EUAA Submission on ElectraNet's Revenue Proposal for 2013/14-2017/18

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Executive Summary

In this submission, we set out the Energy Users Association of Australia's (EUAA) views on ElectraNet's Revenue Proposal (hereafter RP) for the 2013/14 to 2017/18 regulatory period.

The EUAA has around 100 members, many of whom are large electricity users, including in South Australia. Electricity transmission costs generally comprise around 10 per cent of our members' cost of electricity but for very large users connected to the transmission grid they can be much higher. It is also acknowledged that transmission services provide value beyond the immediate prices charged given their role in transporting electricity from generation to the market and potential to influence the market's supply-demand balance and the price at which electricity is traded. EUAA members therefore have a strong interest in this RP.

ElectraNet claims that its RP would result in an increase in average transmission prices of about 15 per cent (nominal) over the next regulatory period or2.8 percent per annum on average. For example, prices are estimated to increase from around $21.4 per MWh in 2012-13 to $24.6 per MWh in 2017-18.

The EUAA considers that ElectraNet's claim could well mislead consumers. The EUAA calculates that transmission prices could well increase by up to 30 per cent in nominal terms by 2017/18 (a compound average annual growth rate of 5.5 per cent). This would be on top of an 8.5 per cent per annum (or 45 per cent compound) increase during the current regulatory period (2008/9-2012/13). There are two reasons for this.

The first is that ElectraNet calculated the price rises for the next regulatory period by including year 2012-13 in the calculation. In fact, the most appropriate and clearest way to calculate price increases is to start from 2013-14.

Secondly, the ElectraNet has used outdated data, for example, ElectraNet used forecasts of energy (i.e. medium growth figures) from AEMO's 2011 South Australia Supply Demand Outlook[1]. This data set is no longer current and has been updated with the more recent publication of the Australian Energy Market Operator's (AEMO's) National Electricity Forecasting Report (NEFR) in 2012. Using this more recent data, the EUAA estimates that transmission prices would rise by 7 per cent p.a. rather than 2.8 per cent pa submitted by ElectraNet accepting the assumption that energy delivered will increase by 1.4 per cent.

To fund forecast expenditures for the next regulatory period, ElectraNet has asked for a revenue requirement of around $1,725 million. The main drivers of the increase in revenue are:

- The regulated rate of return, or weighted average cost of capital (WACC);
- Operating expenditure (opex); and
- some aspect of capex proposal

[1] AEMO's 2011 *South Australian Supply Demand Outlook*.

In summary, ElectraNet proposed WACC of 7.73 per cent with a DRP of 3.98. They asked for $478m in opex, which is forty per cent more than the current regulatory period ($340m). They have also asked for a capex of $894m, which is slightly more than the figure for the current regulatory period of $883m. Most notable is augmentation capex has fallen from $361 million in the current regulatory period to $118million (or by 67 per cent) in the next regulatory period. On the other hand, replacement capex increased by 67 per cent and easement capex increased by around 120 per cent over the current regulatory period. We ask the AER to examine the appropriateness of the segments of capex and opex showing the large increase.

For reasons explained in the submission, we dispute elements of ElectraNet opex. If the AER were to act on these, we estimate that it would reduce opex over the next regulatory period by a significant amount. Again, there would be a significant downward impact on prices.

By far the biggest item in terms of revenue consequences is the rate of return (Weighted Average Cost of Capital, or WACC) provided to ElectraNet. This is responsible for around 55 per cent of its revenue for the next regulatory period. Of particular interest is the cost of debt and, in particular, the debt risk premium (DRP). ElectraNet has argued for a DRP of 3.98 per cent.

We welcome that the AER has recognised some problems with the existing approach to calculating the DRP and sought (unsuccessfully for now) to apply a new method of calculating the DRP. In particular it has set out a method that relies more on actual observed data rather than the contrived Bloomberg Fair Value Curve. We welcome this step by the AER and note its important impact on transmission prices.

The EUAA does not agree with the arguments by ElectraNet about the appropriateness of using the Bloomberg Fair Value Curve to derive the DRP. The reasons for this are explained in the submission.

ElectraNet argues that the increase in expenditures are necessary to meet peak demand, replace aging assets, and meet higher reliability standards. We question this because we believe that ElectraNet has not justified this overspend. We explain our reasoning in sections 3, 4 and 5.

