

**NETWORKS PRICING:
ASSET VALUATION OFF-RAMP
FINAL DECISION
STATEMENT OF REASONS**

APRIL 2005



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CHAPTER**1****FOREWORD****Purpose of this Paper**

1.1 This paper presents the statement of reasons for the Commission's final decision following its review of asset valuation matters consequential to its Final Determination for the 2004 Regulatory Reset ("the 2004 Reset Determination"). This paper does not represent the final decision itself, which was separately published by the Commission on 30 March 2005. That final decision is reproduced in chapter 3 of this paper.

1.2 The 2004 Reset Determination included provision for what was termed an asset valuation 'off-ramp' (hereafter the "off-ramp provision"). This allowed for a once-off adjustment to the value of the network price cap were the Commission to find that there had been a material error in the asset values underlying the Z factor that had been incorporated into the 2004 Reset price cap formula (Appendix A).

1.3 The Z factor applied in the 2004 Reset Determination had the effect of increasing the price base for the second regulatory control period by 4.4%.

Review process

1.4 The Commission published its draft decision at end-February 2005. The draft decision is set out at Appendix B.

1.5 Submissions were received from both the Power and Water Corporation and the NT Treasury responding to the Commission's draft decision. The points raised in these submissions, and the Commission's general responses, are summarised in tabular form at Appendix C.

1.6 The Commission published its final decision for the asset valuation off-ramp review on 30 March 2005.

Inquiries

1.7 Any inquiries regarding the asset valuation off-ramp review process should be directed to:

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Abbreviations used in this Paper

1.8 The key abbreviations and acronyms used in this paper are as follows:

2000 Determination	the review of network price regulation by the Commission that was completed in May 2000
2004 Reset	the review of network price regulation by the Commission that was completed in March 2004
DORC	depreciated optimised replacement cost
GARP	generally accepted regulatory practice
RAV	regulatory asset value, being the value used for price regulation purposes
S factor	the side-constraint factor determined by the Commission applying to the weighted average tariff for each individual end-use customer, in respect of a particular year or years
Z factor	the factor determined by the Commission which indicates the extent to which the weighted average of all network access tariffs applying in the first regulatory control period required adjustment at the commencement of the second regulatory control period

CHAPTER

2

EXECUTIVE SUMMARY

2.1 In the Commission's 2004 Reset Determination, provision was made for a once-off adjustment to the network price cap were it found that a material error had been made in the regulatory asset values used in the Reset price cap formula.

2.2 Following a review initiated by the Commission, the Commission finds that both Power and Water and the Commission in fact erred in the approach adopted to regulatory asset values and valuation during the 2004 regulatory reset, in that:

- the DORC values (and underlying book values) used in the 2004 Reset involved certain measurement errors; and
- the 2004 Reset's sole reliance on the DORC valuation methodology involved a conceptual error in light of relevant requirements of the NT Network Access Code and the *Utilities Commission Act*.

2.3 The final decision involves adoption of a regulatory asset valuation methodology for Power and Water's electricity network assets that:

- for sunk assets (in practice, assets in place at 1 July 2002), the valuation of such assets at an amount that at least ensures cashflows that are sufficient to comfortably meet certain debt and equity return benchmarks; and
- for assets acquired after 1 July 2002, the valuation of all such assets at depreciated current cost.

2.4 The result is the use in future of a *roll-forward methodology*, where an initial regulatory asset value is thereafter adjusted in full for inflation, asset acquisitions, asset disposals and annual depreciation.

2.5 The final decision sets the value of Power and Water's electricity network assets *for regulatory purposes* (excluding gifted assets) as at 1 July 2002 at \$350 million. The notional depreciated optimised replacement cost value of these assets at that time according to Power and Water was \$413.8 million, whereas the audited book value of these assets was \$279.5 million.

2.6 The final decision will reduce average network tariffs charged at the wholesale level by around 12% in the coming year.

CHAPTER

3

FINAL DECISION

On 30 March 2005, the Commission published its final decision. In that decision, the Commission first indicated that it had made the following findings:

- A. that, during the 2004 Reset, the Power and Water Corporation (“Power and Water”) was unable to confirm the accuracy of its estimates of the depreciated optimised replacement cost (“DORC”) value of the regulated network assets that were in service on 1 July 1999 (or 1 July 2000) or the roll-forward in these values to 1 July 2002;
- B. that, on the basis of the conclusions of a desktop analysis subsequently undertaken by Power and Water, the DORC value used in the 2004 Reset for regulated network assets as at 1 July 2002 (of \$430.5 million excluding gifted assets) was misstated;
- C. that the desktop analysis itself resulted in flawed estimates of the DORC values of Power and Water’s regulated network assets as at 1 July 2002 (of \$413.8 million excluding gifted assets);
- D. that it could be at least another two years before Power and Water has undertaken both a physical stocktake of the assets concerned (in 2005-06) and a revaluation of those assets (in 2006-07), with such a process still unlikely to provide a valuation of Power and Water’s network assets as at 1 July 2002 suitable for regulatory purposes;
- E. that the value of Power and Water’s regulated network assets underlying the published and audited financial accounts (“book value”) at the end of the financial year preceding 1 July 2002 (of \$279.5 million excluding gifted assets) was significantly below any of Power and Water’s estimates of the DORC value of the regulated network assets as at 1 July 2002; and
- F. that, in the lead-up to and in the 2004 Reset Determination, the Commission erred by failing to approve a basis of the valuation for regulatory purposes, for use during the second or subsequent regulatory control periods, of regulated network assets generally in service on 1 July 1999 and those brought into service after 1 July 1999 (as required under clause 6(1) of Schedule 7 of the Code).

In view of these findings, and having regard to the factors specified in clause 6(2) of Schedule 7 of the Code that the regulator must consider when approving a basis for determining regulatory asset values, the Commission decided:

- 1) that a ‘roll-forward’ methodology implemented in accordance with generally accepted regulatory practice (i.e., the approved valuation of assets in service at an initial point in time (the “initial regulatory asset value”) adjusted in full for subsequent asset acquisitions, asset disposals, annual depreciation and inflation) is the most appropriate basis for the valuation of network assets for regulatory purposes during the second *and* subsequent regulatory control periods pursuant to clause 6(1) of Schedule 7 of the Code – with the Government also being called upon to initiate a Code change to reinforce the use of this methodology into the future;

- 2) that the initial regulatory asset value for use in the approved roll-forward methodology should be the value as at 1 July 2002, which is the date that Power and Water was corporatised;
- 3) for the purposes of establishing the initial regulatory asset value for use in conjunction with the roll-forward methodology:
 - a) sole reliance on the available DORC values may not be appropriate in the NT circumstances;
 - b) in such circumstances, the initial regulatory asset value must be determined in a manner that most effectively achieves the desired outcomes set out in clause 63 of the Code and has regard to the factors specified in clause 6(2) of Schedule 7 of the Code;
 - c) regulatory asset values so determined are unlikely to involve a single correct value, with a range of plausible values likely to result; and
 - d) where it falls on the Commission to determine this initial regulatory asset value, the Commission must make such a determination also having regard to the objectives stated in section 6(2) of the *Utilities Commission Act*;
- 4) that, in the NT context, the plausible range of regulatory asset values of Power and Water's network assets as at 1 July 2002 (i.e., the initial regulatory asset value) is:
 - a) at the lower bound, the book value of those assets; and
 - b) at the upper bound, the true DORC value of those assets;
- 5) that, within this plausible range of initial regulatory asset values, in the Commission's opinion the most appropriate single value taking into account the factors described in clause 6(2) of Schedule 7 of the Code, the desired outcomes set out in clause 63 of the Code and the objectives stated in section 6(2) of the *Utilities Commission Act* is **\$350 million** excluding gifted assets; and
- 6) that had this initial regulatory asset value been used for the purpose of the 2004 Reset Determination, the Z factor would have been calculated as **-7.4%** ("the corrected Z factor").

Given these findings and decisions, and pursuant to the 'Asset valuation off-ramp' provision of the Commission's 2004 Reset Determination, ***the Commission was therefore satisfied that errors in the regulatory asset values underlying the determined value of the Z factor in the 2004 Reset Determination resulted in an error in that factor equivalent to more than one year's allowed price increase under that determination.***

Accordingly, for the forthcoming year 2005-06, the Commission requires Power and Water to make the equivalent of a Z factor adjustment to the current year's [i.e., 2004-05] weighted average tariff when applying equation (3) in the 2004 Reset Determination for the purpose of proposing the network access tariffs to apply to its regulated networks on or after 1 July 2005, to be implemented as follows:

- I) for the purposes of the weighted-average price index of network tariffs in 2004-05 to be used when calculating the approved index of tariffs in 2005-06 and subsequent years, the approved 2003-04 index be adjusted by a corrected Z factor and then escalated by CPI-X (with the 2004-05 index calculated in the 2004 Reset being put aside); and
- II) to allow sufficient time for the subsequent consideration of Power and Water's network pricing principles and methods, the allowed S factors for application during the second regulatory control period be slipped by a year on those approved in the 2004 Reset Determination.

CHAPTER

4

2004 RESET VALUATIONS

2004 Reset valuations

4.1 The depreciated optimised replacement cost (DORC) valuations of regulated network assets as at 30 June 2002 used in the 2004 Reset to determine the value of the Z factor were derived as follows:¹

\$ millions	Power and Water's DORC values	Additional optimisation adjustment (a)	2004 Reset RAV values
total regulated network assets including gifted assets	454.429	2.24%*76.71%	446.621
<i>less</i> gifted assets	16.377	2.24%*76.71%	16.096
<i>equals</i> regulated assets net of gifted assets	438.052		430.525

(a) In the 2004 Reset Determination, the Commission applied the same global optimisation adjustment to pre-2000 assets (2.24%) as was evident in the 2000 Determination, with pre-2000 assets estimated to comprise 76.71% of assets at 30 June 2002.

Issues with 2004 valuations

4.2 During the 2004 Reset process, Power and Water flagged a range of asset register and reconciliation problems with the above DORC valuations, but was unable to confirm the valuation consequences of these deficiencies in its asset register prior to the Final Determination.

4.3 The Commission also indicated its concerns over the significant increase in values implied by the DORC estimates initially submitted for the 2004 Reset when compared with the equivalent year's values used in the 2000 Determination.

4.4 At the same time, the Commission also expressed some doubts as to whether available DORC valuations were appropriate for use as the regulatory asset values (RAV) used for price regulation, and particularly whether:

- the DORC value is indicative of an optimised deprival value in the NT context; and
- it is appropriate to value all assets existing prior to 2000 at a DORC value given that some of the assets were financed by government funding that was in the nature of a capital contribution, and on which the government may never have expected to earn a commercial rate of return.

¹ The regulatory asset value used to determine the Z factor in the 2004 Reset was the average of an 'adjusted' DORC value, net of gifted assets, for the regulated network assets as at 30 June 2002 and 30 June 2003.

4.5 In its draft 2004 Reset Determination, the Commission flagged its intention to discount the DORC values of the pre-2000 asset (only) by around 10% (including the technical optimisation discussed in the previous issue), to keep network access tariff increases within sustainable bounds. In the end, the Commission acknowledged the force of arguments about the risks associated with any arbitrary adjustments to Power and Water's regulated network asset base by the Commission.

4.6 In April 2004, the Commission published its Final Determination for the 2004 Reset. In that determination, the Commission opted to accept asset values based on a 30 June 2001 replacement cost valuation exercise conducted by Sinclair Knight Merz. Despite some uncertainties on the Commission's part, use of the DORC valuation methodology effectively was continued but with certain post-2001 developments (particularly relating to the quality of Power and Water's regulatory asset register) being put aside.

4.7 However, to address both sets of unresolved issues (the continuing appropriateness of the DORC methodology and possible inadequacies in Power and Water's asset register), the Final Determination made provision for an 'asset valuation off-ramp' to be applied if, prior to 31 March 2005, the Commission were to be satisfied that the valuation underlying the 2004 Reset had involved a 'material error'.

Review processes

4.8 To address these various issues, the Commission initiated an inquiry to determine whether the asset valuation underlying the 2004 regulatory reset involved a material error.

4.9 First, Power and Water was encouraged to progress the examination of its network asset register, and the associated book and DORC valuations of those assets.

4.10 Secondly, the Commission appointed the Allen Consulting Group to provide advice on asset valuation and to recommend an appropriate and cost-effective asset valuation methodology capable of implementation in the Northern Territory context.

Scope of off-ramp review

4.11 The off-ramp provision referred specifically to the Commission reviewing:
"...the valuation of the initial asset base at 30 June 2000 and/or the asset amounts rolled-forward during the first regulatory control period underlying the determined value of the Z factor..."

4.12 As such, the Commission's focus in this off-ramp review has always been on the initial value of 'sunk assets'. The Commission notes that the process of determining such an initial regulatory asset value is fundamentally different than that of determining regulatory asset values into the future. The approach to be taken to revaluing assets over time must provide Power and Water's board and management with expectations of making a reasonable return on new investment and obtaining the return of that capital over time. The Commission accepts the advice tendered by the Allen Consulting Group (and regulatory best practice as evident by the ACCC's recent decision on the matter) regarding the importance of adopting a 'roll-forward' methodology for revaluing regulatory asset values between periods by adjustment for capital expenditure, depreciation, asset disposals and inflation.

4.13 The Commission's preference would therefore have been to focus on asset values as at 30 June 2000. However, Power and Water has had difficulty in establishing error-free gross replacement cost valuations for its regulated network assets at that point in time. In these circumstances, the Commission has therefore opted to focus on regulatory asset values as at 30 June 2002. This predates Power and Water's corporatisation, which took place on 1 July 2002. The Commission's desire is

to establish a RAV for 30 June 2002 that will allow it to exclusively adopt the roll-forward methodology.

