



TRANSEND NETWORKS PTY LTD

VALUATION OF TRANSMISSION ASSETS



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Tasmania

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1. Introduction

As part of Tasmania's NEM entry arrangements, it was agreed that the Australian Competition and Consumer Commission (ACCC) would determine a revenue cap for Transend Networks Pty Ltd (Transend) for the period commencing 1 January 2004 to 30 June 2009.

One important aspect of Transend's revenue cap application is its opening asset valuation, which under the National Electricity Code (NEC), as it will apply in Tasmania, should not exceed the deprival value of the assets.

Tasmania's derogations to the NEC, which were authorised by the ACCC and will be reflected in the Tasmanian Electricity Code (TEC), provide that Transend's asset valuation is to be determined by the Minister (Treasurer). The Minister's asset valuation is made as at 30 June 2001 and will be rolled forward to include capital additions, disposals and depreciation to 1 January 2004. It therefore forms the basis of Transend's revenue cap application to the ACCC.

On 14 March 2003, Transend lodged its revenue cap application with the ACCC. To assist the ACCC in its consideration of the application, interested parties were invited to comment on the issues relating to the determination of an appropriate revenue cap for Transend.

A number of submissions made in relation to the revenue cap application have commented on Transend's opening asset base, which reflects the value determined by the Minister, rolled forward to 1 January 2004.

2. Purpose of this Paper

This paper has been prepared to provide the ACCC and interested parties with information in regard to the Minister's valuation of Transend's regulatory asset base as at 30 June 2001, drawing on the asset valuation conducted by Sinclair Knight Merz (SKM) and the independent review of the SKM report conducted by Meritec Pty Ltd.

3. Background

3.1 TASMANIA'S TRANSMISSION NETWORK

Despite the relatively small size of its electricity market, Tasmania requires an extensive transmission system. This is largely due to:

- the number of hydro electric systems in Tasmania and the geographical spread of the points of connection to the transmission system;
- the presence of a large percentage of total load being required by relatively few major customers, spread across the State; and
- the wide geographical spread of load within Tasmania.

In its revenue cap application, Transend outlined the age profile of its assets, which are some of the oldest transmission assets in Australia, with transmission lines averaging 43 years and substations averaging 32 years. The age and performance of the transmission network were considered in detail by the Tasmanian Government in the process of disaggregating the Hydro-Electric Corporation.

In establishing Transend as a separate State-owned company in 1998, the Tasmanian Government recognised that as a result of the age profile of Transend's assets, a significant expenditure program over a 10-year period would be required to upgrade and replace its ageing network assets. As outlined in its Revenue Cap Application, Transend has since completed a number of significant capital projects and has identified a program of capital expenditure required to continue its upgrading and replacement program.

Further, the Tasmanian energy sector is presently facing its most significant period of change for several decades, with the arrival of natural gas, development of wind farms, construction of Basslink and entry to the National Electricity Market (NEM). These developments will offer new choices and opportunities for users of the State's transmission network.

In such a changing environment, predicting load growth and planning necessary network upgrades and developments will move to a new level of complexity for Transend. It is important that Transend's upgrading and replacement program ensures that the Tasmanian transmission system continues to be capable of meeting the changing demands to be placed upon it.

3.2 PROCESS FOR DETERMINING THE OPENING ASSET VALUATION

In order to ensure that its regulated asset base was valued in a manner consistent with the requirements of the NEC (including the derogations for Tasmania's NEM entry approved by the ACCC in November 2001), Transend commissioned Sinclair Knight Merz (SKM) to undertake a valuation of its regulatory asset base as at 30 June 2001.

In doing so, it was envisaged that this valuation would be approved by the Minister and form the basis for its revenue cap application that was scheduled to be submitted to the ACCC in early 2003.

