COMMERCE COMMISSION

Regulation of Electricity Lines Businesses

Targeted Control Regime

Intention to Declare Control

Transpower New Zealand Ltd

31 January 2006

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CONTENTS

EXECUTIVE SUMMARY

The Commerce Commission (Commission) has published in the New Zealand *Gazette* its intention to make a declaration of control under Part 4A of the Commerce Act 1986 (the Act), in respect of electricity transmission services supplied by Transpower New Zealand Limited (Transpower). Transpower is the state-owned enterprise that owns and operates New Zealand's high-voltage electricity transmission grid.

This paper sets out the Commission's preliminary conclusions based on the investigations and analysis undertaken to date of Transpower's recent and planned performance and behaviour, which constitute the basis of the Commission's reasons for forming an intention to declare control. Interested persons are invited to give their views on this intention.

Regulatory Regime Applicable to Transpower

Targeted control regime under Part 4A of the Commerce Act

Part 4A of the Act came into effect on 8 August 2001 and, among other things, requires the Commission to implement a *targeted control regime* for the regulation of large electricity lines businesses (lines businesses)—namely the 28 distribution businesses and Transpower.

The purpose of the targeted control regime (Purpose Statement) set out in s 57E of the Act is:

> to promote the efficient operation of markets directly related to electricity distribution and transmission services through targeted control for the long-term benefit of consumers by ensuring that suppliers–
>
> (a) are limited in their ability to extract excessive profits; and
>
> (b) face strong incentives to improve efficiency and provide services at a quality that reflects consumer demands; and
>
> (c) share the benefits of efficiency gains with consumers, including through lower prices.

The targeted control regime comprises a number of distinct elements: setting thresholds; assessment and identification; post-breach inquiries; and control.

Setting thresholds

The Commission must set and publish "thresholds" for lines business performance, following consultation with participants in the electricity distribution and transmission markets and with consumers. The thresholds are a screening mechanism for the Commission to identify lines businesses whose performance *may* warrant further examination, and if necessary, control of their prices, revenues and/or—in the case of distribution businesses—service quality standards. Control is *targeted*, because a lines business may only be controlled by the Commission if it has breached a threshold, and there are long-term benefits to consumers of control.

The Commission set two initial thresholds on 6 June 2003: a CPI-X price path threshold, and a quality threshold. The CPI is the consumer price index, and the 'X' factor represents the expected annual reduction in lines business average prices in real terms. The X factor in the initial price path threshold was effectively the CPI for all businesses.

The Commission reset the thresholds for all distribution businesses for a five-year regulatory period from 1 April 2004, and for Transpower for a period of one year from 1 July 2004. Transpower's thresholds were reset for a further one year period from 1 July 2005. The reset thresholds are of the same form as the initial thresholds. However, for the price path threshold, new X factors apply, and Transpower was assigned an X factor of 1% for both the 2004/05 and 2005/06 assessment periods.

Assessment, identification and post-breach inquiries

The Commission must assess lines businesses against the thresholds it has set, and must identify any businesses that breach those thresholds. Following the identification of a breach, the Commission must determine whether to declare all or any of the services supplied by all or any of the identified lines businesses to be controlled. The Commission terms this determination process a "post-breach inquiry".

Before making any declaration of control, the Commission must publish its intention to make a declaration, invite interested persons to give their views on the intention, provide a reasonable opportunity to interested persons to give those views, and have regard to those views.

In Transpower's case, it has breached the price path threshold in each of the three assessment periods to date. After reviewing Transpower's initial explanations of its first and second breaches, it was evident to the Commission that it would not be consistent with the long-term interests of consumers to take no further action. Consequently, in late January 2005, the Commission initiated a post-breach inquiry into Transpower's performance and behaviour.

Having reviewed the additional information provided by Transpower to the Commission during the course of the inquiry, the Commission has now formed an intention to declare control. This paper sets out the reasons for that intention so that interested parties have a reasonable opportunity to give their views. (Along with this paper, the Commission is releasing a report prepared by NZIER which presents an analysis of Transpower's threshold breaches).

Control

In general, once the Commission has made a declaration of control, it must apply the regime under Part 5 of the Act for authorising the prices and/or revenues (or, in the case of distribution businesses, quality standards) of the controlled services supplied by a lines business subject to control. Instead of making an authorisation, the Commission may obtain or accept a written undertaking from the lines business.

Because there is a further consultative process under Part 5, the Commission considers that, in deciding whether or not to declare control, it should not pre-determine the form and nature of control. Therefore, post-breach inquiries under Part 4A are limited to assessing whether control *should* be imposed and do not involve determining *how* prices, revenue (and/or quality standards) might be authorised, following a declaration of control.

Relevant functions of the Electricity Commission

The October 2004 Government Policy Statement (GPS) in relation to electricity governance sets out the objectives and outcomes the Government wants the Electricity Commission (EC) to give effect to in the electricity sector, which are underpinned by recent amendments to the Electricity Act 1992. Under that Act, the Electricity Commission is empowered to make recommendations to the Minister of Energy on changes to the Electricity Governance Rules (EGRs). Part F of the EGRs relates to transmission, with rules concerning—among other things—transmission investment, the transmission pricing methodology and grid reliability standards.

Approval of grid upgrade plans and interim grid expenditures

Transpower is required to submit grid upgrade plans to the Electricity Commission for approval, in accordance with the process set out in Part F of the EGRs. A key objective of that process is to promote efficient investment in the national grid, by applying a Grid Investment Test to determine whether Transpower's proposed transmission projects deliver the greatest net benefit, after taking into account both generation and demand-side alternatives, as well as other transmission options. In the Commission's view, there are strong parallels between the GPS objectives, the objectives of the Part F process and the Purpose Statement of Part 4A.

Before the Electricity Commission makes final decisions on Transpower's grid upgrade plan, it may also approve "interim grid expenditure" proposed by Transpower under the transitional provisions of Part F, as long as that expenditure is additional to Transpower's normal ongoing grid expenditure. Such expenditure must also be reasonably prudent in meeting Transpower's current grid reliability standards or in preparing for other expenditure that has not yet been approved in a grid upgrade plan.

Transpower's new and transitional pricing methodology

The GPS states that Transpower should determine its total revenue requirement—covering both sunk and new investments—subject to the constraints of Part 4A of the Act. If the Electricity Commission approves the grid upgrade plan, Transpower can recover the costs of investments in the grid upgrade plan through the new transmission pricing methodology. However, consultation on the new pricing methodology has not yet been completed.

In the meantime, the *Electricity (Transpower's Pricing Methodology) Regulations 2004* (Transpower Pricing Regulations) provide a transitional pricing arrangement that requires Transpower to allocate its revenue requirement to customers in accordance with the methodology set out in Transpower's 2001 Pricing Methodology. In the Commission's view, this transitional 2001 Pricing Methodology is solely intended to be a mechanism for allocating charges among Transpower's customers, and Transpower must act consistently with the current GPS, the EGRs and Part 4A in determining its revenue requirement.

Analytical Framework and Approach

In general, the Commission will form an intention to declare control if it is satisfied that, on the basis of available evidence and analysis, the forward-looking long-term benefits of control to consumers would exceed the costs. The Commission is also guided by the specific outcomes outlined in the Purpose Statement (i.e.ss 57E(a)-(c) of the Act), the prioritisation criteria specific to the targeted control regime, and the Commission's standard enforcement criteria of conduct, detriment and public interest.

Net benefits to consumers of control

In determining whether to declare control, the Commission balances the likely benefits to consumers of control against the likely costs of imposing control. Where, on the balance of probabilities, the costs are exceeded by the benefits, the Commission can proceed to making a declaration of control, subject to the processes outlined in s 57I of the Act.

The potential benefits to consumers of control relate to reducing any inefficiencies (dynamic, productive and allocative) and/or excess returns in a market. In Transpower's case, the Commission considers that, by ensuring Transpower is subject to the regulatory framework intended by the Government and Parliament, significant benefits would arise from a reduced prospect of inefficient transmission investment and inefficient pricing decisions. As noted above, the GPS, Part F of the EGRs, and the Purpose Statement of Part 4A have common objectives.

In Transpower's case, the Commission considers that control would reduce the likelihood of:

- Transpower's investment proposals being less efficient than other transmission investment options, or than alternatives to transmission projects;
- investments in transmission assets being scheduled and undertaken before it is optimal to do so;
- investments not being implemented at least cost;
- the time profile of prices being inconsistent with the underlying pattern of investments; and
- Transpower extracting excess profits.

The direct costs of control include the incremental compliance costs of the regulated lines business and other market participants involved in the regulatory process, plus the incremental administrative costs of the Commission. Indirect costs of control, which may arise if control were to lead to some forms of inefficient behaviour, are more difficult to quantify.

Counterfactual

In estimating the net benefits to consumers of control, the Commission generally considers the likely future outcome without control (the "*counterfactual*") and the likely future outcome with control (the "*factual*").

In Transpower's case, the Commission considers that, in contemplating likely outcomes under the counterfactual, it is relevant to consider Transpower's recent conduct within the regulatory regime, as demonstrated in its threshold breaches and its approach to the Part F investment approval process. In addition, the Commission's counterfactual recognises Transpower's plans to increase its prices by 19% on average from 1 April 2006, and by around 13% per annum in each of the subsequent five years.

Factual

The Commission's approach to develop a "factual" for Transpower differs from that taken in the recent intention to declare control of Unison Networks Limited. In that intention, the Commission undertook a "building blocks analysis" to construct a number of possible future price paths (i.e., factual scenarios) to compare with Unison's own projections of its prices over the next few years (i.e., counterfactual scenarios). In Transpower's case, the Commission does not consider that such an analysis would be feasible until it is known which elements of Transpower's plans for future investments are to proceed.

Instead, the Commission's factual assumes that the imposition of control would ensure that Transpower's investment programme and pricing going forward would be efficient, as a result of being subject to the regulatory framework set out in the GPS and, more specifically, the processes set out in Part F of the EGRs.

Transpower's Recent Performance

The Commission has assessed aspects of Transpower's recent performance and behaviour, by analysing the threshold breaches reported by Transpower to date, and Transpower's behaviour in relation to seeking approvals of its tactical transmission upgrade (TTU) projects.

Potential mitigating factors to explain Transpower's breaches

Transpower has reported breaches of the price path threshold of $2.3m, $67.9m, and $43.2m at each of the three assessment periods to date. During the second assessment period, Transpower had implemented a major price increase (i.e., a 13% increase for HVAC customers and a 16% increase for HVDC customers, from 1 April 2004). The Commission has considered whether there are any mitigating factors that might explain Transpower's breaches of the thresholds to date, and thus justify the April 2004 price increase.

For the purposes of the current intention, the Commission has accepted, without prejudice, Transpower's explanation that $47m of the second breach was attributable to changes in the treatment of one of its transmission charge components (i.e., the "EV adjustment charge"—a legacy of Transpower's former self-regulatory pricing arrangements), as well as a number of other minor adjustments to the level of the first and second breaches that have been recently reported by Transpower. The Commission has also considered the possible impact of a number of other factors, notably volume growth and TTU expenditure.

As outlined below, the Commission's preliminary view is that volume growth is a mitigating factor in explaining the breaches, as it corrects Transpower's misapplication of the price path threshold formula as reported in its compliance statements. On the other hand, the TTU expenditure is not considered a mitigating factor, because that expenditure relates to investments that were part of Transpower's normal ongoing grid expenditure to meet volume growth, and were therefore already provided for under the price path threshold.

Transpower's tactical transmission upgrade projects

The Commission has reviewed internal and external documentation obtained from Transpower relating to its applications for investment approvals under Part F of the EGRs. This material highlights Transpower's "accountability" concerns over seeking Electricity Commission approval of its TTU projects; for instance, that the EC might extend its role beyond that of a "typical regulator". Transpower also highlighted "the risk of the EC second-guessing and directly challenging the judgment of Transpower management and the approval decisions of the Transpower Board."

In considering whether to seek approval for its TTU projects, Transpower's Board took the view that the "financial impact of these tactical investments is not high and it is therefore not essential to get these investments signed off by the Electricity Commission from a pricing perspective." The Board concluded that "it was preferable not to seek specific approval of tactical investments which were in the nature of 'business as usual'." As a result, in July 2004 Transpower wrote to the Electricity Commission stating that it had no plans to seek approval of any expenditure under the interim grid expenditure provisions of Part F.

Transpower's application for approval of interim grid expenditures

Subsequently, in March 2005, Transpower identified two commercial risks from not seeking Electricity Commission approval for TTU projects: the risk of being held accountable by the (Commerce) Commission for breaches of the price path threshold, on the grounds that no approval from the Electricity Commission had been received; [ ] As a result, Transpower decided to seek approval under the interim grid expenditure provisions of Part F for investments that were part of normal ongoing grid expenditure, which was inconsistent with the requirements of the EGRs.

Hence, in April 2005, Transpower applied to the Electricity Commission for approval of $158m of TTU expenditure under the interim grid expenditure provisions of Part F. While the Electricity Commission approved the majority of this expenditure in November 2005, it did note inconsistencies in the information provided by Transpower regarding the TTU projects. The Commission observes that the Electricity Commission did not have access to the Transpower Board papers that clarify Transpower's basis for seeking approval of those projects (and which have been obtained through the Commission's discovery powers under s 98 of the Act).

Transpower's X factor

Transpower initially accepted the price path threshold of CPI-1% that the Commission set for the 2004/05 assessment period. However, when the Commission proposed the same threshold for the 2005/06 assessment period, Transpower objected on the grounds that its past acceptance of 1% had been in the context of a company undertaking "business as usual" investments. Transpower claimed that an X factor from negative 7% to 10% would be more appropriate now that it was embarking on a major grid upgrade. To date, Transpower has not placed evidence in the public domain, or provided evidence to the Commission, to support such a significant change in its X factor.

On the basis of Transpower's submissions on the X factor, and Transpower's own views that the TTU projects were part of normal grid expenditure, the Commission concludes that a CPI-1% price path threshold was most likely adequate for Transpower to achieve its required revenue, in the absence of it undertaking major grid expansion projects.

Conclusions on Transpower's recent performance

The analysis presented in this paper shows that, up to and including the third threshold assessment period, Transpower could have operated within its price path threshold and still undertaken the expenditure associated with its April 2005 TTU projects. The Commission considers that the TTU projects were for meeting ongoing growth in demand. Consequently, the Commission's view is that the TTU expenditure is not a mitigating factor that explains the breaches, because the price path threshold already provides for investment to meet volume growth.

Allowing for volume growth (which corrects for Transpower's misapplication of the price path formula in its compliance statements), and accepting Transpower's EV adjustments at face value, $14.3m and $35.8m of the breaches remain unexplained for the 2004/05 and 2005/06 pricing years respectively. Therefore, the Commission's preliminary view is that Transpower's April 2004 price increase was not justified, and Transpower is likely to have been earning excess profits for 2004/05 and 2005/06. Furthermore, without an adjustment to

Transpower's existing price levels, it is likely that such excess profits would continue to be earned in the future.

The Commission does not have a concern with Transpower making a normal return on its prudently incurred investments, but Transpower should be able to demonstrate that the timing of its recovery of its efficient investments is also efficient. The Commission considers that if it were not to address Transpower's breaches of the price path threshold, and Transpower's approach to the approval process under Part F of the EGRs, then this would likely result in outcomes inconsistent with the objectives of the regulatory regime, which exists to ensure that Transpower faces strong incentives to improve its efficiency, shares the benefits of efficiency gains with consumers through lower prices, and is limited in its ability to extract excessive profits.

Net Benefits of Control of Transpower

The Commission has considered the possible net benefits to consumers from imposing control on Transpower's transmission services going forward, by comparing the counterfactual and factual described above. This involves considering Transpower's future investment and pricing plans.

Transpower's investment plans

Transpower's 2005/06 Business Plan indicates that its overall capital budget is $295m for the 2005/06 year and $431m for the 2006/07 year—up from the forecast actual of $112m in 2004/05. Overall, from 2006/07 to 2014/15, Transpower is planning to undertake $3.4 billion of capital expenditure.

In September 2005, Transpower submitted its initial grid upgrade plan to the Electricity Commission for approval. The plan includes the $622m North Island (NI) 400kV Grid Upgrade investment proposal, and the $795m HVDC Inter-Island Link Upgrade investment proposal. As of 22 December 2005, the Electricity Commission had only approved $6.3m of preparatory expenditure for investigations relating to the HVDC project.

The Commission notes apparent differences between the timing of projected capital expenditure in Transpower's 2005/06 Business Plan and the initial grid upgrade plan, with capital expenditure for the NI Grid Upgrade project over the next three years about $139m less in the grid upgrade plan than in the Business Plan.

Transpower's announced future price increases

Transpower has stated that the 19% price increase announced in November 2005, and the planned subsequent series of price increases, are needed to fund the investment programme outlined in its 2005/06 Business Plan. According to its interpretation of the Transpower Pricing Regulations and its 2001 Pricing Methodology, Transpower considers that it is entitled to set transmission charges on the basis of the capital expenditure projections in its Business Plan, irrespective of whether or not that expenditure has been approved under the Part F investment approval process.

As noted earlier, in the Commission's view, the transitional 2001 Pricing Methodology is solely intended to be a mechanism for allocating charges among Transpower's customers. Consequently, Transpower must act consistently with the current GPS, the EGRs and Part 4A in preparing its Business Plan, and is therefore not entitled to revenue protection because its revenue requirement is derived from that plan. In any event, the Commission notes that the actual revenue requirement used to set Transpower's prices from 1 April 2006 is about $10m higher than that presented in the Business Plan.

Effect of Transpower's behaviour on efficiency

The Commission is of the view that Transpower is effectively seeking to pre-fund substantial investments that have not yet been subjected to the regulatory approval framework put in place to promote the efficient and reliable provision of transmission services. The additional revenue arising from pre-funding is likely to reduce incentives on Transpower to minimise costs and may transfer risk from the company to consumers. In addition, pre-funding potentially provides Transpower with funds to proceed with the initial phases of investments that have not yet been approved, thereby artificially altering the net benefits when comparing Transpower's proposals against alternatives in applying the Grid Investment Test.

Benefits of control

As noted above, the Commission considers that by ensuring Transpower is subject to the regulatory framework, significant benefits would arise from a reduced prospect of inefficient transmission investment decisions and inefficient pricing decisions, as well as from limits on Transpower's ability to extract excess profits.

In particular, the Commission considers that the Electricity Commission's application of the Grid Investment Test, which will expose Transpower's proposals and various alternatives to public scrutiny and debate, is likely to have a substantial impact on the efficiency of Transpower's investment programme.