4.14 To adopt a roll-forward methodology, the initial regulatory asset values in question must distinguish between:

- the total value of all regulated assets; and
- the value of the gifted (or contributed) assets component of regulated assets.

4.15 For this reason, the Commission's focus is on:

- the \$446.621 million used by the Commission in the 2004 Reset as the (written down) RAV of total regulated assets including gifted assets as at 30 June 2002; and
- the \$16.096 million used by the Commission in the 2004 Reset as the (written down) RAV of the gifted assets component of those regulated assets as at 30 June 2002.

4.16 Therefore, in this review, the Commission's focus has been exclusively on determining whether, following consideration of the appropriate RAV but holding all other elements of the 2004 Reset unchanged, a correction to the Z factor is warranted (and, if so, the quantum required).

The Commission has made the following findings:

A. that, during the 2004 Reset, the Power and Water Corporation ("Power and Water") was unable to confirm the accuracy of its estimates of the depreciated optimised replacement cost ("DORC") value of the regulated network assets that were in service on 1 July 1999 (or 1 July 2000) or the roll-forward in these values to 1 July 2002.

Having regard to the factors specified in clause 6(2) of Schedule 7 of the Code that the regulator must consider when approving a basis for determining regulatory asset values, the Commission has decided:

- 1) that a 'roll-forward' methodology implemented in accordance with generally accepted regulatory practice (i.e., the approved valuation of assets in service at an initial point in time (the "initial regulatory asset value") adjusted in full for subsequent asset acquisitions, asset disposals, annual depreciation and inflation) is the most appropriate basis for the valuation of network assets for regulatory purposes during the second and subsequent regulatory control periods pursuant to clause 6(1) of Schedule 7 of the Code – with the Government also being called upon to initiate a Code change to reinforce the use of this methodology into the future; and***
- 2) that the initial regulatory asset value for use in the approved roll-forward methodology should be the value as at 1 July 2002, which is the date that Power and Water was corporatised.***

CHAPTER

5

ASSET VALUES AS ADVISED BY POWER AND WATER

Corrected DORC values

5.1 In January 2005, Power and Water advised the Commission that the DORC values for Power and Water's total regulated network assets (including gifted assets) used by the Commission in the 2004 Reset involved measurement errors on Power and Water's part, as follows:

total regulated network assets (including gifted assets)^(a)	2004 Reset (\$M)	2005 correction (\$M)	error (\$M)
gross value (30 June 2002)	874.823	852.789	22.034
written down value (30 June 2002)	454.429	432.395	22.034
written down value (30 June 2003)	463.272	449.587	13.685
roll-forward adjustment (net)	8.843	17.193	-8.350
written down value (avg 2002-03)	458.851	440.991	17.859
depreciation (2002-03)	22.352	20.832	1.520

(a) These values are prior to the global optimisation adjustment to pre-2000 assets (2.24%) also applied by the Commission, based on the adjustment also used in the 2000 Determination, with pre-2000 assets estimated to comprise 76.71% of assets at 30 June 2002.

5.2 Subsequently, Power and Water also advised the Commission of corrections to the DORC values for the gifted assets component of Power and Water's total regulated network assets, as follows:

gifted assets^(a)	2004 Reset (\$M)	2005 correction (\$M)	error (\$M)
written down value (30 June 2002)	16.377	11.351	5.026
written down value (30 June 2003)	20.600	14.190	6.410
roll-forward adjustment (net)	4.222	2.839	1.383
written down value (avg 2002-03)	18.488	12.771	5.718
depreciation (2002-03)	0.433	1.543	-1.110

(a) These values are prior to the global optimisation adjustment to pre-2000 assets (2.24%) also applied by the Commission, based on the adjustment also used in the 2000 Determination, with pre-2000 assets estimated to comprise 76.71% of assets at 30 June 2002.

5.3 The consequence of this advice from Power and Water is that (after making the Commission's global optimisation adjustment as per the 2004 Reset), the DORC values of the regulated network assets excluding gifted assets – the regulatory asset values used by the Commission in the 2004 Reset – involved the following measurement errors:

excluding gifted assets ^(a)	30/6/02 value \$M	DORC error		Z factor
		\$M	%	
Corrected DORC	413.809			+0.1%
2004 Reset DORC	430.524	+16.715	+4.0%	+4.4%

(a) Net of the same global optimisation adjustment to pre-2000 assets (2.24%) as evident in the 2000 Determination, with pre-2000 assets estimated to comprise 76.71% of assets at 30 June 2002.

Commission's analysis regarding DORC values

5.4 It appears that the DORC value of Power and Water's total regulated network assets as at 30 June 2002 used by the Commission was overstated by 4.0% in the 2004 Reset. If the corrected DORC value had been used for these assets, then the Z factor would have been +0.1% rather than +4.4%.

5.5 The Commission considers, however, that these corrected DORC values need to be treated with some caution, for a number of reasons.

5.6 First, the corrected DORC values as advised by Power and Water are the result of a desktop exercise undertaken by Power and Water staff. The Commission does not doubt the professionalism that went into this exercise, but the results have not been subject to independent verification. As a result, considerable scope remains that this latest DORC value itself may be subject to further change over time.

5.7 Secondly, this desktop analysis was based upon a replacement cost valuation exercise conducted by Sinclair Knight Merz as at 30 June 2001. This exercise adopted only one of a number of different approaches that could be applied in a DORC analysis.²

5.8 Determination of optimised replacement cost values for assets may be undertaken under a range of different constraints and assumptions.

- *The level of service potential to be reproduced.* An optimised replacement cost may be determined to reproduce the 'service potential' of the existing assets (i.e., the maximum level of service able to be offered) or to achieve a 'required level' of service, for example to meet current or forecast level of demand for the service, even though this may be less than the service potential of the assets.
- *Assets included in the valuation.* Certain assets may be explicitly excluded from the valuation. For example, the *Railways (Access) Code* of Western Australia explicitly requires that the value of land on which railway assets are located be

² A replacement-cost valuation of infrastructure assets (RC) is, as the name suggests, the cost of replacing the existing assets on a 'new for old' basis. At its simplest, this valuation methodology involves estimating the cost of constructing the infrastructure assets at the present time. A replacement cost valuation may be undertaken taking into account available modern technologies, and directed at determining the cost that would be incurred in constructing new assets using modern technology and to provide the same 'service potential' as the existing assets. A valuation made in this manner is commonly termed an 'optimised replacement cost' (ORC).

A depreciated optimised replacement cost (DORC) is derived by the scaling down of an estimated optimised replacement cost of an asset to reflect the lower value of the existing (old) asset relative to a new asset. This can also be described as determining a value of the existing asset to a service provider given the option of constructing a new asset.

excluded from the valuation, although improvements to land (such as railway cuttings and embankments) are to be included.³

- *The extent of optimisation.* The extent of optimisation of an asset may vary. At the simplest level, optimisation may involve just removing any surplus assets or excess capacity from the asset or from elements of the asset.⁴ At a more complex level, optimisation may involve reconfiguration of the asset⁵ or even fundamental change in the nature of the assets used to deliver the service.
- *'Brownfields' or 'greenfields' assumption.* The replacement cost of the asset may be determined on the basis that there is no basic infrastructure in place (easements, roads, etc.) – the greenfields assumption – or that the basic infrastructure is in place – the brownfields assumption.⁶
- *One-off or incremental asset development.* The optimised asset may be determined to be an asset configuration that would be constructed if the new asset was constructed in its entirety at a single point in time, or may be determined as an asset configuration reflecting that which would have occurred if the asset was developed in incremental stages over time.⁷

5.9 For reason of the different approaches and assumptions that may be made in determining an optimised replacement cost, different parties determining an optimised replacement cost for the same asset may derive substantially different values.

5.10 Against this background, the Commission is faced with two options:

- option (a): accept Power and Water's valuation as suggesting an appropriate DORC valuation of the regulated network assets; or
- option (b): await an independent valuation before settling on an appropriate DORC valuation of these assets.

5.11 During the review, Power and Water advised the Commission that it could be at least another two years before Power and Water was able to undertake both a physical stocktake of the assets concerned (in 2005-06) and a revaluation of those assets (in 2006-07).

5.12 As the costs involved in an independent valuation can be high, the Commission concedes that option (b) would only have merits if the benefits of such a valuation were commensurately high. A necessary condition for this would be that the DORC methodology is the basis of settling on a RAV for the network assets involved. As discussed in the remainder of this paper, this is not the Commission's view.

5.13 For the purposes at hand (and particularly because Power and Water's advice is that the asset values used in the 2004 Reset were misstated), the Commission is prepared to accept that the DORC values for Power and Water's total

³ *Railways (Access) Code 2000* (Western Australia), schedule 4, clause 2.

⁴ This level of optimisation is specified in New Zealand guidance for determination of optimised replacement cost for electricity line businesses: Ministry of Economic Development, October 2000, *Handbook for Optimised Deprival Valuation of System Fixed Assets of Electricity Line Businesses* 4th Edition, p14.

⁵ For example, in determination of an optimised replacement cost value for the Goldfields Gas Pipeline in Western Australia, the Economic Regulation Authority in that state determined the cost for a pipeline of smaller diameter and higher compression than the existing pipeline (Economic Regulation Authority, 29 July 2004, *Amended Draft Decision on the Proposed Access Arrangement for the Goldfields Gas Pipeline*, para 107).

⁶ ACCC, 27 May 1999, *Statement of Principles for the Regulation of Transmission Revenues* (draft), pp 43, 44.

⁷ This aspect of optimisation was recognised by Sinclair Knight Mertz (April 2002, *Optimisation Assessment for the SPI PowerNet Network*, p 12) which recommended that the "incremental development" approach to optimisation be adopted in the circumstance of an electricity network.

regulated network assets used by the Commission in the 2004 Reset involved measurement errors.

The Commission has made the following findings:

- B. that, on the basis of the conclusions of a desktop analysis subsequently undertaken by Power and Water, the DORC value used in the 2004 Reset for regulated network assets as at 1 July 2002 (of \$430.5 million excluding gifted assets) was misstated;***
- C. that the desktop analysis itself resulted in flawed estimates of the DORC values of Power and Water’s regulated network assets as at 1 July 2002 (of \$413.8 million excluding gifted assets); and***
- D. that it could be at least another two years before Power and Water has undertaken both a physical stocktake of the assets concerned (in 2005-06) and a revaluation of those assets (in 2006-07), with such a process still unlikely to provide a valuation of Power and Water’s network assets as at 1 July 2002 suitable for regulatory purposes.***

Book values

5.14 Book values generally equal historical costs. An historical cost value of regulated assets refers generally to a value derived as a sum of the actual cost of the assets and subtraction of any subsequent return of capital or depreciation of the assets. An historical cost value is often referred to as a ‘depreciated actual cost’.

5.15 However, the book values of assets set out in Power and Water’s statutory accounts bear an uncertain relationship to written down historical values. The statutory accounts since 1999 has indicated a valuation of assets for financial accounting purposes as the lesser of the current replacement cost of the assets and net present values of forecast recoverable cashflows. For example, notes to the financial statements for the 1998-99 annual report of the then Power and Water Authority describe the methodology of asset valuation then applied as follows:⁸

“The cost of property, plant and equipment constructed by the consolidated entity includes the cost of materials and direct labour, an appropriate proportion of fixed and variable overheads and capitalised interest.

Revaluations

External consultants were engaged to provide a valuation of the infrastructure assets of the Authority as at 30 June 1999. The valuations were conducted by Deloitte Touche Tomatsu and Sinclair Knight Merz, and were based on the current replacement cost of a modern asset that is capable of delivering the same level of service as the existing asset, written down to take account of its expired life. Valuations of land were based on Valuer-General’s unimproved capital values recorded in the Lands Information System. These valuations formed part of the regular revaluation exercise proposed by the Authority.

Upon completion of the above revaluation exercise, the Authority reviewed the recoverable amount of property, plant and equipment in accordance with the accounting policy described at Note 1(c). This involved ascertaining values on a lines of business basis using future net cashflows expected to be derived from those assets, discounted to their present value. Where this resulted in a lower asset valuation than the independent written down current replacement cost valuation, the assets were revalued to their recoverable amount. All adjustments arising from the revaluation have been taken to the asset revaluation reserve.

The Authority does not obtain a return of net income on property, plant and equipment and services relating to the Aboriginal Essential Services Business unit as it is funded by the NT Government based on actual or expected costs (refer Note 1[m]). Accordingly, as the future net cashflows of this business unit are nil, the recoverable amount of property,

⁸ Power and Water Authority of the Northern Territory, *Annual Report for the Year Ended 30 June 1999*, pp. 63, 64.

plant and equipment within this business unit is nil. Property, plant and equipment with a written down book value of \$110 million relating to this business unit has therefore been revalued to nil as part of the above revaluation exercise.

The Authority proposes to revalue property, plant and equipment on a rolling basis every three years.”

5.16 This methodology of asset valuation in statutory accounts was indicated to change from 1 July 2002. For the 2002-03 financial year, the methodology of asset valuation was described as follows:⁹

“Subsequent to initial recognition as assets, freehold land and buildings and electricity, water and sewerage system assets are measured at fair value. These classes of non-current assets are revalued with sufficient regularity to ensure the carrying amount of each asset in the class does not differ materially from fair value at reporting date. Assessments will be made by directors at least every three years. Where current market prices are available, that price represents the fair value of the asset. Where current market prices are not available for the individual assets forming a cash-generating operation, fair value is estimated as the present value of net cash inflows discounted at the weighted average cost of capital.”

