ElectraNet SA

Response to Meritec Capital Expenditure Review

2 August 2002

ElectraNet SA
electricity transmission network

Table of Contents

1. Introduction

ElectraNet SA submitted a revenue cap application to the ACCC on 16 April 2002 setting out its total revenue requirement for the five and a half year regulatory period from 1 January 2003 to 30 June 2008[1].

As part of its inquiry, the ACCC engaged Meritec to conduct a review that analyses and comments on ElectraNet SA's proposed opening asset value, capital expenditure and operation and maintenance expenditure allowances.

The ACCC published and invited comments on a Meritec report of its Capital Expenditure Review on 18 July 2002[2].

This paper provides ElectraNet SA's response to the Meritec report.

2. Scope of Response

ElectraNet SA's response comments on the material adjustments to the capital expenditure (capex) allowance that Meritec have recommended. These are as follows:

- Adjustments to the probabilities associated with load forecasts resulting in a reduction of approximately $12 million ($2001/02) over the regulatory period;
- Refurbishment and replacement expenditure of approximately $80 million ($2001/02) over the regulatory period, which has been added to the capex allowance when it was included as operating expenditure (opex) in ElectraNet SA's revenue cap application; and
- Removal of capex allowances for certain projects including parts of the projects related to SNI, reinforcement of the Riverland and augmentations to facilitate the connection of wind generation totalling approximately $90 million ($2001/02) over the regulatory period.

3. Load Forecasts

The load forecast, which ElectraNet SA used as the basis for its revenue cap application, was derived from[3]:

- Demand forecasts obtained from the distributor ETSA Utilities and customers who are directly connected to the transmission network in accordance with the requirements of clause 5.6.1 of the National Electricity Code (NEC); and
- NEMMCO's 10% probability of exceedance demand forecast from the 2001 Statement of Opportunities (the National Institute of Economic and Industry Research (NIEIR) prepared this forecast for the Electricity Supply Industry Planning Council (ESIPC)).

---

[1] "ElectraNet SA Transmission Network Revenue Cap Application 2003 – 2007/08", submitted to the ACCC on 16 April 2002.
[2] www.accc.gov.au
[3] Refer to "ElectraNet SA Capital Expenditure Review", Meritec report to the ACCC, July 2002, p14.

ElectraNet SA diversified and applied a two-year delay to the aggregated customer demand forecast, resulting in an overall forecast that is broadly consistent with the 2001 NEMMCO medium growth forecast. This adjusted forecast was used as the basis for developing network augmentation requirements and ElectraNet SA's proposed capex allowance.

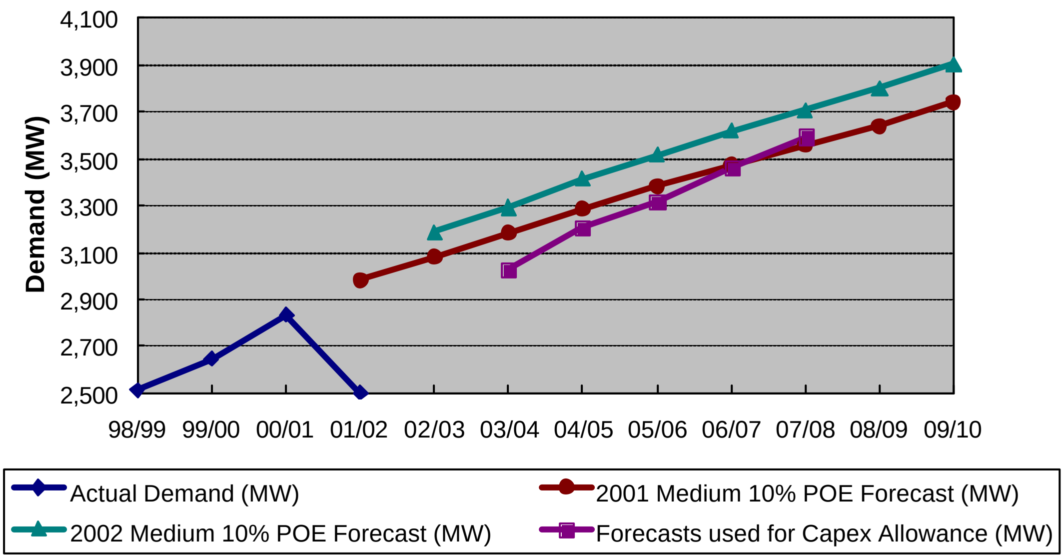
Meritec notes that ROAM Consulting assessed the relative probabilities of the low, medium and high 2001 NEMMCO forecasts occurring to be 25%, 60% and 15% respectively.

