



unison

Submission by

UNISON NETWORKS LIMITED

on

Regulation of Electricity Lines Businesses

**Draft Decisions and Reasons for Not Declaring Control &
Draft Decision on Resetting**

Transpower's Thresholds

(12 November 2007)

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EXECUTIVE SUMMARY

Unison is pleased to respond to the Commerce Commission's *Draft Decisions and Reasons for Not Declaring Control & Draft Decision on Resetting Transpower's Thresholds*.

The framework for analysis adopted by the Commission in determining whether or not to declare control acknowledges the important role of promoting dynamic efficiency under the Purpose Statement and the Government Policy Statement on the incentives for regulated businesses to invest in infrastructure. However, it is less clear whether sufficient weight on dynamic efficiency is reflected at the implementation level. For example, the Commission's assessment criteria places a large emphasis on the role of wealth transfers, without considering whether the rents being transferred are functionless or not.

Unison supports the Commission's proposal to allow Transpower flexibility over the time profile of its asset valuation. Allowing flexibility can better enable Transpower to meet its capital maintenance obligations. However, it is unclear that Transpower's proposal provides a useful template for other lines businesses, in part because it is inherently complicated. Unison understands Transpower's desire to reduce the positive value in the customer Economic Value (EV) account. However, the objective of reducing the EV account could be achieved more simply through moving straight away to the use of accounting book value rather than by adopting "pseudo" assets to transition from an ODV to a book value.

Unison also welcomes the Commission's proposal to allow Transpower to use Depreciated Historical Cost (DHC) in rolling forward the asset base. However, the circumstances under which the Commission will accept the use of DHC in the Transpower Draft Decision and the parallel draft decision on the gas distributors are not set out clearly. In particular, Unison considers that any decision to change the roll forward methodology should be informed by cash flow modelling. Unison suggests that as a general rule the Commission could adopt one of two approaches:

- Clearly specify the circumstances – including cash flow impacts – that warrant adoption of DHC as a roll forward methodology; or
- Explicitly indicate that it will allow the lines businesses to choose a roll-forward methodology under an administrative settlement and set out the implications if the lines business is subsequently subject to price control.

The weighted average cost of capital (WACC) proposed for Transpower is considerably lower than the WACC proposed by the Commission in its Gas Draft Decision, even if adjustment is made for industry-specific factors. The divergence in the respective WACC values indicates an apparent willingness for the Commission to accept a significantly higher WACC under price control than under an administrative settlement. The key differences between the Commission's approach to administrative settlement and price control are:

- The use of a 75th percentile WACC under price control compared with a 50th percentile WACC under the administrative settlement; and

- An increment (of up to 0.10) on the asset beta to reflect “higher systematic risk” under price control than an administrative settlement.

The implication of the Commission’s positions is that investors require a much greater return to invest in a company that is subject to price control than one that is operating under a negotiated settlement. The view that moving to a higher form of control can result in higher returns to the business renders the Commission’s treatment of transfers under an administrative settlement as being logically inconsistent.

The implied position that a significantly higher WACC is appropriate under price control than an administrative settlement is a direct consequence of the illusion of rigour underpinning the Commission’s approach to WACC, especially in relation to the rigid approach adopted for the asset beta. An approach that reduces inconsistency and produces a framework for the WACC more consistent with the Purpose Statement would be to:

- Apply a consistent 75th percentile to the WACC under all forms of regulation;
- Adopt an industry-wide beta that will form the default value for either form of regulation (but which can be challenged); and
- Apply the 10-year Government bond consistently in the risk free rate.

1. INTRODUCTION

In this submission Unison is pleased to respond to the Commerce Commission's *Draft Decisions and Reasons for Not Declaring Control & Draft Decision on Resetting Transpower's Thresholds*¹ ("Transpower Draft Decision").

Although the focus of this paper is on the Commission's assessment of Transpower's offer of administrative settlement, the methodological approach adopted by the Commission in the Transpower Draft Decision shares common features with the Commission's draft decisions paper on the authorisation for control of gas distribution services² ("Gas Draft Decision"). Therefore, Unison does consider some aspects of the Gas Draft Decision in this response, noting that a detailed response to the Gas Draft Decision will be provided separately.

In reaching a preliminary decision to accept Transpower's offer of administrative settlement, the Commission has been required to consider the relative merits of declaring control and accepting an offer of administrative settlement. The mechanisms involved in an offer of administrative settlement and implementing price control differ significantly. An administrative settlement represents a negotiated outcome between the Commission and the regulated entity that aims to result in an outcome that broadly meets the aims of the regime but without the costs associated with declaring and implementing price control. By contrast price control is generally a more intrusive instrument under which the Commission – rather than the business – proposes the key features of the regulatory environment. The trade off between the two approaches is informed by the Draft Gas Decision because the gas authorisation process is designed to implement price control.

1.1. STRUCTURE OF REPORT

Our report is structured to broadly follow the Commission's consideration of the issues raised by Transpower's proposal, with focus placed on the following issues:

- Section 2 discusses issues relevant to the framework for assessing whether to impose control;
- Section 3 reviews the proposed asset valuation;
- Section 4 discusses the weighted average cost of capital (WACC); and
- Section 5 sets out our conclusions.

A detailed response to the individual questions posed by the Commission is given in Appendix A.

¹ Commerce Commission, "Regulation of Electricity Lines Businesses, Targeted Control Regime: Draft Decisions and Reasons for Not Declaring Control & Draft Decision on Resetting Transpower's Thresholds", 5 October 2007 ("Transpower Draft Decision").

² Commerce Commission, "Authorisation for the Control of Supply of Natural Gas Distribution Services by Powerco Ltd and Vector Ltd: Draft Decisions Paper", 4 October 2007 ("Gas Draft Decision").

2. FRAMEWORK FOR ASSESSING WHETHER TO IMPOSE CONTROL

Under either price control or through an administrative settlement there is a need to ensure there are strong incentives for economic efficiency.

The Commission notes in paragraph 167 of the Transpower Draft Decision that Section 57H(c) of the Commerce Act (“Act”) requires the Commission to take into account the Purpose Statement in Section 57E when deciding whether to declare control of a business that has breached one or more thresholds. The Purpose Statement states that the purpose of the control regime 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.

Implementation of a regime consistent with the Purpose Statement requires the development of strong incentives for dynamic, allocative and productive forms of efficiency.³ However, the focus on the long-term benefit of consumers is most consistent with a focus on dynamic efficiency. Placing greatest weight on dynamic efficiency is consistent with evidence in the economic literature. Goolsbee,⁴ for example, stresses that delayed innovation and investment lead to “missing markets” where both consumers’ and producers’ surplus are missing. The welfare loss from a missing market may swamp allocative efficiency effects pertaining to existing markets, or existing levels of investment. Goolsbee⁵ and Hausman⁶ find very substantial welfare losses arising from delayed markets caused by regulatory settings.

³ Economic efficiency has the following dimensions: Allocative efficiency – the quantity and quality of each product produced and consumed is efficient. No reallocation of resources to produce a different set of goods can benefit one consumer without harming at least one other. A market is allocatively efficient if it is producing the right goods for the right people at the right price; Productive efficiency – all products are produced at least cost. There is no possible rearrangement of resources (such as labour and capital) among firms that can increase the output of one product without reducing the output of some other product at the same time; and Dynamic efficiency – investment and innovation are efficient and that any adjustment from one social optimum to another is efficient. Over time, prices are set in a way that encourages investment in the appropriate mix of assets.

⁴ Goolsbee, A 2000, “In a World Without Borders: the Impact of Taxes on Internet Commerce”, Quarterly Journal of Economics, 115(2), 561-576.

⁵ Op cit.

⁶ Hausman, J (1997) “Valuing the Effect of Regulation on New Services in Telecommunications”, Brookings Papers on Economic Activity, Microeconomics, 1-38.

Unison considers that the ability to promote dynamic efficiency is the most important criterion when determining either whether to declare control or whether to accept an offer of administrative settlement. The importance of dynamic efficiency is accepted by the Commission:⁷

181 The Commission places significant weight on dynamic efficiency in comparison to the other dimensions of efficiency, given the importance of efficient investment to the long term benefits of consumers. This is because, over time, under-investment increases the risk that a lines business may not be able to continue to provide services at a quality that reflects consumer demands. The importance of dynamic efficiency is also emphasised in the October 2006 GPS, which concerns the incentives of regulated businesses to invest in infrastructure. In particular, the October 2006 GPS highlights the importance of regulatory stability, transparency and certainty for giving businesses the confidence to make long-lived investments (i.e., clause 7(a) of that GPS).

