it will better adjust to a company's individual situation and allow more flexibility.[21]

126. As noted previously, Transpower is the sole owner and operator of the New Zealand national electricity transmission grid. Transpower is also distinct from other electricity lines businesses due to the level of capital investment it is proposing to undertake over the next five years, and the capital expenditure approval processes to which it is subject. As Transpower is a sole provider, and requires specific tailoring of the regulatory mechanisms, the Commission considers individual price-quality regulation is the more appropriate type of regulation in this instance.

[20] CRA International, *Final report prepared for Unison Networks Limited: Regulatory provisions of the Commerce Act*, 16 February 2009, p.42.

[21] Eastland Network, *Submission to the Commission: Regulatory provisions of the Commerce Act*, 16 February 2009, p.13.

127. Although default/customised price-quality regulation might be less intrusive than individual price-quality regulation in some circumstances, it is most appropriate when a business is in a 'steady state', with relatively certain revenue requirements. Likewise, default/customised price-quality regulation is most reliably implemented where a number of suppliers are providing the same type of regulated service to determine the long-run average productivity improvement on which the set rate of change in prices is based. Transpower is not, as yet, in a 'steady state' position and is the sole supplier of the national electricity transmission grid.

4.7 Cost of design

128. In addition to addressing capital expenditure uncertainty, the need for flexibility, and the high likelihood of Transpower needing to apply for a customised price-quality path, an individual price-quality path is likely to be the more cost-effective type of regulation to implement in the long-term.

129. Over time, individual price-quality regulation is also likely to be a more cost-effective type of regulation because it is likely that Transpower would apply for customised proposals each regulatory period, to avoid automatically reverting back to default price-quality regulation.

130. The process for setting an individual price-quality path would involve fewer steps as the Commission would not have to set a default price-quality path for electricity transmission services, and it would not require matters relating to customised price-quality path proposals (s 52T(1)(d)) from Transpower to be set in advance as part of the input methodologies.

131. The Commission is of the view that the total costs (both direct and indirect) associated with default/customised price-quality regulation of Transpower, including the indirect costs associated with not providing appropriate incentives and compensation for investment in the national grid, would likely outweigh the costs associated with individual price-quality regulation of Transpower.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATION

132. The Commission has had regard to the overall purpose statement in s 52A, as well as the purpose statements of s 52R (input methodologies) and s 53K (default/customised price-quality regulation) in forming its conclusions and recommendation. As noted above, there is no specific purpose statement for individual price-quality regulation.

133. The Commission has also had regard to the 2009 GPS in forming its view on the type of price-quality regulation to apply to Transpower.

5.1 Conclusions

134. The Commission's conclusion is that individual price-quality regulation is the most appropriate type of regulation to be applied to Transpower, particularly given that a default price-quality path is unlikely to be suitable.

135. In Transpower's case, implementing individual price-quality regulation provides the best alignment with the s 52A purpose statement and the 2006 GPS on incentives to invest, when compared to the default/customised price-quality alternative. This overall finding is supported by the following conclusions:

- the statutory constraints on the analytical approach that the Commission is able to use to set rates of change in prices (X-factors) for default price-quality paths (s 53P) means the mechanism that would be used may not adequately reflect the approval of uncertain projects during the regulatory period as part of Transpower's expenditure allowance;
- a default price-quality path is unlikely to be able to accommodate the approval of large projects during the regulatory period;
- to set a price-quality path that adequately reflects Transpower's circumstances (such as its capital expenditure requirements) would necessitate a full building blocks type analysis;
- a full building blocks type analysis could be undertaken as part of setting either a customised or individual price-quality path for Transpower. The Commission concludes, however, that setting an individual price-quality path is likely to be more effective as it:
  - provides greater flexibility for the setting of a price-quality path tailored to the specific needs and expenditure profile of the company;
  - better facilitates the use of ex-ante reviews and provides more certainty regarding the review and approval of large one-off projects that are uncertain with respect to timing and cost at the beginning of a regulatory period;
  - better provides for ex-post reviews that would take account of any under, or over-recovery, resulting from forecasting error;
  - provides a more stable environment for setting and implementing long-term performance incentives, include targeted incentive mechanisms on operating expenditure and/or parts of Transpower's capital expenditure;