Furthermore, although the Electricity Commission may tend toward ensuring that investments are in place somewhat in advance of the time they are needed, in the Commission's view it would not be unrealistic to assume that the Part F approval process could result in significant benefits arising from more appropriately timed expenditures. In addition, regulatory oversight is likely to provide significant additional benefits from lower cost implementation of investments and a more efficient time profile of prices.

To inform its decision, the Commission has made indicative estimates of the benefits that might result from more efficient investment costs and more efficient timing of investments. For instance, given that the Electricity Commission has already identified a number of alternative investment proposals that deserve closer scrutiny, the Commission considers that it would not be unreasonable to expect a 5-10% reduction in the costs of Transpower's proposed investments over the 2006/07 to 2014/15 period covered in its 2005/06 Business Plan.

Furthermore, it would be not be unrealistic for elements of Transpower's investment programme to be deferred by as much as 1-3 years. In addition, the Commission considers that the unexplained level of Transpower's threshold breach for the 2005/06 pricing year is indicative of the level of excess profits that could be reduced under control for 2006/07 alone, and control could further limit excess profits in subsequent years.

The Commission's estimates of the range of potential benefits from various outcomes of control are shown in the following table.

Potential Benefits of Control of Transpower

Potential Benefits of Control	**($ million)**
Limitation of excess profits in 2006/07 (implied by level of 2005/06 unexplained threshold breach)	36 (future years not estimated)
Investment efficiency gains (from application of Grid Investment Test) - NPV of a 5% reduction in 2006/07-20014/15 investment costs - NPV of a 10% reduction in 2006/07-20014/15 investment costs	 117 234
Improved timing of investments - NPV of a 1 year deferral of planned NI Grid Upgrade Project only - NPV of a 1 year deferral of total planned investment programme - NPV of a 3 year deferral of total planned investment programme	 31 148 405
Lower cost implementation of investments	Not estimated (significant +ve effect)
More efficient time profile of prices	Not estimated (significant +ve effect)

Costs of control

The Commission has estimated the likely administrative costs of imposing control on Transpower's transmission services for a five year period as having an NPV of around $1.5m (not all of which would be incremental costs). If Transpower were to incur incremental compliance costs of a similar magnitude, then the direct costs of control would be in the order of $3.0m in NPV terms.

The Commission considers that, in determining the net benefits of control, the incremental indirect costs of control are unlikely to be significant relative to the potential benefits of control. While the potential impacts of regulatory error can be significant, the Commission does not consider that the associated level of indirect costs would differ significantly between the factual and the counterfactual.

Overall level of net benefits

The quantification of benefits and costs presented above is a process designed to inform the Commission, and to assist it in the application of its judgment. In Transpower's case, there is no overlap in the estimated range of the benefits of control with the estimated level of the costs of control. Therefore, the quantification process has strongly confirmed the significance of the concerns raised in the Commission's review of Transpower's recent performance, as well as the Commission's qualitative assessment that a declaration of control is warranted.

For instance, while the Commission has estimated the possible benefits associated with a 5-10% reduction in the costs of Transpower's investment programme, the Commission has also estimated the indicative reduction in costs that would be sufficient to offset the costs of control. This would be around an 0.15% reduction in Transpower's planned capital expenditure.

Commission's Intention to Declare Control

The Commission's preliminary view is that declaring control over the transmission services supplied by Transpower would promote the efficient operation of markets directly related to electricity transmission and distribution. Transpower has proposed significant price increases to cover unapproved investments, and has yet to justify the time profile of prices that it intends using to recover the cost of those investments. These price increases will affect every electricity consumer in New Zealand.

Having reviewed the information provided by Transpower to date concerning the organisation's recent and planned performance and behaviour, the Commission considers there to be credible evidence that:

- significant portions of Transpower's breaches remain unexplained; therefore Transpower's April 2004 price increase was unjustified and Transpower is likely to have been earning excess profits since that increase;
- Transpower's approach to the investment approval process under Part F has resulted in outcomes inconsistent with the objectives of the regulatory regime;
- Transpower's planned price increases would enable it to pre-fund its unapproved capital expenditure programme; and
- Transpower's time profile of prices is not consistent with the underlying pattern of capital expenditure, and its planned April 2006 price increase is not justified.

Therefore, the Commission considers that, in the absence of control, Transpower would likely continue to set prices based on investments not subject to the approval processes within the regulatory framework, which is intended to ensure the efficient and reliable provision of electricity transmission services. On the other hand, the Commission considers that control would likely ensure that Transpower complies with existing regulatory processes designed to best ensure efficient investment, and pricing outcomes more consistent with the Purpose Statement of Part 4A of the Act.

Consequently, the Commission's preliminary view is that control would result in benefits to consumers by:

- limiting Transpower's ability to earn excess profits in future;
- improving the efficiency of transmission investments and the timing of those investments;
- ensuring that Transpower does not pre-fund unapproved investments and incur capital expenditure that would distort the comparison of Transpower's investment proposals with the alternatives considered under the Grid Investment Test;
- lowering the implementation costs of Transpower's investments going forward; and
- resulting in a more efficient time profile of prices.

The Commission's qualitative assessment that a declaration of control is warranted is supported by the Commission's quantification of the benefits and costs of control, as there is no overlap in the estimated range of indicative benefits and the estimated level of costs. Having weighed up the likely benefits of control against the likely costs, the Commission's preliminary view is that there would be significant long-term benefits to consumers from imposing control of the transmission services supplied by Transpower.

Next steps

After having regard to the views of interested persons, the Commission will decide whether to proceed with making a declaration of control with respect to the transmission services supplied by Transpower. Submissions on this paper are due on **27 February 2006**, and cross-submissions are due on **13 March 2006**.

INTRODUCTION

Purpose and Scope

1 The Commerce Commission (the Commission) has published in the *New Zealand Gazette* (*Gazette*) its intention to make a declaration of control under Part 4A of the Commerce Act 1986 (the Act), in respect of transmission services supplied by Transpower New Zealand Limited (Transpower).[1]

2 The purpose of this paper is to outline the process by which and the reasons why the Commission has formed an intention to make a control declaration relating to Transpower. The Commission has invited interested persons to give their views on the Commission's intention, as is required under s 57I of the Act.

3 Part 4A of the Act came into effect on 8 August 2001 and, among other things, requires the Commission to implement a *targeted control regime* for the regulation of large electricity lines businesses (lines businesses), namely the 28 distribution businesses and the state-owned transmission company, Transpower.

4 Under subpart 1 of Part 4A (ss 57D to 57N of the Act), the Commission must set thresholds for the declaration of control of goods or services provided by lines businesses. The thresholds are a screening mechanism for the Commission to identify lines businesses whose performance may warrant further examination, and if necessary, control of their prices, revenues and/or—in the case of distribution businesses—service quality.

5 The Commission must assess lines businesses against the thresholds it has set, identify any lines business that breaches the thresholds, and determine whether or not to declare control in relation to the services supplied by an identified lines business, taking into account the purpose statement contained in s 57E of the Act. In determining whether or not to declare control in relation to any lines business breaching the thresholds, the Commission may conduct a "post-breach inquiry".

6 Transpower has breached the thresholds at the first, second and third assessment dates (i.e., 6 September 2003, 30 June 2004 and 30 June 2005 respectively). Following Transpower's breaches of the price path thresholds at both the first and second assessment dates, in late January 2005 the Commission initiated a post-breach inquiry into Transpower's behaviour and performance.

7 The Commission's decision to publish an intention to declare control, pursuant to s 57I of the Act, follows investigations and analysis undertaken by the Commission as part of its post-breach inquiry into aspects of Transpower's breaches, and into Transpower's possible performance and behaviour over the next few years in the absence of control.

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1 *Commerce Act (Intention to Declare Control: Transpower New Zealand Limited) Notice 2005, New Zealand Gazette*, Issue No.210, page 5382, 22 December 2005.

8 To date, the Commission's post-breach inquiry has focused on two key areas:

- Transpower's recent performance, including a consideration of possible mitigating factors that might explain its threshold breaches, and an examination of Transpower's conduct under the regulatory regime; and
- Transpower's investment and pricing plans going forward.

9 This paper is structured as is shown below.

Section Heading	Content
Introduction	▪ Purpose and scope
Regulatory Regime Applicable to Transpower	▪ Transpower overview ▪ Part 4A statutory framework and process ▪ Relevant functions of the Electricity Commission ▪ Relationship between Part 4A and the EGRs
Background to the Intention to Declare Control	▪ Transpower's initial breaches of the thresholds ▪ Post-breach inquiry into Transpower's performance ▪ Decision to publish an intention to declare control
Analytical Framework and Approach	▪ Basis for declaring control ▪ Net benefits of control to consumers ▪ The "counterfactual" and the "factual" ▪ Benefits and costs of control
Transpower's Recent Performance	▪ Transpower's breaches of the price path thresholds ▪ Potential mitigating factors to explain the breaches ▪ Transpower's interim grid expenditures ▪ Conclusion on Transpower's recent performance
Net Benefits of Control of Transpower	▪ Counterfactual and factual ▪ Future investment and pricing behaviour ▪ Benefits of control ▪ Overall level of net benefits
Intention to Declare Control	▪ Commission's intention to declare control ▪ Next steps ▪ Possible outcomes of the post-breach inquiry

10 The Commission is also releasing with this paper a report prepared by NZIER, which analyses Transpower's breaches of the thresholds, as well as the spreadsheets developed by NZIER in undertaking its analysis.[2]

[2] NZIER, *Transpower Post-Breach Inquiry, Further Analysis of Breaches, Report to the Commerce Commission*, 28 November 2005.

REGULATORY REGIME APPLICABLE TO TRANSPOWER

11 This section provides a brief overview of the regulatory regime applicable to Transpower. Like all other lines businesses, Transpower is subject to the provisions of Part 4A of the Commerce Act, although there are a number of provisions which are specific to Transpower. However, in addition, unlike other lines businesses, Transpower is subject to additional regulatory oversight from the Electricity Commission (EC), under the provisions of the Electricity Act 1992.

Transpower Overview

12 Transpower owns and operates New Zealand's high-voltage transmission grid (the national grid) which transmits electricity throughout the country. The grid comprises approximately 12,000 kms of transmission lines and 170 substations and switchyards and links generators to distribution companies and major industrial users; it is therefore a significant strategic asset for the New Zealand economy. In 2005, Transpower had revenue of $636 million, an after-tax net profit of $141 million and total fixed assets worth approximately $2,077 million.

13 Transpower is a State-Owned Enterprise, and is therefore subject to the provisions of the State-Owned Enterprises Act 1986, as well as the regulatory framework established under both the Commerce and Electricity Acts.

Part 4A Statutory Framework and Process

Targeted control regime

14 The targeted control regime for all lines businesses, including Transpower, is outlined in subpart 1 of Part 4A of the Commerce Act (the Act). The purpose statement of the targeted control regime (Purpose Statement), contained in s 57E of the Act, is:

> to promote the efficient operation of markets directly related to electricity distribution and transmission services through targeted control for the long-term benefit of consumers by ensuring that suppliers –
>
> (a) are limited in their ability to extract excessive profits; and
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> (b) face strong incentives to improve efficiency and provide services at a quality that reflects consumer demands; and
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> (c) share the benefits of efficiency gains with consumers, including through lower prices.

15 The targeted control regime comprises a number of distinct elements as follows:

- *setting thresholds*, in which the Commission must set and publish "thresholds" for lines business performance, following consultation as to possible thresholds with participants in the electricity distribution and transmission markets and with consumers;
- *assessment and identification*, in which the Commission must assess lines businesses against the thresholds it has set, and must identify any lines businesses that breach those thresholds;

- *post-breach inquiry*, in which the Commission must determine whether to declare all or any of the goods or services supplied by all or any of the identified lines businesses to be controlled; and
- *control*, in which the Commission applies the regime under Part V of the Act for authorising the prices, revenues and/or possibly quality of the controlled goods or services supplied by a lines business for which a declaration of control has been made by the Commission.

16 Control is *targeted*, in the sense that it is not universal, by virtue of the processes set out in subpart 1 of Part 4A. None of the lines businesses is to be subject to control of prices, revenues or service quality by default. A business may only be controlled by the Commission if it has breached a threshold, and after the Commission has followed the process outlined in s 57I of the Act.

Initial thresholds for Transpower from 6 June 2003 to 30 June 2004

17 After consulting with interested parties, as is required under s 57G of the Act, the Commission set two initial thresholds applying to Transpower from 6 June 2003 to 30 June 2004. The thresholds were set by notice in the *Gazette*: the Commerce Act (Electricity Lines Thresholds) Notice 2003 (the initial *Gazette* notice).[3] The initial *Gazette* notice also set the initial thresholds applying to distribution businesses from 6 June 2003 to 31 March 2004.

18 The two thresholds set for all lines businesses were:

- a *price path threshold*, consistent with a CPI-X price path in which lines business "notional revenue" (i.e. average prices net of certain pass-through costs) at the end of each assessment period was not greater (in nominal terms) than the "notional revenue" at the start of that period; and
- a *quality threshold*, comprising:
  - reliability criteria, requiring no material deterioration in lines business reliability (which in Transpower's case was measured both by the number of Transpower's unplanned interruptions and Transpower's total interruptions expressed in system minutes); and
  - consumer engagement criteria, requiring that a lines business has meaningfully engaged with its customers to determine their demand for service quality.

19 All lines businesses, including Transpower, were first assessed against the price path threshold as at 6 September 2003. For Transpower, the second assessment against the price path threshold and the initial assessment against the quality threshold were as at 30 June 2004.

20 Transpower breached the price path threshold at both of these assessment dates. After reviewing Transpower's initial explanations of the breaches, it was not evident to the Commission that taking no further action would be consistent with the long-term interests of consumers. Consequently, in late January 2005 the Commission initiated a

3 The initial threshold decisions are explained in: Commerce Commission, *Regulation of Electricity Lines Businesses, Threshold Decisions*, 6 June 2003.

post-breach inquiry into Transpower's behaviour and performance (paragraphs 111-113).

Resetting Transpower's thresholds from 1 July 2004

21 On 23 December 2003, the Commission issued a decisions paper on the thresholds to apply to Transpower from 1 July 2004 (and to distribution businesses from 1 April 2004).[4] At that time, the Commission indicated that the paper would be reissued along with the final *Gazette* used to set those thresholds, updated to reflect any changes in technical detail. Subsequently, the Commission decided to set the thresholds for Transpower and distribution businesses through two separate *Gazette* notices, given that the start date and length of the regulatory period was different for Transpower than for other lines businesses.

22 After taking submissions on the draft *Gazette* notices into account, the two notices were revised and published, along with an update of the 23 December 2003 threshold decisions paper, to reflect the revisions and to provide clarifications where the Commission considered necessary.[5] The *Gazette* notice relating to Transpower was the *Commerce Act (Transpower Thresholds) Notice 2004* (the Transpower Notice), published on 30 June 2004.[6]

Thresholds applying to Transpower from 1 July 2004 to 30 June 2005

23 The two thresholds which applied to Transpower from 1 July 2004 to 30 June 2005 were of the same form as the initial thresholds set by the Commission on 6 June 2003. While the quality threshold remained effectively the same, the X factor in Transpower's CPI-X price path was set to 1%, equivalent to average distribution business productivity growth over the previous five years.[7] Furthermore, whereas only local authority rates were considered to be valid pass-through costs for Transpower's initial price path threshold, Electricity Commission levies also became an allowable pass through.

24 The thresholds for distribution businesses were reset in 2004 for a five-year period, whereas Transpower's thresholds were reset for a one-year period only—a position supported by Transpower.[8] The Commission considered it appropriate to reset Transpower's thresholds for a single year given uncertainties associated with the specific functions of the Electricity Commission and, in particular, the approach the Electricity Commission might take with respect to approval of Transpower's proposed future investment programme.

25 In addition, the Commission decided that the starting price for Transpower's one-year price path should be based on Transpower's prices before adjusting for economic value (EV) adjustment charges, and therefore any residual (or deficit) in Transpower's EV customer account would be ignored. The Commission indicated that requiring

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4 Commerce Commission, *Regulation of Electricity Lines Businesses, Targeted Control Regime, Threshold Decisions (Regulatory Period Beginning 2004)*, 23 December 2003.

5 Commerce Commission, *Regulation of Electricity Lines Businesses, Targeted Control Regime, Threshold Decisions (Regulatory Period Beginning 2004)*, 1 April 2004.

6 The *Gazette* notice relating to distribution businesses is the *Commerce Act (Electricity Distribution Thresholds) Notice 2004* published on 31 March 2004.

7 For the initial price path threshold, Transpower's X factor had effectively been equivalent to the CPI.

8 Transpower, *Submission to the Commerce on Draft Decisions for Resetting the Price Path Threshold for Transpower*, October 2003.

Transpower to repay its EV amounts would be problematic, given the prevailing uncertainties at that time concerning the process for approving Transpower's investments.[9]

26 Transpower submitted at the time that the EV adjustments should be ignored for all future threshold decisions. However, the Commission reserved its position on whether to consider EV adjustment charges during a post-breach inquiry and/or to revisit the issue in resetting Transpower's thresholds from 1 July 2005.[10]

Price path threshold applying to Transpower from 1 July 2005 to 30 June 2006

27 The Commission decided to reset Transpower's 2004/05 price path and quality thresholds for a single year from 1 July 2005. Transpower again supported this position (however, it suggested that this period could be used "to implement the transition to a more appropriate form of transmission regulation").[11]

Transpower's X factor

28 The X factor of 1% was retained in the CPI-X price path threshold from 1 July 2005.[12] In its submission on resetting the price path threshold from 1 July 2004, Transpower had stated that an X factor of 1% would be appropriate for the 2004/05 assessment period.[13] However, during consultation on resetting the price path threshold from 1 July 2005, Transpower claimed that its past acceptance of 1% as an appropriate measure of productivity improvement had been in the context of a company undertaking a level of routine, annual investment for grid upkeep, and not acceptance of an appropriate X factor for a company undertaking significant essential grid upgrades.[14]

29 Transpower submitted that, if an X factor of 1% were retained, it would again breach the price path threshold in 2006 given its plans for undertaking significant investment, including both "tactical" transmission upgrades (TTUs) and its proposed major upgrade to the national grid. Transpower stated that, assuming expenditure subject to the Electricity Commission's approval process (paragraph 59) would not be excluded from the definition of specified services in the thresholds (paragraph 83-84), an X factor of negative 7-10% would likely be more appropriate to cater for these investments. Transpower's submission included a graph showing that its estimates of future revenue requirements exceed the projected threshold by a significant margin.[15]

30 However, Transpower's submission highlighted that its 2005/06 Business Plan would not be finally approved by Transpower's Board until June 2005; therefore, at the time of submission, Transpower stated it was not possible to specify the appropriate X factor. In view of the proximity of Board approval to the intended publication date of the revised Transpower Notice, Transpower stated that it would "provide further information to the Commission on the appropriate value for the X factor as part of

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9 Commerce Commission, supra n 5, para 154.