Decisions in the energy sector are also subject to the Government Policy Statement (GPS) on the incentives of regulated business to invest in infrastructure.⁸ The GPS provides strong emphasis on the dynamic aspects of efficiency, and in this sense complements the Purpose Statement:

7 The Government's economic policy objective is that regulated businesses have incentives to invest in replacement, upgraded and new infrastructure and in related businesses for the long term benefit of consumers. The Government considers that this objective will be achieved by:

- a. regulatory stability, transparency and certainty giving businesses the confidence to make long-life investments;*
- b. regulated rates of return being commercially realistic and taking full account of the long-term risks to consumers of underinvestment in basic infrastructure; and*
- c. regulated businesses being confident they will not be disadvantaged in their regulated businesses if they invest in other infrastructure and services.*

8 The Government also considers that it is important that regulatory control ensures that:

- a. the consumers of regulated businesses are not disadvantaged by the investments of regulated businesses in other infrastructure and services;*
- b. regulated businesses are held accountable for making investments in that business where those investments have been provided for in regulated revenues and prices; and*
- c. regulated businesses provide infrastructure at the quality required by consumers at an efficient price.*

⁷ Transpower Draft Decision, p.40.

⁸ Dalziel, Hon L. "Statement to the Commerce Commission of Economic Policy of the Government: Incentives of regulated businesses to invest in infrastructure", August 2006.

Based on the underlying legislative requirements, the Commission has developed the following framework for evaluating whether or not to accept Transpower's offer of administrative settlement:⁹

187 In sum, the Commission considers the following issues are likely to be relevant to assessing the net benefits to consumers from implementing an administrative settlement:

- net changes in dynamic/productive/allocative efficiency, including impacts on service quality (e.g., indirect benefits to the industry as a whole, where investment incentives are maintained through regulatory stability over the medium-term);*
- direct benefits from transfers to consumers, primarily resulting from the settlement reflecting a lower level of returns than would be the case if the Commission took no further action;*
- any foregone short-term benefits to consumers stemming from a settlement that transfers a smaller proportion of excess returns to consumers than would control;*
- direct and indirect benefits from the comparatively lower compliance costs and less intrusive nature of implementing a settlement versus imposing control; and*
- any detriments to consumers associated with the risk of non-compliance with the settlement terms as opposed to control.*

The proposed framework is broadly appropriate in principle. However, a number of factors need to be taken into account in implementing the framework.

The first bullet point (net changes in efficiency) and the fourth bullet point (benefits from lower compliance costs) are consistent with a focus on dynamic efficiency, and therefore should be given greatest weight.

The second bullet point (lower returns under a settlement than under existing regulatory arrangements) should not be considered a benefit of the administrative settlement. The important issue for the evaluation framework is that such "benefits" are simply a wealth transfer and can only be considered a benefit to the extent that they represent a transfer of purely functionless rents (that is, pure monopoly profit that provides no incentives for the regulated firm). Where transfers are associated with increased risks of under-investment then the long-term costs associated with such under-investment should also be taken into account.

Similarly, the third bullet point (transfer of a smaller proportion of excess returns to consumers than under control) seems to be focussed purely on wealth transfers with no consideration of whether the rents are functionless.

Finally, the risk of non-compliance with the terms of the settlement should carry little or no weight when determining whether or not to accept an offer of administrative settlement. The alternative to the settlement is control, and the Commission can always impose control if the terms of the settlement are breached.

9

Transpower Draft Decision, p.41.

3. ASSET VALUATION

The Commission is required to determine (or agree) an opening asset value and roll forward that value over the course of the forthcoming regulatory period.

In its offer of administrative settlement, Transpower adopts a hybrid approach to asset valuation consisting of features of the Optimised Deprival Value (ODV) methodology and Depreciated Historical Cost (DHC). The opening asset value as of 30 June 2006 is determined under the Commission's 2004 ODV Handbook. The Commission's 2004 ODV Handbook in turn references 1999 replacement cost estimates. In 2008-09 an adjustment is proposed to apply to Transpower's Economic Value (EV) account to reflect the impact of updating the Commission's 2004 ODV Handbook and applying the revised values for pricing purposes retrospectively between 1999 and 2006. However, revenues for 2007-08 and beyond are to be determined using DHC. Accelerated depreciation is applied using various "pseudo" assets to bring the ODV value in line with the financial book value of the assets over a 4-10 year period.

The subsequent sub-sections consider relevant issues in setting and rolling-forward the opening asset value, and the approach proposed by Transpower.

3.1. FACTORS TO BE TAKEN INTO ACCOUNT

3.1.1. Importance of Capital Maintenance

Concepts of capital maintenance, rates of return and supply obligations lie at the heart of voluntary participation by private firms in a regulated industry. The concept of capital maintenance is that an investor should hold the expectation of recovery of the initial investment in present value terms, discounting future cash flows at the investor's own cost of capital. A business that is prevented by regulation from receiving both a return of capital invested and an adequate return on capital would have a disincentive to continue to invest in the regulated sector.

Additionally, the obligation to commit to supply a certain service level and quality creates a liability for a firm that may potentially grow as current replacement costs of the assets increase. In order to maintain the value of shareholder equity in the firm, that growing liability would need to be matched by an asset (the prospective net revenues based on the regulatory asset base) that similarly grows over time. That asset could take the form of a credible regulatory commitment that the regulatory arrangements will ensure all reasonable costs are recovered and a reasonable return can be expected.

Capital maintenance has a number of angles, which are relevant when setting an opening asset value and rolling the asset base forward. These angles include:

- The ability to provide a revenue stream that allows the firm an expectation of recovering efficiently incurred costs. This is referred to as financial capital maintenance (FCM);
- The ability to enable the firm to meet future service obligations and finance its capital expenditure program. This is referred to as physical capital maintenance (PCM); and
- Preventing the firm from earning monopoly rents.

The three considerations above are not necessarily mutually exclusive. If a network is built at an efficient cost – and this cost is reflected in the asset base – and subsequent capital expenditure to replace the network is to be rolled into the asset base at cost, then there should be an expectation that all three considerations are met simultaneously.

However, for many infrastructure assets, and in particular ones that are subject to explicit price regulation for the first time, the opening asset value consistent with FCM is not known with any degree of certainty. This uncertainty arises, even in situations where the historic cost of asset acquisition is known with certainty, because the past recovery of investment principal through depreciation charges is difficult to determine. To deal with that uncertainty, there is a broad choice between a valuation methodology – such as ODV – that attempts to set the opening asset value based on the costs faced by a hypothetical new entrant (HNE), and one – such as DHC – that reflects actual costs of the network owner.

The HNE approach may be made consistent with FCM if revaluation gains and losses due to expected changes in asset replacement costs are treated as income. But the HNE approach may still not provide sufficient cash income to be consistent with FCM if the hypothetical benchmark is sufficiently stringent that no real world firm can achieve it.

Applying DHC creates a risk that the firm receives a revenue stream that is insufficient to meet future capital expenditure obligations, particularly where replacement costs have increased over time. In theory, if prices were readily adjustable, then this problem could be solved by increasing tariffs when a replacement investment was made at a greatly increased current replacement cost. However, price shocks of this type are difficult to implement in practice, given the inevitable pressures on regulators to insulate the public from step changes.

The problems with the HNE approach and DHC emphasises the need for criteria, based on cash flow modelling, that monitors the ability of the firm to satisfy both FCM and PCM over the regulatory period.

3.1.2. Role for cash flow modelling

The risk that the firm will either receive too much or too little revenue as a result of the path proposed for the asset value can be reduced by undertaking cash flow modelling. Cash flow modelling can mitigate the likely risk associated with setting an asset value either too low or too high by considering the ability for the firm to finance future capital expenditure needs. If the firm cannot obtain or maintain an investment grade rating then there is prima face evidence that the proposed path for the asset value is not consistent with FCM and/or PCM.¹⁰

The process of reaching an administrative settlement has an advantage in terms of cash flow modelling in that the proponent can undertake its own cash flow modelling before submitting a settlement offer to the Commission. However, in the case of price control, the onus is on the Commission – as the party proposing the price path and subsequently issuing a final decision – to ensure that the regulated entity is able to finance required investment and/or obtain an appropriate credit rating.