The EUAA is also concerned that ElectraNet's proposal is not consistent or sufficiently aligned with the current state of the South Australian economy. The State's economy is oriented towards manufacturing more so than any other State, is experiencing strains due to the high dollar and high costs (including electricity prices), and is trying to develop a more diverse base with the hoped for development of other industries such as mining but is experiencing difficulties with this. Against this background, the State is seeing that a fall in commodity prices and in the demand for some of the resources it keen to develop, along with high costs, is limiting mining development. This has become even more acute since ElectraNet's RP was submitted with the announcement that BHP Billiton will not be proceeding with the expansion of its Olympic Dam project in South Australia. According to Professor Richard Blandy, this announcement will reduce the State's annual growth rate by half a per cent per year with a loss of 4,000 jobs.[2] BHP Billiton's announcement has implications for ElectraNet's RP and its level of activity over the next regulatory period.

[2] See Prof. Richard Blandy, 'Low-wage Route to Faster Growth: a radical Plan B for the bereft state', *The Australian*, 28th August 2012, p 14.

The EUAA has long expressed the view that the AER needs to be more cognisant of the impacts of its determinations on the broader economy and remains keen that it do this. We therefore urge the AER to carefully consider and weigh up Electranet's RP in the context of the settings that exist in the South Australian economy. The National Electricity Objective (NEO) would seem to afford the scope for it to do so.

Contents

1. Introduction

ElectraNet has submitted its Revenue Proposal covering the regulatory period 2013/14-2017/18 to the Australian Energy Regulator (AER). The Energy Users Association of Australia (EUAA) welcomes the opportunity to provide a submission to ElectraNet's Revenue Proposal (RP).

The EUAA is a non-profit organization that represents the interests of its members on a range of energy policy and regulatory matters, including AER reviews. We have around 100 members, including many of the largest electricity users in Australia. Taken together, our members account for a significant share of the electricity consumed in the National Electricity Market (NEM) and in South Australia.

Electricity transmission costs would generally comprise around 10 per cent of our members' delivered cost of electricity. However, for energy users connected directly to ElectraNet's network, which includes a number of our members, transmission costs would be far higher, contributing between 20 and 30 per cent of the delivered cost. Although these users are few in number, they are generally very large electricity consumers and important to the State's economy. Our members also depend on transmission service providers to deliver a reliable supply of electricity with high power quality levels.

Transmission services are also important in the context of enabling power generators to transport their electricity into the market and across the various regions of the National Electricity Market (NEM). They can and do have a significant impact on the price of electricity generated, constraints in power flows, and the volatility of power prices and ancillary services. It is therefore acknowledged that transmission has an importance to energy users that goes beyond the price of transmission services themselves. Nevertheless, the payment of transmission charges is an important issue for EUAA members, even more so in the current environment of escalating business costs, high exchange rates, and (most importantly in the context of this revenue determination) rapidly escalating electricity costs to consumers. On all these grounds, EUAA members therefore have a strong interest in this RP and in the outcomes finally determined by the AER.

The EUAA has been involved with most of the network (Distributors and Transmission) pricing reviews since the inception of the NEM, including all previous AER resets and ElectraNet's previous resets.

1.1. Overview of ElectraNet's Revenue Proposal

In summary, ElectraNet have proposed a revenue stream of $ 1.7 billion, which is 22 percent more than in current regulatory period ($1.39 billion).

They have proposed capex of $894 million (nominal), which is similar to the figure for the current regulatory period of $883 million. Augmentation capex falls from $361 million in the current regulatory period to $118million (or by 67%) in the next. On the other hand, replacement capex

increases by 67% and easement capex increases by around 120 per cent over the current regulatory period.

ElectraNet has proposed a WACC of 7.73 per cent with a Debt Risk Premium (DRP) of 3.98%. They proposed $478 million in opex, which is 40 per cent more than the current regulatory period ($340 million).

In regard to the estimated price rises posted by ElectraNet, we believe that the estimated price effect that energy consumers are likely to face is not calculated according to the relevant base. This is explained further in section 2.

The EUAA appreciates the efforts that ElectraNet has put into this regulatory proposal (RP). We also note and welcome Electranet's frequent comments alluding to its sensitivity to high and rising electricity prices and its stated attempt to build this concern into its proposal. Electranet has also said that its proposal will result in a "CPI type" increases of 2.8 per cent in the following four years, although as outlined in Section 2, we do not believe that this is an accurate description of the price impacts of its proposal. Nevertheless, we welcome and support Electranet's focus on limiting price increases and these aspects of its proposal.