10 ibid, para 155.

11 Transpower, *Submission to the Commerce Commission on Draft Decisions for Resetting the Price Path Threshold for Transpower*, April 2005, p 24.

12 Commerce Commission, *Regulation of Electricity Lines Businesses, Targeted Control Regime, Resetting Transpower's Thresholds from 1 July 2005, Decisions Paper*, 30 June 2005, p 6.

13 Transpower, supra n 8, paras 12, 52 and 63.

14 Transpower, supra n 11, p 28.

15 ibid, pp 17-18.

further discussions between Transpower and the Commission, prior to the threshold reset date."[16]

31 In its decisions on the price path threshold to apply to Transpower for the 2005/06 assessment period, the Commission stated its view that:

> it would be imprudent to make a hasty change to Transpower's X factor or price path threshold without having had the opportunity to fully consider, and subject to public scrutiny, evidence that a change is warranted. To date, Transpower has not placed such evidence into the public domain. In the Commission's view, changing the price path threshold, simply because Transpower has breached it, and is facing significant new investment in future, is not a defensible position.
>
> As part of its ongoing post-breach inquiry, it is possible that the Commission may find evidence which supports a change to Transpower's X factor, or even to the nature of Transpower's thresholds. However, at this stage, the Commission's investigation is at an early stage, and not sufficiently advanced for it to inform the Commission's current decisions on Transpower's thresholds.

32 Transpower did not place information in the public domain in support of a change to its X factor either before or after the Commission made these decisions.

EV adjustment charges

33 Unlike the previous price path threshold, the threshold for the 2005/06 assessment period includes EV adjustment charges in the calculation for notional revenue. However, EV adjustment charges remain excluded from the starting price of Transpower's price path.[17] In its decisions, the Commission confirmed its 1 April 2004 position of setting Transpower's starting price in the price path threshold exclusive of EV adjustment charges, but it continued to reserve its position on how to consider such charges during a post-breach inquiry (or in future threshold resets).

34 Nevertheless, the Commission explained that it was not its intention that Transpower should have a charge for specified services—the EV adjustment charge—that would fall outside the price path threshold. Hence, given Transpower had re-introduced EV adjustment charges for the 2005/06 pricing year, the Commission decided that, in contrast to Transpower's 2004/05 price path threshold, it was appropriate to include these in the calculation of Transpower's notional revenue for the 2005/06 assessment period(see paragraph 145).

Quality threshold applying to Transpower from 1 July 2005 to 30 June 2006

35 The passage of the Commerce Amendment Act (No 2) 2004 removed the Commission's previous ability under Part 4A to make an authorisation, or to accept an undertaking, in respect of all or any component of Transpower's quality standards. Despite this provision, the Commission considered it appropriate to retain the 2004/05 quality threshold for Transpower in the same form from 1 July 2005, for at least another year. The Commission indicated that retaining some incentives on Transpower's performance through the quality threshold would be more consistent with the Purpose Statement than removing Transpower's quality threshold entirely.

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[16] ibid, p 20.

[17] Commerce Commission, supra n 12, p 6.

Process for declaring control

36 The Commission's determination jurisdiction and function under Part 4A of the Commerce Act is set out in section 57H. Under s 57H the Commission must:

- assess large electricity lines businesses against the thresholds;
- identify any large electricity lines business that breaches the thresholds;
- determine whether or not to declare all or any of the goods or services supplied by all or any of the identified large electricity lines businesses to be controlled, taking into account the Purpose Statement; and
- in respect of each identified large electricity lines business
  - make a control declaration, or
  - publish the reasons for not making a control declaration in the *Gazette*, on the Internet, and in any other manner (if any) that the Commission considers appropriate.

37 The first step in the Commission's analysis is to identify which, if any, large electricity lines businesses have breached the thresholds set by the Commission. The second step the Commission must undertake is to determine whether or not to control a large electricity lines business that has breached the thresholds. The Commission has described this second step as a *post-breach inquiry*. In making any determination, the Commission must take into account the purpose statement in section 57E.

38 Before making a declaration of control, section 57I requires the Commission to:

- publish its intention to make a declaration of control;
- invite interested persons to give their views on the Commission's intention to declare control;
- give a reasonable opportunity to interested persons to give those views; and
- have regard to those views.

Control

39 A declaration of control under subpart 1 of Part 4A means (as with a declaration of control by Order in Council under Part 4 of the Act) that a lines business may not supply the controlled services unless an authorisation or an undertaking has come into effect in respect of those services.

40 Section 70 of the Act provides for the Commission to make an authorisation in respect of all or any component of the prices, revenues or quality standards that apply in respect of the controlled services of a lines business, using whatever approach it considers appropriate (having regard to the Purpose Statement). However, s 57M (1) restricts the Commission from making an authorisation, or accepting an undertaking, in respect of all or any component of the quality standards of Transpower.

41 Section 71 provides for the Commission to make a provisional authorisation pending the making of a final authorisation. Instead of making an authorisation, the Commission may obtain or accept a written undertaking from the lines business subject to control.

42 The authorisation process under Part 5 is, like the declaration of control process under Part 4A, a consultative process. Before making a final authorisation, s 70B requires the Commission to have regard to submissions made to it by the lines business concerned and the consumers of the controlled services. Under s 73, the Commission has the discretion to hold a conference as part of this process and it may allow other interested parties to be involved in the consultation.

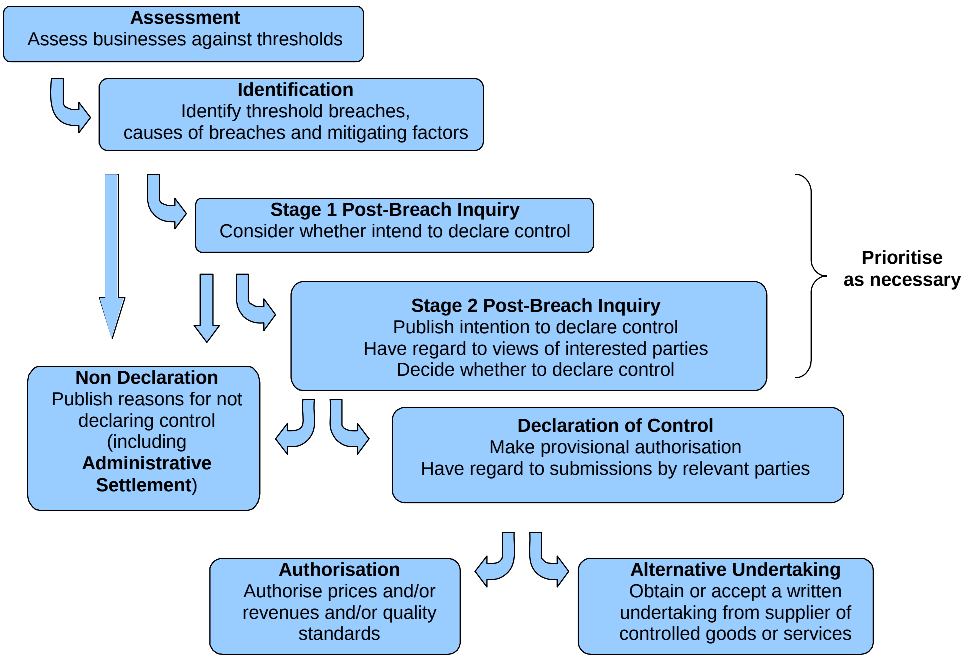
Relationship between post-breach inquiries and control

43 The fact that there is a further consultative process under Part 5 has implications for the Commission's process under Part 4A. The Commission's view is that, in deciding whether to declare control, it should not pre-determine the form and nature of control. Post-breach inquiries under Part 4A are therefore limited to assessing whether control should be imposed and do not involve determining the specifics of any authorised prices, revenue and/or quality standards following a declaration of control.

Assessment and Inquiry Guidelines

44 The Commission's *Assessment and Inquiry Guidelines* (published in October 2004) set out the broad process and framework that the Commission generally intends to take in assessing threshold compliance and undertaking post-breach inquiries, consistent with the statutory provisions described above.[18] The various statutory and discretionary process steps are illustrated in Figure 1.

Figure 1: Targeted Control Process Steps



45 The Commission has considered it convenient to divide post-breach inquiries into two stages:

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18 Commerce Commission, *Regulation of Electricity Lines Businesses, Targeted Control Regime, Assessment and Inquiry Guidelines*, 19 October 2004.

- **Stage 1**, comprises investigations and analysis prior to the Commission forming an intention to declare control; and
- **Stage 2**, comprises further investigations and analysis subsequent to the Commission publishing its intention to declare control (during which the Commission must invite and consider the views of interested persons).

46 The Guidelines explain that they are not intended to be overly prescriptive. Because the Commission is not able to foresee all the circumstances that may be relevant to a threshold breach; the Commission needs to be able to respond to issues as they arise. The Guidelines indicate that not all post-breach inquiries need follow the same route and that at any stage the Commission can, based on available evidence and analysis, publish its intention to declare control.

47 The prioritisation criteria in section 57K (2) are also relevant in determining how to proceed. The prioritisation criteria include:

- the size of the relevant lines business;
- the recent performance of the relevant lines business, including prices charged and the extent of any excess profits;
- the quality of the information provided to the Commission; and
- the extent to which the lines business has breached the thresholds.

48 The publication of the Commission's intention to declare control of Transpower signalled the beginning of Stage 2 of the Transpower post-breach inquiry. This paper sets out the Commission's preliminary conclusions based on the investigations and analysis undertaken to date of Transpower's recent and planned performance and behaviour (i.e., the Stage 1 post-breach inquiry). These conclusions form the basis of the Commission's reasons for deciding to publish an intention to declare control of Transpower.

Relevant Functions of the Electricity Commission

Government Policy Statement on Electricity Governance

49 On 29 October 2004, the Government issued a Government Policy Statement in relation to electricity governance (the GPS).[19] The GPS was given by the Minister of Commerce to the Commission pursuant to s 26 of the Commerce Act. Section 26 of the Commerce Act requires that the Commission have regard to statements of economic policy—such as the GPS—in exercising its powers under the Commerce Act. The GPS was also given to the Electricity Commission by the Minister of Energy, pursuant to section 172ZK of the Electricity Act 1992 (Electricity Act). Various aspects of the GPS have been implemented through amendments to the Commerce Act, the Electricity Act and the Electricity Industry Reform Act 1998.[20]

[19] *New Zealand Gazette, Ministry of Economic Development, Government Policy Statement on Electricity Governance and Government Policy on Gas Governance*, Issue No. 139, 29 October 2004.

[20] Commerce Amendment Act (No 2) 2004; Electricity Amendment Act 2004; and Electricity Industry Reform Amendment Act 2004.

50 The GPS sets out the objectives and outcomes the Government wants the Electricity Commission to give effect to in the electricity sector. It also sets out the Government's expectations and intentions regarding the interrelationship between the Commission and the Electricity Commission with regard to the regulation of Transpower (as well as of other lines businesses).

51 In particular, the GPS highlights that the Commerce Act has been amended to require the Commission—when exercising its duties and powers under Part 4A of the Commerce Act—to take into account regulations and rules made under the Electricity Act, including any decisions made by the Electricity Commission under those regulations and rules.[21]

Objectives of the GPS

52 The GPS highlights the monopolistic nature of electricity transmission, and introduces its policies specific to transmission as follows.

> "The way in which transmission services are provided and priced impacts directly and indirectly on all parts of the electricity industry, the economy and the environment. Transmission has strong natural monopoly characteristics, which makes it important that the Government sets out its policy expectations as to how transmission services should be provided and priced and how Transpower should operate. Poorly designed policies may, for example, encourage inefficient investment in generation, which would waste scarce capital resources and cause unnecessary environmental effects".

53 The Government's objectives for the provision of transmission services—which are largely the same as those in the GPS which it replaced—are that:

- the services are provided in a manner consistent with the Government's policy objectives for electricity;
- the services should be provided at the standards of power quality and grid reliability required by grid users and consumers as determined by the Electricity Commission;
- the efficiency of transmission services should be continuously improved so as to produce the services grid users and consumers want at least cost; and
- the services are priced in a manner that:
  - is fully transparent
  - fully reflects their costs including risk
  - facilitates nationally efficient supply, delivery and use of electricity
  - promotes efficient investment in transmission or transmission alternatives, and
  - promotes nationally efficient use of transmission services by grid users and consumers.

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21 supra n 19, para 106.

Relevant responsibilities of the Electricity Commission for transmission

54 Under the Electricity Act, the Electricity Commission is empowered to make recommendations to the Minister of Energy on regulations and rules relating to (among other things):

- investments made by Transpower in upgrading, expanding and/or replacing transmission grid assets;
- quality standards for the national grid;
- transmission agreements containing the terms and conditions for connection to the grid; and
- the pricing methodology for recovering Transpower's revenue requirements.

55 However, the Electricity Commission is not currently able to regulate Transpower's overall revenue requirement.

Relationship between transmission revenue, pricing and investment

56 The GPS states that Transpower should determine its total revenue requirement—covering both sunk and new investments—subject to the constraints of Part 4A of the Commerce Act, and that Transpower should submit grid upgrade plans to the Electricity Commission for approval. Such plans should demonstrate that the proposed expenditure is required to meet reliability standards and/or deliver the greatest net benefit after taking into account transmission alternatives.

57 The GPS indicates that, where the Electricity Commission approves investment by Transpower, the cost of that investment should be recoverable by Transpower in accordance with the transmission pricing methodology to be developed by Transpower and approved by the Electricity Commission.[22]

58 The transmission pricing methodology is intended to determine how Transpower's revenue requirement from the majority of its services will be recovered from parties under the transmission agreements for connection to and use of the grid. The Government expects transmission services to be priced as efficiently as possible and, subject to Part 4A of the Commerce Act, Transpower's charges should recover the full economic cost of its services.[23]

Part F of the Electricity Governance Rules

59 A key function of the Electricity Commission is to recommend the promulgation by the Minister of Energy of Electricity Governance Rules (EGRs) pursuant to s 172H of the Electricity Act. Part F of the EGRs—which came into force in May 2004—contains the rules relating to electricity transmission and covers:

- transmission agreements (Section II);
- transmission grid upgrades and investments (Section III);
- transmission pricing methodology (Section IV); and

[22] ibid, paras 88 and 91.
[23] ibid, paras 91 and 94.

- financial transmission rights (Section V).[24]

60 The Electricity Commission has stressed that Part F has a number of elements, all of which are required to operate together to contribute to the achievement of Part F objectives and the Electricity Commission's broader objectives. Consequently, the Electricity Commission has observed that, until all elements of Part F are in place and have been seen in action, it will not be possible to fully assess the extent to which Part F as implemented will achieve its objectives over time.[25]

Approval of Transpower's investments and transmission reliability standards

61 Section III of Part F contains the rules dealing with (among other things):

- transmission grid reliability standards;
- grid planning assumptions;
- the Grid Investment Test;
- Transpower's grid upgrade plans;
- statements of opportunities (including opportunities for both investment in grid upgrades and investment in transmission alternatives); and
- investment contracts between Transpower and its customers.

62 The purpose of the Section III rules is (among other things) to:

- facilitate Transpower's ability to develop and implement long-term plans for investment in the grid;
- assist participants to identify and evaluate investments in transmission alternatives;
- facilitate any processes pursuant to Part 4A of the Commerce Act; and
- enable the cost of "approved" investments to be recovered through the transmission pricing methodology applied in transmission agreements.

Grid upgrade plans

63 The Electricity Commission has indicated that the development of grid reliability standards and grid planning assumptions will provide a framework within which proposed transmission investments can be evaluated through balancing different levels of reliability. In particular, it enables the Electricity Commission to publish statements of opportunities that will provide the basis for Transpower to prepare its grid upgrade plans.[26]

64 Transpower's grid upgrade plans must be submitted for approval to the Electricity Commission and are required to contain a comprehensive plan for asset management and operation of the transmission grid, information on investment contracts, and information on Transpower's proposed "reliability" and "economic" investments. The

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24 Electricity Governance Rules, Part F (Transport), 30 June 2005, and refer to the briefing slides: www.electricitycommission.govt.nz/opdev/transmis/pdfsconsultation/part-f-commission-briefings-oct-04.pdf.

25 Electricity Commission, *Explanatory Paper, Grid Investment Test*, 3 December 2004, paras 25-26.

26 ibid, paras 18-19.

Electricity Commission is able to approve or reject such investment proposals made by Transpower on the basis of whether they satisfy certain criteria outlined in the Grid Investment Test developed by the Electricity Commission.[27]

65 The GPS indicates that the Government intended the Electricity Commission to determine whether to approve Transpower's initial grid upgrade plan before the end of September 2005 (assuming that a public conference was not required).[28] However, on 13 April 2005, the Minister of Energy wrote to the Chair of the Electricity Commission setting out the government's expectations regarding the process the EC would undertake for approving Transpower's first grid upgrade plan. In particular, the Minister requested that the EC, when considering Transpower's proposal, consult widely with affected parties and thoroughly investigate alternatives to the proposal, including generation and demand-side alternatives and alternative transmission solutions.

66 As a result, the Minister expected that the Electricity Commission would need a longer timeframe than is currently indicated in the GPS for approving the first grid upgrade plan. The Minister indicated that mid-2006 would be a realistic date for that decision.[29]

67 The Electricity Commission has explained that, because consumers end up paying for new investments in transmission, it sees its role as acting on consumers' behalf to ensure new investment occurs only where the value to consumers, in aggregate, is sufficient to justify that investment. Such a role is required because consumers cannot choose their own transmission service provider. The Grid Investment Test is intended to be used so that those decisions are made in a transparent fashion to minimise regulatory risk and the risk of uneconomic investment.[30]

68 The EGRs state that, in developing or reviewing the Grid Investment Test, the Electricity Commission must have regard to a number of objectives, which include:

- promoting economic efficiency in transmission; and
- as far as practicable reflecting the interests of end use customers in ensuring a reliable transmission system having regard to the cost to end use customers.[31]

Interim grid expenditure

69 Before the Electricity Commission makes final decisions on Transpower's initial grid upgrade plan, it may also approve "interim grid expenditure" proposed by Transpower. Such interim grid expenditure must be additional to Transpower's normal ongoing grid expenditure, and:

- reasonably prudent or necessary to meet Transpower's current grid reliability standards;
- prudent expenditure on preparatory work necessary for other grid expenditure that has not yet been approved in a grid upgrade plan; or

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27 supra n 24, Rules F-III-12 to 15. The Grid Investment Test came into effect on 11 February 2005 and is presented in Schedule F4 of Part F. Grid reliability standards were incorporated into Part F in April 2005.