ElectraNet SA took a more conservative approach in its application using only the low and medium demand forecasts with 20% and 80% probabilities respectively. Meritec has recommended adjusting these probabilities to 25% and 75% respectively.

The Meritec recommendation has the effect of introducing even more conservatism into the customer demand forecast compared with the assessment made by ROAM Consulting.

However, recently published figures[4] show that the current 10% probability of exceedance forecasts (for the medium growth scenario) are significantly higher than the forecasts used by ElectraNet SA in developing its proposed capex allowance (on average 190 MW higher in each year of the regulatory period). This is illustrated in the following graph.

Figure 1: Comparison of South Australian Summer Peak Demand Forecasts



Source: ElectraNet SA Revenue Cap Application and NEMMCO 2002 Statement of Opportunities

NEMMCO note "*The 10% POE medium growth peak demand forecast for summer has increased by 109 MW (3.4%) for the 2002/03 financial year and by 109 MW (3.3%) for the 2003/04 financial year*"[5].

4 "2002 Statement of Opportunities for the National Electricity Market", NEMMCO, 31 July 2002, Table 3.31, p3-55.

5 Ibid, p3-5.

This increase in demand forecast means that the capex allowance proposed by ElectraNet SA is even more conservative than it was at the time of ElectraNet SA's application and may in fact be inadequate to meet forecast growth in customer electricity demand during the regulatory period.

Meritec's recommendation to give additional weight to the low demand forecast scenario is inconsistent with the current increase in demand forecasts and should be rejected.

It is important to understand that ElectraNet SA will not commit expenditure that has not been allowed for in its revenue cap. Capital expenditure in itself cannot be "gamed" and will be subject to ongoing monitoring by the ACCC and "clawback" at the end of the regulatory period. On the other hand inadequate revenue will lead to cash flow problems for the business and inadequate investment to meet growth in customer demand and to ensure the ongoing reliability of the transmission network.

4. Refurbishment and Replacement Expenditure

ElectraNet SA has proposed a prudent level of asset refurbishment and replacement expenditure in its revenue cap application.

Meritec has reviewed in detail and generally endorsed ElectraNet SA's proposed expenditure, but the ACCC has directed Meritec to treat this expenditure as capex when most of it was included as opex in ElectraNet SA's revenue cap application. This issue is discussed in Section 8.0 of the Meritec report.

Firstly, it is important to recognise that ElectraNet SA's proposed treatment of asset refurbishment and replacement expenditure is consistent with Powerlink's current practice, which was effectively endorsed by the ACCC in its revenue cap decision for Powerlink[6].

Secondly, ElectraNet SA's proposed treatment is based on advice from asset valuation specialists Sinclair Knight Merz (SKM) in relation to whether or not expenditure would be recognised in future asset valuations using the Optimised Depreciated Replacement Cost (ODRC) and Modern Equivalent Asset Valuation (MEAV) methodology adopted by the ACCC.

SKM's advice has guided ElectraNet SA to proposing a change in its capitalisation policy effective from 1 January 2003, which results in some expenditure being treated as opex when in the past it would have been treated as capital.