¹⁰ For example, inability to obtain or maintain an investment grade credit rating may hinder the firm's ability to obtain the debt financing necessary to undertake significant investment projects.

3.2. ASSESSMENT OF TRANSPOWER'S PROPOSAL AND THE COMMISSION'S APPROACH

3.2.1. Asset valuation path proposed by Transpower

In its offer of administrative settlement Transpower has derived its opening asset value off the Commission's 2004 ODV Handbook, which in effect results in a value consistent with the HNE costs as of 1999. The various adjustments to the asset valuation pre and post 2006 aim to allow Transpower to a) obtain full cost recovery of assets constructed between 1999 and 2006 and b) bring forward cost recovery in the post-2007 period. These adjustments are consistent with the promotion of FCM and PCM, particularly in the context of Transpower's proposed increase in capital expenditure.

Unison supports the fact that the Commission proposes to allow Transpower flexibility to enable it to meet its obligations in relation to FCM and PCM. However, it is unclear that Transpower's proposal provides a useful template for other lines businesses, or even that it represents the simplest approach in relation to Transpower.

The first part of Transpower's proposal – adjusting the customer EV balance to reflect the shareholder losses that have arisen because of the understatement of replacement costs since 1999 – is sensible in principle. It is noted that this adjustment should only be made if, as Transpower proposes, there is no adjustment to the value at which the assets are carried in the regulatory asset base. The understatement of actual asset costs in ODV valuations – as distinct from valid optimisations – has been a common problem for electricity lines businesses.¹¹ However, the size of Transpower's proposed adjustment only makes sense to the extent that any shareholder "losses" were recognised against the shareholder account when they occurred: that is, that the difference between actual capital expenditure and ODV building block values was reflected as a reduction in the shareholder EV account. The required adjustment depends on the relationship between the actual costs and the ODV values, and is set out in Table 1.

Table 1: Required adjustment to reflect difference between actual cost and ODV

Relationship between Actual Cost and ODV	Treatment of Difference
Actual cost < 1999 Replacement Costs	No adjustment required. Under a DHC regime Transpower would have only been able to capitalise the asset at actual cost, and as such it has already received a gain
1999 Replacement Cost < Actual Cost < 2006 Replacement Cost	The difference between Actual Cost and 1999 Replacement Cost will have been recognised as a loss in the Shareholder EV account, and the same amount should be transferred to the Customer EV account.
1999 Replacement Cost < 2006 Replacement Cost < Actual Cost	The difference between Actual Cost and 1999 Replacement Cost will have been recognised as a loss in the Shareholder EV account. This, in effect, means that Transpower's proposal is to adopt DHC from 1999.

¹¹ Understatement has arisen as a result of the use of outdated replacement costs in the ODV building blocks, and because the building blocks are based on unrealistic assumptions, particular regarding the scale of investment projects.

The second part of Transpower's proposal – moving towards book value through the use of accelerated depreciation on "pseudo assets" – is inherently complicated. An alternative open to Transpower is to move straight to the accounting book value. In doing so Transpower would be able to record a negative adjustment to the customer EV account. Although Transpower would lose the depreciation gains on pseudo assets it would gain by the lower EV account adjustment against tariffs. The two approaches should have the same net present value. Such an approach would have the benefit of simplicity and not involve the use of assets that do not exist.

3.2.2. Use of Depreciated Historical Cost

The Transpower Draft Decision adopts a different approach to the roll forward of the asset base than has been the Commission's practice to date and is applied in the Gas Draft Decision. To date the Commission has expressed a preference for the use of Indexed Historical Cost (IHC) in rolling forward the asset base, contrary to the use of DHC by Transpower.

In practice the main difference between DHC and IHC is the time profile of revenue created. DHC results in a front-end loaded revenue stream, which can provide cash flow benefits for a regulated firm with a significant capital expenditure program. In this regard, DHC can be more consistent with PCM.

The Commission sets out its support for IHC in its Gas Draft Decision:¹²

643 The Commission considers that—all other things being equal—an indexed valuation approach is generally to be preferred over an un-indexed approach, because it provides a time profile of (average) prices that is more consistent with allocative efficiency, than would be the pricing profile derived from the NPV equivalent un-indexed approach. This is because a pricing profile that declines over time, such as under un-indexed historical cost, will be less allocatively efficient than a flatter pricing profile. A related factor is that the use of an un-indexed approach can also suggest the need for larger changes in prices when significant assets come to be replaced.

However, the Gas Draft Decision states that the Commission may allow businesses to adopt DHC where there is a significant step change in capital expenditure requirements, but does not set out clear criteria under which DHC may be adopted:¹³

644 Nevertheless, because the application of un-indexed historic cost results in a pricing profile that provides greater cashflows in the first few years following an investment, there may be some limited circumstances where an un-indexed approach is preferable for reasons related to investment, such as when capital expenditure requirements face a significant step change in the short term. If such is the case, then such dynamic efficiency considerations may outweigh considerations of allocative efficiency. However, the Commission notes that cashflows are not the only source of funds that businesses have available to cover their efficient capital expenditure requirements, and as a result providing for increased cashflows may not be necessary even where future investment needs appear to be substantial.

12 Gas Draft Decision, p.157.

13 Gas Draft Decision, p.157.

We note that the reference to “cashflows” in the above statement appears to be referring solely to “operating cash flows”. The Commission seems to imply that financial constraints are not necessarily a factor so that if operating cash flows are insufficient then it should be possible for the firm to rely on financing cash flows. This view is incorrect and seems to be based on the naïve assumption that it should always be possible for the firm to borrow more or to issue more shares. Investors will be unwilling to invest further in a firm that does not appear to have regulatory support. Further, access to lending may be constrained under both an IHC and a DHC regime:

- Under a DHC regime, lenders may be uncomfortable with a regulated firm seeking to substantially increase its level of indebtedness because it must renew an existing asset whose replacement cost has risen substantially over time. The lender may doubt the regulator’s commitment to permit a significant and sustained increase in tariffs to pay for the new capital investment. However, we note that the Draft Decision clearly signals that the Commission is prepared to let prices increase to reflect the costs of significant new assets, and this will provide some comfort to Transpower’s lenders;
- An IHC regime allows tariffs to reflect current replacement costs of assets, which provides a credible regulatory commitment to permit the firm to recover the new investment. However, the treatment of revaluation gains as a deduction from allowed revenue can have a significant negative impact on the cash flow metrics that are essential for obtaining access to credit.

Allowing greater flexibility to businesses is a development that Unison supports. However, as the Commission does not undertake cash flow modelling, the circumstances under which it will accept the use of DHC to supplement short term cash flows are unclear. Furthermore, in the Transpower Draft Decision the Commission focuses solely on the step change in Transpower’s capital expenditure program rather than any cash flow impacts:¹⁴

270 Transpower’s proposed move to DHC is not in line with the Commission’s previous in principle decision to have Transpower move to indexed historical cost (IHC) valuations. DHC, however, has an important advantage for Transpower over IHC: it usually leads to larger cashflows from an investment soon after it has been undertaken, than charging regimes based on current (or replacement) cost-based valuation methods, of which IHC and ODV are both variants. This is especially important given the magnitude of Transpower’s proposed investments, and the fact that the associated capital expenditure often spans multiple years prior to commissioning.

Similarly the Commission’s grounds for rejecting the use of DHC in its Gas Draft Decision was due to the lack of a significant step change in capital expenditure, and not because its cash flow modelling showed an ability for the gas distributors to meet financing obligations under an IHC asset roll forward path.

14 Transpower Draft Decision, p.59.

The Commission should not be focussed on the absolute magnitude of a small number of capital expenditure projects, but should instead consider the magnitude of total projected capital expenditure relative to projected operating cash flows and the likely ability to obtain additional debt financing. Small electricity lines businesses will never undertake projects of the same absolute magnitude as the projects that Transpower is to undertake, but they may have a number of smaller projects that collectively cannot be financed from the firm's existing cash flow. The size of these firms means that they are also likely to have limited access to debt finance. Thus the critical determinant of whether DHC is required should be a consideration of the firm's actual cash flows.