28 supra n 19, para 96.

29 Minister of Energy, *Process for Approving the First Grid Upgrade Plan*, Letter from Trevor Mallard to the Chair of the Electricity Commission, 13 April 2005.

30 Electricity Commission, supra n 25, para 76.

31 supra n 24, Rule F-III-6.3.

- emergency expenditure.[32]

Investment contracts

70 The Grid Investment Test does not apply where Transpower has been able to directly agree a bilateral (or multilateral) investment contract with one (or more) of its customers.[33] The Electricity Commission has indicated that it would be unreasonable for it to interpose itself between Transpower and parties with which it has such investment contracts.[34] Consequently, any charges for new investment contracts will not need to comply with the new transmission pricing methodology to be approved by the Electricity Commission.

Approval of Transpower's pricing methodology

71 Section IV of Part F contains the rules dealing with the development and approval of the transmission pricing methodology. The Electricity Commission has clarified that the new transmission pricing methodology should apply to all of Transpower's revenue requirements (with the exception of new investment contracts, notional embedding contracts and input connection contracts, which are excluded under Part F).[35]

72 Consequently, approved costs incurred by Transpower in relation to approved economic or reliability investments, or approved interim grid expenditure, will be able to be recovered by Transpower from its customers on the basis of its new transmission pricing methodology.[36]

Transpower's transitional pricing methodology

73 Until the new transmission pricing methodology is finalised, Transpower's customers (which include distribution businesses, generators and directly connected end users) are required to continue to pay for connection and access to the grid on the basis of Transpower's current pricing methodology as presented in its December 2000 document: *Pricing for Grid Connection Services* (2001 Pricing Methodology).[37] This requirement is set out in the *Electricity (Transpower's Pricing Methodology) Regulations 2004*, promulgated in April 2004 (Transpower Pricing Regulations).[38]

74 The Transpower Pricing Regulations also require Transpower to calculate prices according to the methodology presented in the 2001 Pricing Methodology, with the exception of the use of 2001/02 year-specific data. The regulations were promulgated to provide a transitional enforcement mechanism for Transpower's prices prior to the new pricing methodology being implemented under the EGRs, and to provide

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32 supra n 24, Rule F-III-16. The Electricity Commission must inform the (Commerce) Commission of its approval of economic or reliability investments or interim grid expenditure within 10 business days. Approval of such investment or expenditure may not be subsequently amended or revoked by the Electricity Commission without the consent of Transpower.

33 ibid, Rules F4-32 and F-III-8.

34 Electricity Commission, supra n 25, para 77.

35 supra n 24, Rule F-IV-9.1.

36 ibid, Rule F-III-17.

37 Transpower, *Pricing for Grid Connection Services from 1 April 2001*, December 2000.

38 Previously, the Electricity Amendment Act 2001 provided a statutory transition process that allowed Transpower to continue to apply and enforce its 2001 Pricing Methodology. The relevant section of the Act ceased to apply from 26 January 2004.

Transpower with a statutory exception from the resale price maintenance provisions in Part II of the Commerce Act.[39]

75 As will be the case under the new transmission pricing methodology (paragraph 70), the 2001 Pricing Methodology is not applicable to the calculation of charges payable under new investment contracts, because these charges will continue to arise from bilateral (or multilateral) negotiations directly between Transpower and one (or more) customers.

Relationship Between Part 4A and the EGRs

Overall objectives

76 While the objectives of the GPS touch on a number of additional matters (paragraph 53), the parallels between the GPS objectives and the efficiency and quality elements of the Purpose Statement of Part 4A are clearly evident. Moreover, there are strong parallels between the objectives of the Grid Investment Test (paragraph 68), and the specific outcomes sought under s 57E of the (Commerce) Act (paragraph 14). Given the Grid Investment Test embodies those objectives, it is reasonable to expect that, through the application of the Test, Transpower would face strong incentives to improve efficiency and provide services at a quality that reflects consumer demands (i.e., s 57E(b) of the Act).

77 Furthermore, the Grid Investment Test also involves the Electricity Commission and Transpower considering the net market benefits of proposed investments in light of alternative investment projects, with a view to finding the least cost or highest benefit option subject to the grid reliability standards.[40] As a result of considering such alternatives, it is reasonable to expect that the application of the Test increases the likelihood of lower costs over time. This would allow the benefits of efficiency gains to be shared with consumers, because prices over time are likely to be lower than they otherwise would be (i.e., s 57E(c) of the Act).

Specified services under the price path threshold

78 The current price path threshold set by the Commission under Part 4A is intended to contribute to incentives for Transpower to improve efficiency, to share the benefits of efficiency gains with customers over the long term, and to be limited in its ability to extract excessive profits. Threshold compliance is assessed by examining changes in Transpower's average price level (net of pass-through costs) for its "specified services".

79 Transpower's existing thresholds are only in force until 30 June 2006, and will again need to be reset this year. Also, Transpower has already breached the price path threshold on three occasions. As a result, the Commission is currently faced with investigating the breaches that have already happened, and with determining whether control of Transpower's transmission services going forward would be consistent with the Purpose Statement of Part 4A.

80 Consequently, the significance of the relationship between the EGRs and the Commission's thresholds is not directly relevant to the decision currently before the

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[39] Electricity (Transpower's Pricing Methodology) Regulations 2004, Explanatory Note.
[40] supra n 24, Schedule F4-4.

Commission. However, before turning to the relationship between Transpower's price levels and Part 4A, in the context of a post-breach inquiry, it is worth briefly reviewing the relationship between the current definition of "specified services" in the thresholds and the EGRs, as the principles involved are more generally applicable.

81 The Commission considers that the Purpose Statement requires incentives to be placed on Transpower to provide its services efficiently. Where transmission services are contestably or competitively provided they can be excluded from the definition of services subject to the price path threshold given that incentives for efficiency are provided through market processes.

82 Under the current Transpower Notice, in force until 30 June 2006, services provided by Transpower that are not encompassed by the definition of specified services (i.e. "excluded services") include:[41]

- services that are not directly related to the provision of electricity transmission (e.g., consultancy or information services);
- services for which Transpower demonstrates beyond reasonable doubt there is workable or effective competition in their provision; or
- services provided by Transpower under new investment contracts, but in the case of new investment contracts entered into after 5 June 2003, only if the other party agrees in writing that the terms and conditions are reasonable or reflect contestable provision of the service.

83 In addition, the current wording of the Transpower Notice states that services provided by Transpower as a result of new investment can be excluded "if Transpower demonstrates beyond reasonable doubt that the new investment was approved under a process (whether regulatory or otherwise) that provides for affected customers to make and approve price/quality trade-offs and opportunity for competitive provision of new investment by parties other than Transpower."

84 Therefore, services relating to investments approved under the Part F process could potentially be considered "excluded services" under this provision to the extent the process satisfies these criteria. If such were the case, then revenue from services directly associated with such investments would not be considered as part of the notional revenue calculation for assessing compliance with Transpower's price path threshold. On the other hand, for other investments approved under the Part F arrangements the Commission might conclude that the process does not meet the competitive provision and price/quality trade-off criteria to be excluded services. In those circumstances, the associated revenue would be considered to be part of the notional revenue for assessing compliance with the price path threshold. Consequently, the specification of Transpower's current price path threshold does not result in any automatic exclusion from the threshold of any revenue associated with investments approved under the Part F process.

85 As noted above, under Part F, charges associated with new investment contracts voluntarily entered into by the parties are not to be covered by the new transmission pricing methodology. Similarly, services provided by Transpower under new

[41] From the definition of "specified services" in Clause 3(1) of the Transpower Notice.

investment contracts can potentially be considered excluded services for the purposes of the current price path threshold.

86 In addition, if there is workable or effective competition for the provision of system operator services, then currently these can be considered excluded services.[42] However, for the purposes of Transpower's first, second and third threshold compliance statements, Transpower indicated that it considers the system operator services it has provided to date are specified services, with the exception of ancillary services purchased from third party providers.[43]

87 Consequently, as currently specified, the price path threshold does not necessarily act on Transpower's overall average price (or on its entire revenue requirement). However, if following a breach of the price path threshold (and having followed the process outlined in s 57I of the Commerce Act) the Commission were to make a declaration of control, then the Commission might authorise (or accept an undertaking concerning) all or any component of the prices and/or revenues of all or any of the transmission services supplied by Transpower. In making an authorisation (or accepting an undertaking) in respect of Transpower's prices to specific customers, the Commission would, nevertheless, have to take into account the prevailing transmission pricing methodology.

Transpower's price levels and Part 4A

88 In November 2005, Transpower announced that it planned to increase its transmission charges from 1 April 2006 by 19% on average. Transpower's explanation of this price increase implied that the application of its 2001 Pricing Methodology, as is required by the Transpower Pricing Regulations (paragraphs 73-74), produced the 19% increase. In other words, the level of the increase was an outcome of applying the methodology, rather than an input to the methodology.[44]

> The prices have been calculated in accordance with the methodology set down in law. As a result of applying this methodology projected overall transmission charges for all customers will increase from 1 April 2006 by 19%.

89 In correspondence to the Commission following the announcement of the 2006 price increases, Transpower further implied that, by applying the 2001 Pricing Methodology, any capital expenditure included in its Business Plan—whether approved under the Part F process or not—would be entitled to form part of the basis for the revenue requirement used to set its transmission charges.[45]

> Under the Electricity (Transmission Pricing Methodology) Regulations, Transpower is required to charge in accordance with "the pricing booklet" (i.e., Pricing for Grid Connection Services, 2001), which predates both the Commerce Commission targeted threshold and the inception of the Electricity Commission. The prices announced for 2006/07 have been arrived at in accordance with the pricing booklet, which requires *inter alia* that Transpower apply a building-block based revenue requirement,

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42 Clause 3(1) of the Transpower Notice indicates that "the provision of system operator services" is not included in the definition of specified services "if Transpower demonstrates beyond reasonable doubt that there is workable or effective competition for the provision of those services".

43 For example: Transpower, *Commerce Act (Electricity Lines Thresholds) Notice 2003, Compliance Statement, Second Assessment Date (30 June 2004)*, 1 November 2004, Schedule 2, para 11.

44 Transpower, *Transpower announces new prices*, Media Release, 25 Nov 2005. Also refer: Transpower, *Transpower cooperates with Commerce Commission investigation*, Media Release, 29 Nov 2005.

45 Transpower, *Notice of increases to transmission prices*, Letter from David Gascoigne to Paula Rebstock, 5 December 2005.

> utilising Transpower's Business Plan. Transpower is not aware of any regulatory or legislative requirements that its Business Plan should include only Electricity Commission approved investments.
>
> … we believe that the increases are justified and accord with Directors' legal obligations and the requirements of Transpower's SCI (Statement of Corporate Intent), which has been approved by Shareholding Ministers.

90 The Commission notes the 2001 Pricing Methodology booklet explains that Transpower's "revenue requirement" includes the capital, maintenance, operating and overhead costs associated with making the grid assets available for the conveyance of electricity. For the purposes of calculating the grid charges the revenue requirement is split into an HVAC revenue requirement (covering the costs associated with HVAC assets), and an HVDC revenue requirement (covering the costs associated with the HVDC inter-island link). The methodology comprises four charges: a connection charge, an interconnection charge, an HVDC charge and an Economic Value (EV) adjustment charge.

91 Transpower's Business Plan is referenced once in the 2001 Pricing Methodology—in Appendix I, which relates to the process for deriving the EV adjustment charge. Appendix I presents a diagram showing that asset values, budgeted costs and the cost of capital from the Business Plan are the inputs to the "annual revenue target" used to determine the economic gain or loss values used in calculating the annual HVAC and HVDC EV adjustment charges. In any event, as is demonstrated later in this paper (Table 3), the Commission notes that the revenue requirement used to derive Transpower's 2006/07 prices deviates from its 2005/06 Business Plan.

92 The Commission also notes that the 2001 Pricing Methodology states:[46]

> Transpower is required through its SCI to price for connection of a customer's assets to the grid assets in a manner consistent with the government's pricing principles for electricity, as outlined in government statements of economic policy relating to electricity transmission issued under section 26 of the Commerce Act 1986. Transpower's pricing methodology for grid charges has been carefully designed so as to comply with these principles.
>
> New arrangements for Transpower's pricing methodology have been signalled in the Government's draft policy statement "Further Development of New Zealand's Electricity Industry" which was published in October 2000. The impact of the new arrangements is expected to be reflected in a future SCI of Transpower.

93 Since the 2001 Pricing Methodology was issued, the draft GPS referred to in the methodology was issued in February 2002, and this was in turn superseded by the most recent GPS in October 2004 (paragraph 49). Transpower has also issued a number of annual SCIs. While the SCI that was current at the time of the 2001 Pricing Methodology did reference Transpower's objectives back to the GPS that was in effect at the time, Transpower's 2005/06 SCI does not explicitly reference the most recent GPS. However, the SCI does reflect a number of the objectives outlined in the current GPS.[47]

94 In the Commission's view, Transpower must act consistently with the current GPS, the EGRs and Part 4A in preparing its Business Plan and in determining its revenue requirement. The EGRs certainly make it clear that the *new* transmission pricing

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[46] Transpower, supra n 37, p 8.

[47] Transpower, *Statement of Corporate Intent 2005/06,* pp 4-5.

methodology will be subject to Part 4A of the Act.[48] But more generally, the GPS states that Transpower should determine its total revenue requirement—covering both sunk and new investments—subject to the constraints of Part 4A of the Commerce Act. In addition, the Commission considers that the GPS supports the view that the Transpower Pricing Regulations were only intended to be a stop-gap measure and should not be read to supplant the investment approval process in Part F of the EGRs.

95 For instance, during consultation on the transitional enforcement of Transpower's pricing, which lead to the promulgation of the Transpower Pricing Regulations, the Ministry of Economic Development (MED) made it clear that these transitional regulations were intended to temporarily support the allocation of Transpower's revenue into prices, and not to protect the overall level of Transpower's revenue. For instance, MED stated that:[49]

> The Commerce Commission's thresholds regime deals with Transpower's aggregate price level (or revenue target), not the methodology through which the revenue target is allocated to different transmission customers. The proposal (for the Regulations) addresses the pricing methodology rather than the price level.

96 MED's view was reinforced in its response to submissions from the industry. For instance, in its submission on the proposed regulations, the Electricity Networks Association (ENA) had submitted:[50]

> With no prior consultation, Transpower wrote to ENA members on 22 December 2003, advising them that an average price increase of 13% for its 'AC' customers, and 16% for its 'DC' customers would be imposed from 1 April 2004. Inevitably, if the proposed regulations proceed, our members would consider such a large increase on the eve of a regime change to be an abuse of the government's willingness to provide revenue protection. This would undermine industry confidence in the various government agencies involved.

97 MED's response to ENA was as follows.

> The protection for the methodology covers only the method used by Transpower to calculate prices. The regulations would not affect the level of prices. The level of aggregate prices is a matter for Transpower and the Commerce Commission's thresholds regime.

98 The Commission has reviewed the Transpower Pricing Regulations and the 2001 Pricing Methodology, and finds nothing in either the regulations or the pricing methodology to support the position that Transpower's revenue requirement is protected as a result of being derived from the corporation's Business Plan. In the Commission's view, the transitional 2001 Pricing Methodology is solely intended to be a mechanism for allocating charges among Transpower's customers. Simply because Transpower allocates charges in accordance with this pricing methodology does not mean that it can set prices in breach of a price path threshold under Part 4A and avoid the potential consequences of doing so, in terms of a declaration of control by the Commission. Furthermore, the Commission considers that the Transpower Pricing Regulations are intended to be transitional and complementary to the EGRs, and do not override the EGRs and the principles espoused in them.

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[48] supra n 24, Rule F-IV-1 and Rule F-IV-7.2.1.1.

[49] Ministry of Economic Development, *Transitional Enforcement of Transpower's Pricing, Points Raised in Submissions and MED's Responses*, March 2004.

[50] Electricity Networks Association, *Transitional Enforcement of Transpower's Pricing*, 10 February 2004.

BACKGROUND TO THE INTENTION TO DECLARE CONTROL

99 This section provides a brief overview of the background to the Commission's intention to declare control.

Transpower's Initial Breaches of the Thresholds

100 A lines business will breach the price path threshold if its average price (net of pass-through costs) changes at an annual rate exceeding the change in the CPI (consumer price index), less the annual rate of X that is set by the Commission for that business. Transpower's initial price path threshold was consistent with a CPI-X price path in which its average prices at the end of each assessment period was not greater (in nominal terms) than average prices at the start of that period. From 1 July 2004, Transpower's price path threshold has had an X equal to 1%.

Transpower's initial threshold compliance statements

101 Transpower's first compliance statement invoked clause 5(4) of the initial *Gazette* notice used to set the thresholds, which permitted lines businesses to use an approach with equivalent effect to the price path formula if the business could demonstrate to the Commission's satisfaction that the formula was "clearly meaningless" in its case. Transpower's own self-assessment in the compliance statement indicated that it did not consider it had breached the price path threshold at the first assessment date of 6 September 2003.

102 On reviewing Transpower's compliance statement, the Commission concluded that Transpower had failed to demonstrate the price path formula was clearly meaningless in relation to it. As a result, the Commission required Transpower to resubmit its initial compliance statement.

103 Transpower's revised initial compliance statement was received on 8 October 2004 and, unlike the original version of the compliance statement, indicated that Transpower had breached the price path threshold during the first assessment period by $2.4m—(about 0.5% of notional revenue). Shortly afterward, Transpower provided a letter outlining its explanations of the breach.[51]

104 After reviewing the compliance statement and Transpower's explanation, the Commission requested additional information from Transpower relating to the statement, in particular:

- information on Transpower's discontinued and materially altered services for the first assessment period; and
- an explanation as to the inclusion of revenue associated with system operator services.

105 According to Transpower, its breach of the price path threshold at the first assessment date was primarily due to an increase in new services revenue ($1.2 million) and in system operator services revenue ($0.9 million).

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51 Transpower, *Compliance Statement: First Assessment Date (6 September 2003)*, Letter from Howard Cattermole to Paolo Ryan, 11 October 2004.

Transpower's 1 April 2004 price increases

106 Prior to receipt of Transpower's revised initial compliance statement, Transpower notified its customers (on 22 December 2003) that its prices would increase from 1 April 2004 by 13% on average for HVAC customers and by 16% on average for HVDC customers.