5.17 It is further indicated, however, that:

“The changed policy has not had a material effect in respect of the valuation of freehold land and buildings and electricity, water and sewerage system assets in the current or prior year, nor is it expected to have a material effect in subsequent financial years.”

Commission’s analysis regarding book values

5.18 In submitting corrected DORC values to the Commission in January 2005, the Commission notes that Power and Water indicated it had not updated the book value of its regulated network assets to reflect the outcome of its DORC desktop analysis. To the extent that the DORC errors reflect the misallocation of assets between lines of business (especially between networks and generation businesses), this would imply that such errors are common to both the regulatory and statutory asset registers.

5.19 Moreover, the Commission acknowledges any ‘recoverable amounts test’ to be applied under the (changed) asset valuation methodology in the statutory accounts from 1 July 2002, being based upon likely future ‘net cash inflows’, would depend in part on the regulatory values of – and consequent revenues generated by – the regulated network assets. Until any change in prospective cashflows based upon the Commission’s decision on regulatory asset values is known, it is not possible to be certain whether the current book values of those assets would be written down as a consequence.

5.20 Until these two issues are addressed, the Commission has opted to use the following book values for Power and Water’s total regulated network assets (including gifted assets):

⁹Power and Water Corporation, *Annual Report for the Year Ended 30 June 2003*, p. 63.

total regulated network assets (including gifted assets)	book values (\$M)
gross value (30 June 2002)	450.631
written down value (30 June 2002)	286.654
written down value (30 June 2003)	294.011
roll-forward adjustment (net)	7.358
written down value (avg 2002-03)	290.332
depreciation (2002-03)	11.344

5.21 In addition, the Commission has opted to use the following book values for Power and Water's gifted assets in its regulated networks:

gifted assets	book values (\$M)
written down value (30 June 2002)	7.131
written down value (30 June 2003)	9.970
roll-forward adjustment (net)	2.839
written down value (avg 2002-03)	8.550
depreciation (2002-03)	0.969

5.22 As a consequence, the written down book value of Power and Water's regulated network assets (excluding gifted assets) as at 30 June 2002 used by the Commission for the purposes of this review is \$279.523 million.

The Commission has made the following finding:

- E. that the value of Power and Water's regulated network assets underlying the published and audited financial accounts ("book value") at the end of the financial year preceding 1 July 2002 (of \$279.5 million excluding gifted assets) was significantly below any of Power and Water's estimates of the DORC value of the regulated network assets as at 1 July 2002.***

CHAPTER

6

SETTING REGULATORY ASSET VALUES

Schedule 7 to the Code

6.1 Prices paid by network users for the conveyance of electricity through prescribed electricity networks in the Northern Territory are regulated under the Electricity Networks (Third Party Access) Code (“the Code”)¹⁰ which is a schedule to the *Electricity Networks (Third Party Access) Act 2000* (“the Act”).

6.2 For the first time, the Code permitted regulatory asset values to depart from book values during the second regulatory control period.¹¹ Schedule 7 of the Code (clause 6) states the requirements for valuing network assets for second and subsequent regulatory control periods in the following terms.

“6. Valuing network assets for second and subsequent regulatory control periods

(1) *Subsequent revaluation of assets brought into service after 1 July 1999 and subsequent valuation of existing assets generally in service on 1 July 1999 (for use during the second or subsequent regulatory control periods, where the revaluations are to be used for regulatory purposes) are to be undertaken on a basis to be approved by the regulator.*

(2) *In approving the basis of asset valuation to be used, the regulator must have regard to –*

- (a) *the agreement of the Council of Australian Governments of 19 August 1994 that deprival value should be the preferred approach to valuing network assets;*
- (b) *any subsequent decisions of the Council of Australian Governments regarding the valuation of public sector assets; and*
- (c) *generally accepted regulatory practice at the time.*

6.3 Far from being prescriptive of the asset methodology to be applied, Schedule 7 only states certain factors that the Commission as regulator must have regard to in determining the basis of asset valuation.

6.4 At this stage, it is important to note that Schedule 7 involves a preference both:

- for ‘deprival value’; and
- for ‘generally accepted regulatory practice’.

¹⁰ The Code can be viewed on the legislation page of the Commission’s website (www.utilicom.nt.gov.au).

¹¹ In the first regulatory control period, the Code required that sunk assets be valued at available book values – provided that those values did not exceed the assets’ optimised deprival value. At the time of the 2000 Determination, the Commission accepted that the recorded book value was equal to the associated DORC value of the assets.

Interpreting deprival value

6.5 Schedule 7 does not mandate DORC, only going as far as requiring the regulator to ‘take into consideration’ the deprival valuation methodology.

6.6 A general definition of deprival value is the value of an asset to the owner considered in terms of the loss that would be incurred by the owner if deprived of the asset.

6.7 Various working definitions of deprival value exist. For example, the working definition adopted by the Steering Committee on National Performance Monitoring was:

“...in most cases [deprival value] will be measured by the replacement cost of the services or benefits currently embodied in the assets”.

Such a definition is consistent with a deprival value of assets being the lesser of the net present value of the income able to be generated by the asset, and the depreciated replacement cost of the asset, or the DORC value of the asset. A deprival value defined as the lesser of the net present value of the income able to be generated by the asset and the DORC value of the asset, is also referred to as an optimised deprival value (ODV).

6.8 The New Zealand Government has produced detailed guidelines for determination of ODV values for electricity network assets, under which ODV values for individual segments of an electricity network are determined as the lesser of:

- the DORC value of the network segment, being the replacement cost of the existing fixed system assets with modern equivalent assets, depreciated by a straight-line depreciation methodology according to the age of the existing asset relative to the expected total life of the existing asset; and
- the net present values of future revenues derived from the transmission or distribution service provided by the network segment.

In these guidelines, the New Zealand Government has indicated that it would expect the economic value of a network segment to be less than its DORC in circumstances where regulated tariffs for the network segment are less than the tariff that would correspond to (or be derived from) the DORC value of the relevant network assets.

6.9 The Steering Committee on National Performance Monitoring of Government Trading Enterprises issued guidelines for determination of deprival values of assets of government trading enterprises that added an extra element to the determination of deprival values, being the consideration of whether or not the assets would be replaced if they were no longer available. Under these guidelines, where an asset would be replaced, the deprival value is taken to be the current replacement cost of the asset or of an alternative asset with the same service potential. Depreciation of a replacement value to reflect the age of the existing asset is not explicitly contemplated, although an accountant may interpret the terms ‘similar asset’ and ‘the same service potential’ as taking into account the age of the existing asset and hence valuation at depreciated replacement cost or DORC.

6.10 An important issue with the interpretation of the reference to deprival value is to understand under which circumstances the asset owner would be deemed to replace an asset if the firm was deprived of that asset (and hence the circumstances when the deprival value methodology would result in an asset being valued at the DORC value).

6.11 The guidelines developed by the Steering Committee on National Performance Monitoring expressed an expectation that a firm generally would replace assets that were being used – irrespective of whether the replacement of the asset would be economic (that is, the provision of the service generates a return at least equal to the cost of capital). In contrast, in the New Zealand and ACCC application of

deprival value, assets are only valued at replacement cost if the net present value of revenues from the asset exceed the cost of the asset. Assets are only deemed notionally to be replaced if the utility would be under implicit or explicit service obligations to continue to provide the service.

6.12 The ACCC has made the following statements about deprival value:

“Although the NEC also does not specify a methodology for the initial valuation of sunk assets, it does advocate the use of deprival value for regulatory purposes. Moreover, the NEC says that in reaching a decision on an asset valuation methodology the Commission shall provide a fair and reasonable risk adjusted cashflow rate of return on efficient investment. Other aspects of the objectives and principles set out in Chapter 6 of the NEC (clause 6.2.2) also bear upon the determination of the asset base. These include the need to promote incentives for efficient investment, maintenance and the use of the network, and the affects on different interest groups of the regulatory decision.

The main economic principle for assessing the economic value of any assets is that their value to investors is equal to the net present value of the expected future cashflows generated by those assets. The practical difficulty in making this assessment for regulated monopoly businesses is that the future revenue derived from the assets is itself determined by the regulator – hence the issue of circularity associated with the use of ODV as a methodology to value sunk assets.

This potential circularity is eliminated by the use of DORC. The DORC of a network is the sum of the depreciated replacement cost of the assets that would be used if the system were notionally reconfigured so as to minimise the forward-looking costs of service delivery. ...

ODV amounts to an extension of the DORC concept, by recognising that, as a result of being deprived of an asset, the economic value foregone may be less than its DORC value. In principle, the difference relates to the accuracy of the assumed depreciation profile in reflecting the decline in the service potential or the demand for the service potential provided by the existing system. With this qualification, the two concepts are consistent.

Clearly, in using DORC, if the future income streams were solely derived from a return on the assessed DORC value the economic value will be the same as the DORC. However, if revenue streams are limited by any mechanism to a lower value then economic value, ODV will be lower than DORC. This could arise, for example, from the threat of by-pass, loss of markets or the imposition of external regulatory requirements by jurisdictions. In these cases, the Commission’s regulatory framework provides for the asset owner to request a write down of the value of the asset to below DORC under certain circumstances (as discussed in Chapter 5). The Commission may also write down part of the system below DORC in recognition of evidence suggesting that the regulatory asset base valuation currently exceeds the ODV of the system.”¹²

6.13 It is clear from these statements that the ACCC has adopted the New Zealand approach for determining when the ‘economic value’ leg of deprival should apply, that is, to write down the value of assets to below the DORC value if an external constraint to pricing applies. Alternatively, this implies deeming the asset owner notionally to replace the asset only when it would be economic for the asset to be replaced, irrespective of any implicit or explicit service obligations.

6.14 The Commission takes from these arguments that there are circumstances where regulatory asset values (based on deprival value) will need to be less than the DORC valuation. Allen Consulting Group’s advice to the Commission is that the setting of a starting regulatory asset value for Power and Water’s network assets to reflect its current (constrained) revenue streams would be consistent with the concept of deprival value.

6.15 However, there are limits to the usefulness of deprival value. For regulated infrastructure assets, the future prices of services provided by these assets will be regulated and determined from the regulatory asset value. There is an obvious circularity in the asset valuation at a deprival value and the dependence of the deprival value on prices that would be determined from that value.

¹² ACCC, 1999, *Draft Statement of Regulatory Principles*, May, pp.39-40.

Generally-accepted regulatory practice

6.16 Schedule 7 to the Code (at clause 6(2)(c)) obliges the regulator, when approving the basis of the asset valuation to be used in the second regulatory control period, to have regard to ‘generally accepted regulatory practice’ (GARP). At issue is the extent to which the use of DORC is consistent with GARP.

6.17 The Allen Consulting Group’s advice was that DORC was not necessarily GARP, with examples cited of regulatory values being set at values lower than the estimates of DORC to reflect other concerns:

- The regulatory values for the predominantly-rural Victorian electricity distributors were valued at a discount to DORC to limit the magnitude of potential price increases experienced by end users of gas.¹³
- A similar approach was adopted for the AlintaGas gas distribution networks in Western Australia.¹⁴ AlintaGas’s regulatory asset base was determined to be a value of less than DORC through consideration of an economic value. The economic value for the networks was, in effect, determined by assuming values for all cost elements in the retail supply of gas other than the value of the distribution networks, and then solving for the value of the networks that gave a total cost for gas supply that corresponded to the revenue that would be generated by the prevailing retail gas prices.
- In the valuation of gas distribution assets of AGL Gas Networks in New South Wales and of the gas distributors in Victoria,¹⁵ assets were valued by this methodology at a value less than the estimated DORC value, with the explicit intent of establishing an initial regulatory asset value that would not give rise to increases in retail gas prices for end users of gas.

6.18 These valuation methodologies are generally presented as a version of a deprival value, being an asset value that is implied by existing prices for, and revenues from, the relevant services.

6.19 The Allen Consulting Group’s advice to the Commission was that the setting of a starting regulatory asset value for Power and Water’s network assets to reflect its current (constrained) revenue streams would be consistent with the concept of deprival value as actually applied by Australian regulators.

Other relevant regulatory provisions**Part 3 of the Code**

6.20 Part 3 of the Code specifies the price regulation framework to be observed by the Commission and by the network service provider when setting the prices to be paid by network users for the conveyance of electricity through the electricity network. While the Code sets out in some detail the determinations that were required to be

¹³ Office of the Regulator General, Victoria, October 1998, *Access Arrangements - Multinet Energy Pty Ltd & Multinet (Assets) Pty Ltd, Westar (Gas) Pty Ltd & Westar (Assets) Pty Ltd, Stratus (Gas) Pty Ltd & Stratus Networks (Assets) Pty Ltd Final Decision*, pp 51–70

¹⁴ Independent Gas Pipelines Access Regulator Western Australia, 30 June 2000, *Final Decision: Access Arrangement Mid-West and South-West Gas Distribution Systems*, Part B pp 73–84.