The Commission's apparent change on asset roll forward is welcome. However, the Commission needs to develop a clear set of principles for allowing a regulated energy business to adopt DHC. Otherwise a highly inconsistent approach to asset roll forward will create uncertainty, for example for lines businesses that have or are considering breaching the price path threshold.¹⁵

Unison suggests that the Commission could undertake one of two approaches:

- Clearly specify the circumstances – including cash flow impacts – that warrant adoption of DHC as a roll forward methodology; or
- Explicitly indicate that it will allow the lines businesses to choose a roll-forward methodology under an administrative settlement and set out the implications if the lines business is subsequently subject to price control.

3.2.3. Cash flow modelling

We note that the Commission has not reported any cash flow modelling in either its Transpower Draft Decision or in its Gas Draft Decision. The Commission's approach is a departure from practice undertaken by many overseas regulators. By failing to undertake cash flow modelling the Commission creates a significant risk that a regulated entity cannot meet FCM and PCM. The lack of cash flow modelling was highlighted by Unison in its response to the Commission's Notice of Intention to Declare Control on Unison (NOITDC) under which the Commission had determined a revenue stream – without any modelling cross checks - that failed to provide Unison with an expectation of meeting standard financial ratings and ratios.

While the need for cash flow modelling is most acutely relevant for the gas distributors, the Commission should undertake cash flow modelling as part of its standard regulatory practice.

¹⁵ The Commission's draft decision to accept Transpower's proposed settlement indicates that there are situations in which it is reasonable for a firm to breach the price path threshold. The implication of the Commission's decision is that Transpower would not have been unable to undertake the necessary capital expenditure if it had not breached the price path threshold.

4. COST OF CAPITAL

The Commission's approach to the weighted average cost of capital (WACC) for Transpower is considered alongside its approach to the WACC for the gas distributors. This is for two reasons. First, the Commission adopts the same methodology in each case, reflecting the use of the same advisor. Second, the two decisions illustrate important features about the Commission's views in relation to how the WACC should vary between an administrative settlement and price control.

The two draft decisions provide significantly different allowances for the WACC, with a post-tax nominal WACC of 9.14% (rising to 9.33% following reductions in the corporate tax rate in June 2008) applied for the gas distributors, and a WACC between 7.2% and 8% applied for Transpower over the period of the administrative settlement.¹⁶

The Commission has sought advice from Dr Martin Lally in both instances. In the case of the gas distributors Dr Lally's advice was largely implemented in full by the Commission. Although Transpower did not propose a WACC based on identical parameter values to Dr Lally, the net result was similar given that the initial WACC (7.2%) and subsequent WACC values are a close approximation to those proposed by Dr Lally (initial WACC of 7.1%).

The Commission's approach to WACC in the two draft decisions papers is summarised in Table 2.

Table 2: Summary of Commission's WACC parameters – gas distributors and Transpower

Parameter	Gas distributors	Transpower (Lally)
Risk free rate - term	7 years	1 year (2006-07) 4 years (2007-11)
Risk free rate - value	5.88% (July 05)	1 year - 7.13%, 4 year – 6.44% (August 06)
Debt risk premium	1%	1%
Debt issuance costs	Considered as provided in cash flows	Not considered
Market risk premium	7% (SD 1.5%)	7%
Taxation	33% (to June 08), 30% thereafter	33% (to June 08), 30% thereafter
Asset beta	0.56 (SD 0.174)	0.30 (2006-07) 0.375 (2007-11)
Leverage	40%	40%
Post-tax nominal WACC (mid point)	8.13% (pre-June 08) 8.32% (post-June 08) (SD 1.5%)	7.1% (2006-07), 7.8% (July 07 – Apr 08), 8% (post-April 08)
Value applied	9.14% (pre-June 08), 9.33% (post-June 08) - 75 th percentile	50 th percentile

¹⁶ The WACC for Transpower is 7.2% in 2006-07, rising to 7.8% in 2007-08 and to 8.0% in subsequent years following reduction in the corporate tax rate.

The Commission notes that its approach to the cost of capital may be amended following the convening of its expert panel.¹⁷ However, it is more than two years since the Commission first flagged its intention to review its approach to the cost of capital, and during this period the Commission has not released any findings from the panel. In the absence of information of this nature we assume that the Commission intends to continue with its present approach to the cost of capital and that there will be important precedent arising from the two decisions.

Unison does not wish to comment on all aspects of the Commission's approach to WACC. We refer the Commission to previous advice provided by CRA International for Unison¹⁸ and the 2006 paper by Boyle, Evans and Guthrie ("BEG"),¹⁹ which critiques the approach to the cost of capital applied by Dr Martin Lally. Instead Unison wishes to comment on the following features in the two draft decisions:

- The rationale for a WACC for price control to be significantly higher than the WACC for an administrative settlement; and
- The treatment of actual and benchmark parameter values.

4.1. PRICE CONTROL VERSUS ADMINISTRATIVE SETTLEMENT WACC

The two draft decisions indicate a willingness for the Commission to accept a significantly higher WACC under price control than under an administrative settlement. Even accounting for any differences between gas and electricity (which will largely relate to systematic risk), the implied price control WACC is significantly higher than the administrative settlement WACC for the following reasons:

- The use of a 75th percentile WACC under price control compared with a 50th percentile WACC under the administrative settlement; and
- An increment (of up to 0.10) on the asset beta to reflect "higher systematic risk" under price control than an administrative settlement.

17 Gas Draft Decision, p.250.

18 For example, see CRA International, "Review of the Commerce Commission's Intention to Declare Control of Unison", October 2005.

19 Boyle, G. Evans, L and G. Guthrie (BEG), "Estimating the WACC in a Regulatory Setting", New Zealand Institute for the Study of Competition and Regulation, March 2006, mimeo.

The implication of the Commission's view is that investors require a much greater return to invest in a company that is subject to price control than one that is operating under a negotiated settlement. However, with such a large difference in WACC between the two regulatory instruments there may be adverse incentives created. For example, a business with a large capital expenditure requirement may actively seek to breach the price path threshold and be subject to control if by doing so it can obtain a significant uplift on the cost of capital that will offset any additional costs associated with price control (for example, greater compliance costs and potentially greater scrutiny of operating costs).

In practice the extent to which there can be greater scrutiny over costs under price control than other forms of regulation can be questioned. For example, the Commission states that Transpower's costs are already subject to a significant degree of scrutiny under the price path threshold²⁰ and will be subject to a high degree of scrutiny under the administrative settlement arrangements.²¹

More generally, if the firm was already efficient, then the effect of price control may simply be to increase its allowed WACC, and that would increase still further the longer the period of control. The firm may then have a clear incentive to breach a threshold and submit to formal control.

If moving to a higher form of control results in higher returns to the business, then the Commission's second and third key assessment issues²² – relating to lower transfers to consumers as a net cost of an administrative settlement – are logically inconsistent.

The inconsistent nature of the Commission's position reflects the sub-optimal and inconsistent approach to the appropriate value of a WACC within a distribution and the asset beta. The following sub-sections assess the Commission's position on these two issues and consider a more appropriate way forward that is consistent with the Purpose Statement.

4.1.1. Appropriate value of the WACC from a distribution

Transpower's offer of administrative settlement is broadly premised on the 50th percentile WACC developed by Dr Lally. By contrast, in its Gas Draft Decision the Commission applies a 75th percentile WACC.

20 For example, on p.19 the Commission states: "While Transpower is not subject to a revenue cap, it is currently subject to a price-path threshold. Both the price-path threshold and the Electricity Commission's scrutiny of Transpower's pricing methodology (not actual prices) and capital expenditure apply checks and balances to Transpower's operations".

21 For example, on p.vii the Commission states: "Likewise, under Transpower's proposal, it would be subject to a greater level of scrutiny with regard to its investment decisions, and this, alongside the framework for Transpower setting its revenue requirement in future, provides what is likely to be an acceptable framework".