Transpower's second threshold compliance statement

107 Given the need to revise its first compliance statement Transpower was permitted additional time to provide the Commission with its second compliance statement. Transpower's second compliance statement was received on 1 November 2004. This second compliance statement indicated that Transpower had breached the price path threshold during the second assessment period by $67.9 million (about 14.9% of notional revenue). The compliance statement also provided Transpower's self-assessment that it had not breached the quality threshold.

108 Transpower's second compliance statement was again shortly followed by a letter setting out Transpower's explanations of the breach. According to Transpower, this second breach was partly due to further increases in new services revenue ($0.2 million), which Transpower claimed was required to meet customer demands for increased quality, and increases in system operator services revenue ($7.4 million). However, the most notable contributions to the breach were:[52]

- the removal of the EV adjustment charge ($47.0 million); and
- a general increase in transmission asset owner charges ($12.7 million).

109 Transpower stated that the general increase in transmission asset owner charges by $12.7 million was primarily to recover the costs of investigating the future upgrade of the transmission grid. Transpower argued that the upgrade requires considerable preparatory work and increased capabilities, not just to undertake technical feasibility studies, but also in meeting the requirements for Electricity Commission consultation and approval, environmental investigation, community consultation and property acquisition, including meeting the requirements of the Resource Management Act and Public Works Act.

110 The Commission requested additional information from Transpower relating to this second breach, notably:

- information of Transpower's discontinued and materially altered services for the second assessment period;
- information on system operator services; and
- information on and justification for Transpower's general increase in transmission asset owner charges.

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52 Transpower, *Compliance Statement: Second Assessment Date (30 June 2004)*, Letter from Howard Cattermole to Paolo Ryan, 9 November 2004.

Post-Breach Inquiry into Transpower's Performance

Initiation of the post-breach inquiry

111 After reviewing the additional information provided by Transpower relating to its first and second compliance statements, it was evident to the Commission that it would not be consistent with the long-term interests of consumers to take no further action. In particular, the Commission considered it questionable whether it was in the long-term interests of consumers to be charged for planning and preparatory costs associated with the planned grid upgrade, before approval for the associated investments had been given by the Electricity Commission.

112 The Commission also noted the concerns of the ENA, which had written to the Commission stating that, in the view of many distribution businesses, Transpower's 1 April 2004 price increases were not justified. In addition, ENA stated that Transpower was obliged to communicate any price changes to customers openly and honestly, and—in ENA's view—had failed to do so.[53]

113 The Commission wrote to Transpower on 27 January 2005 informing it that the Commission had decided to initiate a post-breach inquiry. As a first step of the inquiry, the Commission issued Transpower with a notice under s 98 of the Act (s 98 Notice) on 16 February 2005. The s 98 Notice required Transpower to provide a range of information, including material relating to:

- the general increase in transmission asset owner charges (including reasons why Transpower did not avail itself of the process under Part F of the EGRs for approving the costs of preparatory work relating to the future upgrade of the transmission grid);
- the removal of the EV adjustment;
- the increases in system operator services revenue; and
- the increases in new services revenue.

Transpower's third threshold compliance statement

114 Since opening the post-breach inquiry, Transpower has submitted its third compliance statement for the assessment date of 30 June 2005. This third compliance statement reported that Transpower had breached the price path threshold during the third assessment period by $43.2 million (about 8.5% of notional revenue). The compliance statement also provided Transpower's self-assessment that it had not breached the quality threshold.

115 Transpower's third compliance statement was again shortly followed by a letter setting out Transpower's explanations of the breach.[54] Transpower stated that the main reasons for this breach were:

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53 ENA, *Letter from Alan Jenkins to Paula Rebstock*, 14 December 2004.

54 Transpower, *Compliance Statement: Third Assessment Date (30 June 2005)*, Letter from Howard Cattermole to Paolo Ryan, 7 September 2005.

- an increase in Transpower's revenue requirement (reflected in increased prices from 1 April 2005) primarily due to increased investigations and overhead costs relating to grid upgrade projects; and
- an increase in Transpower's system operator charges due to the introduction of new arrangements with the Electricity Commission since 1 March 2004.

Transpower's recent plans for price increases

116 As noted earlier (paragraph 88), on 25 November 2005 Transpower announced its intention to increase its prices from 1 April 2006 by an average of 19%, and by approximately 13% per year in each of the subsequent five years. Following this announcement, the Commission issued a further s 98 notice requiring Transpower to provide information supporting the basis of its planned price increase.

Decision to Publish an Intention to Declare Control

117 Having reviewed the information provided by Transpower to date, the Commission's preliminary view is that Transpower's recent performance and behaviour is not consistent with the outcomes sought in the Purpose Statement of Part 4A, whereas control of the transmission services supplied by Transpower would be consistent with the Purpose Statement.

118 In particular, there is credible evidence before the Commission that:

- significant portions of Transpower's breaches of the thresholds remain unexplained (paragraphs 139-167);
- Transpower's conduct may lead to outcomes inconsistent with the intent of both Part F of the EGRs and Part 4A of the Commerce Act (paragraphs 88-98 and 168-185); and
- absent control, Transpower's conduct would be less likely to result in efficient outcomes consistent with the Purpose Statement of Part 4A, as the corporation appears to be attempting to pre-fund its yet-to-be-approved investment programme (paragraphs 191-216).

119 The following sections outline the Commission's analytical framework and approach used in forming its intention to declare control, provide an assessment of Transpower's recent performance, and present the Commission's evaluation of the net benefits to consumers from declaring control of Transpower's transmission services.

ANALYTICAL FRAMEWORK AND APPROACH

120 This section sets out the analytical framework and approach that the Commission has used in forming its intention to declare control of Transpower.

Basis for Declaring Control

121 In determining whether to declare control, the Commission must have regard to the overall purpose of the targeted control regime—to promote the efficient operation of electricity transmission and distribution markets for the long-term benefit of consumers.

122 The Commission considers that there are three dimensions to the economically efficient operation of the markets for electricity lines services. These are when lines businesses:

- price their distribution and transmission services to reflect the efficient costs of supplying those services, thereby earning "normal" returns (*allocative efficiency*);
- produce services at the desired quality at minimum cost (*productive efficiency*); and
- have the appropriate incentives to invest, innovate and improve the range and quality of services, increase productivity and lower costs, over time (*dynamic efficiency*).

123 As required by section 57H, the Commission will form an intention to declare control if it is satisfied, on the basis of available evidence and analysis, that a declaration of control would promote the efficient operation of markets for the long-term benefits to consumers, taking into account these dimensions of economic efficiency. The Commission is also guided by the specific outcomes outlined in the Purpose Statement (i.e., ss 57E(a)-(c)), the prioritisation criteria specific to the targeted control regime (i.e., s57K), and the Commission's standard enforcement criteria of conduct, detriment and public interest.[55]

124 The available evidence and analysis on the basis of which the Commission may be satisfied that a declaration of control would promote the efficient operation of markets for the long-term benefit of consumers includes quantitative data and analysis. The Court of Appeal has previously referred to "the desirability of quantifying benefits and detriments where and to the extent it is feasible to do so".[56] Such analysis is desirable rather than indispensable and extensive analysis may not be feasible in every case. Quantitative analysis, to the extent it is feasible, can serve to inform the Commission's deliberations as to whether a declaration of control would promote the efficient operation of markets for the long-term benefit of consumers.[57]

Net Benefits of Control to Consumers

125 In considering the impact of possible control on the long-term benefits to consumers, the Commission assesses the likely net benefits from control (i.e., taking into account

[55] Commerce Commission, supra n 18, pp 22-23.
[56] Telecom v Commerce Commission (1992) 3 NZLR 429 (CA) at 447, per Richardson J.
[57] Commerce Commission Decision 511 para 909, quoted in Air New Zealand v Commerce Commission (No 3) (unrep, HC Auckland, Rodney Hansen J, 20 May 2004, CIV 2003-404-6590 para 5.

any possible costs of control). By its very nature, the consideration of the possible net benefits to consumers from control requires that the Commission not only consider past behaviour and performance, but planned actions of the business for some years going forward (e.g., 5 years, which is the maximum length of time for a declaration of control). In the Commission's view, control is not a backward-looking punishment for a threshold breach. Rather, control is a forward-looking instrument used to achieve the Purpose Statement.

126 Nevertheless, past behaviour and the circumstances that led to the breach may also be relevant to the control decision. The extent to which the Commission might take past and future information into account will depend on the specific circumstances.

The "Counterfactual" and the "Factual"

127 In considering whether a declaration of control over Transpower would promote the efficient operation of markets for the long-term benefit of consumers, the Commission considers the likely future outcome without control (the "*counterfactual*") and the likely future outcome with control (the "*factual*").

128 This comparison requires the Commission to make a comparison between two hypothetical situations. Accordingly, the Commission must form a view based on the pragmatic considerations of each situation. In making this comparison, the Commission has, in Transpower's case, considered:

- Transpower's likely future conduct and the efficiency incentives Transpower faces without control;
- the impact of control on Transpower's efficiency incentives and any potential change in behaviour or market outcome; and
- how Transpower's likely conduct under the counterfactual and the factual would affect the achievement of the objectives in the Purpose Statement.

129 The approach taken to develop a "factual" differs from that taken in the recent intention to declare control of Unison Networks Limited (Unison).[58] For the Unison intention, the Commission undertook a "building blocks analysis" to construct a number of possible future price paths (i.e., factual scenarios) to compare with Unison's own projections of its prices over the next few years (i.e., counterfactual scenarios).

130 In Transpower's case, the Commission does not consider that such a building blocks approach is currently practicable, because it is neither appropriate nor possible at this stage to attempt to construct a factual price path based on an assessment of Transpower's efficient prices going forward. There is a strong interrelationship between transmission pricing, investment and service quality, and the efficient level of Transpower's prices will be highly dependent on the outcome of the investment approval process outlined in Part F of the EGRs. However, once the regulatory regime has been able to run its intended course (i.e., when it is known which parts of Transpower's plans for future investments are to proceed) it would then be feasible for the Commission to undertake a forward-looking building blocks analysis.

[58] Commerce Commission, *Regulation of Electricity Lines Businesses, Targeted Control Regime, Intention to Declare Control Unison Networks Limited*, 9 September 2005.

Benefits and Costs of Control

Potential benefits of control

131 The potential direct benefits of control relate to reducing any inefficiencies (dynamic, allocative, and productive) and/or excess returns in a market. In Transpower's case, the greatest potential for inefficiency comes from the prospect of dynamic inefficiencies associated with potentially sub-optimal irreversible investments in major transmission assets that have very long lifetimes.

132 The regulatory approval process for transmission investments set out in the EGRs is intended to ensure that Transpower's major investments are considered in light of possible alternatives—not just limited to alternative transmission solutions, but extended to consider generation and demand-side alternatives as well. Planned transmission investments may be dynamically inefficient where they do not provide the least cost or highest benefit option when compared against those alternatives. In addition, inefficiencies may also arise from undertaking otherwise least cost investments earlier or later than is optimal.

133 There are also downstream efficiency consequences of inefficient or poorly timed investments. Allowing the costs of inefficient investments to flow through into transmission prices will likely result in allocative inefficiencies as well. Even where transmission investments are optimally selected, scheduled and implemented, inefficiencies can still arise where the time profile of prices does not appropriately reflect the timing of the underlying investments. There may be distributional consequences arising from the pricing profile over time; for instance, where today's consumers pay for investments that result in benefits for future consumers.

134 The Commission considers that, in Transpower's case, benefits from control would arise from ensuring that Transpower's investments and associated price paths are subject to the appropriate regulatory processes to best ensure they are efficient. In the Commission's view, such outcomes are more likely where the regulatory regime is able to operate as intended, and where Transpower does not take actions that may potentially limit the range of viable investment alternatives.

135 For the purposes of this intention to declare control, the Commission has estimated indicative benefits of control, by considering the possible magnitude of inefficiencies that might arise if only a percentage of Transpower's planned capital expenditure were inefficient, or if investment were undertaken before that investment was necessary to provide services at a quality that consumers demand.

Potential costs of control

136 In general, the costs of control comprise direct and indirect costs. The direct costs of control include:

- the compliance costs of the regulated entities and other market participants involved in the regulatory process (e.g., the cost of staff time, the information supply costs, the diversion of time of senior executives); and
- the administrative costs of the regulatory body.

137 The indirect costs of control are related to the inefficient forms of behaviour stimulated by control, and at least theoretically can include:

- the distortions to behaviour caused by the potential for poor, or uncertain, regulatory decision making (in terms of allocative, productive and dynamic inefficiencies);
- the scope given for opportunistic behaviour on the part of the regulator and the regulated firm; and
- the potential for regulatory capture (with the regulator coming to serve particular groups' interests), and a subsequent movement away from efficient outcomes.

TRANSPOWER'S RECENT PERFORMANCE

138 This section presents the Commission's assessment of Transpower's recent performance and behaviour. First, the Commission has analysed the threshold breaches reported by Transpower to date, to determine whether there might be any mitigating factors that might explain those breaches. This analysis has drawn upon a more detailed report prepared by NZIER and released with this paper (paragraph 10). Second, the Commission has considered Transpower's recent behaviour, as revealed by internal and external documentation, in relation to seeking approvals of its interim grid expenditure under Part F of the EGRs.

Transpower's Breaches of the Price Path Thresholds

139 Transpower has to date filed three compliance statements under the targeted control regime. The price path breaches it reported in each of these statements were:

- at the first assessment date of 6 September 2003, a breach of $2,372,917;
- at the second assessment date of 30 June 2004, a breach of $67,903,194; and
- at the third assessment date of 30 June 2005, a breach of $43,224,645.

140 In the compliance statement relating to the first assessment date, Transpower used its actual revenue figures for its March pricing year of 2003/04. It was able to use the actual revenue because it did not file its revised first compliance statement until 11 October 2004, well after the end of its 2003/04 March pricing year. In its compliance statements for the second and third assessment dates Transpower calculated its price path breaches using its forecast revenue for the March pricing year which included the assessment date. These forecasts used its latest volume estimates and the prices it had introduced on 1 April of the pricing year. Thus, for example, Transpower's reported breach for the second assessment date on 30 June 2004 is based on its forecast of its March year 2004/05 revenue made just prior to it filing its statement on 1 November 2004.

141 As a result, Transpower's reported breaches in its second and third compliance statements are based on estimated revenues. It is not possible to re-calculate the breach for 30 June 2005 using actual revenue because the 2005/06 March pricing year has not yet ended, but Transpower provided actual revenue for 2004/05 in its third compliance statement. This was $529,136,957 or $5,158,721 more than the estimated revenue of $523,978,236 used in the second compliance statement. If this was the only factor then it is arguable that Transpower's actual breach at the second assessment date was understated in the second compliance statement by $5,158,721.

142 However, this is not the only information relating to 2004/05 revised in the third compliance statement. The amount of rates paid by Transpower in 2003/04 was revised up by $616,489 from $1,549,630 to $2,166,119. In addition, the rates figure for 2002/03 was also revised up by $1,324,757 from $1,147,008 to $2,471,765. Local authority rates are a pass through item under the threshold regime and so these upward revisions in Transpower's rates payments, if accepted, mean that the reported breaches in the first and second compliance statements were overstated by these amounts.

Potential Mitigating Factors to Explain the Breaches

Impact of EV adjustment charges

143 The Commission decided that, from the 2004/05 year, Transpower's price path threshold would effectively increase by the extent of the Economic Value (EV) rebates it had paid to its customers in 2003/04; approximately $47 million (paragraphs 33-34). EV adjustments (i.e., both rebates and charges) were used by Transpower under its former self-regulatory arrangements to ensure that, over time, it did not make excessive (or deficient) returns. If its returns in any one year were above the level it needed to make a normal return, then it credited the excess to the EV accounts; if returns were too low then this also impacted the EV accounts. If there were significant surpluses or deficits in the accounts it reduced or increased prices accordingly with the aim of removing the imbalance over 3 years. Transpower keeps separate EV accounts for its HVAC assets and its HVDC assets and for customers and shareholders.

144 The Commission made the decision to increase Transpower's allowable revenue applicable to the 2004/05 assessment period by the 2003/04 EV adjustment rebate of $47 million. However, as noted earlier, the Commission indicated that it could look at the issue of the EV adjustment charges in more detail during a post-breach inquiry. For instance, the Commission could examine whether the time delay implicit in returning large EV balances to its customers is appropriate.

145 If the Commission were to decide that Transpower's current treatment of the EV adjustment is not appropriate then this could result in even larger portions of Transpower's breaches remaining unexplained (e.g., a possible increase of up to $47 million, the size of the EV adjustment). However, while the Commission reserves its right to investigate this issue further, for the purposes of its current intention to declare control, it has decided to consider the impact of the EV adjustment charges as a mitigating factor partly explaining Transpower's breaches.

146 Because Transpower used a March pricing year instead of a June pricing year Transpower was unable to incorporate the Commission's change in treatment of the EV adjustment charges in its second compliance statement strictly in accordance with the initial *Gazette* Notice. If, however, this is considered a technicality due to difficulties Transpower had in changing its pricing year to a June year, and the $47,015,063 EV adjustment is allowed to apply to the second assessment date of 30 June 2004, this would explain that portion of the threshold breach at the second assessment date.

147 On the basis of the latest numbers provided by Transpower, and after accepting without prejudice the EV adjustment charge being excluded from notional revenue in the second compliance statement, the revised threshold breaches based on Transpower's data are:

- at the first assessment date, a price path breach of $1.05 million.
- at the second assessment date, a price path breach of $26.76 million.
- at the third assessment date, a price path breach of $43.22 million (refer Table 1).

Table 1: Transpower's Threshold Breaches Adjusted for Actual Revenue, Rates and EV Adjustment Charges

	1st Assessment Date – 6 Sep 2003 (2003/04 March pricing year)	2nd Assessment Date – 30 Jun 2004 (2004/05 March pricing year)	3rd Assessment Date – 30 Jun 2005 (2005/06 March pricing year)
Breach as per Transpower's Compliance Statement	$2,372,917	$67,903,194	$43,224,645
Plus difference between estimated revenue in Compliance Statement and actual revenue		+$5,158,721	
Rates related adjustment	-$1,324,757	+$708,268[59]	
Less EV adjustment charge		-$47,015,063	
Recalculated Breach using Transpower's Revised Data and allowing EV adjustment in 2004/05	$1,048,159	$26,755,121	$43,224,645

Impact of volume adjustments

148 Transpower provided the Commission with only limited explanations for its price path breaches, and the Commission undertook further analysis to try to explain the breaches. The objective of the Commission's analysis was to determine whether and to what extent Transpower's reported breaches, after the above adjustments, can be accounted for by volume growth, tactical transmission upgrade (TTU) expenditure, and increased charges for system operator services, these being the reasons given by Transpower for its price path breaches.