¹⁵ Independent Pricing and Regulatory Tribunal of New South Wales, July 2000, *Final Decision Access Arrangement for AGL Gas Networks Limited Natural Gas System in New South Wales*, pp 71–88. Office of the Regulator General, Victoria, October 1998 *Access Arrangements - Multinet Energy Pty Ltd & Multinet (Assets) Pty Ltd, Westar (Gas) Pty Ltd & Westar (Assets) Pty Ltd, Stratus (Gas) Pty Ltd & Stratus Networks (Assets) Pty Ltd Final Decision*, pp 51–70.

made by the Commission in the first regulatory control period¹⁶ (the period from the commencement of the Code on 1 April 2000 to 30 June 2004), with respect to the second regulatory control period (the period from 1 July 2004 to 30 June 2009), clause 66(3) of the Code provides that:

“The revenue or price caps that are to apply during the second and subsequent regulatory control periods are to be determined by the regulator in a manner that:

- (a) in the regulator’s opinion, most effectively achieves the desired outcomes set out in clause 63; and*
- (b) is consistent with generally accepted regulatory practice at the time.”*

6.21 Clause 63 of the Code requires the Commission to administer access price regulation under the Code in a way that achieves the following outcomes:

- “(a) efficient costs of supply;*
- (aa) expected revenue for a regulated service or services that is at least sufficient to meet the efficient long-run costs of providing that regulated service or services, and includes a return on investment commensurate with the commercial and regulatory risks involved;*
- (b) prevention of monopoly rent extraction by the network provider;*
- (c) promotion of competition in upstream and downstream markets and promotion of competition in the provision of network services where economically feasible;*
- (ca) an efficient and cost-effective regulatory environment;*
- (d) regulatory accountability through transparency and public disclosure of regulatory processes and the basis of regulatory decisions;*
- (e) reasonable certainty and consistency over time of the outcomes of regulatory processes;*
- (f) an acceptable balancing of the interests of the network provider, network users and the public interest; and*
- (g) such other outcomes as the regulator determines are consistent with the underlying principles set out in clause 2 [of the Code].”*

6.22 Clause 2(2) of the Code states that:

“In deciding on the terms and conditions for access, the regulator when undertaking any of the functions assigned to the regulator by this Code ... should take into account:

- (a) the network provider’s legitimate business interests and investment in the electricity network;*
- (b) the costs to the network provider of providing access, including any costs of extending the electricity network but not costs associated with losses arising from increased competition in upstream or downstream markets;*
- (c) the economic value to the network provider of any additional investment that an access applicant or the network provider has agreed to undertake;*
- (d) the interests of all persons holding access agreements for use of the electricity network;*
- (e) firm and binding contractual obligations of the network provider or other persons (or both) already using the electricity network;*
- (f) the operational and technical requirements necessary for the safe and reliable operation of the electricity network;*
- (g) the economically efficient operation of the electricity network; and*
- (h) the benefit to the public from having competitive markets.”*

6.23 Clearly, the regulator is required to balance a range of considerations.

Utilities Commission Act

6.24 In addition, section 6(2) of the *Utilities Commission Act* states that:

“In performing the Utilities Commission’s functions, the Utilities Commission must have regard to the need –

¹⁶ A regulatory control period is defined in clause 3 of the Code as the period between major price reviews (or ‘resets’) during which time the price regulation methodology used in setting prices is held constant.

- (a) to promote competitive and fair market conduct;
- (b) to prevent misuse of monopoly or market power;
- (c) to facilitate entry into relevant markets;
- (d) to promote economic efficiency;
- (e) to ensure consumers benefit from competition and efficiency;
- (f) to protect the interests of consumers with respect to reliability and quality of services and supply in regulated industries;
- (g) to facilitate maintenance of the financial viability of regulated industries; and
- (h) to ensure an appropriate rate of return on regulated infrastructure assets.”

6.25 Once again, the regulator is required to balance a range of considerations.

6.26 DORC is not the only methodology that might meet some of these requirements. In fact, as discussed below, it is likely that the use of DORC could violate some of these legislative requirements in the NT context.

Commission’s analysis regarding the correct RAV methodology

6.27 Given the provisions of the Code, the Commission acknowledges that it erred in the lead-up to and in the 2004 Reset Determination by failing to approve a basis of the valuation for regulatory purposes, for use during the second or subsequent regulatory control periods, of regulated network assets generally in service on 1 July 1999 and those brought into service after 1 July 1999 (as required under clause 6(1) of Schedule 7 of the Code).

6.28 Furthermore, the Commission considers that, given the NT context, the 2004 Reset’s sole reliance on the DORC valuation methodology as the basis of the RAV used involved a conceptual error on the Commission’s part in light of:

- the legislative requirements in: Schedule 7 to the Code, Part 3 of the Code (especially clauses 63 and 3(2)), and section 6 of the *Utilities Commission Act*; and
- generally accepted regulatory practice where there are concerns that adoption of a DORC valuation method may lead to a rise in prices above levels prevailing or considered sustainable.

6.29 The Commission interprets the various relevant legislative requirements to mean that, contrary to the basis of the 2004 Reset decision, it was under no obligation to consider only the DORC methodology as the basis for regulatory asset values used.

6.30 The Commission places significant weight on the advice it received from the Allen Consulting Group that DORC – even properly measured – may not be justified as a basis for pricing purposes in certain circumstances. While the argument that prices based on the DORC value of assets simulates the outcome of a contestable market is often given weight by regulators, the argument does not derive from a well considered analysis of economic efficiency, and so need not prevail over other possible considerations.

6.31 The Allen Consulting Group’s argument is that economic principles do not provide unambiguous guidance for the setting of a regulatory value for monopoly network assets at a particular point in time, but rather are typically interpreted as providing a feasible range.

- A binding lower limit for the asset valuation is that which is consistent with generating returns to the owner sufficient for the owner to have the incentive to continue to use the asset for the regulated activity, which implies that the owner must receive a return at least as good as it would if the asset were used in its next best use. The asset value meeting this criterion is commonly referred

to as ‘scrap value’. Except for assets like freehold land, the value of network assets in alternative uses is typically very low.

- An upper limit that is typically posed is the value that is consistent with the price that would be charged by a hypothetical (efficient) new entrant. The rationale for this valuation derives from the observation that, in a perfectly contestable market, prices would reflect the cost structure of the efficient new entrant. Thus, it is argued that prices would contain monopoly rents if they were higher than would be earned in a contestable market, and so this should place a cap on the regulatory valuation. A DORC valuation – if implemented correctly – provides an estimate of the regulatory value for an existing asset that is consistent with the cost structure and prices of the hypothetical (efficient) new entrant that operates with a new asset.

6.32 In particular, the Allen Consulting Group’s advice to the Commission was that economic principles:

- suggest that regulated assets should not be valued at less than scrap value or more than a (correctly determined) DORC value; and
- do not provide guidance as to whether a regulatory asset value should be set as scrap value or at DORC value, or at any particular value in between.

6.33 The Commission accepts that the *maximum (or ‘ceiling’)* regulatory asset value of Power and Water’s electricity network assets may be those assets’ true DORC value.

6.34 The Commission also recognises that, in practice, the *minimum (or ‘floor’)* regulatory asset value of Power and Water’s electricity network assets should be those assets’ book value. While the Allen Consulting Group suggested the assets’ scrap value was in principle the floor valuation for regulatory purposes, the Commission concedes that setting regulatory asset values below book values gives rise to a raft of practical issues, including those associated with the triggering of the ‘recoverable amounts test’ requirement of generally-accepted accounting practice. By ensuring that the value of network assets for regulatory purposes is no less than their book value, the possible consequences for the corporation as a whole of any statutory writedown in asset values should be avoided. For this reason, and given the role played by book values in the Code’s provisions relating to the first regulatory control period, the Commission prefers to limit the floor asset value for regulatory purposes to the audited book value of those assets.

6.35 This analysis suggests that the *plausible range* for the regulatory asset value of Power and Water’s network assets (excluding gifted assets) as at 1 July 2002 is between:

- at a minimum, the audited book value of those assets of \$279.5 million; and
- at a maximum, the notional depreciated optimised replacement cost value of these assets according to Power and Water of \$413.8 million.

6.36 To give effect to the 2004 Reset Determination, however, a single regulatory asset value is required.

6.37 The determination of an appropriate single regulatory asset value for Power and Water’s network assets (excluding gifted assets) as at 1 July 2002 from within the above plausible range is by necessity a pragmatic determination, involving a judgment about the regulatory asset value within this range that most effectively achieves the desired outcomes set out in clause 63 of the Code and has regard to the factors specified in clause 6(2) of Schedule 7 of the Code.

6.38 Where it falls on the Commission to determine this initial regulatory asset value, the Commission must make such a determination also having regard to the objectives stated in section 6(2) of the *Utilities Commission Act*.

The Commission has made the following finding:

- F. that, in the lead-up to and in the 2004 Reset Determination, the Commission erred by failing to approve a basis of the valuation for regulatory purposes, for use during the second or subsequent regulatory control periods, of regulated network assets generally in service on 1 July 1999 and those brought into service after 1 July 1999 (as required under clause 6(1) of Schedule 7 of the Code).***

In view of this finding and the findings reported in earlier chapter, and having regard to the factors specified in clause 6(2) of Schedule 7 of the Code that the regulator must consider when approving a basis for determining regulatory asset values, the Commission has decided:

- 3) for the purposes of establishing the initial regulatory asset value for use in conjunction with the roll-forward methodology, that:***
- a) sole reliance on the available DORC values may not be appropriate in the NT circumstances;***
 - b) in such circumstances, the initial regulatory asset value must be determined in a manner that most effectively achieves the desired outcomes set out in clause 63 of the Code and has regard to the factors specified in clause 6(2) of Schedule 7 of the Code;***
 - c) regulatory asset values so determined are unlikely to involve a single correct value, with a range of plausible values likely to result; and***
 - d) where it falls on the Commission to determine this initial regulatory asset value, the Commission must make such a determination also having regard to the objectives stated in section 6(2) of the Utilities Commission Act; and***
- 4) that, in the NT context, the plausible range of regulatory asset values of Power and Water's network assets as at 1 July 2002 (i.e., the initial regulatory asset value) is:***
- a) at the lower bound, the book value of those assets; and***
 - b) at the upper bound, the true DORC value of those assets.***

CHAPTER

7

**CHOOSING A SINGLE
INITIAL REGULATORY ASSET VALUE****Introduction**

7.1 This chapter explains the Commission's derivation of a *single* regulatory asset value ("the point RAV") for Power and Water's network assets (excluding gifted assets) as at 1 July 2002 from within the plausible range of values identified in the last chapter, namely:

- at a minimum, the audited book value of those assets of \$279.5 million; and
- at a maximum, the notional depreciated optimised replacement cost value of these assets according to Power and Water of \$413.8 million.

Commission's analysis regarding choice of a point RAV

7.2 In assessing the regulatory asset value for Power and Water's network assets (excluding gifted assets) as at 1 July 2002, the Commission has considered the appropriate ranges for regulatory asset values in terms of the desired outcomes set out in clause 63 of the Code, the objectives stated in section 6(2) of the *Utilities Commission Act* and having regard to the factors specified in clause 6(2) of Schedule 7 to the Code.

7.3 Of these desired outcomes, objectives and factors, the ones relevant when considering the appropriate ranges for regulatory asset values are:

- maintenance of the financial viability of regulated industries;
- protection of the network provider's legitimate business interests and investment in the electricity network;
- recognition of the operational and technical requirements necessary for the safe and reliable operation of the electricity network;
- reasonable certainty and consistency over time of the outcomes of regulatory processes;
- consistency with generally accepted regulatory practice;
- recognition of the interests of network users and the public interest;
- protection of the interests of consumers with respect to the reliability and quality of services and supply in regulated industries;
- prevention of monopoly rent extraction by the network provider;
- promotion of economic efficiency, and the efficient cost of supply; and

- promotion of competition in upstream and downstream markets, and the need to facilitate entry into relevant markets.

7.4 The Commission considers that *reasonable certainty and consistency over time* of the outcomes of regulatory processes will be achieved by any asset value within the plausible range, as the value being chosen applies only to assets in place prior to 1 July 2002. The choice of a particular value will not impact in any way on the returns on investments made by Power and Water's board and management since corporatisation.

7.5 In the Commission's view, the point RAV that facilitates *maintenance of the financial viability* of regulated industries will also *protect the network provider's legitimate business interests* and investment in the electricity network and *recognise the operational and technical requirements* necessary for the safe and reliable operation of the electricity network. On these grounds alone, the point RAV could be at the upper end of the range. However, the adoption of a point RAV at the middle – or even the lower – end of the range would not be inconsistent with these objectives and outcomes *provided* such lower values were sufficient to ensure the ongoing financial viability of Power and Water's network business. This is an empirical matter.

7.6 In this context, consistency with *generally accepted regulatory practice* is best achieved by ensuring that the approach to assessing financial viability, and the associated financial analysis, conforms to the best-practice approaches adopted by other jurisdictional regulators in Australia.

7.7 The Commission considers that the *public interest and the interests of users* and prospective users is best considered in the context of the *reliable and safe availability of network services* at a reasonable price and in a form that potentially allows for further downstream benefits to the economy. The Commission notes that the public and user interests are not served simply by a point RAV at the lower end of the range, and so the lowest possible price for electricity distribution services. The public interest and that of users are also served by the availability of safe and reliable electricity distribution services, in which service standards are maintained and customers can have confidence in the service. This suggests that a point RAV at the lower end of the range is not necessarily in the public and user interests. In this sense, a point RAV that ensures that Power and Water's network business remains financially viable seems most consistent with protecting the public interest and the interests of users and prospective users.

7.8 A point RAV value at the high (DORC value) end of the range would be unlikely to *prevent monopoly rent extraction* by Power and Water's network business were such a value to give rise to cashflows in excess of those necessary to ensure the business remains financially viable. It is an empirical matter whether the adoption of a point RAV value at the middle or lower points of the range would be sufficient to ensure the ongoing financial viability of Power and Water's network business.