22 These were set out in section 2.

Applying a 75th percentile WACC is an extension on the approach that the Commission first adopted in its gas inquiry where it used a 75th percentile for the WACC in its scenario analysis. In the Gas Draft Decision the Commission explains its rationale in terms of estimation errors as follows:²³

E.55 The Commission has decided to use a post-tax nominal WACC of 9.14% from the upper end (75th percentile) of the WACC range in calculating the return on capital for Powerco and Vector, thereby allowing for the possibility of estimation error.

E.56 The Commission considers that this WACC value provides an appropriate balance between achieving commercially realistic rates of return (for comparable businesses) and the interests of acquirers of controlled services. This level is higher than comparable allowances proposed by regulators in Australia and the UK, but in the Commission's view it is an appropriate level, bearing in mind the need to maintain investment incentives.

Unison has previously expressed its support for applying a value for the upper end of the WACC distribution to reflect the risk of setting the WACC wrong and asymmetries in the costs associated with regulatory error. Although the exact confidence interval to be adopted is a matter of decision-making under uncertainty,²⁴ application of a 75th percentile for the WACC under price control for the gas distributors is supported.

However, it is unclear why as a general principle a value above the mid-point is appropriate for price control but not under an administrative settlement. The rationale for applying a WACC above the mid-point is to reflect uncertainty over the WACC and the asymmetric social costs associated with regulatory error. In theory, the exact costs will vary on a case-by-case basis reflecting the nature of investment needs in a particular business area and the customer mix. However, there should be no general presumption that an administrative settlement is equivalent to “no control” and hence that the asymmetric social costs would not occur. Costs associated with under-investment can arise regardless of the form of regulation. Even under a hypothetical world where all businesses are subject to rate of return regulation, setting the WACC too low can lead to under-investment.

New Zealand's regulatory regime for large ELBs has three forms of regulatory control:

- The price path thresholds regime;
- Administrative settlements; and
- Formal price control.

²³ Gas Draft Decisions Paper, p.xiv.

²⁴ For example, we note that the Commission applied a 83rd percentile in its scenario analysis underpinning its notice of intention to declare control on Unison.

The relative level of risk associated with each regime is unclear, and certainly cannot be ranked on a linear scale. Capital expenditure plans and planning processes may be subject to detailed scrutiny by the Commission under both an administrative settlement and formal control. Comparison of the Draft Decision with the Gas Draft Decision suggests greater scrutiny of operating costs under formal price control than under an administrative settlement. But even operating under the price path threshold – which does not require scrutiny of either capital or operating expenditure – does not guarantee a reduced likelihood of asymmetric social costs occurring. The price path threshold may provide too little cash flow for some ELBs to undertake necessary investment, but they may decide not to breach the threshold to avoid huge costs associated with a Commerce Commission investigation.

The fact that Transpower has accepted a WACC at the 50th percentile does not support the application of the 50th percentile as a general principle. Moreover, there is support for applying a WACC higher than the 50th percentile for Transpower from Dr Lally, who states:²⁵

Although the rationale for this margin is not articulated, I agree with the general principle of a margin to deal with uncertainty over the WACC estimate

As a general principle, therefore, Unison believes there should not be a presumption in favour of applying a higher confidence interval in price control compared with an administrative settlement. The rationale for an adjustment – namely that there is a risk of regulatory error, and adverse consequences that arise from this error – is not unique to formal price control. Unless the costs of regulatory error can be estimated on a case-by-case basis, which is an extremely difficult task that has yet to be adequately undertaken, Unison supports consistent application of a 75th percentile WACC under both administrative settlement and price control.

4.1.2. Mechanistic approach to setting beta

The Commission adopts a highly mechanistic approach to setting the asset beta, which results in a range of perverse incentives.

The asset beta is a linear function of three factors:

- The strength of the underlying regulatory incentives on a spectrum from “pure rate of return regulation” (0.30) through “administrative settlement” (0.40) and to “pure price cap regulation” (0.50);
- The length of the regulatory period, under which the business obtains the “highest” value for its beta under a 5-year regulatory period. A single year regulatory period results in the base “rate of return” value of 0.30 provided, with the beta applicable for any interim period determined through linear interpolation; and
- Whether the decision relates to electricity or gas, the latter which results in an increment in the maximum (5 year) asset beta of 0.10.

25

Lally, M. “Review of the WACC in Transpower’s Formal Settlement Proposal”, September 2007, p.33.

Table 3 sets out a matrix of asset beta values that apply to an electricity business under administrative settlement and price cap regulation and a gas business subject to price cap regulation under the above assumptions.

Table 3: Matrix of beta values by length of regulatory period: Electricity and Gas

Form of regulation	1-year	2-year	3-year	4-year	5-year
Electricity Admin Settlement	0.30	0.325	0.35	0.375	0.40
Electricity Price Control	0.30	0.35	0.40	0.45	0.50
Gas Price Control	0.40	0.45	0.50	0.55	0.60

Based on the above table, Dr Lally concluded that the asset beta for Transpower should be 0.30 in 2006-07 and 0.375 in 2007-11. In its Gas Draft Decision the Commission concluded that on average the length of the regulatory period was roughly 4.15 years.²⁶ On this basis an asset beta of 0.56 is proposed.

There are numerous flaws with the Commission's and Lally's approach. On this point Unison wishes to refer the Commission to the paper by Boyle, Evans and Guthrie (BEG). BEG show, amongst other flaws, that price cap regulation is not rate of return regulation with less frequent reviews,²⁷ and that the categorisation of the US electricity sector as a homogenous grouping operating under price cap regulation with annual resets is highly misleading.²⁸ Once these two assumptions are shown to be invalid the mechanistic matrix approach becomes highly misleading at best.

At a practical level, the impact of applying a mechanistic approach to beta means that not only are there incentives to be regulated under price control, but also there are strong incentives to have a relatively long regulatory period. For example, the difference for an electricity lines business between operating under a 3-year administrative settlement and a 5-year period of price control is the difference between:

- A 50th percentile WACC derived using a best estimate of the asset beta of 0.35; and
- A 75th percentile WACC derived using a best estimate of the asset beta of 0.50.

²⁶ This value is a weighted average of a 2-year and 5-year length of regime.

²⁷ BEG p.24 explains the difference between rate of return and price cap regulation as follows: "Rate of return regulation involves the regulator setting all of the firm's prices, typically for an undetermined period. Prices are revised after the regulator holds another formal price review, which may be prompted by the firm requesting price changes. If prices are revised frequently it is because the firm files for a price review frequently. Prices are usually set so that the firm can expect to recover its actual cost of doing business. Price cap regulation allows the firm considerable freedom to adjust prices between regulatory reviews because price caps typically apply only to the price of a basket of the firm's goods. The price caps are typically imposed for a fixed period of time, and reviewed at the end of that period. The parameters describing the price cap are usually set so that the firm can expect to recover only the costs that a hypothetical efficient firm would incur."

²⁸ See BEG pp.21-22.

The perverse arrangements in relation to the asset beta can be minimised if the Commission moves to applying an industry-level beta. The industry beta would provide a benchmark, which is only adjusted where there are good grounds to assume that the underlying incentive arrangements facing a particular company are sufficiently different to have a material impact on the asset beta. An approach of this nature is similar to that proposed for the Australian electricity distributors,²⁹ where the regulator (the Australian Energy Regulator) will be able to set out 5-yearly guidelines on the values to apply as a default for key cost of capital parameters, including the asset beta. The electricity distributors will then be able to challenge the default value on a case-by-case basis. However, the onus of proof will be placed on the distributors to demonstrate that the default value is not applicable for their circumstances.³⁰

4.1.3. Other considerations

Additional complexity arises because the risk free rate is also referenced off the length of the regulatory period. The Commission continues – in isolation from international regulatory precedent - to derive the bond maturity in the risk free rate based on the yield of Government bonds consistent with the length of the regulatory period. Unison refers the Commission to earlier submissions and the BEG paper.³¹ The practical impact of the Commission's approach to the risk free rate - under current scenarios where there is a downward sloping yield curve – is that under a short regulatory period the lower asset beta is then to some extent offset by a higher value for the risk free rate. However, there is no general presumption as to why a short maturity risk free rate will always have a higher yield.