  - provides more regulatory certainty across regulatory periods;
  - would not be subject to the customised price-quality path time constraints for reviewing Transpower's forecast expenditure;
  - an individual price-quality path can include a full ex-post review to address any forecasting errors, thereby reducing risk for Transpower and consumers, whereas under customised price-quality regulation, the Commission would be limited in its ability to conduct ex-post reviews as Transpower would revert back to default price-quality regulation at the end of the regulatory period;
- the inclusion of an ex-post review would limit Transpower's ability to extract excessive profits (as a result of forecasting errors) during a regulatory period as well as ensure that Transpower is held accountable for making investments for which provision had been made in the revenue requirement;
- individual price-quality regulation is, over time, likely to be the most efficient and cost-effective type of regulation. In Transpowers case default/customised price-quality regulation is less likely to provide appropriate incentives and compensation, and the associated indirect costs of default/customised price-quality regulation, would likely far outweigh any potential benefits;
- designing a default price-quality path, knowing in advance that Transpower is likely to require tailored customised price-quality paths on an ongoing basis could impose additional regulatory costs and risks on Transpower, is not an efficient use of resources, and would not be in the best interests of consumers;
- ensuring an appropriately tailored revenue requirement is necessary to provide appropriate incentives for Transpower to continue to invest efficiently.

136. Based on the above conclusions, the Commission's view is that, in Transpower's case, individual price-quality regulation would better promote the s 52A purpose statement than default/customised price-quality regulation.

137. In June 2009 the Commission consulted on this view,[22] and more recently in February 2010.[23] Those interested parties that submitted on this point, including Transpower, supported the Commission's position that individual price-quality path regulation should be the type of regulation applied to Transpower.

138. No submissions opposed the use of individual price-quality regulation for Transpower or raised any views to the contrary.

[22] Commerce Commission, *Transpower process and recommendation discussion paper*, 19 June 2009.

[23] Commerce Commission, *Draft for Consultation: Recommendation to the Minister regarding the type of regulation to apply to Transpower*, 4 February 2010.

5.2 Recommendation

139. On the basis of the above conclusions, the Commission recommends to the Minister of Commerce that an Order in Council be made under s 52N declaring that Transpower be subject to individual price-quality regulation following the expiry of the administrative settlement on 30 June 2011.

140. The material provisions that will apply to Transpower under the Commission's s 52P determination, will include that Transpower will be subject to:

- a price path, set using a full building blocks analysis, with individual elements of the building blocks underpinned by both the applicable input methodologies and the Transpower specific s 52P determination;
- quality standards; and
- an incentive mechanism placing a portion of revenue 'at risk' to discourage deteriorating quality performance.

141. More detail on the material provisions that will apply to Transpower under the Commission's s 52P determination are set out in Appendix A.

APPENDIX A: MATERIAL PROVISIONS OF INDIVIDUAL PRICE-QUALITY REGULATION

A1 This Appendix sets out the material provisions that would be likely to apply were the Commission to develop a s 52P determination implementing individual price-quality regulation for Transpower.

A2 For the avoidance of doubt, this Appendix reflects the Commission's preliminary views only, and the Commission intends to consult on all matters when developing its draft determination. The material provisions below, therefore, are subject to change, and are provided only as an indication of the Commission's current thinking.

A3 The Commission's preliminary view is that all the input methodologies listed in s52T(1)(a), except for matters relating to proposals for a customised price-quality path and those relating to pricing methodologies would be relevant to Transpower under individual price-quality regulation.[24] The Commission considers that all other matters relevant to determining Transpower's price-quality path under individual price-quality regulation will be set out in the s52P determination.

A4 The material provisions that would be set out in the s 52P determination are provided below, followed by the applicable input methodologies.

Material provisions of the s 52P determination

A5 If Transpower were subject to individual price-quality regulation, the Commission's preliminary view is that it would apply incentive-based regulation in the form of a total revenue cap and adopt a full building blocks type approach. The input methodologies applicable to Transpower, combined with the Commission's s 52P determination, will underpin the determination of the individual price and quality path.