7.9 As to the promotion of *economic efficiency*, the *efficient cost of supply*, and *competition in upstream and downstream markets*, a point RAV at the lower end of the range could be expected to provide a greater incentive for the Power and Water to achieve operating efficiencies and thereby increase its actual rate of return through cost savings. A point RAV at the higher end of the range may provide less incentive. It may encourage overinvestment in capital works or a less diligent approach to meeting operating cost budgets.

7.10 Again, the Commission considers that a single RAV selected from the plausible range of values that is *no more* than sufficient to ensure the ongoing financial viability of Power and Water's network business is the value that would most likely promote economic and technical efficiency, and long-term sustainable competition in upstream and downstream markets.

7.11 Based on the preceding reasoning, the Commission concludes that the most appropriate single RAV from the plausible range is the asset value that would be sufficient (but no more) to ensure the ongoing financial viability of Power and Water's network business.

7.12 By the point RAV being *no less* than a value that ensures the ongoing financial viability of the business, such a RAV would:

- protect the network provider's legitimate business interests and investment in the electricity network,
- facilitate the financial viability of regulated industries, and
- ensure the reliability and quality of services and supply in regulated industries.

7.13 By the point RAV being *no more* than a value that ensures the ongoing financial viability the business, such a RAV would:

- prevent misuse of monopoly or market power, and
- promote efficiency and competition.

Identifying the point RAV that ensures ongoing financial viability

Methodology

7.14 Based upon its consideration of advice submitted by the Allen Consulting Group, the Commission accepts that the financial viability of an asset-intensive business like Power and Water's regulated network business can be interpreted as implying that there is a high level of certainty that the business will be able to pay its bills as they fall due, and have sufficiently strong cashflow to raise the finance required to fund its continuing operations (including growth).

7.15 Estimating the probability that an entity may default on its obligations given a particular level of cashflow is similar to the process that is undertaken by credit rating agencies when assigning a rating to an entity, and hence the methods employed by ratings agencies are commonly drawn upon in any financial viability analysis. The minimum strength of the cashflow that is considered desirable is typically defined as that consistent with an investment grade credit rating (that is, using the Standard & Poor's metric, a rating of triple-B or better). By way of example, the Independent Pricing and Regulatory Tribunal of NSW recently commented as follows, in relation to distribution network service providers (DNSPs):¹⁷

"The Tribunal expects that its decisions on the amount by which average prices can change will allow DNSPs to maintain their financial viability. NSW Treasury targets an investment grade rating of triple-B or higher for state-owned businesses. The Tribunal's analysis and financial modelling indicates that all four DNSPs will be able to maintain or improve their financial position, and earn a reasonable rate of return. It also indicates that the DNSPs can maintain their current investment grade rating for all of the key financial indicators".

7.16 In the NT context (which involves slightly higher commercial risk than in the larger, more diversified networks), it is the Commission's view that the ongoing financial viability of Power and Water's regulated networks business requires that business to be in a position to sustainably generate cashflows sufficient to justify at least a **single-A credit rating on a stand-alone basis**. The point RAV required is one that would sustainably generate cashflows sufficient to justify at least a single-A credit rating on a stand-alone basis.

¹⁷ Independent Pricing and Regulatory Tribunal, *NSW Electricity Distribution Pricing 2004-05 to 2008-09: Final Report*, June 2004, p.87. A similar analysis was undertaken by the ACT's Independent Competition and Regulatory Commission for its October 2004 *Final Decision – Review of Access Arrangement for ActewAGL Natural Gas System*, chapter 11.

7.17 The basic methodology for assessing the strength of cashflow is to calculate a series of financial ratios, and compare them to the financial ratios of ‘peer’ entities, including the bands that are published by ratings agencies. As a number of ratios are examined, an overall judgment based on an assessment of all of the ratios is required. For an assessment of the minimum starting regulatory asset value for Power and Water, this implies commencing with a particular regulatory asset value, calculating the regulated revenue to the entity over the reasonable forecast period, and calculating the relevant financial ratios. This process can then be repeated across a range of regulatory asset values to observe how the indicators of the strength of the cashflows vary with the starting value.

7.18 As the focus of an assessment of financial viability is the ability for an entity to meet its cash obligations, the most relevant financial indicators are those that are based on cash measures rather than on accrual identities. This implies placing more weight on the relationship between cash inflows and cash obligations at each point in time, and less on weight on accounting accruals and provisions such as depreciation.

7.19 The main cash-based financial indicators that both regulators and ratings agencies most commonly employ for assessing the strength of cashflows are:

- **Funds flow net interest cover** – which measures the level of protection the entity has to meet its interest obligations after meeting its cash operating expenses (including taxation payments). The formula is as follows:

$$\frac{FFO + Net\ Interest}{Net\ Interest}$$

where FFO is ‘funds from operations’ (or ‘funds flow from operations’). Funds from operations is approximately equal to the accounting definition of net cashflow from operating activities, less the sources of non recurrent revenue – that is, revenue from customer capital contributions, and the proceeds of disposals removed.

- **Net debt payback period** – which measures the length of time that the entity could retire its debt if it devoted all cashflow (after meeting cash operating expenses) to this purpose. While the entity would never be expected to pursue this course of action, the indicator shows the scope to change the debt level if the need arose. It also provides a reasonable cash based measure of the overall indebtedness of the entity. The formula is as follows:

$$\frac{Net\ Debt}{FFO}$$

The reciprocal of the ‘debt payback period’ is also commonly employed as a financial indicator (that is, funds from operations expressed as a proportion of the level of debt). Where the level of debt of an entity is expected to change, this indicator will show directly whether the ability to service that change in debt will change commensurately. By way of example, if the entity’s level of debt is expected to rise, there will be less concern if the ability to service this debt rises commensurately.

- **Internal financing ratio** – which measures the proportion of net capital expenditure the entity is expected to be able to finance from retained cashflow after meeting cash operating expenses (including taxation and interest payments) and paying the expected dividend.¹⁸ The remainder of capital expenditure is expected to be financed through debt. The formula is as follows:

¹⁸ Net capital expenditure refers to the capital expenditure undertaken by the entity less capital contributions from customers and proceeds of disposals.

FFO – Dividends

Net Capital Expenditure

Modelling

7.20 The Commission has undertaken some extensive financial modelling to derive the point RAV for Power and Water's regulated network assets that would ensure that business's ongoing financial viability. In summary, this modelling has involved the following:

- the use of benchmark ratios published by Standard & Poor's, the international credit rating agency;
- the use of certain projections and key assumptions considered favourable to Power and Water, such as:
 - using a modest 1.0% annual growth in network sales, as per Power and Water's own forecasts;
 - using Power and Water's projections of actual operating expenditures;
 - after basing the initial estimate of operating expenditure used for price regulation purposes (and hence revenues) on 90% of opening 'actual' operating expenditure (as per the 2004 Reset), growing such 'efficient' operating expenditure at the same rate (2%pa) as Power and Water projects actual operating expenditure to grow);
 - using Power and Water's forecasts of forecast capital expenditure on network assets to roll-forward asset values;
 - setting the gearing (debt:assets ratio) of Power and Water's networks business at 50%, which has the effect of allocating 57% of corporate debt to the networks business compared to a 33% share of the written down book value of corporate assets;
 - an interest payment rate of 50 basis points above the cost of debt used in the Commission WACC calculation, which is itself 120 basis points above the Commonwealth long-term bond rate; and
 - five-yearly resets of the network tariff basket based upon a full building blocks analysis of the costs of service provision; and
- setting other key forecasting assumptions as follows:
 - an interest earnings rate of 5%pa;
 - an effective tax rate on networks earnings of 30% (equal to the statutory rate);
 - a 50% dividend payout ratio; and
 - an internal financing ratio of 70%, so that 30% of all future capital expenditures are assumed to be financed by additional external debt.

Results

7.21 Based upon the Commission's model, the following Table compares forecasts of the key financial ratios averaged over the next 10 years (2005-06 to 2014-15) under four different scenarios, namely setting the point RAV of Power and Water's regulated network assets (on a gifted assets-inclusive basis) equal to:

- the 'corrected' DORC value;
- \$100 million less than the 'corrected' DORC;
- \$125 million less than the 'corrected' DORC; and

- \$150 million less than the ‘corrected’ DORC.

Financial ratios (average for 10 years 2005-06 to 2014-15)	Regulated Asset Value ^(a)			
	Corrected DORC	Corrected DORC less \$100 million	Corrected DORC less \$125 million	Corrected DORC less \$150 million
FFO net interest cover (times)	4.3 times	3.4 times	3.1 times	2.9 times
<i>indicative stand-alone rating</i>	AAA	A	A	BBB
Net debt payback period (years)	5.2 yrs	7.3 yrs	8.1 yrs	9.1 yrs
<i>indicative stand-alone rating</i>	AA	A	A	BBB
Internal financing ratio (%)	97%	79%	74%	69%
<i>indicative stand-alone rating</i>	AAA	AA	AA	AA

(a) The values used in the modelling were inclusive of gifted assets, except for the purpose of resetting regulated prices where the regulatory decision is based on a value excluding gifted assets.

7.22 The modelling results for the ‘corrected DORC’ and ‘corrected DORC less \$100 million’ RAV scenarios are reported in more detail at Appendix D.

7.23 The results in the ‘corrected DORC’ column in the above Table indicate that such a regulatory asset value would generate net cashflows well in excess of the minimum necessary to ensure at least a single-A stand-alone credit rating, and so ongoing financial viability. In fact, use of the corrected DORC value gives rise to cashflows that would sustain a triple-A credit rating for Power and Water’s regulated network business. The ultimate beneficiary of such excessive net cashflows would be the NT Government as Power and Water’s owner. Such an excessive dividend stream is the equivalent of an additional tax on electricity usage in the Northern Territory.

7.24 While a RAV writedown against DORC of \$125 million gives rise to forecasts of single-A like financial ratios for all but three of the next 10 years, in the Commission’s judgment the margin of comfort in the lower writedown of \$100 million would be more consistent with the conservative approach followed in the Commission’s modelling. A \$100 million writedown would result in double-A like financial ratios almost as often as single-A like ratios.

7.25 The year-on-year financial ratios for a RAV writedown against DORC of \$100 million is set out in the following Table:

Year ending	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
30 June:	forecast									
FFO net interest cover (times)	3.6	3.5	3.4	3.4	3.6	3.5	3.1	3.1	3.1	3.4
<i>indicative rating</i>	AA	AA	A	A	AA	A	A	A	A	A
Net debt payback period (years)	6.7	6.9	7.1	7.2	6.6	6.9	8.4	8.2	8.3	7.2
<i>indicative rating</i>	AA	AA	A	A	AA	AA	A	A	A	A
Internal financing ratio (%)	68%	64%	82%	103%	63%	35%	96%	80%	88%	108%
<i>indicative rating</i>	AA	AA	AA	AAA	AA	BB	AAA	AA	AA	AAA

7.26 On this basis, were the Commission to base a regulatory asset value for regulated network assets including gifted assets on a value in the order of \$100 million less than DORC, that valuation would comprise the following:

written down value (30 June 2002)	regulatory asset value (\$M)
All regulated network assets (including gifted assets)	332.395
Gifted assets	8.455
Regulated network assets excluding gifted assets	323.940

Commission's final assessment

7.27 The Commission acknowledges that the modelling necessary to analyse the relationship between alternative regulatory values for Power and Water's regulated network assets and the network business's likely financial viability is a complex matter.

7.28 In this regard, the Commission recognises concerns that Power and Water has expressed about the limited time available to consider all aspects and ramifications of the modelling prior to the Commission's final decision. The Commission itself also has concerns that the book values (and associated recoverable amounts) available to it for the purpose of setting a RAV may be inadequate in certain respects.

7.29 In recognition of these circumstances, the Commission has chosen to incorporate an additional margin of comfort in its determination of the point RAV, by rounding its assessment of the regulatory asset value of Power and Water's regulated network assets excluding gifted assets as at 30 June 2002 up from the \$323.9 million figure suggested by its modelling to \$350 million.

7.30 The modelling results based on a point RAV of \$350 million are reported in more detail at Appendix D.

7.31 In view of these results, and having considered the desired outcomes set out in clause 63 of the Code, the objectives stated in section 6(2) of the *Utilities Commission Act* and having regard to the factors specified in clause 6(2) of Schedule 7 to the Code against the RAV range of \$279.5 million to \$413.8 million, the Commission considers an initial regulatory asset value of \$350 million to be appropriate.

7.32 The following Table compares this point RAV for Power and Water's total regulated network assets *excluding* gifted assets with the book value of those assets, and shows the consequences were each adopted as a basis for the RAV used to calculate the Z factor in the 2004 Reset Determination:

<i>excluding gifted assets</i>	30/6/02 value \$M	RAV writedown against corrected DORC		Z factor
		\$M	%	
Book value	279.523	-134.286	-32.5%	-15.8%
Regulatory asset value	350.000	-63.809	-15.4%	-7.4%

7.33 This point RAV is some \$64 million less than the value the Commission accepts as the corrected DORC excluding gifted assets. This lower RAV would imply a Z factor of -7.4% rather than the +4.4% determined by the 2004 Reset.

7.34 Based upon Power and Water's 8% discount rate (used in 2001-02), the Commission's modelling also indicates that – on a stand-alone basis – the depreciated recoverable value (the NPV of future net cash inflows) based upon a point RAV of \$350 million would be in the order of \$337.7 million, which comfortably exceeds the book value of the assets as at 1 July 2002.

7.35 The Commission's conclusion is that a reduction in network prices implied by a Z factor of -7.4% is fully consistent with the continued financial viability and service capability of Power and Water's regulated network business.