The incentives associated with the risk free rate can be overcome through applying a consistent approach, namely the 10-year Government bond as the maturity for the risk free rate. Unison has consistently supported adoption of the 10-year bond, which is consistent with the approach of international regulators.

4.1.4. Summary

The implied position out of the Commission's documents – namely that a significantly higher WACC is appropriate under price control than an administrative settlement – is a direct consequence of the illusion of rigour underpinning the Commission's approach to WACC. If best regulatory practice is consistently applied then there is no a priori reason to assume that the respective WACCs will necessarily diverge by right, though a case-by-case assessment may be required, for example, if there are features in a settlement proposal that significantly alter systematic risk. Best practice supported by Unison would involve:

- Applying a consistent 75th percentile to the WACC under all forms of regulation;

29 See: Ministerial Council on Energy, "Second Exposure Draft National Electricity (Economic Regulation of Distribution Services) Amendment Rules 2007", October 2007.

30 Note that one additional factor in Australia that enhances the effectiveness of the proposal is the availability of merits review.

31 The risk free rate is discussed in section 4 of BEG.

- Adopting an industry-wide beta that will form the default value for either form of regulation (but which can be challenged); and
- Applying the 10-year Government bond consistently in the risk free rate.

Applying these three factors simultaneously would reduce uncertainty and enhance incentives for investment, consistent with the requirements of the Purpose Statement.

4.2. USE OF ACTUAL AND BENCHMARK PARAMETERS

The use of actual and benchmark parameters is confused in both the Transpower and Gas Draft Decisions.

One case is the treatment of debt costs. The Commission espouses adoption of optimal leverage. However, at the same time it relies heavily on the debt costs for the companies in question in estimating the debt risk premium, including Transpower.

The Gas Draft Decision is a clear case in point. The Commission (following Dr Lally's advice) applies a debt risk premium of 1.0%. The key pieces of evidence are:

- Estimates of the yield on 2 year debt issued by Vector (VCT020); and
- Estimates of the yield on 3 year debt issued by Powerco (PWC070).

For both companies the estimates are taken from three distinct dates: 15 Nov 06, 15 Dec 06 and 16 Jan 07.

Under a benchmark model the Commission should be expected at a minimum to determine a benchmark credit rating to apply to the business(es) at the preferred level of gearing and then consider benchmark credit yields from all companies of similar credit rating. The Commission undertakes neither step.

Moreover, the Commission's analysis is flawed by virtue of the debt margin being determined based on data as of the end of 2006, while the risk free rate is based on data from July 2005. Moreover, the maturity applicable for the debt margin does not match the maturity in the risk free rate (7 years).

In the case of Transpower, Dr Lally also does not undertake any assessment of the required benchmark credit rating and yields on corporate debt of similar rating over the same maturity and timeframe adopted for the risk free rate. Instead Dr Lally relies on his earlier analysis for the electricity lines businesses in adopting a debt risk premium of 1%, without stating the relevance at the current point in time for Transpower or an investor in a benchmark lines business.

5. CONCLUSIONS

Unison supports the Commission's intention to accept Transpower's offer of administrative settlement.

However, Unison considers that in many areas the Transpower Draft Decision does not provide a useful template for other lines businesses. This is particularly evident with respect to the cost of capital, the time profile of the asset base and the potentially undue attention to welfare transfers.

That said, there are some developments in the Transpower Draft Decision that Unison supports: for example, allowing Transpower to apply DHC in rolling forward the asset base. However, there is a distinct lack of clarity associated with the circumstances under which DHC is applicable. Furthermore, the lack of clarity over how a WACC should differ between administrative settlement and price control also creates risk and complexity.

The Commission's consideration of the short to medium term cash flow requirements in support of critical investment is commended but the absolute need for this, driving certain decisions by the Commission to accept Transpower's proposals, is not evidenced through appropriate cash flow based analysis. This leads to decisions that are inconsistent with the current regulatory framework as it applies to gas of electricity distribution. It is also unclear that the cash flow benefits derived from adopting DHC would not be supplemented or replaced by a consistent approach to other decisions – such as:

- also adjusting the regulatory asset base to match the accounting value, with the adjustment being used to reduce the balance of the customer EV accounts, and therefore improving future revenues, in one step rather than over a number of years through pseudo asset depreciation; or
- applying a WACC at the 75th percentile and thus preserving consistency in respect of potential estimation error in this key factor across the regulatory framework.

Unison has provided proposals in this paper to reduce inconsistencies and uncertainty over the WACC and reduce uncertainty associated with the asset roll forward. The application of inconsistent or unclear positions is likely to reduce incentives for efficiency gains – and in particular dynamic efficiency gains - contrary to the aims of the Purpose Statement and the GPS.

APPENDIX A: RESPONSE TO DETAILED QUESTIONS

Framework for Evaluating Administrative Settlements

1) Do you agree with the Commission's framework for evaluating the decision regarding whether or not to declare control, or to accept Transpower's settlement offer?

Unison refers the Commission to section 2 of this paper.

Part F Capital Expenditure

2) Do you agree with the proposed treatment of capital expenditure?

Unison is broadly in support of the proposed treatment of Part F capital expenditure.

3) Does the proposal, which restricts assets entering the RAB to the lesser of actual or the approved P90 value, and which allows Transpower to seek approval for any additional costs over and above P90, to place sufficient incentives on Transpower to minimise excessive costs (paragraph 231)?

Unison considers that the proposal is reasonable. While Transpower is able to petition the Electricity Commission for approval of costs above the P90 value, the Electricity Commission has no obligation to approve such costs

4) What timing is appropriate for Transpower to recover costs associated with the purchase of land and easements (paragraph 228)?

It appears that this question is actually concerned with paragraph 229:

229 The Commission specifically seeks submissions on when Transpower should be allowed to recover for the costs of land and easements and transmission corridors and on Transpower's proposed treatment of land bought for the purpose of acquiring easements and proposed method of determining the value of easements acquired by purchasing and reselling the land.

There are three parts to paragraph 229:

- When Transpower should be allowed to recover for the costs of land and easements and transmission corridors;
- Transpower's proposed treatment of land bought for the purpose of acquiring easements; and
- The proposed method of determining the value of easements acquired by purchasing and reselling the land.

Unison agrees with Transpower's proposed treatment of land bought for the purpose of acquiring easements, and agrees with the proposed method of determining the value of easements.

In respect of the timing of the recovery of easement costs, Transpower proposes that:³²

The inclusion within the regulatory asset base of the full costs of establishing the easement will occur at the date of the next regulatory asset base valuation following either purchase of the land or the approval of the project by the Electricity Commission, whichever is the later.

Unison agrees with Transpower's proposal. Furthermore, Unison considers that interest should be capitalised between the indicated date and the date of the regulatory asset base valuation.

Transmission (Non-Part F Capex) Threshold

5) In the absence of Electricity Commission scrutiny, is the proposed transmission (non-Part F) capital expenditure threshold an appropriate interim measure?

Unison considers that the proposed transmission (non-Part F) capital expenditure threshold is reasonable as an interim measure. However, Unison is concerned about the Commission's potential response to a technical breach of the threshold. The Commission states in paragraph 37 that the basis for declaring control may be unrelated to the specific cause of the breach. We are concerned, therefore, that a technical breach of this threshold could lead to the disproportionate outcome of the Commission declaring control of Transpower. A more appropriate outcome would be to either disallow recovery of capital expenditure over the threshold, or to deduct the amount of the breach from the subsequent year's threshold.

6) Do you consider the Force Majeure and Security of Supply Event provisions appropriate?

The Force Majeure and Security of Supply Event provisions are appropriate. Transpower must be able to respond appropriately to such events as they occur.

7) Is the absence of regulatory scrutiny for the investments associated with business support assets appropriate (paragraph 247)?

Unison is comfortable with the proposed approach to business support assets.

Accounting for the regulatory asset base

8) Is Transpower's proposal to adopt DHC appropriate (paragraph 258)?

Unison supports the ability for electricity lines businesses to adopt DHC, and considers that this approach should be available more generally. Please see section 3.2.2.

9) Is there any reason that Transpower's proposal to align the financial reporting and regulatory asset books and the use of four pseudo assets, and depreciate these over 4-10 years, depending upon the class of asset, should not be accepted (paragraph 284)?