This change in policy is based on the fundamental principle of capital asset maintenance – i.e. ElectraNet SA will only capitalise expenditure that it will have the opportunity to recoup. This requires that the expenditure be added to the regulated asset base and for it to be recognised in future asset valuations. To do otherwise would ultimately result in ElectraNet SA losing value for its shareholders, which is clearly unacceptable.

Replacement of assets below the unit of property (level of detail) recognised in engineering consultant valuation databases will not be recognised in future asset

6 ACCC Final Decision, "Queensland Transmission Network Revenue Cap 2002-2006/07", 1 November 2001.

valuations. Therefore, ElectraNet SA's unit of property for network assets is described in its proposed capitalisation policy as follows:

- Complete switchbays in substations;
- Complete protection schemes within a switchbay;
- "Built sections" of transmission lines;
- Complete end to end telecommunications links; and
- Building and property expenditure that results in an improvement to the value of the building or property.

ElectraNet SA is advised that asset replacement below this unit of property, costs associated with site reparation, dismantling, refurbishment and relocation of equipment, and costs associated with planning, scoping and costing prior to project approval are not recognised in asset valuations conducted by engineering consultants such as SKM.

ElectraNet SA cannot be expected to capitalise this expenditure for regulatory purposes and will not do so if it means that it cannot recoup the expenditure made.

Simply moving asset refurbishment and replacement expenditure from opex to capex without a firm guarantee that ElectraNet SA can recoup this expenditure will result in the expenditure not being made. This would have a serious detrimental impact on customer service and transmission network reliability.

For example, if ElectraNet SA cannot proceed with expenditure to increase the clearances and thereby rating of old transmission lines (this expenditure is not recognised in a MEAV), then supply constraints would need to be applied during summer high load conditions.

5. Capex Projects Recommended for Exclusion

Meritec has recommended removing the capex allowance for the following projects, not due to a lack of technical merit, but due to uncertainty regarding whether the particular projects would proceed during the regulatory period and/or uncertainty regarding whether ElectraNet SA would be required to fund the projects[7].

5.1 Augmentations to the Robertstown/Monash/Berri Network

Meritec has recommended excluding the Robertstown to Monash 275 kV line component of ElectraNet SA Project 1.36 on the basis that TransGrid's proposal for diverting SNI to Monash is technically robust and less expensive and because TransGrid is the proponent for this work.

The cost of the Robertstown to Monash 275 kV line should NOT be excluded from the capex allowance for the following reasons:

- ElectraNet SA entered into a Heads of Agreement with TransGrid on 4 June 2002 whereby ElectraNet will build, own and operate the Robertstown to Monash section of SNI. This project has passed the

7 "ElectraNet SA Capital Expenditure Review", Meritec report to the ACCC, July 2002, p23.

regulatory test and is due for commissioning in 2004/05. Hence funds should be provided to enable this project to proceed in accordance with the requirements of clause 5.6 of the NEC.

- The ESIPC and ElectraNet SA have identified the need for additional transmission support to the Riverland. The ESIPC work suggested 2007/08 as the required date. However, this overlooked network limitations in Victoria, which bring the date forward to 2006/07 at the very latest, possibly 2005/06. ElectraNet SA advised the ESIPC of this in its comments on the ESIPC report.

- The ESIPC work was also based on a simplified model of the transmission network that did not adequately consider the impact on voltage levels in the Riverland. More detailed modelling of this aspect shows the need to advance the necessary works still further.

- As noted earlier, current customer electricity demand forecasts as reported by ESIPC and NEMMCO have increased significantly over previous forecasts. This increased growth in demand confirms that an earlier rather than later date of construction is required.

5.2 Augmentation to Facilitate Connection of Distributed Generation

Meritec has recommended that projects proposed to facilitate the future connection of distributed generation, primarily wind driven, be excluded from the capex allowance given the uncertainty of whether the projects will proceed and the uncertainty regarding the source of their funding.

Uncertainty of Projects Proceeding

On the first point, the probabilistic approach ElectraNet SA has adopted to determining its proposed capex allowance explicitly takes into account the uncertainty associated with the proposed projects.