149 Accordingly, during the course of the post-breach inquiry, the Commission sought further information from Transpower on the volumes of electricity travelling across its system, and on the interim grid expenditure it applied to the Electricity Commission for approval of on 14 April 2005. The Commission also sought information to determine whether the breaches could be accounted for by any other obvious factors.

150 Under the price path threshold, changes in volume permit a business to increase its revenues if its prices do not exceed the threshold boundary. The Commission deliberately chose a price path threshold and not a revenue threshold for Transpower,

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59 Net of $1,324,757 downward adjustment to notional revenue in 2003/04 due to increased rates pass-through in that year and $616,489 increase in rates pass-through reported for 2004/05.

like other lines businesses, because under a price path Transpower is able to earn more revenue if the volume of its activity rises. It is therefore incentivised to meet growth in demand for transmission services.

151 Transpower did not account for volume changes in its compliance statements as is intended by the application of the price path formulae in the Gazette notices used for specifying the thresholds. Nevertheless, the Commission has corrected for the approach used in Transpower's compliance statements by considering the impact of the volume increases on the magnitude of Transpower's breaches as set out below.

152 Transpower currently allocates its HVDC and interconnection charges among the parties liable to pay them on the basis of measures of peak capacity utilisation. The measures used are referred to as "Anytime Maximum Demand" (AMD) for allocating interconnection charges among off-take customers and "Anytime Maximum Injection" (AMI) for allocating HVDC charges among South Island generators. To use AMD and AMI as volume proxies seemed a reasonable approach since AMD/AMI are the basis for Transpower's charges.

153 The impact of introducing these volume measures into the calculation of Transpower's Notional Revenue is shown graphically in Figure 2 below. The decline in the Notional Revenue with volume measured using the AMD/AMI between 2001/02 and 2003/04 reflects principally the sharp increase in volumes using the AMD/AMI over that period. One of the consequences of making the volume adjustment is to change the "base year" for calculating Transpower's price path threshold from 2002/03 to 2003/04. This is because when the volume adjustments are included Transpower's Notional Revenue is smaller in 2003/04 than in 2002/03 and the threshold is defined in terms of the lowest notional revenue between 8 August 2001 and 5 June 2003. Transpower's 2003/04 pricing year started on 1 April 2003 so its lowest Notional Revenue was in 2003/04 not 2002/03. The line labelled "Price Path Threshold" in Figure 2 rises in 2004/05 by $47 million to reflect the EV adjustment change and rises again in 2005/06 by $7.9 million because of the increase in prices allowed under Transpower's CPI – 1% price path threshold.

154 It can be seen from Figure 2 that the impact of volume increases under the regime does affect Transpower's reported breaches, but by no means eliminates them; the "Price Path Threshold" line is still well below the two "Notional Revenue" with volume adjustments lines.

Figure 2: Transpower's Price Threshold Breaches

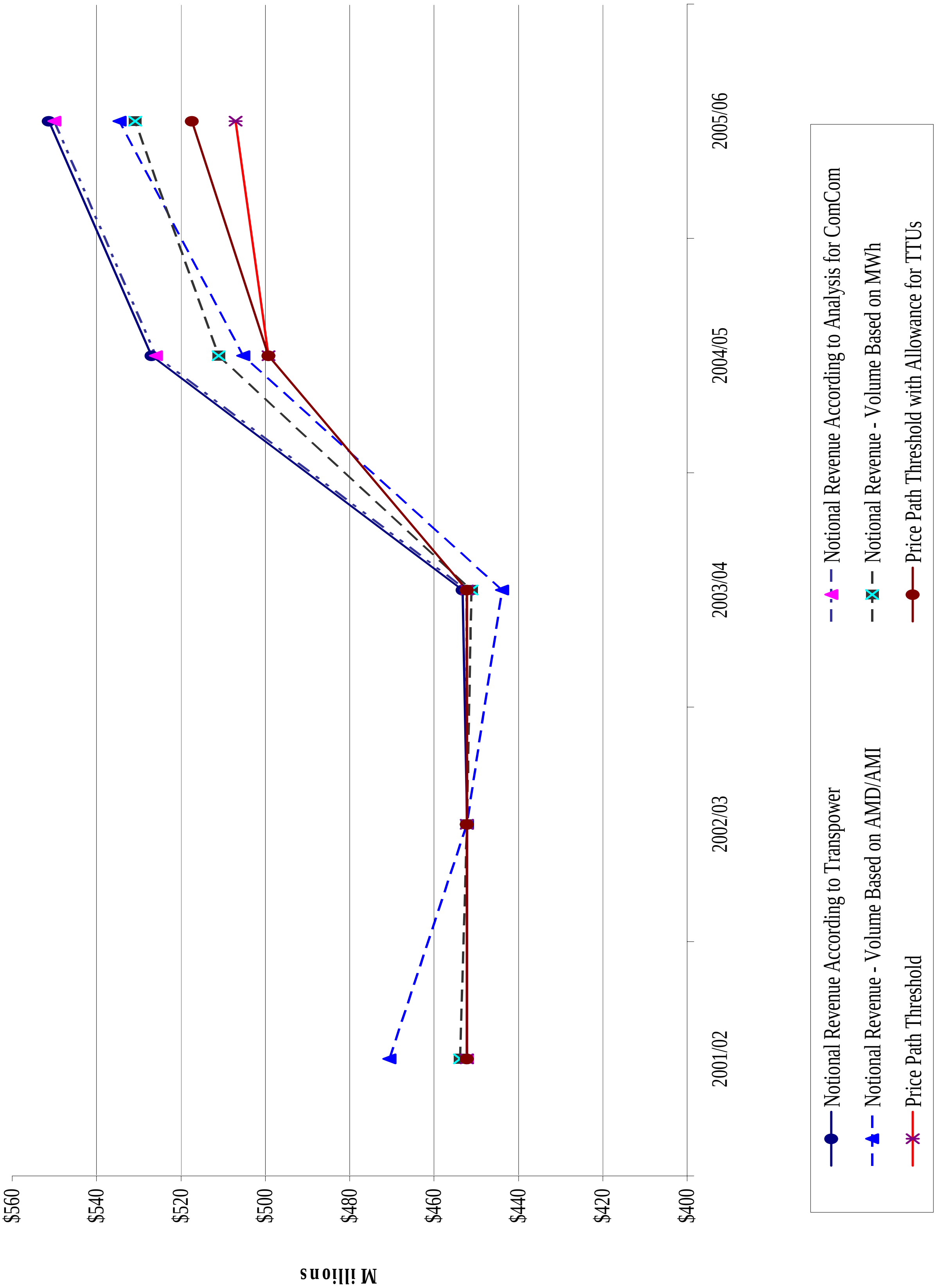

Table 2: Volume Adjustments Relative to Transpower's Reported Breaches (2004/05 and 2005/06

	2004/05	**2005/06**
Recalculated Breach using Transpower's Revised Data after allowing for the EV adjustment in 2004/05 from Table 1	$26,755,121	$43,224,645
Notional embedding adjustment	-$72,374	-$277,382
Transitional Rebates Adjustment	-$968,620	-$968,620
Adjustments to reflect adjustments made to 2003/04 notional revenue	+$1,004,092[60]	+$1,004,092[61]
Revised breach without volume adjustment	=$26,718,220	=$42,982,735
Adjustment to threshold due to volume adjustment –AMD/AMI	+$8,295,322	+$8,295,322
Volume Adjustment –AMD/AMI	-$20,730,565	-$15,468,865
Revised Breach including potential volume adjustment – AMD/AMI	$14,282,976	$35,809,192

155 The first part of Table 2 above reconciles the recalculated breach using Transpower's revised data after allowing for the EV adjustment in 2004/05 with a slightly revised downward breach figure. The downward revision reflects some minor adjustments relating to notional embedding contracts, transitional rebates and the system operator charges in 2003/04 that are able to be made, arguably in Transpower's favour[62].

156 The balance of Table 2 records the impact of the volume adjustments on the breaches in 2004/05 and 2005/06. If the more appropriate AMD/AMI measure is used then the volume adjustment will reduce the reported breach without volume adjustment in 2004/05 by 46.5% and reduce the 2005/06 breach by 16.7%.

157 Nevertheless, after allowing for volume increases, significant portions of Transpower's breaches remain unexplained. Allowing for volume adjustments using the AMD/AMI proxy, and accepting EV adjustments at face value, a breach of $14,282,976 still exists for the 2004/5 pricing year and a $35,809,192 breach exists for the 2005/6 pricing year.

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60 The figure of $1,004,092 is composed of $101,959 (the breach in 2003/04 relative to 2002/03), $860,018 (the 2003/04 system operator adjustment) plus $42,116 (the 2003/04 notional embedding adjustment). These adjustments are needed to reflect the change in the base year notional revenue used in calculating the breaches. Refer NZIER, supra n 2, p 10.

61 Refer fn 60.

62 No adjustment has been made for the issue relating to net investments raised in the NZIER paper.

Impact of Tactical Transmission Upgrade (TTU) expenditure

158 Transpower applied to the Electricity Commission for approval of a range of TTUs under transitional provisions on 14 April 2005. The Commission has considered whether the costs of these might "explain" the breaches. However, the Commission's preliminary analysis reveals that Transpower could have paid for these TTUs and still remained within its threshold.[63]

159 Under s 57MA(2) of the Act, the Commission must take into account, before exercising its powers under Part 4A any decision made by the Electricity Commission that relates to or affects the quality standards or pricing methodologies applicable to Transpower (paragraph 51). The Electricity Commission wrote to the Commerce Commission on 15 and 18 November 2005 advising the Commission of its decision to approve the majority of projects submitted in Transpower's April 2005 TTU application (paragraph 180).

160 In considering Transpower's breaches of the price path threshold, the Commission has taken into account this decision of the Electricity Commission. However, TTU expenditure is not necessarily a mitigating factor in explaining the breaches. In particular, in the specific case of the April 2005 TTU projects, there is significant evidence to suggest that the TTU projects are part of ongoing normal grid expenditure (paragraphs 180-185) and consequently it is appropriate for the Commission to take a closer look at these investments to decide whether they should be allowed in addition to the allowance for growth already provided in the price path.

161 The Commission understands that these TTU projects were intended for upgrading voltage support and the thermal capacity of existing lines to cater for ongoing growth in demand. Since the Commission defined the price path threshold to allow Transpower to increase its revenue if its volumes increase, there is good reason why the Commission should not make an additional adjustment to allow the costs of these upgrades. Consequently, given that the TTUs appear to have been designed in response volume increases, and could have been accommodated within Transpower's price path threshold, the Commission's preliminary view is not to accept that there is a case for excluding revenue to recover TTU expenditure from Transpower's Notional Revenue. To exclude this revenue would be to double-count the provision in the price path threshold for such expenditure.

162 The line in Figure 2 above labelled "Price Path Threshold with Allowance for TTUs" shows the potential impact on the price path threshold of the investments that Transpower applied for approval in April 2005 and that the Electricity Commission has recently approved (plus one other investment it is still considering). This impact assumes that the entire investment is charged for in 2005/06, even though only some will be operational and some of the expenditure will not have been incurred. It also assumes that the Commission should allow an increase in the price path for these investments—whereas the Commission is of the preliminary view that it should not, because Transpower should fund these from the revenue growth due to the volume increases it is entitled to under the price path regime.

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[63] Refer, NZIER, supra n 2, pp 14-19.

163 The figure shows that, even if the Commission did allow for the TTU expenditure applied for on 14 April 2005 and approved by the Electricity Commission, a significant portion of the breaches would still remain unexplained.

Impact of system operator charges

164 The Commission estimates that there was a material increase in the annual price for System Operator Services on 1 March 2004 of the order of $3.35m. Transpower are entitled to increase these charges as long as they can stay within their threshold. In the Commission's view system operator charge increases contributed to this breach and are not a mitigating factor.

Impact of subsequent interim grid expenditure approvals

165 The Electricity Commission has also informed the Commission that it has approved an amount of up to $6.3m of interim grid expenditure relating to preparatory expenditure for the HVDC inter-island link upgrade project. The HVDC upgrade project was proposed in Transpower's grid upgrade plan (paragraph 200).[64] In addition, on 22 December 2005 (the day the Commission published its intention to declare control in relation to Transpower), the Electricity Commission announced that it had received two further sets of applications for approval under the interim arrangements in the EGRs, totalling $129.9 m. It further announced its indicative decision to approve eight projects relating to $66.4 m and decline a project for $14.3m, and that it had requested further information from Transpower concerning two projects with a combined value of $49.2m.[65]

166 Whether or not the Commission should allow an adjustment for the preparatory work on the HVDC upgrade project, or for the projects discussed in the Electricity Commission's indicative decisions of 22 December 2005, is a matter on which interested parties will be able to make submissions. However, the Commission's preliminary view is that any approvals relating to these projects would likely not impact its assessment of Transpower's existing breaches, as they relate to expenditures not incurred during the three threshold assessment periods to date.

Impact of other minor adjustments

167 In Figure 2 the difference between the lines labelled "Notional Revenue According to Transpower" and "Price Path Threshold" is Transpower's view of the magnitude of its price path breaches. Analysis the Commission had done suggests that some very minor downward adjustments to Transpower's Notional Revenues might be justified and that these would lower the reported breaches marginally. The line labelled "Notional Revenue According to Analysis for ComCom" in Figure 2 includes these adjustments

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[64] Electricity Commission, *Transpower's application for approval of Interim Grid Expenditure (IGE) for prudent expenditure on preparatory work on the HVDC upgrade project, Letter from Roy Hemmingway to Paula Rebstock,* 12 December 2005. As part of the same application, Transpower has also sought approval for $35m in preparatory work relating to its North Island Grid Upgrade Investment Proposal (paragraph 199). This preparatory work includes $19m of property rights acquisition and $13m of investigation/environmental preparation work.

[65] Electricity Commission, *Consultation Paper, Assessment of Transpower's applications for interim grid expenditure dated 31 October 2005 and 16 December 2005 (Grid Development Proposals),* 22 December 2005.

and the difference between these lines and the “Price Path Threshold” line shows the breaches according to this analysis.

Transpower’s Interim Grid Expenditures

Transpower’s Tactical Transmission Upgrades

168 As described above (paragraph 69), the Part F process provides for the Electricity Commission to approve interim grid expenditures before it makes final decisions on Transpower’s initial grid upgrade plan. Such expenditures do not have to be considered in light of the Grid Investment Test, but must be additional to Transpower’s “normal” ongoing grid expenditure. In addition, except in the event of emergency, such expenditure must be reasonably prudent or necessary to meet current grid reliability standards, or be prudent expenditure on preparatory work necessary for other grid expenditure that has not yet been approved in a grid upgrade plan.

169 The Commission has reviewed internal and external documentation obtained from Transpower relating to its applications for investment approvals under Part F of the EGRs. This material indicates that the Electricity Commission wrote to Transpower in July 2004 asking whether the EC could expect any proposals from Transpower for interim grid expenditure. In particular, the EC observed that Transpower’s TTU proposals might not require expenditure additional to Transpower’s normal ongoing grid expenditure.[66]

170 The following month, the CEO of Transpower presented a paper to Transpower’s Board outlining the pros and cons of seeking Electricity Commission approval for expenditure on its tactical upgrades under Part F.[67] [

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[66] Electricity Commission, *Part F Transitional Provisions*, Letter from Mervyn English to Kevin Fox, 9 July 2004.

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[68] ibid, pp 15-16.

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][70]The Board concluded that "it was preferable not to seek specific approval of tactical investments which were in the nature of 'business as usual.'"

174 Consequently, Transpower's response to the Electricity Commission's request of July 2004 (paragraph 170) stated that:[71]

> At its August meeting, the Transpower Board approved the 2004/05 Business Plan, including the short-term plan for capital expenditure on the National Grid. The expected levels of capital expenditure represent an increase over recent historical levels. This increase reflects an upward swing in the long-term cycle of capital expenditure—a cycle that is characteristic of a capital intensive, long-lived infrastructure business. However, in this sense, the investment programme is "business as usual" or "… normal ongoing grid expenditure…" In other words, the expenditure planned is that which is necessary to maintain the capability of the grid, in accordance with good industry practice, as demand for grid services continues to increase and as assets age. As a consequence, Transpower currently has no plans to seek approval of any expenditure under the transitional provisions.

175 Transpower subsequently submitted to the Electricity Commission, for informational purposes only, details of the projects comprising its capital programme for 2004/05 ($142.1m) and 2005/06 ($156.9m), categorised into development, enhancement, replacement, refurbishment and property expenditures.[72] Transpower indicated that by the end of that period (i.e., 30 June 2006) approval of a first grid upgrade plan would be likely to have occurred encompassing subsequent grid investment requirements.

Transpower's decision to seek approval for interim grid expenditure

176 Transpower subsequently sought assurance from the Electricity Commission that the costs of the projects included in the 2004/05 and 2005/06 capital programme would be recoverable under the EC's new transmission pricing methodology, along with the capital and associated operating costs of other sunk assets that have not been the subject of EC approval.[73] The EC responded that it could not give such assurance, noting that

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71 Transpower, *Part F Transitional Provisions*, Letter from Kevin Fox to Mervyn English, 20 August 2004.

72 Transpower, *Re: Part F Transitional Provisions*, Letter from Howard Cattermole to Mervyn English, 15 October 2004.

73 Transpower, *Part F Transitional Provisions*, Letter from Kevin Fox to Mervyn English, 8 December 2004.

this point should be raised in the context of the consultation on the development of the transmission pricing methodology.[74]

177 At the 17 March 2005 Transpower Board meeting, the Board considered an updated paper on whether Electricity Commission approval should be sought for interim grid expenditure.[75] [

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179 At the Board meeting, the Board agreed to seek approval under the transitional provisions of Part F for interim grid expenditure. In addition, the Board confirmed that, if there were any delays in obtaining Electricity Commission approval, such delays should not prevent or delay the commencement or continuation of the scheduled tactical upgrades previously authorised by the Board.[77]

Electricity Commission's approval of Transpower's interim grid expenditure

180 On 14 April 2005, Transpower applied to the Electricity Commission for approval of both prospective and completed tactical transmission upgrades (TTUs) under the transitional provisions of Part F, amounting to $158m. As at the end of 2005, the Electricity Commission had yet to make a decision regarding one TTU project comprising $20m of the $158m. However, the Electricity Commission declined to approve $24.6m (i.e., 15.5%) on the grounds that the projects in question were not reasonably prudent or necessary to meet Transpower's current grid reliability standards (although the EC asked Transpower to resubmit these investments for approval as "economic investments" for consideration in the grid upgrade plan).[78]

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74 Electricity Commission, *Part F Transitional Provisions*, Letter from Mervyn English to Kevin Fox, 17 December 2004.