Unison considers that Transpower's proposal to align the financial reporting and regulatory asset books is reasonable.

However, Unison considers that aligning regulatory asset and financial reporting books could be achieved more directly by moving directly to the financial asset register, and writing off the difference between the regulatory and financial registers against the Customer EV account. This would avoid the need to create the pseudo assets, and would achieve the objective of reducing the EV account which was Transpower's justification for retrospectively revaluing its assets. Please see Section 3.2.1 for further comments on this aspect of Transpower's proposal.

10) Do you agree that Transpower's argument, that the WACC it has used historically did not incorporate a premium for asset stranding and impairment, should be accepted?

We agree that there is no basis to believe that the WACC that Transpower has used historically has included any premium for asset stranding and impairment. More generally, the WACC derived from the Capital Asset Pricing Model (CAPM) with betas derived from market data does not incorporate any allowance for stranding risk. To the extent that the asset beta in Transpower's WACC is derived off comparator regulatory decisions it will not include any premium as there is limited international regulatory precedent for adjusting asset betas to reflect stranding risk.

11) Is the proposal that cash-flows be adjusted to compensate for asset stranding and impairment through accelerated depreciation, appropriate?

The appropriateness of the proposed approach depends in part on the treatment of the asset at 30 June 2006. For most assets which have a remaining life of more than three years the proposed approach is reasonable. However, there are some assets, such as Pole 1 of the HVDC, that have been "restated" a number of times by resetting the remaining life to three years (or some other number) even when its actual age is greater than its standard life (as specified in the ODV handbook). The ODV handbook allows assets with less than three years of remaining life to be restated as having a maximum of three years remaining life. This means that after depreciation is deducted for the year, the asset is revalued upwards by an amount equal to depreciation. The revaluation is a gain to the shareholder.

Transpower's shareholder has already earned more than the full value of these assets and should not be able to recover even more if the asset becomes impaired. Instead, for these assets Transpower's shareholder should bear the cost of any write-down. A practical way to achieve this may be to restate the 30 June 2006 asset base, adjusting the remaining life of such assets so that (a) if the asset has ceased to provide service (e.g. Pole 1) then the asset is depreciated to zero on the date that service ceased, and (b) if the asset is continuing to provide service that the remaining life at 30 June 2006 does not result in an "end of life" that is beyond the end of life currently expected. Such adjustments to the 30 June 2006 asset base should be reflected in adjustments to the Shareholder EV account, and not to the Customer EV account.

Transmission asset replacement costs

12) Should the proposal that the ODV not be updated with the new replacement costs, resulting in there being no need to increase the customer EV accounts, and that the impact of updated replacement costs be calculated and adjustment provided to Transpower for past under- or over-valuation through the customer EV accounts, be accepted?

Unison considers that Transpower's proposal is generally reasonable. Not updating the ODV with the new replacement costs has the same NPV effect as updating the ODV and reflecting the revaluations as increases in the customer EV account. However, the two approaches differ significantly in the timing of cash flows. Even with the 10% cap on EV rebates, it is likely that the revaluation gains resulting from an increase in the ODV would depress customer charges for a period of several years, thus reducing Transpower's cash flows and making it more difficult for Transpower to finance necessary investment.

However, our support for Transpower's proposal is qualified to the extent that the 30 June 2006 ODV includes assets that are over-valued by virtue of having a remaining life that is too high (for further comments on this see our answer to question 12).

Operating Costs

13) Is Transpower's proposed base operating expenditure figure of \$199.61 million an appropriate level at which to set base operating costs?

Transpower's proposed base operating expenditure has been subject to independent review. On the basis of that review Unison has no concerns about the proposed quantum.

14) Is the use of CPI – X, with X being set at 0, an appropriate basis by which to scale base operating expenditure in future years? Does this provide sufficient incentives for Transpower to pursue efficiency gains?

Unison has no concerns with the proposal to scale base operating expenditure by CPI in future years. This proposal effectively breaks the link between recoverable operating expenditure and actual operating expenditure, and thus provides the incentives for Transpower to pursue efficiency gains (which would result in increased profit).

Cost of capital

15) Do you agree that Transpower's proposed WACC values are appropriate for the term of the settlement?

Please see section 4 for discussion of issues associated with Transpower's cost of capital.

Cross-border leases

16) Do you agree with the Commission's preliminary view that it should accept that its shareholders not be required to explicitly share the benefits of any future cross-border leases or structured finance arrangements?

Transpower proposes that its shareholders will retain the benefits of any future cross-border leases or structured finance arrangements that Transpower undertakes and assume the costs of developing such arrangements.

In paragraph 315, the Commission states that:

The Commission received independent advice from Associate Professor Lally, who confirmed that the basis for his estimate of Transpower's debt premium is the actual debt premiums of several of the largest electricity lines businesses in New Zealand. Since cross-border leases and structured finance arrangements are generally available to these firms, the debt premium incorporated into Transpower's WACC reflects the availability of these arrangements.

Dr Lally is incorrect. His estimate of Transpower's debt premium is the observed yield on relevant corporate bonds. While this shows the actual debt premium on those bonds, it does not show the effect that structured finance arrangements may have on the firm's overall cost of borrowing.

We also note that structured finance arrangements are only available to the very largest electricity lines businesses in New Zealand (i.e., Powerco, Transpower, and Vector), and are not generally available to most lines businesses. Unison, for example, is too small to be able to take advantage of such arrangements.

Structured finance transactions lie outside the scope of what should be considered to be part of the firm's regulated activities. Such arrangements are not without risk, and it is generally not appropriate for customers to bear those risks. If shareholders (via the Board of Directors) decide that they are willing to assume the risks associated with structured finance transactions, then they should also be able to claim the full benefits of those transactions. We therefore agree that Transpower's shareholders should not be required to share the benefits of any future cross-border leases or structured finance arrangements.

More generally, the implication that perhaps it would be reasonable for the benefits to be shared with consumers again raises concerns that the Commission does not appropriately distinguish between actual and benchmark parameters. The cost of debt based on observed corporate bond yields is a reasonable benchmark that the largest electricity lines businesses could reasonably be expected to achieve – and a benchmark that a hypothetical new entrant of the same scale could be reasonably expected to achieve. Actual financing arrangements that result in a different actual cost of debt – whether higher or lower – should not be reflected in the regulatory WACC. Further, if the Commission was intending to capture the benefits of such arrangements and pass them to consumers, then it would also have to credibly commit to passing the costs and risks of such arrangements to consumers. If it chose to pass on benefits but not the costs and risks then there would no longer be any incentive for firms to undertake these activities.

Tax Treatment

17) Do you agree that the tax payable approach plus interest tax shield is appropriate?

Transpower has proposed the use of cash tax plus an interest tax shield.

Unison agrees in principle with this approach. However, Unison notes that using prima facie tax is an equivalent treatment over time as long as the deferred tax balance is netted off the regulatory asset base (RAB).

We also note that tax should be calculated using the RAB rather than the actual price paid for an asset. Where the actual price paid for an asset is greater than the RAB, basing tax calculations on the RAB will depress revenues below the level for a hypothetical new entrant. Further, the amount by which the price paid exceeds the RAB is a loss to the firm's shareholders. The extra depreciation tax shield that exists by way of this premium serves to mitigate the loss, but can never turn the loss into a windfall gain. This treatment should apply both when the "purchase price" is the cost at which the asset is constructed (i.e. RAB < construction cost) and when the "purchase price" is the price at which assets are acquired from another party.

Depreciation

18) Do you agree that Transpower's proposed treatment of depreciation is appropriate?

Yes. The Commission should rely on established accounting practice wherever possible.³³

Economic Value Accounts

19) Do you agree with the proposed 'economic value' framework?

Unison agrees with the proposed economic value (EV) framework: it is a logical consequence of the proposed settlement.

However, if there is going to be on-going reliance on an EV account then the account needs to be fully disclosed and subject to audit. There is currently a lack of transparency, with no information available that can be used to estimate the level of the balances in the account.

We also understand that Transpower intends to maintain the split between the AC customer account and the DC customer account. Unison agrees with this.

20) Do you agree using Transpower's WACC is an appropriate interest rate to apply to balances of the EV Accounts?