Table 2 of the Meritec report shows that these projects have been assigned relatively low probabilities, with 0.40 being the highest probability assigned. What this means is that only a small proportion of the estimated total project costs has been included in the proposed capex allowance.

Excluding the projects altogether as Meritec has recommended amounts to saying that there is zero probability that any of these projects will proceed during the regulatory period. This is demonstrably not the case. For example, a multi-stage wind power project on the west coast of the Eyre Peninsula (proponent Ausker Energies Pty Ltd) has draft power purchase agreements in place and development approval for the first stage of the project.

An allowance must be made for the eventuality that one or more of these projects will proceed.

Uncertainty of Project Funding

Meritec makes the statement:

> *"Given the fact that generation of this nature is the catalyst for such high levels of expenditure, the question must be asked as to whether*

> *this should be funded by ElectraNet SA (and its customers) or by the proponents of the generation. There is a risk that economic signals to the generators regarding their location would be lost if such expenditure is allowed"*[8]*.*

Meritec has confused the issue of funding projects through ElectraNet SA's revenue allowance with the recovery of this revenue allowance through customer transmission charges. Meritec has not understood the requirements of the NEC in relation to transmission pricing.

Clause 5.5(f)(2) of the NEC requires that ElectraNet SA negotiate with a Generator on the use of system charge to be paid by the Generator in relation to any augmentations or extensions required to the transmission network ("negotiated use of system charges"). However, clause 6.5.3 makes it clear that revenue recovered from negotiated use of system charges forms part of ElectraNet SA's aggregate annual revenue requirement.

What this means is that Generators will be required to pay a negotiated charge for the proposed augmentations to the transmission network thereby preserving economic signals regarding their location, but the revenue recovered from these charges must fit within ElectraNet SA's revenue cap to be determined by the ACCC.

Therefore, an allowance must be made for the cost of these projects in ElectraNet SA's capex allowance. ElectraNet SA will not commit regulated expenditure that has not been allowed for in its revenue cap.

It is also important to understand that, while the proposed projects are required to facilitate connection of distributed generation, they may also be required to provide other customer benefits.

The two protection uprate projects included in Table 2 of the Meritec report are not driven by distributed generation, but rather by the need to bring the protection up to recognised industry standards.

6. Conclusions

This paper has been prepared in response to the Meritec report of its Capital Expenditure Review and reaches the following conclusions:

- Meritec's recommendation to give additional weight to the low demand forecast scenario is inconsistent with the current increase in demand forecasts reported by ESIPC and NEMMCO and should be rejected.
- Meritec's recommendation to move asset refurbishment and replacement expenditure from opex to capex without a firm guarantee that ElectraNet SA can recoup this expenditure will result in the expenditure not being made. ElectraNet SA cannot be expected to capitalise this expenditure for regulatory purposes and will not do so if it means that it cannot recoup the expenditure made.

[8] Refer to "ElectraNet SA Capital Expenditure Review", Meritec report to the ACCC, July 2002, p26.

- The cost of the Robertstown to Monash 275 kV line should be reinstated in the capex allowance. ElectraNet SA has entered into a Heads of Agreement with TransGrid to build, own and operate this section of the SNI project, which is required in any event to support the Riverland during the regulatory period.

- Meritec's recommendation to exclude projects that have been proposed to facilitate the connection of distributed generation is flawed in relation to both the uncertainty of the projects proceeding and the uncertainty of project funding. An allowance must be made for the eventuality that these projects will proceed during the regulatory period.

It is important to understand that ElectraNet SA will not commit expenditure that has not been allowed for in its revenue cap. Capital expenditure in itself cannot be "gamed" and will be subject to ongoing monitoring by the ACCC and "clawback" at the end of the regulatory period. On the other hand inadequate revenue will lead to cash flow problems for the business and inadequate investment to meet growth in customer demand and to ensure the ongoing reliability of the transmission network.