In considering the issue of Transend's opening asset valuation, independent advice was sought from Meritec Pty Ltd, an expert consultant, in order to:

- provide the Minister with additional certainty with regard to the approach and analytical rigour adopted by SKM in valuing Transend's regulated asset base;
- ensure that the valuation was undertaken in a manner that provided outcomes that are consistent with the requirements of the NEC; and
- ensure that the valuation appropriately recognised and treated the prudent investments made by Transend.

Following the review and taking account of the recommendations made by Meritec Pty Ltd, the Minister subsequently approved the regulated asset base for Transend as at 30 June 2001. This asset base formed the basis of the opening asset base requested by Transend in its Revenue Cap Application provided to the ACCC on 14 March 2003.

4. Outline of Valuation Approaches

4.1 SKM APPROACH

SKM carried out the valuation generally in accordance with principles and application guidelines outlined in the “Valuation of Electricity Network Assets – A Policy Guideline for NSW DNSP’s - July 2001” and the principles and practices adopted by SKM in carrying out similar valuations for other Transmission Network Service Providers in Australia and New Zealand.

The scope of the SKM assignment involved a full Depreciated Optimised Replacement Cost (DORC) valuation of Transend’s regulated assets and encompassed a comprehensive assessment of a wide range of matters, including:

- Transend’s asset registers, system maps and substation and line diagrams;
- modern equivalent asset replacement costs and unit rates;
- asset classes and remaining lives, including field inspections of sample network assets;
- depreciation of assets;
- optimisation of the transmission network;
- line easements; and
- non-network assets, including land, buildings, motor vehicles, plant and equipment and other sundry assets.

In undertaking the valuation, SKM found that Transend’s network assets are generally in good condition and that the remaining class lives used in the valuation were appropriate given a continuation of Transend’s current maintenance practices. SKM was also satisfied with the accuracy of the various Transend databases used to populate the asset valuation database.

4.2 MERITEC REVIEW

As a result of its review, Meritec found that SKM had adopted a rigorous and detailed process to develop the asset valuation. In developing the DORC valuation, Meritec agreed that the SKM approach encompassed a comprehensive assessment of the aforementioned range of matters and was undertaken in accordance with accepted industry practice.

However, Meritec recommended that the SKM valuation of substations and the valuation of transmission lines be adjusted in order to ensure that the opening asset valuation is consistent with the requirements of the NEC. The adjustments recommended by Meritec are outlined in further detail below.

Meritec further commented that, in undertaking the valuation, SKM had made significant enhancements to the accuracy of data, field inspections and asset class lives since the previous valuation undertaken in 1998, which has resulted in an overall general increase in asset values. It is Meritec’s view that this increase is appropriate and justified.

4.3 MERITEC RECOMMENDATIONS

As previously mentioned, Meritec recommended two adjustments to the SKM valuation in order to ensure that the regulatory asset base determined by the Minister was consistent with the requirements of the NEC. These adjustments are outlined in further detail below.

4.3.1 Substation Assets

In valuing Transend's substation assets, SKM applied a "brownfield adjustment factor" which added a total of \$16.1 million to the DORC valuation.

The basis for inclusion of this factor was SKM's assumption that substations have been valued in a "greenfield" situation, which does not recognise the fact that labour hours are generally higher when making incremental upgrades or extensions to existing substations. Transend supported the inclusion of brownfield adjustment factors in the asset base as, in its opinion, this recognises that the incremental staging of substation development reflects prudent commercial practice.

Meritec recommended that, as ODV principles are based upon recognising the deprival value of the complete network, rather than the incremental investment associated with staged construction, the brownfield adjustment factors should be removed from the DORC asset base. In establishing Transend's regulated asset base, the Minister took regard of Meritec's recommendation and removed all brownfield adjustment factors from the valuation.

4.3.2 Transmission Line Assets

There are three categories of costs associated with obtaining the right to construct a transmission line:

- Route Approval – route selection, environmental impact assessment, public consultation and obtaining regulatory and statutory approvals;
- Easement Acquisition – easement surveys, negotiations with landowners, including valuation and registration of easements; and
- Compensation paid to landowners.