Unison agrees that Transpower's WACC is a reasonable interest rate to apply to balances in the EV accounts. The Commission notes that there is an argument that the Customer EV balance represents equity that the customer does not have, and hence the cost of equity is the appropriate interest rate, but there is also the contrary argument that the balance represents a debt to customers, and hence the cost of debt is the appropriate interest rate. The Customer EV balance can also be viewed as a source of funds which, if it did not exist, would have to be replaced by some mix of debt and equity, and hence the WACC is the appropriate interest rate.

21) Do you agree with how Transpower proposes to adjust the EV Accounts so that its revenue in 2006/07 and 2007/08 conforms to the new thresholds?

33

We note, however, that in some instances accounting practice is too conservative. For example, accounting standards require interest during construction to be capitalised at the cost of debt, whereas the appropriate rate from an economic perspective is the WACC.

Subject to our comments on other aspects of the proposal, particularly the comments relating to accounting for the regulatory asset base, Unison has no concerns with Transpower's proposal to adjust the EV accounts for 2006/07 and 2007/08. These adjustments will simply ensure that Transpower is able to earn the revenue consistent with the settlement.

Interim rebate

22) Do you agree with the Commission's preliminary view on the appropriateness of Transpower's revised price increases for both the 2007 and 2008 pricing years?

Subject to the reviews of Transpower's capital and operating expenditure, the appropriate revenue is what ever is calculated from Transpower's building block revenue model. If this results in price increases then those increases are appropriate.

Quality Threshold

23) Do you agree that Transpower should continue to be subject to a quality threshold?

We disagree with the Commission's position in paragraph 37 that the basis for declaring control may be unrelated to the cause of the breach. Investigations following a breach of a quality threshold, or other quality target in an administrative settlement, should be limited in scope to investigations and activities related to quality only. Using a breach of a quality threshold or target as a reason to instigate a full and wide ranging investigation is opportunistic behaviour that undermines the confidence of investors in potentially regulated entities such as electricity lines businesses.

We also note that the Commission is precluded by statute from making an authorisation or accepting undertakings in relation to Transpower's quality (paragraph 345).

While the Commission may set a quality threshold, the only power that it has following a breach of that threshold is to either commence a new investigation into Transpower or resume its control proceedings. As we have noted, we consider that this is inappropriate and opportunistic. We therefore conclude that Transpower should not have a quality threshold as currently specified.

However, this does not mean that full disclosure of quality information is not important. As the Commission notes in paragraph 346, the benchmark agreements and Interconnection Rules do not require Transpower to make a complete public disclosure of its reliability performance. We therefore suggest that the proposed quality threshold is replaced with a requirement for full disclosure.

24) Do alternative forms of quality threshold exist that may be superior in terms of achieving the objectives of the Purpose Statement of Part 4A of the Act, or the August 2006 and October 2006 GPS?

Unison has no comment.

System operator services threshold

25) Do you agree with the Commission's preliminary view to accept Transpower's proposed system operator services threshold, which effectively treats System Operator costs as pass-through costs?

Unison considers that it is appropriate to accept Transpower's proposed system operator services threshold.

26) Is the use of ACAM appropriate for the purpose allocating costs between Grid and System Operator functions?

The Commission notes at paragraph 349 that "Transpower proposes to allocate only the avoidable costs to the system operator function using the avoidable cost allocation methodology (ACAM)".

In paragraph 351, the Commission summarises its concerns with ACAM:

- *ACAM as currently prescribed allows the electricity lines business to retain all of the efficiency benefits that might be achieved through economies of scope, which is potentially inconsistent with provisions under Part 4A requiring efficiency gains to be shared with consumers over time;*
- *ACAM as currently prescribed effectively allows the monopoly business to subsidise the cost of providing competitive services and it could be argued that this lessens competition in the market for those other services; and*
- *the application of the ACAM methodology for those businesses that have electricity and gas networks effectively allows them to double-count a significant portion of common costs, by treating each of those networks as "stand-alone".*

The Commission states that "it is of the preliminary view that it should accept Transpower's proposed system operator threshold". The Commission further states that "It is likely, however, that the use of ACAM will mean lower costs for the system operator and higher costs for the asset owner functions of Transpower than if some other efficient pricing mechanism were adopted."

Unison supports the use of ACAM and does not agree with the Commission's objections. While the Commission suggests that ACAM "allows the electricity lines business to retain all of the efficiency benefits that might be achieved through economies of scope", we note that the approach that the Commission has applied in its draft decisions on price control for the gas distribution networks for Powerco and Vector allocates all efficiency benefits to consumers. The Commission's preferred approach is detrimental to efficiency because it (a) provides no incentives for mergers and acquisitions, and (b) it removes the incentives for firms to achieve economies of scope. Although ACAM does not provide a wealth transfer to consumers (which in any event is not a Net Public Benefit), ACAM does ensure that incentives to achieve economies of scope are retained, thus providing incentives to minimise the resources dedicated to managerial functions with the relevant industries.

Unison also notes that it is quite plausible that Transpower could face competition from another party such as a foreign system operator, who would clearly price the service on an incremental and avoidable cost basis. Pricing higher than that level would increase the likelihood of not winning the contract. Pricing lower than that level would incur a loss.

Compliance reporting

27) Do you agree that Transpower's compliance reporting should be annually, and in a manner similar to current compliance reporting requirements?

Unison agrees with this.

Summary of evaluation

28) Do you agree that Transpower's offer is consistent with the Purpose Statement of Part 4A of the Act?

Unison agrees that Transpower's offer is consistent with the Purpose Statement of Part 4A of the Act. To the extent that the offer is consistent with the GPS on Infrastructure Incentives (see question 30 below), the offer results in more dynamically efficient outcomes. Being essentially cost-of-service regulation with a mid-point WACC, the offer also tightly limits Transpower's ability to earn any positive economic profits. The only opportunity for Transpower to earn additional profits comes from unregulated activities and from operating cost efficiencies.

29) Do you agree that Transpower's offer is consistent with s 57E (b) of the Act, namely that it provides strong incentives to improve efficiency and provide services at a quality that reflects consumer demands?

Incentives to improve efficiency are relevant both to capital expenditure and to operating expenditure. The elements of the offer relating to operating expenditure break the link between the operating expenditure actually incurred and the operating expenditure able to be recovered, and thus provide an incentive to lower operating expenditure.

The move away from ODV – with asset values based on external estimates of building block costs – to DHC arguably weakens the incentives for efficiency in capital expenditure. However, this weakening of incentives is mitigated somewhat by Electricity Commission oversight of significant elements of Transpower's investment programme. This risk should also be weighed against dynamic efficiency considerations, particularly whether there is an incentive to invest and to provide service at a quality that reflects consumer demands.

Transpower's approved Part F investment programme includes investment in new assets required to meet reliability standards. Non-Part F capital expenditure is also required to ensure that existing assets continue to meet those standards. The move to DHC strengthens the incentives for Transpower to undertake the necessary investment when it is required, rather than delaying investment because it is concerned that it might not achieve full recovery of its reasonably incurred costs.

On balance, we therefore agree that Transpower's offer does provide incentives to improve efficiency and to provide service at a quality that reflects consumer demands.

More generally, we consider that a judgement of consistency with s 57E of the Act primarily requires a judgement as to whether the proposed offer is likely to enhance dynamic efficiency. In our view dynamic efficiency is likely to be significantly improved through (a) improved investment incentives, and (b) improved near-term cash flows making it easier to undertake needed investments when they are required.³⁴ Therefore, we also agree that Transpower's offer is consistent with s 57E of the Act.

30) Do you agree that Transpower's offer is consistent with the GPS on Infrastructure incentives?

Unison agrees that Transpower's offer is consistent with the GPS on Infrastructure Incentives. In particular, the adoption of DHC provides significantly increased certainty over operating cash flows and ensures that those cash flows occur when they are most needed to help finance investment.

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We note in this respect that the fact that an investment is approved under Part F does not necessarily mean that Transpower will have the cash necessary to undertake the investment. The move from ODV to IHC may remove the disincentives to invest that are provided by optimisation, but the regulated firm is left with a significant component of non-cash income (i.e. revaluations). Moving from IHC to DHC changes the time profile of cash flows, and may enable to the firm to undertake investments in the near term that it would otherwise not be able to finance.