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76 ibid, pp 1 and 5.

77 Transpower, *Extract from the Minutes of the Transpower Board Meeting of 17 March 2005*.

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181 While the remaining projects were approved, the Electricity Commission indicated that, under Part F of the EGRs as it currently stood, only expenditures relating to those projects which had not already been incurred or committed prior to the date of Transpower's application could be approved. However, the Electricity Commission indicated it intended consulting on a possible rule change to Part F to allow retrospective approvals of already incurred expenditure.[79]

182 In its decision, the Electricity Commission clarified that the actual amounts of interim grid expenditure approved are the lesser of the approved amount and the actual nominal cost of the project at the time of commissioning. To approve the TTU projects on the basis of their budgeted costs would, in the EC's view, provide poor incentives on Transpower to efficiently manage project costs during construction. However, the EC noted that, "ultimately, the decision on whether these costs can be recovered from customers will rest with the Commerce Commission".

183 The Electricity Commission did not reject any projects on the grounds that they were not additional to normal ongoing grid expenditure (paragraph 69). However, in its decision, the Electricity Commission noted that Transpower had at one point written to the EC stating that the projects were normal ongoing grid expenditure. In its 1 July 2005 letter to the EC, Transpower had stated:[80]

> Transpower has previously advised the Electricity Commission that it considers the proposed tactical transmission upgrades to be "normal ongoing expenditure" on the basis that they represent a cyclical peak in the capital requirements to maintain security in line with load growth.
>
> The Electricity Commission has indicated, however, that in its view any grid investment resulting in a breach of Transpower price thresholds set by the Commerce Commission will require Electricity Commission approval for the costs of such investments to be recoverable.
>
> Transpower does not believe that this view is consistent with the provision (or intent) of Part F. In addition, Transpower does not believe that such a view is workable in practical terms. However, due to the uncertainty created by the (Electricity) Commission's statement, Transpower has decided it would be prudent to submit expenditure, that it otherwise believes to be "normal grid expenditure", for approval.

184 Subsequently, based on further information supplied by Transpower, the Electricity Commission considered it to be apparent that Transpower's aggregate annual grid expenditure was higher than its annual grid expenditure had been in the past five years, and that the expenditure on the TTU projects was not in the nature of Transpower's typical or regular expenditure. As a result, the EC did not require any further information from Transpower to satisfy itself that the TTU projects were additional to normal ongoing grid expenditure.[81]

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79 Electricity Commission, *Assessment of Transpower's Application for Interim Grid Expenditure Dated 14 April 2005 (Tactical Transmission Upgrades), Summary of Submissions and Responses, Explanation of the Commission's Final Decisions*, December 2005, pp 27-29.

80 Transpower, *Tactical Transmission Upgrade Projects: Detailed Response to the Commission's Questions, Appendix 1 of Letter from Ralph Craven to Roy Hemmingway*, 1 July 2005, p 4.

81 Electricity Commission, supra n 79, p 9. In its most recent indicative decisions on Transpower's interim grid expenditures, the Electricity Commission notes that, during consultation on the April 2005 TTU application, some submitters had queried whether comparing Transpower's aggregate annual grid expenditure with such expenditure for the past five years was an appropriate measure. The Electricity Commission states that, as a result of these submissions, the Electricity Commission has now asked

185 The Commission observes that the Electricity Commission did not have access to the Transpower Board papers that clarify Transpower's basis for seeking approval of those projects (and which have been obtained through the Commission's discovery powers under s 98 of the Act).

Conclusion on Transpower's Recent Performance

186 As indicated earlier (paragraph 28), Transpower initially accepted the price path threshold of CPI-1% that the Commission set for Transpower's 2004/05 assessment period, which provided a smooth transition from Transpower's previously self-regulated level of prices. However, when the Commission proposed the same threshold for the 2005/06 assessment period, Transpower objected on the grounds that its past acceptance of 1% had been in the context of a company undertaking "business as usual" investments, but now that it was embarking on a major grid upgrade, 1% was no longer appropriate.

187 On the basis of Transpower's submissions on the X factor and its views concerning its TTU projects (paragraphs 173-174 and 183), the Commission considers it reasonable to conclude that CPI-1% was adequate for Transpower to achieve its required revenue, in the absence of it undertaking major grid expansion projects.

188 As discussed above, the Commission's analysis shows that up to and including the third threshold assessment date, Transpower could have operated within its price path threshold and still undertaken the expenditure associated with its TTU projects submitted to the Electricity Commission in April 2005. In any event, the Commission's preliminary view is that the TTU projects were for meeting ongoing growth in demand, which was already provided for through the Commission's use of a price path threshold rather than a revenue threshold. Therefore Transpower is not justified in the substantial increase in transmission prices from 1 April 2004. Consequently, following its analysis, the Commission's current position is not to consider TTU expenditure as a mitigating factor in explaining the breaches.

189 Allowing for AMD/AMI volume adjustments(which correct for Transpower's misapplication of the price path threshold formula in its compliance statements), and accepting Transpower's EV adjustments at face value, $14,282,976 of the breach is unexplained for the 2004/05 pricing year, and $35,809,192 of the breach for the 2005/06 pricing year is also unexplained. While the Commission has not undertaken a full building blocks analysis for the assessment periods in which the threshold breaches occurred, this analysis suggests that Transpower is likely to have been earning excess profits from the 2004/05 pricing year forward. For the pricing year 2003/4 the Commission accepts that the breach is not material.

190 In conclusion, the Commission's preliminary view is that, if the Commission were not to address Transpower's breaches of the price path thresholds and its approach to the approval process under Part F of the EGRs, then this could potentially result in outcomes inconsistent with the objectives of the regulatory regime that exists to ensure that Transpower faces strong incentives to improve its efficiency, shares the benefits of efficiency gains with consumers through lower prices and is limited in its ability to

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Transpower to provide evidence indicating that the most recent interim grid expenditures applied for are additional to Transpower's normal ongoing grid expenditure (Electricity Commission, supra n 65, p 12).

extract excess profits. Consequently, it is appropriate to consider whether control would be more likely to result in such outcomes going forward.

NET BENEFITS OF CONTROL OF TRANSPOWER

191 This section describes the Commission's evaluation of the net benefits to consumers of imposing control on Transpower's transmission services going forward.

Counterfactual and Factual

Counterfactual

192 In forming its intention to declare control of Transpower, the Commission has considered the likely net benefits to consumers of control, which involves comparing a counterfactual (the likely outcomes over the next few years in the absence of control) with a factual (the likely outcomes should control be imposed).

193 In contemplating likely outcomes under the counterfactual, the Commission considers that it is relevant to consider Transpower's recent conduct within the regulatory regime, as demonstrated in its threshold breaches and its approach to the Part F investment approval process. Transpower's approach to investment approvals under Part F is particularly important, given the significant implications that inefficient investment outcomes are likely to have on efficiency.

194 In addition, the Commission's counterfactual recognises Transpower's recent announcements concerning a series of significant price increases over the next few years, starting with an increase of 19% on average from 1 April 2006.

Factual

195 While the Commission cannot pre-determine the form and nature of control, the Commission's factual assumes that the imposition of control would ensure that Transpower's investment programme and pricing going forward would be efficient, as a result of being subject to the checks and balances intended when the Electricity Commission was established.

196 As described above (paragraphs 76-77), the GPS and Part F of the EGRs are intended to provide a regulatory framework that results in outcomes consistent with the Purpose Statement. In particular, in developing the Grid Investment Test, the Electricity Commission has had regard to objectives encompassing efficiency and reliability. Consequently, the Commission would expect that the appropriate application of the Grid Investment Test, involving consideration of alternative projects, would place strong incentives on Transpower to improve efficiency and provide services at a quality that reflects consumer demands.

197 Moreover, identification of least cost or highest benefit options would result in the benefits of efficiency gains being shared with consumers, because prices over time are likely to be lower than otherwise would be the case if a range of alternatives are not considered. Transpower would then be able to recover its Electricity Commission-approved investments through the new transmission pricing methodology, with an efficient investment programme underpinning the possibility of an efficient price path.

Future Investment and Pricing Behaviour

Transpower's investment plans

198 Under Part F of the EGRs, Transpower must submit a grid upgrade plan to the Electricity Commission for approval. If the Electricity Commission approves the grid upgrade plan, Transpower can recover the investments contemplated in the grid upgrade plan through the new transmission pricing methodology. A key objective of the grid upgrade plan approval process is to promote efficient investment in the national grid—investment that delivers the greatest net benefit after taking into account alternatives to the proposed transmission projects. As described above (paragraph 65), the Minister of Energy has required that the alternatives considered include both generation and demand-side alternatives, as well as alternative transmission solutions.

199 In May 2005, Transpower submitted its North Island (NI) Grid Upgrade investment proposal under the interim grid expenditure provisions of Part F of the EGRs. However, the Electricity Commission requested that the proposal be resubmitted as part of the initial grid upgrade plan, rather than under the transitional provisions. Transpower submitted the "first instalment" of the initial grid upgrade plan to the Electricity Commission in September 2005. This plan includes:

- the *NI Grid Upgrade Investment Proposal*, comprising a $622m investment in a 400kV HVAC transmission line between Otahuhu and Whakamaru in the upper North Island (to be commissioned by 2010); and
- the *HVDC Inter-Island Link Upgrade Investment Proposal*, comprising a $795m investment in replacement HVDC converters and additional HVDC submarine cables (to also be commissioned by 2010).

200 The Electricity Commission is in the process of consulting with interested persons in respect of that grid upgrade plan. As part of this process, the Electricity Commission has published a number of consultation papers examining a wide range of possible alternatives to Transpower's proposed solution for the NI Grid Upgrade project.

201 At the present high-level "option ranking" stage of assessment, which is still prior to the Electricity Commission's application of the actual Grid Investment Test, there are a number of transmission alternatives (including voltage increase and HVDC options, some of which involve a delay to Transpower's 400kV HVAC transmission line proposal) which the EC suggests deserve closer scrutiny.[82] A final decision from the Electricity Commission is expected in June 2006.

Transpower's announced future price increases

202 As noted above (paragraph 116), Transpower recently announced that it intends to increase its prices from 1 April 2006 by an average of 19%, and by approximately 13% per year in each of the subsequent five years.[83] However, as at 21 December 2005 the Electricity Commission had only approved approximately $6.3 million dollars of

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[82] Electricity Commission, *Alternatives to Transpower's Proposed Whakamaru-Otahuhu 400kV Transmission Line: Alternatives Analysis Stage II*, December 2005, pp 41-50.

[83] Transpower's internal documentation indicates that its expected price path for transmission increases by 19.1% in 2006/07, 7.8% in 2007/08, 13.8% in 2008/09 11.7% in 2009/10, 8.0% in 2010/11, and 4.3% in 2011/12. [ ].

preparatory expenditure relating to the HVDC Upgrade project for initial investigations. This expenditure approval level would clearly not support Transpower increasing its prices by 19%.

203 In addition, the Commission highlights that Transpower has publicly stated that an X factor of negative 7-10% in the CPI-X price path threshold would be appropriate to its current and future circumstances, rather than its current x factor of positive 1% (paragraph 29-30). While Transpower has not provided the Commission with any analysis to back up this claim, the most recent price increases exceed even this level of implied price increases (assuming the CPI remains at current levels).

204 Transpower has stated that its price increases are needed to fund the investment programme outlined in its Business Plan (paragraph 89), which includes $295m in the capital budget for the 2005/06 year and $431m for the 2006/07 year a significant increase from the forecasted $112m in 2004/05. According to Transpower, that Business Plan is used as the basis for deriving its revenue requirement.

205 However, the Commission notes apparent differences between the timing of projected capital expenditure in Transpower's 2005/06 Business Plan and that presented in the initial grid upgrade plan. The Business Plan shows budgeted/planned capital spend on the NI Grid Upgrade project as $29.0m for 2005/06, $139.5m for 2006/07 and $152.5m for 2007/08.[84] On the other hand, Transpower's grid upgrade plan presents the anticipated incidence of expenditure on the NI Grid Upgrade project as around $28m, $69m and $85m for each of the years from 2005/06 to 2007/08—about $139m less than that suggested by the Business Plan over the three year period.[85]

206 The Commission notes that Transpower is now including land and easements associated with unapproved investments in its regulatory asset base immediately, rather than postponing the inclusion until the commissioning of the asset to be built on the land, as has traditionally been the case.[86]

207 Both the Business Plan and the grid upgrade plan appear to be consistent in the amount of planned capital expenditure relating to easement acquisition (i.e., property) for the NI Grid Upgrade project. The Business Plan shows planned expenditure on easement acquisition for the project of $18.6m, $57.9m and $23.5m for 2005/06, 2006/07 and 2007/08 respectively.[87]

208 Transpower considers that its price increases are appropriate given that its 2001 Pricing Methodology—underpinned by the Transpower Pricing Regulations—shows overall revenue as being derived from its Business Plan (paragraph 89). Transpower has recently expressed the view that: "Practically, it is not feasible to restrict a business

84 Transpower, *2005/06 Business Plan*, June 2005, p 81.

85 Transpower, *North Island 400kV Upgrade Project Investment Proposal, Part V – Project Costs*, September 2005, Figure 6-1. Planned capital expenditure on the HVDC Upgrade project appears to be consistent between the Business Plan and the grid upgrade plan. Refer: Transpower, *HVDC Inter-Island Link Upgrade Project Investment Proposal, Part V – Project Costs*, September 2005, Figure 6-1, the expenditure in this paragraph is estimated by inflating the costs in figure 6.1 by 2.5% per annum from 2006/7.

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87 Transpower, supra n 79, p 78.

planning process to expenditure that has been pre-approved."[88] However, in the Commission's view, the 2001 Pricing Methodology does not entitle Transpower to prepare a Business Plan, or to set its required revenue, in a manner that is inconsistent with the current GPS, the EGRs or with Part 4A.

Table 3: Transpower's 2005/06 and 2006/07 Revenue Requirement (compared with 2006/07 revenue projection in Transpower's 2005/06 Business Plan)

	Revenue Requirement[89]		05/06-06/07 Increase		2006/07 Revenue from 2005/06 Bus Plan ($m)[90]	Change from Bus Plan to Rev Req ($m)
	2005/06 ($m)	2006/07 ($m)	($m)	(%)		
Total average operating capital	2042.8	2228.4	185.6	9.1%	2259.4	-31.0
Post-tax WACC	6.90%	7.3%	0.4%	5.8%	7.0%	0.3%
Capital Charge	**141.0**	**162.7**	**21.7**	**15.4%**	**158.2**	**4.5**
Trans portion of inst reserves	3.5	2.1	-1.4	-40.0%	0.0	2.1
Transmission maintenance	29.0	32.3	3.3	11.4%	32.3	-
Substation maintenance	50.6	52.6	2.0	4.0%	52.6	-
Comms and IT	16.2	18.9	2.7	16.7%	19.0	-0.1
Investigations	23.6	21.2	-2.4	-10.2%	21.2	-
Overhead	83.8	101.1	17.3	20.6%	101.1	-
RRL insurance/ intercompany	6.1	7.3	1.2	19.7%	6.7	0.6
Depreciation and write-offs	117.4	135.0	17.6	15.0%	13.3	4.7
Total Expenses	**330.2**	**370.4**	**40.2**	**12.2%**	**363.2**	**7.2**
Taxation	63.9	88.2	24.3	38.0%	82.0	6.2
General Revenue Requirement	**535.1**	**621.2**	**86.1**	**16.1%**	**603.3**	**17.9**
New Investment Revenue	11.5	13.2	1.7	14.8%	13.2	-
Commercial Rebate (HVDC)	-17.0	0.0	17.0	-100.0%	-7.8	7.8
EV Adjustment	-35.2	-45.9	-10.7	30.4%	-30.4	-15.5
Total Transmission Revenue	**494.4**	**588.6**	**94.2**	**19.1%**	**578.3**	**10.3**
Transmission Revenue excl New Investment	**482.9**	**575.3**	**92.4**	**19.1%**	**565.1**	**10.2**

209 In any event—although this is a less significant point than the differences between the Business Plan and the grid upgrade plan—the Commission also observes that Transpower's revenue requirement used to derive its planned price increases from 1 April 2006 differs from that approved by the Board in its Business Plan, as is shown in Table 3 above. Overall, the increase in transmission revenue for 2006/07 (excluding revenue from new investment contracts) presented in the 2005/06 Business Plan is $82.2m, compared with the $92.4m increase notified to Transpower's customers. Key differences from the Business Plan to the final revenue requirement include the application of a higher WACC, the removal of the planned HVDC commercial rebate, as well as changes in the depreciation allowance and taxation charge.

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88 Transpower, *Media Comments Made by Chairman of the Electricity Commission*, Letter from Ralph Craven to the Minister of Finance, the Minister of Energy, the Minister for State Owned Enterprises, and the Minister of Commerce, 1 December 2005.

89 [ ] The data is consistent with Appendix K of the 2001 Pricing Methodology for the years ending 31 March 2006 and 2007.

90 Planned revenue requirement data for 2006/07 in the 2005/06 Business Plan sourced from: Transpower, supra n 86.

Effect of Transpower's behaviour on efficiency

210 The Electricity Commission has not approved the planned investments upon which Transpower has calculated its future price increases. Therefore it is probable that consumers will be charged for transmission investment which has not been approved and may not be efficient at least up to the period when the Electricity Commission makes its decision on the grid upgrade plan and potentially afterward.

211 On that basis, the Commission's preliminary view is that section 57E of the Act is not currently being satisfied, and would not be satisfied going forward in the absence of control (i.e., under the counterfactual). Section 57E (b) provides that Transpower should "face strong incentives to improve efficiency and provide services at a quality that reflects consumer demands", and s 57E(c) provides that Transpower should share the benefits of efficiency gains with consumers, including through lower prices. Section 57 E (a) provides that Transpower should be limited in its ability to extract excessive profits.

212 By announcing price increases in advance of obtaining approval consistent with the EGRs, Transpower may be making investments in large, fixed and long-lived assets that are not efficient and are not in the long-term interests of consumers.

213 The Commission is of the view that Transpower is effectively seeking to pre-fund substantial investments that have not yet been subjected to the regulatory approval framework put in place to promote the efficient and reliable provision of transmission services.

214 Any pre-funding by Transpower will potentially have distributional consequences where today's consumers pay for investments that result in benefits for future consumers. But even more significantly, the additional revenue involved means that there is less incentive on Transpower to minimise costs and it may transfer risk from the company to consumers.