The SKM valuation of Transend's transmission line assets incorporated values of \$11.5 million for easement compensation costs and \$58.0 million for easement route approval/acquisition costs. The costs of easement compensation and acquisition are valid costs and reflect the actual costs incurred if the network was to be constructed in today's environment.

In valuing Transend's assets, SKM adopted an approach that identified all the aforementioned costs that would be incurred by the network owner in selecting and securing the necessary easements and incorporated these costs into the network valuation. Meritec's review of the SKM report confirmed that these are valid costs, which have not been included elsewhere in the network valuation.

Easement Compensation Costs

SKM's approach to the valuation of compensation costs for non-statutory easements incorporated indexation of actual historic compensation costs and an estimate of historic compensation costs where Transend's compensation data was incomplete.

Meritec advised that, in its view, the indexation of historic compensation costs may not be consistent with deprival value, which it assessed at \$24.7 million. As the SKM valuation of easement compensation costs of \$11.5 million is based upon compensation records and does not exceed the deprival value, Meritec considered the SKM figure should be adopted.

Route Approval and Easement Acquisition Costs

SKM considered that Transend's costs for route approval and easement acquisition are compatible with the reference rate of \$29 000/km that SKM has developed for use in other

States. This rate has been determined according to easement kilometres and its application over an easement length of 2000 km provides the SKM assessed value of \$58 million.

Meritec conducted an analysis of the easement acquisition costs for the Transend network, based upon the route approval and easement acquisition costs for two recent Transend projects. Meritec extrapolated these costs across the transmission network and assessed the deprival value of route approval and easement acquisition costs as \$35.8 million. Meritec considered that the deprival value is lower than the value based on indexed historic acquisition costs, and subsequently recommended that the route approval and easement acquisition costs be capped at \$35.8 million.

The approach utilised in valuing Transend’s route approval and easement acquisition costs incorporated a comprehensive assessment of all planning and associated costs associated with securing transmission line routes. The inclusion of these valid costs in a transmission network valuation is consistent with the requirements of the NEC and with ACCC’s approach in the recent SPI PowerNet decision.

In its recent report on the review of Transend’s revenue cap application that was prepared on behalf of the ACCC, GHD considered the approach adopted by the ACCC in recent decisions was appropriate and subsequently recommended that Transend’s route approval and easement acquisition costs be amortised in line with the related construction assets. Treasury considers that the approach proposed by GHD is a matter for consideration by the ACCC.

4.4 SUMMARY OF VALUATIONS

A comparison of the SKM valuation with Meritec’s review recommendations is provided in Table 4.4.1 below.

Table 4.4.1 – Summary of Recommended Asset Valuations

Asset Class	Depreciated Optimised Replacement Cost	
	SKM Valuation	Meritec Recommendation
Substations	\$ 270.3 Million	\$ 254.2 Million
Transmission Lines	\$ 278.8 Million	\$ 256.6 Million
Other Assets	\$ 14.1 Million	\$ 14.1 Million
SUB-TOTAL	\$ 563.2 Million	\$ 524.9 Million
Less Customer Contributions	\$ 3.3 Million	\$ 3.3 Million
TOTAL	\$ 559.9 Million	\$ 521.6 Million

4.5 REGULATORY ASSET BASE

In establishing the regulatory asset base, the Minister took full regard of the Meritec findings, including:

- the rigorous and detailed process adopted by SKM in developing the asset valuation;
- SKM had undertaken a comprehensive valuation assessment, which was in accordance with accepted industry practice;

- the adjustments to the SKM valuation, covering brownfield adjustment factors and route approval and easement acquisition costs, proposed by Meritec; and
- subject to these adjustments, that the regulatory asset base is consistent with the requirements of the NEC.

Having regard to the detailed analysis and independent review that was undertaken in valuing and reviewing Transend's regulatory asset base, Transend's regulatory base as at 30 June 2001 was formally established by the Minister at \$521.6 million.