7.36 The Commission also notes that such a reduction would still leave the average Territory network price expressed on a ¢/kWh basis more than 10% above the comparable average price currently applied by Country Energy in NSW for use of its dispersed largely rural sub-transmission and distribution network.

Having considered the desired outcomes set out in clause 63 of the Code, the objectives stated in section 6(2) of the Utilities Commission Act and having regard to the factors specified in clause 6(2) of Schedule 7 to the Code, the Commission has decided that:

- 5) within the plausible range of initial regulatory asset values, in the Commission's opinion the most appropriate single value is \$350 million excluding gifted assets; and***
- 6) had this initial regulatory asset value been used for the purpose of the 2004 Reset Determination, the Z factor would have been calculated as -7.4%.***

CHAPTER**8****CONCLUSIONS**

8.1 Given the findings and decisions documented so far in this paper, and pursuant to the 'Asset valuation off ramp' provision of the Commission's 2004 Reset Determination, the final decision involved the Commission drawing the conclusion that errors in the regulatory asset values underlying the determined value of the Z factor in the 2004 Reset Determination resulted in an error in that factor equivalent to more than one year's allowed price increase under that determination.

8.2 Accordingly, for the forthcoming year 2005-06, the Commission's final decision requires Power and Water to make the equivalent of a Z factor adjustment to the current year's [i.e., 2004-05] weighted average tariff when applying equation (3) in the 2004 Reset Determination for the purpose of proposing the network access tariffs to apply to its regulated networks on or after 1 July 2005, to be implemented as follows:

- for the purposes of the weighted-average price index of network tariffs in 2004-05 to be used when calculating the approved index of tariffs in 2005-06 and subsequent years, the approved 2003-04 index be adjusted by a corrected Z factor and then escalated by CPI-X (with the 2004-05 index calculated in the 2004 Reset being put aside); and
- to allow sufficient time for the subsequent consideration of Power and Water's network pricing principles and methods, the allowed S factors for application during the second regulatory control period be slipped by a year on those approved in the 2004 Reset Determination.

APPENDIX**A****OFF-RAMP PROVISION**

The 2004 Reset Determination stated that:

“Where the forthcoming year is 2005-06, the equivalent of a Z factor adjustment to the current year’s [i.e., 2004-05] weighted average tariff may be incorporated when applying equation (3) [as specified in the Determination] if, prior to 31 March 2005, the Commission is satisfied that the valuation of the initial asset base at 30 June 2000 and/or the asset amounts rolled-forward during the first regulatory control period underlying the determined value of the Z factor involved a “material error”, where a material error is one that involves an error in the Z factor that is at least equivalent to one year’s allowed price increase (i.e., $\Delta\text{CPI-X}_1\text{-X}_2$).

If a material error is established, that error will be automatically corrected depending on the size of the required correction, but without any retrospectivity.

If the correction of a material error involves an adjustment equal or less in value than the determined Z factor value of 4.4%, an additional Z-like adjustment will be applied to the weighted average of approved tariffs in 2004-05 when determining the regulatory constraint to apply to weighted average tariffs in 2005-06.

If the correction of a material error involves an adjustment greater in value than the determined Z factor value of 4.4%, the additional Z-like adjustment to be applied to the weighted average of approved tariffs in 2004-05 when determining the regulatory constraint to apply to weighted average tariffs in 2005-06 will be limited to 4.4% and the remainder of the correction will be phased in equally over the remaining four years of the second regulatory control period via necessary Z-like adjustments.”

APPENDIX

B

DRAFT DECISION

The Commission's draft decision was:

- 1) that, on the basis of a desktop analysis by the Power and Water Corporation ("Power and Water"), the depreciated optimised replacement cost (DORC) values used in the 2004 Reset for Power and Water's total regulated network assets as at 30 June 2002 were overstated;
- 2) that the precise amount of this overstatement requires an independent expert assessment;
- 3) that, in contrast with the 2000 Determination, the Commission erred in the 2004 Reset by placing sole reliance on the DORC valuation methodology as the basis for determining the regulatory asset values (RAV) used;
- 4) that, in the NT context (including because of, but by no means restricted to, ongoing uncertainty about the DORC values themselves), the most appropriate conceptual approach for regulatory purposes would have been for the 2004 Reset to have used a RAV for the total regulated network assets that:
 - a) at 1 July 2002, was the greater of the assets':
 - i) book value; and
 - ii) business sustainability value, defined as the asset value that would sustainably generate sufficient cashflows to justify at least a single-A credit rating for Power and Water's regulated networks business on a stand-alone basis; and
 - b) at 1 July in each of the subsequent years, was the 1 July 2002 value 'rolled-forward' in accordance with generally accepted regulatory practice (i.e., appropriately adjusted for inflation, asset acquisitions, asset disposals and annual depreciation);
- 5) that, based upon a comparison of the assets' reported book value and the Commission's estimate of the assets' business sustainability value, the Commission's **preliminary assessment** is that the RAV for total regulated network assets excluding gifted assets as at 1 July 2002 was \$300.0 million (rounded to the nearest \$0.1 million);
- 6) that, for the purposes of the weighted-average price index of network tariffs in 2004-05 to be used when calculating the approved index of tariffs in 2005-06 and subsequent years, the approved 2003-04 index be adjusted by the corrected Z factor and then escalated by CPI-X (with the 2004-05 index calculated in the 2004 Reset being put aside);
- 7) that the corrected Z factor be calculated using:
 - a) for all components of the calculation other than any RAV-related components, the data used for the Z factor calculation in the 2004 Reset; and
 - b) for any RAV-related components of the Z factor calculation, a value based on the applicable rolled-forward value of the corrected 1 July 2002 RAV;
- 8) that, based upon the above preliminary estimate, the (preliminary) corrected Z factor is -13.4%;
- 9) that, while the benefits to network users of network tariffs based upon the corrected Z factor commence accruing from 1 July 2005, the passing-on of those benefits to network users be postponed for up to a year, to enable the Commission's preliminary assessment of the total RAV to be finalised;

- 10) that, in order to assist the Commission finalise the above preliminary assessment, parties be given until 30 September 2005 to, in addition to undertaking any associated consultations, make submissions to the Commission about amendments considered necessary to:
 - a) the Commission's business sustainability modelling and associated assumptions; and
 - b) the book valuation of Power and Water's regulated network assets as at 1 July 2002, including as a result of any consequential recoverable amounts test;
- 11) that, by no later than 30 November 2005, the Commission will issue a final assessment of:
 - a) taking into account the submissions made by interested parties, the corrected 1 July 2002 RAV; and
 - b) the resultant corrected Z factor;
- 12) that the Z factor correction be implemented with effect from 1 July 2005, involving:
 - a) with respect to the 2005-06 year, and subject to the Commission's approval of the basis of Power and Water's calculation of the amounts involved:
 - i) by 31 May 2005, Power and Water advising the Commission of Power and Water's forecast of the amount of network revenue to be collected during 2005-06 on account of the difference between the (preliminary) corrected Z factor and the 2004 Reset Z factor from (i) as a group, non-contestable customers and T4 customers benefiting from the Government's price cap, and (ii) individually, each contestable customer paying fully-negotiated network charges; and
 - ii) by 30 June 2006, Power and Water Networks refunding to Power and Water Retail, for on-passing as appropriate to the Government and for the payment of a rebate to each of the affected contestable customers based upon:
 - (1) if the final corrected Z factor implies a network price adjustment that is equal to or greater than that based on the (preliminary) corrected Z factor, the above forecast over-collections of network revenues during 2005-06; and
 - (2) if the final corrected Z factor implies a network price adjustment that is less than that based on the (preliminary) corrected Z factor, the above forecast over-collections of network revenues during 2005-06 scaled back by the difference between the final corrected Z factor and the (preliminary) corrected Z factor; and
 - b) with respect to the 2006-07 year and subsequent years, the approved weighted-average price index of network tariffs in 2003-04 being adjusted by the corrected Z factor and then escalated forward in accordance with the approved CPI-X values; and
- 13) that, to allow sufficient time for the subsequent consideration of Power and Water's network pricing principles and methods, the allowed S factors for application during the second regulatory control period be slipped by two years on those approved in the 2004 Reset Determination.

APPENDIX

C

VIEWS EXPRESSED IN SUBMISSIONS IN RESPONSE TO THE DRAFT DECISION

POWER AND WATER'S COMMENTS	UTILITIES COMMISSION RESPONSE
<p>1. Off-Ramp Review Legitimacy</p> <p>(a) Material Error</p> <p>The Corporation notes that <i>c 71(b)</i> of the <i>Electricity Networks (Third Party) Access Code (Network Access Code)</i> provides that the regulator may only revoke or reset a price cap if it appears to the regulator that there was a 'material error' in the setting of the cap.</p>	<ul style="list-style-type: none"> ○ Clause 71(b) is not relevant to this review. The off-ramp was part of the Commission's 2004 Reset Determination. ○ Only the term 'material error' is common. ○ The specification of off-ramps or trigger conditions is evident in pricing determinations of other regulators, e.g., QCA's latest draft reset decision, and the ACCC in its regulatory principles for transmission pricing
<p>The Corporation is not convinced that a 'material error' in the Z factor or in the setting of the price cap has occurred and therefore questions whether this Review should be triggered at all and if the Commission has any power to reset the price cap if the Review is not valid.</p>	<ul style="list-style-type: none"> ○ P&W's arguments for this are buried in its Attachment A to P&W's submission, where it states that: <ul style="list-style-type: none"> <i>"The Depreciated Replacement Cost (DRC) value provided to the Commission for the 2004 Reset was \$454.43 million. The DRC provided to the Commission in February 2005 based on the Corporation's 2005 asset desktop exercise was \$455.52 million. This represents a 0.24% variance (\$1.09 million)."</i> ○ The draft decision was based upon the DRC provided to the Commission in January 2005. ○ The DRC provided by P&W, without any explanation, in February 2005 is flawed as it involves a re-estimation of accumulated depreciation that neither is proportional to the re-estimation of gross replacement cost nor displays any relationship to the average asset lives provided by P&W ○ In the circumstances, the Commission prefers to rely on the January 2005 DRC values

POWER AND WATER'S COMMENTS	UTILITIES COMMISSION RESPONSE
<p>The Corporation notes that the Commission has provided two different equations for the purpose of calculating 'material error' in its Networks Pricing 2004 Regulatory Reset Final Determination (2004 Reset) and that if one of the equations is used, there is no material error. The Corporation also notes that c 71(b) provides that in order for the Commission to have power to reset the price cap, there must have been a material error in the setting of the cap. This power is not enlivened because of the results of applying an equation and as such the Commission must address whether there was material error in setting the price cap.</p>	<ul style="list-style-type: none"> ○ This argument is not relevant given the significant size of the variation in DRC values between the 2004 Reset and January 2005 (as explained above)
<p>The Corporation submits that in considering whether the error in setting the price cap was material, the Commission should take into account the costs that will be incurred in a reset process. Significant costs in terms of time and resources may suggest that a relatively small error may not be material (refer to Attachment A to the Corporation's submission).</p>	<ul style="list-style-type: none"> ○ This is the purpose of the materiality component of the off-ramp element of the 2004 Reset decision ○ In the circumstances, this argument is not relevant to the draft decision
<p>(b) Independent Review</p> <p>The Corporation agrees that the asset values provided to the Commission may contain asset identification errors, however this has not been proven by an independent review. The Corporation believes that any revaluation of the Regulated Asset Value (RAV) should only be made following an independent expert assessment of the precise amount of any over- or under-statement in the RAV approved in the 2004 Reset. This is consistent with point 2 (page 5) of the Commission's Draft Decision.</p>	<ul style="list-style-type: none"> ○ This is an acknowledgement by P&W that its latest (desktop) estimates are as unreliable as the estimates provided at the time of the 2004 Reset ○ P&W has had five years to get its DORC value 'right' ○ A full-fledged independent assessment would be very costly, and still would not be able to answer many of the questions relevant to setting an <i>initial</i> RAV (i.e, on account of pre-regulation investment decisions and capital contributions) ○ The Commission cannot wait until an independent review is completed (which would be another two years on P&W estimates, and longer than that on the Commission's experience). It must make its decision on information currently available to it
<p>(c) Regulatory Risk</p> <p>Every change that is introduced into the reset methodology by the Commission gives rise to greater regulatory risk for the Corporation. This Draft Decision also opens the prospect for future arbitrary changes to the base RAV and asset valuation methodology.</p>	<ul style="list-style-type: none"> ○ The Commission is very mindful of regulatory risk and uncertainty ○ Its final decision calls upon the Government for a Code change to take away from the regulator the power to revisit the value of the initial capital base once set (like in the National Gas Code) ○ The final decision also settles the value of the initial capital base once and for all, and does not include the process proposed in the draft decision for the review to effectively continue for a further year