215 Pre-funding provides Transpower with the additional funds to proceed with the initial phases of investments that have not yet been approved, thereby artificially altering the costs and benefits of Transpower's projects and of the possible alternatives. This will limit consideration of economic alternatives to the grid upgrade plan under the GIT.

216 In addition, any funds gained through pre-funding could allow Transpower to proceed with their planned investments without any approval.

Benefits of Control

Nature of potential benefits

217 The Commission's preliminary view is that a declaration of control would lead to significant benefits to consumers and that the control declaration should be prioritised under s 57K of the Act. As noted in the GPS:

> The way in which transmission services are provided and priced impacts directly and indirectly on all parts of the electricity industry, the economy and the environment.

218 The Commission is of the view that Transpower is seeking to pre-fund significant investment expenditure. Irrespective of the objectives of the regulatory framework, and the investment approval processes put in place under that framework, businesses operating in a workably competitive market are not able to pre-fund investments other than by utilising returns on existing capital. Consequently, in a more general sense, Transpower's behaviour is not likely to result in outcomes consistent with the Purpose Statement of Part 4A.

219 In any case, the regulatory framework clearly does not contemplate pre-funding of investment. Transpower must submit grid upgrade plans to the Electricity Commission for approval. Once approved, the costs of those investments can be recovered by Transpower.

220 In the absence of control, or of voluntary action by Transpower, Transpower's prices will increase on 1 April 2006 in support of an investment programme that has not yet been approved by the Electricity Commission. In the Commission's view, there are two key reasons why it is appropriate to consider whether to declare control of Transpower before the proposed price increase for unapproved investment expenditure takes effect.

221 First, once implemented, there are many practical issues involved in reversing the actual price increase. Distribution businesses and retailers, rather than Transpower itself, would be the ones tasked with actually implementing the reversal. During consultation in another context, the Commission has had a significant number of submissions from both distribution businesses and retailers highlighting the difficulties of doing so.[91]

222 Second, and more importantly, as the Commission has no ability to back-date any control decision, the price rise will result in an immediate cost to consumers; this price change may distort price signals in the transmission services market (and downstream markets) for the long term, as a result of inefficient irreversible investments.

223 In particular, Transpower's announced price increases may allow it to proceed with investments that are inefficient. Given the large scale nature of these investments, and their potential impact on productive sectors and to the economy as a whole, any inefficient investments would result in significant long-term detriments to consumers.

224 As discussed above, the announced price increases do not reflect the outcomes of the EGR approval process. That process is mandated through legislation and is designed to

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[91] Refer: Commerce Commission, *Regulation of Electricity Lines Businesses, Targeted Control Regime, Next Steps for Implementing Proposed Changes to the Distribution Thresholds Gazette Notice,* 22 December 2005, p 2.

ensure that alternative options have been fully canvassed and considered so that grid investments are efficient and deliver sustainable net benefits.

225 Absent this process being completed, the Commission's preliminary view is that it cannot be satisfied, in the absence of further evidence, that Transpower's proposed investments will promote the efficient operation of markets directly related to electricity distribution and transmission services.

226 Furthermore, allowing Transpower to recover the costs of investments outside the EGR approval processes would undermine the incentives for Transpower to assess and implement investments which are efficient and deliver net benefits. In those circumstances, investment decisions are likely to be made that cause significant consumer detriments.

227 Indeed, Transpower will have an incentive to implement unapproved investment. Once commissioned, the relative costs and benefits of that unapproved investment and investment alternatives will be materially altered as some sunk cost is likely to have been incurred by Transpower. This would be likely to distort efficiency comparisons, further undermining the long-run efficiency of electricity markets and the interests of consumers.

Magnitude of planned investments

228 Transpower's capital budget will increase from $295m in 2005/06 to a forecast capital spend of $431m in 2006/07. As shown in Table 4, this expenditure is part of a sizeable planned investment programme, with expenditure peaking during the next five years. If any significant portion of this capital expenditure funds parts of the grid upgrade plan that may not eventually go ahead, then any alternative project will be at a significant disadvantage. This is because the capital expenditure already committed (i.e., sunk) will form part of the considerations when comparing the costs and benefits of alternatives. As a result, alternatives will not be able to be considered on a like-for-like basis.

229 To inform its decision, the Commission has undertaken some indicative estimates of the benefits from that might result from more efficient investment costs and more efficient timing of investments.

Table 4: Transpower's Capital Expenditure Projections (Transpower's 2005/06 Business Plan)

	AC Stations	Transmission Lines	HVDC	Land	Total including IT, minor assets and inflation
2004/05	51.2	31.6	2.1	7.0	112.2
2005/06	92.0	101.4	1.4	35.0	294.7
2006/07	91.8	128.7	6.0	127.7	431.4
2007/08	95.3	176.8	29.2	97.1	476.4
2008/09	87.4	284.1	25.8	37.3	505.6
2009/10	50.0	351.1	98.5	1.8	585.9
2010/11	38.1	122.2	266.5	42.8	576.6
2011/12	39.6	41.9	91.5	45.3	297.1
2012/13	53.8	41.9	0.6	43.8	197.2
2013/14	35.3	77.5	0.0	1.4	160.7
2014/15	35.3	77.5	0.0	1.4	170.9
2006/07-2014/15	**526.6**	**1,301.6**	**518.0**	**398.2**	**3,410.7**

Benefits from reduced excess profits

230 Transpower has breached the thresholds to a significant extent without adequate explanation. Recovery and retention by Transpower of these unexplained amounts is effectively retention by Transpower of excess profits.

231 Under control these excess returns would likely be removed in future years and Transpower would return to a more appropriate price level. The Commission considers that the unexplained level of Transpower's threshold breach for the 2005/06 pricing year (i.e., $35.8 million) is indicative of the level of excess profits that could be reduced under control for 2006/07 alone, and control could further limit excess profits in subsequent years.

Benefits from investment efficiencies

232 Absent control, Transpower's conduct would be less likely to result in efficient outcomes consistent with the Purpose Statement of Part 4A, as Transpower will face

incentives to be efficient when its investments are subject to the scrutiny of the proper investment approval processes, as would be the case under control.

233 The scope for use of the proper approval processes and the public scrutiny and debate to improve the efficiency of investments is material. There are often several different potential transmission or alternative solutions that can achieve the same outcome. These can involve fundamentally different approaches and technologies, and not just be variations on the same approach.

234 Transmission and transmission alternatives are complex and large investments in the Commission's view. The opportunities for superior solutions to emerge from robust discussion is quite high and the potential benefits to consumers of even modest percentage cost savings of, say, 5-10% given the length of time the assets will last and their high cost is material. The Commission considers that cost savings of this order are not unlikely given that the Electricity Commission has already identified a number of investment proposals that deserve closer scrutiny (paragraph 201).

235 A 5% reduction in the costs of Transpower's proposed investments over the period from 2006/07 to 2014/15 covered by Transpower's 2005/06 Business Plan has a present value, using a 10% discount rate, of approximately $117m. A 10% reduction would have a value of approximately $234 million.[92] These figures give an indicative range of the magnitude of the present value of potential savings in capital expenditure from only a modest improvement in investment decision-making relating to transmission capital expenditure.

Benefits from improved timing of investments

236 Although the Electricity Commission may tend toward ensuring that Transpower's investments are in place somewhat in advance of the time they are needed, in the Commission's view it would not be unreasonable to assume that the Part F approval process could result in significant benefits arising from more appropriately timed expenditures. It is not unrealistic to assume a deferral of 1-3 years for each of Transpower's major investment items, through a process under which the Electricity Commission will decide on the appropriate timing after extensive consultation with interested parties.

237 A reasonable proportion of Transpower's planned grid upgrade expenditure relates to the NI Grid Upgrade and proposed HVDC Inter-Island Link Upgrade projects. One approach to estimating the benefits from improved timing of investments is to compare the net present value of the stream of proposed capital expenditure with the net present value (NPV) of the same stream deferred one year. Using this method the estimated benefits of deferral of the NI Grid Upgrade project by one year are $31.4m using a 10% discount rate.

238 Using the same simple approach, the value of deferring approximately $570m of expenditure on the HVDC upgrade project included in the above forecasts by one year would be approximately $33.2m in present value terms using a 10% discount rate. The benefits of deferral of the remaining investments of approximately $2.4 billion for one

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92 The discount rate used is a conservative value in this context and should not be considered to reflect the Commission's views on an appropriate post-tax WACC for Transpower.

year using the same assumptions would generate benefits to consumers of approximately $144.7m in present value terms. Using a quarter of this figure to indicate the benefit to consumers of only a 3 month deferral gives an estimate of $36.2m. At the upper end, deferral of all investments by 3 years would save $405 million in NPV terms.

Other benefits from control

239 The Commission considers that effective regulatory oversight is likely to provide additional benefits from lower cost implementation of transmission investments and a more efficient time profile of prices. While the Commission has not estimated these benefits, it considers that these could be significant.

Costs of Control

Direct costs

240 In its intention to declare control of Unison, the Commission considered that the direct costs of a form of price cap regulation would be indicative of the costs associated with a control regime. The Commission noted that, under CPI-X price cap regulation, the direct costs of control for a lines business occur largely at the time of price reviews and price-resetting. At these times, the costs may be substantial. At other times, the regulatory body largely has a monitoring role, while the regulated entity must ensure that compliance is maintained. Users may also engage in monitoring activity.

241 Unlike Unison and the other distribution businesses, Transpower is also subject to Part F of the EGRs, which involves the Electricity Commission undertaking a substantial amount of the type of business-specific analysis (such as the review of grid upgrade plans) that would likely be needed under control. In addition, with or without the imposition of control, pricing changes to particular customers will stem from the application of the transmission pricing methodology.

242 Accordingly, the incremental direct costs of control, are those that would be incurred over and above the costs already associated with the existing monitoring activities of the Part 4A regime administered by the Commission, and the approval processes in the EGRs administered by the Electricity Commission. These incremental costs would include the costs of determining the form of control, which would be a one-off cost, and the cost of implementing/complying with control, which would be an ongoing cost. The Commission estimates these costs as having an NPV of approximately $ 1.5 million. If Transpower were to incur compliance costs of a similar magnitude then the direct costs of control would be in the order of $3.0 million in NPV terms.

243 The Commission's preliminary view is that these incremental regulatory and compliance costs would be far outweighed by the benefits of ensuring Transpower faces appropriate efficiency incentives through the effective working of the regulatory regime as intended.

Indirect costs

244 The Commission has also considered the indirect costs of imposing control on Transpower. These could potentially arise because:

- while control would reduce prices toward the workably competitive level, it would be unlikely to be able to exactly replicate efficient prices; and
- control could risk impacting productive or dynamic efficiency if incentives to reduce costs are weakened because the business gets to keep a smaller share of the benefits arising from those efficiency gains.

245 The Commission considers that, in determining the net benefits of control, the incremental indirect costs of control are unlikely to be significant relative to the potential benefits of control. While the potential impacts of regulatory error can be significant, the Commission does not consider that the associated level of indirect costs would differ significantly between the factual and the counterfactual.

Overall Level of Net Benefits

246 The Commission's preliminary view is that declaring control would provide Transpower with greater incentives to improve its efficiency and to make efficient investments in the grid. These improved incentives would lead to significant long-term benefits to consumers given the significance of the investments involved, and the wide ranging impact of those investments on all electricity consumers in New Zealand.

247 This view is supported by the Commission's indicative estimate of the net benefits of control. The magnitude of each type of indicative benefit is on its own sufficient to significantly exceed the direct costs of control. Focusing on the potential investment inefficiencies alone, the Commission estimates that a reduction of only 0.13 % in Transpower's costs over the next five years would be necessary to outweigh the incremental costs of control.

INTENTION TO DECLARE CONTROL

Commission's Intention to Declare Control

248 The Commission's preliminary view is that declaring control over the transmission services supplied by Transpower would promote the efficient operation of markets directly related to electricity transmission and distribution. Transpower has proposed significant price increases to cover unapproved investments, and has yet to justify the time profile of prices that it intends using to recover the cost of those investments. These price increases will affect every electricity consumer in New Zealand.

249 Having reviewed the information provided by Transpower to date concerning the organisation's recent and planned performance and behaviour, the Commission considers there to be credible evidence that:

- significant portions of Transpower's breaches remain unexplained; therefore Transpower's April 2004 price increase was unjustified and Transpower is likely to have been earning excess profits since that increase;
- Transpower's approach to the investment approval process under Part F has resulted in outcomes inconsistent with the objectives of the regulatory regime;
- Transpower's planned price increases would enable it to pre-fund its unapproved capital expenditure programme; and
- Transpower's time profile of prices is not consistent with the underlying pattern of capital expenditure, and its planned April 2006 price increase is not justified.

250 Therefore, the Commission considers that, in the absence of control, Transpower would likely continue to set prices based on investments not subject to the approval processes within the regulatory framework, which is intended to ensure the efficient and reliable provision of electricity transmission services. On the other hand, the Commission considers that control would likely ensure that Transpower complies with existing regulatory processes designed to best ensure efficient investment, and pricing outcomes more consistent with the Purpose Statement of Part 4A of the Act.

251 Consequently, the Commission's preliminary view is that control would result in benefits to consumers by:

- limiting Transpower's ability to earn excess profits in future;
- improving the efficiency of transmission investments and the timing of those investments;
- ensuring that Transpower does not pre-fund unapproved investments and incur capital expenditure that would distort the comparison of Transpower's investment proposals with the alternatives considered under the Grid Investment Test;
- lowering the implementation costs of Transpower's investments going forward; and
- resulting in a more efficient time profile of prices.

252 The Commission's qualitative assessment that a declaration of control is warranted is supported by the Commission's quantification of the benefits and costs of control, because there is no overlap in the estimated range of indicative benefits and the estimated level of costs, as is shown in Table 5 below.

Table 5. Potential Benefits and Costs of Control

Potential Benefits of Control	**($ million)**
Limitation of excess profits in 2006/07 (implied by level of 2005/06 unexplained threshold breach)	36 (future years not estimated)
Investment efficiency gains (from application of Grid Investment Test) - NPV of a 5% reduction in 2006/07-20014/15 investment costs - NPV of a 10% reduction in 2006/07-20014/15 investment costs	 117 234
Improved timing of investments - NPV of a 1 year deferral of planned NI Grid Upgrade Project only - NPV of a 1 year deferral of total planned investment programme - NPV of a 3 year deferral of total planned investment programme	 31 148 405
Lower cost implementation of investments	Not estimated (significant +ve effect)
More efficient time profile of prices	Not estimated (significant +ve effect)
Estimated Costs of Control	
NPV of incremental direct costs of control	3.0
Indirect costs of control	Not estimated (not significant)

253 Having weighed up the likely benefits of control against the likely costs, the Commission's preliminary view is that there would be significant long-term benefits to consumers from imposing control of the transmission services supplied by Transpower.

Next Steps

Process timetable

254 There will be a submission and cross-submission period on this paper, in order to give interested persons a reasonable opportunity to present their views on the matter. Submissions are not limited to the matters raised in this paper, but may address any matters relevant to the Commission's intention to declare control on Transpower.

255 The due date for written submissions is **5pm**, **Monday 27 February 2006**. Cross-submissions will be due by **5pm**, **Monday 13 March 2006**. The timetable for this process is as presented in Table 5 and has also been published in the Intention Notice.

Table 5: Process Timetable

Scheduled Date	Event
22 December 2005	Notice of intention to declare control published in the *Gazette*
27 January 2006	Commission releases this paper as well as the accompanying NZIER report and associated spreadsheets
27 February 2006	Submissions on this paper due
13 March 2006	Cross-submissions due

Confidentiality

256 Parties making submissions may wish to provide confidential or commercially sensitive information to the Commission. Parties can request that the Commission make orders under s 100 of the Act in respect of information that should not be made public. Any request for an s 100 order must be made when the relevant information is supplied to the Commission and must identify the reasons why the relevant information should not be made public. The Commission will provide further information on s 100 orders if requested by parties, including the principles that are applied when considering requests for such orders.

257 Any s 100 order will apply for a limited time only as specified in the order. Once an order expires, the relevant information is then subject to the Official Information Act. If, following expiry of the order, the Commission receives a request for disclosure of information formerly privileged to the s100 order, it will consult with the party that provided the information as to whether the information should remain confidential (and, if so, why). The Commission can decline requests for information on the grounds set out in the Official Information Act. Any decision by the Commission to withhold information is subject to appeal to the Ombudsman.

258 The Commission discourages requests for non-disclosure of submissions, in whole or in part, as it is desirable to test all information in a fully public way. It is unlikely to agree to any requests that submissions in their entirety not be made public. However, the Commission recognises there will be cases where information should not be published. If it is necessary to include such material in a submission the information should be clearly marked and preferably included in an appendix to the submission. Interested parties should provide the Commission both confidential and public versions of their submissions in both electronic and hard copy forms. The responsibility for ensuring that confidential information is not included in a public version of a submission rests entirely with the party making the submission.

Receipt of submissions

259 The Commission intends publishing all submissions on its website. Accordingly, the Commission would prefer receiving these in electronic form. If the submission does not contain confidential information, it is not necessary for interested parties to send the Commission hard copies of their submissions, unless it is not possible to do so electronically. There will be a submission period for this paper in order to give interested persons a reasonable opportunity to give their views.

260 Submissions should be sent to:

E-mail: electricity@comcom.govt.nz; or

Transpower Post-Breach Inquiry
Network Performance Group
Networks Branch
Commerce Commission
P.O. Box 2351
Wellington

Possible Outcomes of the Post-Breach Inquiry

261 After having regard to the views of interested persons, which will include the information from submissions and cross-submissions, the Commission will decide whether to proceed with declaring control of transmission services supplied by Transpower. In making such a decision, the Commission may need to undertake further investigations and analysis, and therefore may seek further information from Transpower.

262 During this consultation period it is still possible that the Commission and Transpower may agree to the terms of an administrative settlement, although the Commission anticipates that it would do so after again formally considering the views of other interested parties. The Commission would continue with its Stage 2 post-breach inquiry to determine whether or not to declare control alongside any discussions in respect of a proposed administrative settlement.

263 If the Commission decides not to make a declaration of control, either because it has accepted an administrative settlement or for other reasons, then it will publish its reasons for doing so in the *Gazette*. Where an administrative settlement has been reached those reasons would likely refer to the terms of the settlement.

264 If a declaration of control is made under Part 4A of the Act in respect of services supplied by Transpower, then the Act provides for the making of a provisional authorisation, to be followed by a subsequent consultation process under Part 5 of the Act, before any final authorisation is made (or an alternative undertaking is accepted from Transpower). Any or all transmission services provided by Transpower may be subject to control, and authorisations may be made in respect of all or some components of the prices or revenue, using whatever approach the Commission considers appropriate, having regard to the Purpose Statement.