Price path

A6 The full building blocks type approach would incorporate ex-ante reviews of Transpower's forecast capital and operational expenditure, including taking account of projects approved by the Commerce Commission (or any other regulatory body). The material provisions of the Commission's intended approach are to set a maximum allowable revenue for the regulatory period using the following components:

- a multi-year forecast of operating expenditure set at the start of a set regulatory period;
- an incentive mechanism to encourage Transpower to achieve efficiency gains in its level of operating expenditure;
- a multi-year forecast of the base capital expenditure, such as minor replacement and refurbishment, minor development and enhancements, and operational network information and technology services, set at the start of a set regulatory period;

[24] See paragraph A24 and A25 for which input methodologies apply.

- all large capital projects considered certain to proceed as at the time of the determination approved by either the Commerce Commission or another regulatory body prior to the start of the regulatory period;
- an ex-post review of capital expenditure, at the end of each regulatory period, so that future revenue can be adjusted to take account of over or under recovery resulting from forecasting error, uncertain but approved projects, including a margin for the retention of some savings or Transpower taking some of the forecasting risk;
- an ex-post wash-up at the end of each regulatory period to adjust future revenue to reward Transpower for achieving any efficiency gains with respect to operating or capital expenditures;
- incentives to manage grid reliability performance by placing a portion of revenue at risk; and
- all applicable input methodologies.

A7 Additional detail on how these material provisions may be applied is provided below.

Quality standards

A8 The Commission's current thinking is that the quality standard targets (or target bands) could be set based on measures of (a) system availability and (b) number of interruptions, although other standards are still be consulted upon. It is likely that the performance targets would be based on historical data, such as average performance over the past 5 or 10 years, though the impact of future events such as extensive outages for undertaking new capital expenditure may also be taken into consideration.

A9 The quality path is also likely to involve a mechanism to provide an incentive for Transpower to carefully balance any price/quality trade-offs. This may be in the form of a variable portion of revenue being at risk of being returned to consumers should the quality standards be breached.

A10 In any event, the Commission will set the quality standards in a manner consistent with the Government's objective, set out in the 2009 GPS, to ensure the security of supply for New Zealand, and in a way that gives effect to quality standards set by the Electricity Commission (as per s54M(6)). The Commission will also set quality standards in a manner consistent with any new legislative requirements, such as any amendments to the Act.

Regulatory period

A11 The Commission notes that in Transpower's submission on the Provisions Paper, Transpower preferred a multi-year revenue path, which may be a 3 year regulatory period initially and a 5 year regulatory period ultimately.[25] Sections 53M(4) to (5) of the Act specify that the regulatory period for an individual price-quality path is 5 years, unless the Commission considers that a shorter period, of not less than 4 years, would better meet the purposes of Part 4.

[25] Transpower New Zealand Limited, *Submission to the Commerce Commission on Regulatory Provisions of the Commerce Act 1986: Discussion Paper*, p.2.

A12 The Commission's preliminary view is that a regulatory control period of four years will apply in the first instance. It is likely each subsequent regulatory period will be five years reflecting greater robustness of Transpower's capital expenditure forecasts (thereby providing greater certainty and regulatory stability).

A13 The initial four-year regulatory period would include a one-year transitional period as explained in paragraph 122 above, to allow capital expenditure forecasts for years 2 to 4 to be prepared by Transpower and reviewed by the Commission.

Operating expenditure

A14 Under individual price-quality regulation, Transpower's operating expenditure forecasts would be subject to a full ex-ante review. The review would be designed to approve a level of efficient expenditure for each year of the regulatory period. This pre-approved expenditure would be used in the calculation of a maximum allowable revenue for Transpower, and would be subject to an efficiency incentive mechanism.

A15 The Commission is currently considering whether or not the costs incurred from instantaneous reserve charges should be included within Transpower's approved level of operating expenditure, within which its is required to manage any under or over expenditure, or whether it is more appropriate to treat these specific operating costs in a different manner.