POWER AND WATER'S COMMENTS	UTILITIES COMMISSION RESPONSE
<p>2. Off Ramp Review Process</p> <p>(a) Timeframe</p> <p>Three weeks is insufficient time for the Corporation to properly (in terms of research, analysis, etc) respond to such an important regulatory decision, even given the Commission's advance notice of its timeframes. The quality and quantity of the Corporation's modelling and submission has accordingly been diminished. The Corporation's understanding and interpretation of the Commission's timetable is at Attachment B to the Corporation's submission.</p>	<ul style="list-style-type: none"> ○ The Commission acknowledges that the requisite modelling is complex ○ P&W has had access to the basis of the Commission's modelling for two months (not just three weeks) ○ The Commission is confident that there are no logical or empirical flaws in its modelling ○ The final decision errs on the cautious side when interpreting the Commission's modelling, to offset any concerns ○ The Commission is convinced that, if further time were taken on the modelling front, this more likely than not would underpin a lower rather than higher initial RAV ○ The Commission's judgment is that network users would in general be prepared to trade-off the prospects of some larger benefit in the future for a tangible benefit now – and in the process fewer research costs would be imposed on P&W and the Commission and the source of ongoing regulatory uncertainty would be entirely eliminated
<p>(b) Regulatory Process</p> <p>Any consideration of changes to the asset valuation methodology should be the subject of a separate regulatory process, and preferably deferred until the methodology that is to be applied in the third regulatory control period has been debated. The Corporation does not believe that it has had adequate input into the asset valuation methodology discussions regarding the 'business sustainability' methodology.</p>	<ul style="list-style-type: none"> ○ Waiting to the next reset (due to be completed by 31 March 2009) would only serve to deny network users a benefit, and prolong the period in which they may be being over-charged for network access services ○ P&W has had access to the Commission's 'business sustainability' methodology since November 2004
<p>(c) Retrospective Refund</p> <p>The Corporation has not been able to identify any specific provisions in the <i>Network Access Code</i>, the <i>Electricity Networks (Third Party Access) Act</i>, or the <i>Utilities Commission Act</i> which provide for the Commission to order the payment of refunds. The Corporation considers that the Commission needs legislative authority before it can order the payment of refunds. The approach and timing that the Commission has proposed for reporting the forecast refunds and actioning the refunds also places additional administrative burden and cost on the Corporation.</p>	<ul style="list-style-type: none"> ○ The Commission's draft decision did not involve any retrospective orders ○ However, to remove this area of concern associated with P&W holding amounts on behalf of network users for up to a year, the final decision no longer includes the process proposed in the draft decision for the review to effectively continue for a further year ○ The final decision is to implement the revised initial RAV and the associated corrected Z factor in full from 1 July 2005
<p>3. GARP</p> <p>(a) DORC Valuation Method is the best method available</p> <p>The Corporation notes that c 6(2)(c) of <i>Schedule 7</i> of the Code provides that the regulator must have regard to GARP in approving the basis of the asset valuation to be used.</p>	<ul style="list-style-type: none"> ○ This clause only requires the Commission to "have regard to" GARP ○ This enables the Commission to take local circumstances into account and to allow for differences with jurisdictions applying GARP

POWER AND WATER’S COMMENTS	UTILITIES COMMISSION RESPONSE
<p>The Corporation considers that its DORC valuation currently represents the best information available to it and the Commission about the appropriate regulatory asset base (refer to Attachment C to the Corporation’s submission). The Corporation also submits that DORC is a commercially viable method and is GARP.</p>	<ul style="list-style-type: none"> ○ P&W presently has two valuations available to it of its regulated network assets: its “DORC” valuation and its book valuation ○ P&W has had five years to align these two valuations ○ P&W has had five years to remove the flaws and inadequacies that remain in its current “DORC” valuation ○ The book valuation is the valuation used from a shareholder/investor perspective, and is prepared under Australian Accounting Standards ○ The Commission would be negligent in its duty if it did not take account of all information available to it, which includes the financial outcomes associated with accepting P&W’s flawed and inadequate “DORC” values
<p>The Corporation submits that the fact that the DORC valuation method is used by most other Australian regulators when valuing electricity network assets is evidence that its use is in fact GARP (refer to Attachment D to the Corporation’s submission).</p>	<ul style="list-style-type: none"> ○ The Commission does not dispute P&W’s comment that the DORC valuation methodology is generally used by regulators in other jurisdictions ○ The preconditions for using the DORC methodology do not however apply at present in the NT ○ The final decision no longer refers to the business sustainability methodology
<p>(b) ‘Business Sustainability’</p> <p>The Corporation submits that the ‘business sustainability’ methodology is not GARP and as such it cannot be used as a basis for asset valuation. The Corporation also notes that c 66(3)(b) of the Code similarly provides that the price caps that are to apply during the second and subsequent regulatory control period are to be determined in a manner that is consistent with GARP at the time. The Corporation submits that the ‘business sustainability’ methodology is not GARP and that as such it cannot be used to determine price caps (refer to Attachment D to the Corporation’s submission).</p>	<ul style="list-style-type: none"> ○ The Commission does not dispute P&W’s view that the ‘business sustainability’ methodology is not GARP ○ The final decision does not make this claim ○ In fact, the final decision no longer refers to the business sustainability methodology ○ The initial capital value is but one component of many that the Commission has used to determine price caps ○ GARP – as evident in recent decisions by IPART, ICRC, ESCOSA – involves consideration of the extent to which a regulatory decision impacts on the financial viability of the regulated firm, to ensure that the firm is at least recovering its efficient costs ○ The Commission’s ‘business sustainability’ analysis is a manifestation of this obligation to ensure that a regulated firm at least recovers its efficient costs and, at the same time, does not earn monopoly rents

POWER AND WATER'S COMMENTS	UTILITIES COMMISSION RESPONSE
<p>(c) Financial Ratios</p> <p>The Commission has determined that the financial viability of the Corporation's regulated network business is the ability to service its debt, and therefore focuses only on debt financial ratios such as Net Interest Cover as an indication of 'business sustainability'. The Corporation believes that it is important to consider other key financial ratios relating to liquidity and profitability to give a complete view of business sustainability, such as Return on Assets and Return on Equity.</p>	<ul style="list-style-type: none"> ○ The Commission's analysis combines both returns on capital benchmarks (via the WACC in the building blocks formula underlying the periodic Z factor resets in the model) and the debt financial ratios ○ The modelling shows that achievement of the benchmark debt financial ratios also results in (after-tax) returns on equity in the 10%+ range ○ Lest there is any doubt, the final modelling positions equity and liquidity indicators with debt indicators under the 'business sustainability analysis' heading and in the relevant tables in the final report
<p>(d) Net Cash Flows</p> <p>The Corporation strongly believes that the negative 'interest-bearing financial assets (cash)' from 2010-11, as indicated in the Commission's modelling, is not consistent with the philosophy of 'business sustainability'. Negative cash flows have substantial commercial ramifications for both Network's and the Corporation's financial viability.</p>	<ul style="list-style-type: none"> ○ The negative cash holdings shown in the modelling for the draft decision reflect a constant external borrowing ratio [of 25%] for the financing of annual capital expenditure irrespective of the amount of capex ○ No allowance was made for the use of borrowings for liquidity maintenance purposes ○ The modelling for the final decision increases this constant external borrowing ratio [to 30%], with no material effect upon the results other than to ensure positive cash balances with no net debt impact
<p>4. Writedown Impact</p> <p>(a) Revenue and Profit</p> <p>The proposed writedown is likely to have a substantial negative impact on Network's revenue and the Corporation's profitability.</p>	<ul style="list-style-type: none"> ○ The Commission does not dispute P&W's views that a writedown of the scale proposed by the Commission will have an impact on Network's revenue and the Corporation's profitability ○ This is the intended result, and reflects the fact that continued use of the current DORC value could result in Network's revenue and the Corporation's profitability being higher than justified, giving rise to monopoly rents
<p>Based on the Corporation's modelling, the Commission's Draft Decision of a \$125m writedown of Network assets will have the following impacts on Network's and the Corporation's finances in the 2005-06 financial year (in comparison to maintaining the <i>status quo</i>, and assuming Community Service Obligations (CSO) funding remains at current levels):</p> <ul style="list-style-type: none"> ● 15.7% (\$16m) decrease in Network's operating revenue ● 32.8% (\$16m) decrease in Network's net profit (before tax) ● 2.2% (\$9.4m) decrease in the Corporation's operating revenue ● 23.5% (\$6.7m) decrease in the Corporation's net profit (after tax) ● 23.5% (\$2.8m) decrease in the Corporation's tax payments ● 23.5% (\$3.3m) decrease in the Corporation's dividend payments 	<ul style="list-style-type: none"> ○ The Commission does not dispute P&W's figuring, based upon a \$125m writedown of Network assets

POWER AND WATER'S COMMENTS	UTILITIES COMMISSION RESPONSE
<p>The cumulative impact of the writedown over the current 5-year regulatory period (2004-05 to 2008-09) is forecast as follows (in comparison maintaining the <i>status quo</i>, and assuming CSO funding remains at current levels):</p> <ul style="list-style-type: none"> • 12.9% (\$67.5m) decrease in Network's operating revenue • 28.4% (\$70.2m) decrease in Network's net profit (before tax) • 1.8% (\$39.6m) decrease in the Corporation's operating revenue • 18.9% (\$29.6m) decrease in the Corporation's net profit (after tax) • 18.9% (\$12.7m) decrease in the Corporation's tax payments • 18.9% (\$14.8m) decrease in the Corporation's dividend payments <p>Attachment E to the Corporation's submission details modelling results and assumptions.</p>	<ul style="list-style-type: none"> ○ The Commission does not dispute P&W's figuring, based upon a \$125m writedown of Network assets
<p>The impact on Network's finances is more severe than the impact on Corporation's overall finances as the Z Factor revenue impacts are only passed through to contestable customers, assuming CSO's remain at their current levels. However, the asset writedown will also reduce the dividend and tax paid to the Corporation's shareholder.</p>	<ul style="list-style-type: none"> ○ Reducing the dividend and tax paid to the Corporation's shareholder is the intended result, and reflects the fact that continued use of the current DORC value could result in Network's revenue and the Corporation's profitability being higher than justified, giving rise to monopoly rents
<p>(b) Book Value</p> <p>A writedown of regulatory assets will result in a writedown of book values when the Recoverable Amounts Test (RAT) is applied. The RAT is required at the end of each financial year and tests whether there needs to be a change to the book value as a result of the future revenue streams generated by the assets. A writedown in the regulatory assets will result in a decrease in the future revenue stream, which will affect the book value through the RAT. The quantum of the writedown in the regulatory asset base is likely to be much more than the quantum of the writedown in book values, but still significant.</p>	<ul style="list-style-type: none"> ○ P&W provides no evidence in support of its assertion that: <i>"A writedown of regulatory assets will result in a writedown of book values when the Recoverable Amounts Test (RAT) is applied"</i> ○ P&W has not commented on the Commission's own analysis of this issue in the draft decision, nor acknowledged the fact that the Commission itself was targeting a RAV that would not trigger a RAT writedown ○ P&W fails to acknowledge that current book values are significantly below its estimates of the "DORC" value, and that this provides scope for a RAV writedown without triggering a book value writedown ○ Ultimately, this is an empirical matter, which the Commission has been careful to include in its modelling
<p>The Corporation has not had sufficient time to model these impacts.</p>	<ul style="list-style-type: none"> ○ P&W has had since November 2004 to model these impacts

POWER AND WATER'S COMMENTS	UTILITIES COMMISSION RESPONSE
<p>(c) International Financial Reporting Standards (IFRS) - Asset Revaluation Reserve</p> <p>The modelled estimates above do not include the affect of the introduction of IFRS at 30 June 2005, specifically the requirement that asset revaluation increments and decrements be accounted for on an individual asset basis as opposed to classes of assets. The specific recognition of Network assets within the Asset Valuation Reserve needs to be undertaken to determine the Corporation ability to offset a writedown. The absence of an offset will impact directly on the net profit results.</p>	<ul style="list-style-type: none"> ○ These accounting considerations are relevant for book values not regulatory values ○ The Commission's modelling assumes P&W had no ability to offset any book value writedowns ○ The Commission's modelling shows that, <i>with a considerable margin of comfort</i>, a writedown on current book values will be avoided by the impact that the finalised initial RAV value will have on Network's revenues, provided any recoverable amounts test is undertaken for the networks' business on a stand-alone basis ○ The Commission would consider any recoverable amounts test that was not undertaken for the networks' business on a stand-alone basis to be in breach of the Ring-fencing Code
<p>The Corporation has not had sufficient time to model these impacts.</p>	<ul style="list-style-type: none"> ○ P&W has had since November 2004 to model these impacts
<p>(d) Government Policy Changes</p> <p>Although outside of the scope of the Commission's Draft Decision, the Corporation considers it important to note that the Draft Decision provides no guarantee that the Government's policy regarding CSO, dividends and debt for equity swaps will remain unchanged. The Draft Decision assumes these policies will continue and all modelling has been based on this assumption. A substantial writedown of the Corporation's assets as proposed will increase the financial impact that these shareholder policy decisions will have on the Corporation in the future.</p>	<ul style="list-style-type: none"> ○ Shareholder policy decisions [dividends and debt-for-equity swaps] are not a concern for the Commission ○ The Government's CSO policy is not a shareholder policy decision as such ○ The Commission does not have a role in advising the Government on its CSO policy, although from time to time the Commission has been asked to value the CSOs ○ The Commission notes NT Treasury's comments on the draft decision implying that the Government is likely to move to the full funding of CSOs once the asset valuation issues are resolved
<p>(e) Service Standards</p> <p>If the Corporation and the NT Government did not want the Corporation's profitability to be affected by a writedown, then the costs associated with providing regulated Network services would need to be reduced. As the Commission already sets the Network's price cap based on efficient costs, further cost reductions could negatively affect the reliability and quality of services and supply. This Draft Decision comes at the same time as the Commission is considering imposing Service Standards and Guaranteed Service Level (GSL) payments on the Corporation (refer to Attachment F to the Corporation's submission).</p>	<ul style="list-style-type: none"> ○ Any decision by the Corporation or the NT Government to reduce reliability and the quality of services and supply would be inappropriate and unjustified ○ The final decision allows for the full recovery of P&W's own estimates of the operating and capital costs necessary to maintain existing reliability and quality of services and supply ○ The final decision requires the shareholder to take the hit from Network's reduced revenue and profitability, as it is the return 'on' and 'of' capital components of the cost of service that would be overstated in future by use of the "DORC" valuation of regulated assets

POWER AND WATER'S COMMENTS	UTILITIES COMMISSION RESPONSE
<p>(f) Government Owned Corporations (GOC) and CSO Considerations</p> <p>The Corporation is a commercial entity under the <i>Government Owned Corporations Act</i>, and is required under that Act to earn a commercial rate of return on assets employed. Non-commercial activities required by NT Government are funded by CSO payments.</p> <p>In paragraph 6.28 of the draft decision report, the Commission intimates that CSO shortfalls have been considered in the processes leading to the Draft Decision. The Corporation considers it inappropriate for the Commission to have regard to the impact of Retail CSO payments on Network prices. Access pricing is not the appropriate mechanism to pursue what are essentially NT Government policy initiatives. While the Code does provide the Commission with discretion, it is arguable whether the Commission may take the impact of social policy into account when setting access prices, particularly where policies relate to Retail supply conditions rather than Networks.</p>	<ul style="list-style-type: none"> ○ The Commission would be negligent if it did not take into account prevailing cost of (equity) funds as revealed in the Government's CSO policy decisions ○ However, see the NT Treasury comment on para 6.28 of the draft decision report

POWER AND WATER'S COMMENTS	UTILITIES COMMISSION RESPONSE
<p><i>The Corporation's Preferred Position</i></p> <p>The Corporation's preferred position is that the Commission should not make a final assessment on the Off-Ramp Review until:</p> <ol style="list-style-type: none"> 1. the Corporation undertakes a physical asset stocktake in 2005-06 and a revaluation of these assets in 2006-07 (if the Commission was to entertain this proposal then the Corporation would submit a scoping document, outlining the deliverables, timeframes and costs associated with this exercise to the Commission in a timely manner. The Corporation would welcome the Commission's input into this scoping document. The Corporation wishes to note that it is not seeking to have a new DORC valuation conducted at the start of every new regulatory period but rather wants to get the base right for future application); 2. an independent expert is engaged by the Commission to assess the precise amount of regulatory asset value overstatement (if any); 3. the Commission undertakes a separate regulatory process in 2007-08 (with a formal and agreed timeframe to revisit the asset valuation methodology). The regulatory reset may or may not apply the new asset valuation methodology in 2008-09 as part of the next regulatory control period. 	<ul style="list-style-type: none"> ○ The Commission is confused by what the Corporation's preferred position is. Notwithstanding the suggestion that a final assessment be delayed for a further two years (while P&W undertakes a physical stocktake and a revaluation), it also seems to be suggested that the asset valuation matter now be deferred until the next reset (in 2008-09) ○ Nor is the Commission comfortable with P&W's apparent suggestion that both (a) the consideration of asset valuation be delayed for up to four years (mainly at the cost of network users) and (b) that whether any resolution of the issue would impact on the form of regulatory control would not be settled at the same time as such a delay is sanctioned ○ The Commission is concerned that more delays will only heighten regulatory uncertainty and risk, with no guarantee that another five years will bring the issues any closer to resolution ○ And as P&W itself acknowledges, the next regulatory reset may or may not require an asset valuation methodology in 2008-09 ○ The Commission sees no attractions in P&W's preferred position

NT TREASURY's COMMENTS	UTILITIES COMMISSION RESPONSE
<p>Treasury accepts an underlying principle of the Commission's Draft Decision that the use of the Depreciated Optimised Replace Cost methodology to determine asset values for regulated businesses may not be appropriate in all circumstances, and that a pragmatic approach to determining the initial regulatory asset base may be warranted in some situations.</p>	<ul style="list-style-type: none"> ○ The Commission welcomes NT Treasury's acknowledgement that the use of DORC <i>"may not be appropriate in all circumstances, and that a pragmatic approach to determining the initial regulatory asset base may be warranted in some situations"</i> ○ This is a neat summary of the Commission's own view
<p>However, given the scale of the proposed write down in regulatory asset values for the Power and Water Corporation's regulated network assets, Treasury contends that the Draft Decision engenders a significant degree of regulatory uncertainty and risk, with the potential for adverse implications for future investment in regulated infrastructure, and as a consequence, the future reliability and security of supply of regulated network services. The fact the Depreciated Optimised Replace Cost methodology was adopted for the first, and initially the second, regulatory resets underlies these concerns.</p>	<ul style="list-style-type: none"> ○ NT Treasury's concerns seem mainly to do with (a) the scale of the writedown proposed in the draft decision, and (b) the fact that the draft decision involves a further year's deferral in settling the asset valuation issue ○ While NT Treasury seems a little too alarmist about the possible consequences of these two areas of concern, the Commission has adjusted its final decision to directly address both sets of concerns
<p>This is particularly pertinent given that the degree of measurement error contained in the reported value of the Power and Water Corporation's regulated network assets, provided for the 2004 Regulatory Reset, is yet to be determined with any degree of precision or independent oversight, and in terms of the relatively compressed timeframe provided for public scrutiny of the Commission's Draft Decision.</p>	<ul style="list-style-type: none"> ○ P&W has had five years to resolve some of the outstanding asset valuation matters confronting the Commission ○ The Commission is not convinced that another five years, or a further independent DORC valuation, will address the main issues of concern to the Commission, namely the possibility of excessive shareholder returns associated with continuing use of current "DORC" values
<p>Treasury notes that section 4(b) of the Draft Decision indicates that the most appropriate conceptual approach would have included a roll forward of the RAV at 1 July 2002 for each subsequent year after adjusting for inflation, asset acquisitions and disposals and annual depreciation.</p> <p>Given the concerns outlined above and assuming that the methodology underpinning the Draft Decision is adopted, the Final Decision should make it explicit that the RAV to be established by 31 March 2005, notwithstanding any adjustments made prior to 30 November 2005 due to possible quantification errors, will be adopted permanently as the basis for the roll forward approach for determining the RAV for any subsequent determination of network price z factors in the future.</p>	<ul style="list-style-type: none"> ○ The Commission thought its draft decision made very plain the Commission's advocacy of a roll-forward methodology once the initial RAV is settled ○ In case there is any doubt, the final decision calls upon the Government: <i>"... to enact a Code change that would have the effect of locking-in the value of the 1 July 2002 RAV and removing the Commission's power to revisit this valuation at any time in the future (like a similar provision in the National Gas Code)"</i> ○ Ensuring this Code change takes place is entirely NT Treasury's responsibility

NT TREASURY'S COMMENTS	UTILITIES COMMISSION RESPONSE
<p>Finally, Treasury objects to the Commission's statement at paragraph 6.28 of the draft decision report, which notes that the Government's decision to not fully fund the uniform tariff Community Service Obligation, as determined by the 2004 Regulatory Reset, provides justification for the Commission's draft finding regarding the conceptual error inherent in the use of the DORC methodology.</p> <p>The decision to maintain the level of Community Service Obligation funding in real terms for 2004-05 was made in response to the uncertainties, highlighted by the Utilities Commission, surrounding the network asset values reported for the 2004 Regulatory Reset. Accordingly, Community Service Obligation funding was maintained in real terms for 2004-05 pending clarification and resolution of these matters, and not in recognition of Government's intent regarding rates of return on sunk network assets.</p>	<ul style="list-style-type: none"> ○ The Commission is perplexed by this comment in view of the statement made in the 2004-05 Budget Paper No 2 (p.81) that: <ul style="list-style-type: none"> <i>“Significant variations in CSO funding between 2003-04 and 2004-05 include:</i> <ul style="list-style-type: none"> Uniform Tariff (\$39.08 million in 2003-04 and \$40.39 million in 2004-05) <i>This CSO is paid to PowerWater and provides that tariffs paid by small business and household customers are the same, irrespective of where a customer lives or the cost of providing the service. The increase in the payment for 2004-05 reflects anticipated growth in usage by customers and inflation of costs, less an efficiency dividend.</i> <i>The CSO is partially budget funded, with the remainder accepted through a lower rate of return from PowerWater. This means that the shareholding Minister accepts a lower rate of return on the Government's investment in the corporation. PowerWater bears some of the costs of the Government's uniform tariff policy through lower profits than would otherwise be achievable. The Utilities Commission has valued the electricity component of the CSO at \$62.39 million, of which \$35.41 million is budget funded in 2004-05.”</i> ○ Nevertheless, the Commission welcomes NT Treasury's advice that the Government intends to fully fund electricity CSOs once the asset valuation issue is settled. From a NT Treasury perspective, this will have the effect of considerably lessening the net budgetary impact of the Commission's decision, with the final decision reducing both dividends received (and tax equivalents) and reducing CSO payments dues ○ In its final statement of reasons, the Commission has deleted para 6.28 to remove the suggestion that the Government's underfunding of CSOs in 2004-05 implied anything about the Government's intent regarding rates of return on sunk network assets. This does not change the Commission's overall conclusions, however

APPENDIX

D

MODELLING RESULTS

Modelling results based on RAV = corrected DORC

Business Sustainability Indicators		05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15
pre-tax FFO net interest cover (times)		4.3	4.3	4.3	4.3	4.6	4.5	4.0	4.1	4.1	4.5
	<i>indicative rating</i>	AAA	AAA	AAA	AAA	AAA	AAA	AA	AA	AA	AAA
Net debt payback period (years)		5.4	5.3	5.3	5.2	4.7	4.8	5.8	5.6	5.5	4.8
	<i>indicative rating</i>	AA	AA	AA	AA	AAA	AAA	AA	AA	AA	AAA
Internal financing ratio (%)		100%	78%	99%	124%	76%	42%	117%	97%	107%	126%
	<i>indicative rating</i>	AAA	AA	AAA	AAA	AA	BBB	AAA	AAA	AAA	AAA
Rate of return on capital employed (EBIT/Total assets excl gifted)		13.5%	13.1%	12.9%	12.7%	13.1%	12.4%	11.9%	11.8%	11.5%	12.6%
Rate of return on equity (NPAT/Equity)		14.6%	14.1%	13.8%	13.6%	14.3%	13.4%	12.6%	12.4%	12.2%	13.9%
Gearing (Borrowings/Total assets)		50%	49%	49%	48%	47%	48%	47%	47%	47%	46%
Net gearing (Net Borrowings/WDBV)		46%	46%	44%	42%	42%	45%	43%	42%	41%	39%
Liquidity (Cash/(annual operating + interest payments)), in months		3.2	4.2	4.5	5.5	6.8	7.1	4.6	5.9	6.9	7.9

Modelling results based on RAV = corrected DORC less \$100 million

Business Sustainability Indicators		05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15
pre-tax FFO net interest cover (times)		3.6	3.5	3.4	3.4	3.6	3.5	3.1	3.1	3.1	3.4
	<i>indicative rating</i>	AA	AA	A	A	AA	A	A	A	A	A
Net debt payback period (years)		6.7	6.9	7.1	7.2	6.6	6.9	8.4	8.2	8.3	7.2
	<i>indicative rating</i>	AA	AA	A	A	AA	AA	A	A	A	A
Internal financing ratio (%)		68%	64%	82%	103%	63%	35%	96%	80%	88%	108%
	<i>indicative rating</i>	AA	AA	AA	AAA	AA	BB	AAA	AA	AA	AAA
Rate of return on capital employed (EBIT/Total assets excl gifted)		10.9%	10.7%	10.6%	10.5%	11.0%	10.5%	10.2%	10.1%	10.0%	11.3%
Rate of return on equity (NPAT/Equity)		10.7%	10.5%	10.5%	10.4%	11.3%	10.5%	9.7%	9.8%	9.7%	12.1%
Gearing (Borrowings/Total assets)		51%	50%	50%	50%	50%	51%	50%	50%	50%	49%
Net gearing (Net Borrowings/WDBV)		48%	48%	48%	47%	47%	50%	49%	49%	48%	47%
Liquidity (Cash/(annual operating + interest payments)), in months		3.3	3.2	2.9	3.3	4.2	3.9	0.6	1.5	1.9	2.5

Modelling results based on RAV = \$350 million

Business Sustainability Indicators		05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15
pre-tax FFO net interest cover (times)		3.8	3.8	3.7	3.7	3.9	3.8	3.3	3.4	3.3	3.7
	<i>indicative rating</i>	AA	AA	AA	AA	AA	AA	A	A	A	AA
Net debt payback period (years)		6.3	6.3	6.5	6.5	5.9	6.2	7.5	7.3	7.3	6.4
	<i>indicative rating</i>	AA	AA	AA	AA	AA	AA	A	A	A	AA
Internal financing ratio (%)		77%	68%	87%	109%	67%	37%	102%	85%	94%	113%
	<i>indicative rating</i>	AA	AA	AA	AAA	AA	BB	AAA	AA	AAA	AAA
Rate of return on capital employed (EBIT/Total assets excl gifted)		11.7%	11.4%	11.3%	11.2%	11.6%	11.1%	10.7%	10.6%	10.4%	11.7%
Rate of return on equity (NPAT/Equity)		11.8%	11.6%	11.5%	11.4%	12.2%	11.4%	10.6%	10.6%	10.5%	12.7%
Gearing (Borrowings/Total assets)		50%	50%	50%	49%	49%	50%	49%	49%	49%	48%
Net gearing (Net Borrowings/WDBV)		48%	48%	47%	45%	45%	49%	48%	47%	46%	45%
Liquidity (Cash/(annual operating + interest payments)), in months		3.3	3.5	3.4	4.0	5.0	4.8	1.8	2.8	3.4	4.1