A16 The Commission's preliminary view is that a rolling incentive mechanism would be provided to encourage Transpower to meet or beat the approved level of operating expenditure. This will allow Transpower to retain part, or all, of any savings (for a period) and bear some or all of the forecasting risk.

Treatment of capital expenditure

A17 The Commission's preliminary view is that, under individual price-quality regulation, both ex-ante and ex-post reviews of capital expenditure would be required, for at least the first regulatory period.[26]

A18 All capital expenditure, except that agreed between Transpower and a designated transmission customer under a new investment agreement that meet certain provisions, would require approval by either the Commerce Commission or other regulatory agency. Once approved, such capital expenditure would contribute towards the calculation of Transpower's maximum allowable revenue.

A19 Any capital not approved prior to the Commission setting the maximum allowable revenue for the regulatory period would still be able to enter the RAB once approved (during the regulatory period) and commissioned, and would be included when setting the maximum allowable revenue in the following regulatory period.

A20 At the end of the first regulatory period, the Commission would undertake an ex-post review to mitigate the risk for both Transpower and consumers, of forecasting errors.

[26] Refer paragraph 109.

System operator services

A21 The Electricity Industry 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).

A22 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.

Input methodologies that would apply

A23 The Commission must determine input methodologies relating to Transpower by no later than 31 December 2010. If Transpower becomes subject to individual price-quality regulation, the Commission's preliminary view is that the input methodologies that will be applied, relating to the goods and services supplied by Transpower, will include methodologies for evaluating or determining:

- cost of capital;
- valuation of assets, including depreciation and treatment of revaluations;
- allocation of common costs;
- treatment of taxation; and
- cost allocation.

A24 The Commission's preliminary views on these input methodologies are discussed below.

A25 Given the Electricity Commission is responsible for Transpower's pricing methodology and that it has a mandatory pricing methodology in place, the Commission's view is that there would be no benefit from determining pricing methodologies for Transpower.

Cost of capital

A26 Transpower's cost of capital would be estimated using the cost of debt and the cost of equity. The cost of equity would be estimated using the simplified Brennan-Lally version of the CAPM. The Commission would provide a point estimate of WACC specifically for Transpower for the regulatory period, with the relevant parameters set by the Commission at the time of a s 52P determination for Transpower following the approach specified in the cost of capital input methodology. The relevant parameters are:

- the risk-free rate;
- the debt premium;
- the leverage assumption;
- the market risk premium;
- the equity beta assumption; and
- the investor tax rate on interest income and the corporate tax rate.

Valuation of assets, including depreciation and treatment of revaluations

Valuation of the initial asset base

A27 Under individual price-quality regulation, the initial RAB at 1 July 2011 would be based on the closing RAB under the administrative settlement, which in turn is based on Transpower's 2006 ODV valuation. Accordingly, the initial RAB would include Electricity Commission and Commerce Commission-approved capital additions (once commissioned) and depreciation during the term of the settlement agreement, 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.

A28 No indexation would be applied.

Roll forward of the regulatory asset base, depreciation and stranded assets

A29 Assets will be included in the RAB once approved (by the Commerce Commission or other appropriate regulatory body) and commissioned. No indexation will be applied. Transpower would receive a return of capital through a depreciation charge.

A30 When caused by factors outside its control, Transpower would be compensated for impaired or stranded assets by allowing accelerated depreciation of those assets. Transpower would not earn a return on capital for stranded or impaired assets after this accelerated depreciation is allowed.

Allocation of common costs, including between businesses

A31 Given that the materiality of the common costs between the System Operator and other activities is likely to be relatively small, the Commission's preliminary view is that the same approach to cost allocation as taken in the settlement agreement will continue to be appropriate. Accordingly, Transpower would be required to allocate costs to its system operator service business using the avoidable cost allocation methodology.

Treatment of taxation

A32 The 'tax payable' approach is likely to be the required tax approach.

Pass through costs

A33 The Commission's preliminary view is to allow rates on system fixed assets and Electricity Commission and Commerce Act levies to be pass-through costs under individual price-quality regulation

Reopener provisions

A34 Provision would be 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. The Commission expects to define characteristics of an event that would be considered for re-opening an individual price-quality path.