1.2. ElectraNet's Proposal in Context

These price issues are very significant in the case of South Australia, which has the highest electricity prices in the NEM, prices that have already increased significantly over the past few years, with a major contributor being network prices, including Electranet's transmission charges, which increased by 30 per cent (nominal) over the current regulatory period. This is double the amount claimed by ElectraNet.

In fact, as a report released by the EUAA in March this year showed, South Australia in 2011 had the third highest residential electricity prices in the developed world and its relative position is set to deteriorate even further this year. The relative position of electricity prices for business is likely to be similarly poorly placed. It is therefore imperative that steps are taken by the AER in this review to ensure that Electranet's transmission charges do not contribute to a further deterioration in South Australia's ranking. Rather, the AER should ensure that ElectraNet's charges make a contribution to an improvement in South Australia's position.

ElectraNet has stated that higher expenditure is needed to cope with rising demand, higher technical standards, ageing assets and historic underinvestment, and the growth rate anticipated for the South Australian economy in the next decade.

Having considered its Revenue Proposal, we have formed the view that a portion of the forecast expenditures for the next regulatory period suggested by ElectraNet are overstated. The EUAA is also of the view that the supporting arguments and methodologies used by ELectraNet do not provide sufficient justification for its higher expenditure. These points are dealt with in more detail later in this submission.

The EUAA is also concerned that ElectraNet's proposal is not consistent or sufficiently aligned with the current state of the South Australian economy. The State's economy is oriented towards manufacturing more so than any other State, is experiencing strains due to the high dollar and high costs (including electricity prices), and is trying to develop a more diverse base with the hoped for development of other industries such as mining but is experiencing difficulties with this. Agaisnt this background, the State is seeing that a fall in commodity prices and in the demand for some of the resources it keen to develop, along with high costs, is limiting mining development. This has become even more acute since ElectraNet's RP was submitted with the announcement that BHP Billiton will not be proceeding with the expansion of its Olympic Dam project in South Australia. According to Professor Richard Blandy, this announcement will reduce the State's annual growth rate by half a per cent per year with a loss of 4,000 jobs.[3] BHP Billiton's announcement has implications for ElectraNet's RP and its level of activity over the next regulatory period.

The EUAA has long expressed the view that the AER needs to be more cognisant of the impacts of its determinations on the broader economy and remains keen that it do this. We therefore urge the AER to carefully consider and weigh up Electranet's RP in the context of the settings that exist in the South Australian economy. The National Electricity Objective (NEO) would seem to afford the scope for it to do so.

[3] See Prof. Richard Blandy, 'Low-wage Route to Faster Growth: a radical Plan B for the bereft state', *The Australian*, 28th August 2012, p 14.

2. Price Impacts

In this section we consider the price impacts of ElectraNet's RP.

We believe that ElectraNet has understated the price impacts of the regulatory proposal (RP). ElectraNet considers that transmission prices will rise from $21.40/MWh in 2012/13 to $24.60/MWh in 2017/18, or by 15 per cent (nominal) over the regulatory period. ElectraNet determines its transmission charges based on the AER's approved revenues and the pricing principles contained in the Rules. Based on this approach, Electranet estimates that its RP will result in an average increase of about 2.8 percent per annum (nominal) in transmission charges from the end of the current regulatory period. This equates to an annual nominal increase of 0.4 percent on average residential customers annual bill of $1,384. For this price outcome, ElectraNet assumed an energy delivered growth of around 1.4% over the regulatory period.

Figure 1: Price Impacts Differ Based on Assumptions in Energy Delivered

	Assumed Annual Growth in Energy Delivered				
	-2%	-1%	0%	1. 42%	2%
Price Increase p.a -NEFR/AEMO data 2012	10%	9%	8%	7%	5%

Source: EUAA calculations

The EUAA disputes ElectraNet's price calculations.

First, we note that even if energy delivered rises by 1.42% as assumed by ELectraNet (using 2011 data), prices will rise by 7% p.a. rather than 2.8% pa as submitted by ElectraNet. The simple reason for this discrepancy is that ElectraNet estimated the price increase from 2012/13 to 2017/18, whereas we think it more accurate to calculate true price increases from 2013/4 to 2017/18, which equates to the next regulatory period.

Second, we believe that these calculations and are also incorrect because they are based on unrealistically high assumptions regarding the future energy delivered by ElectraNet's network.

The EUAA strongly suggests that the forecast energy figures used by ElectraNet in its price estimation, i.e., the medium growth figures taken from AEMO's 2011 South Australia Supply Demand Outlook, is outdated and thus no longer appropriate. For example, the energy delivered projection used by ElectraNet of 1.42% is outdated. The revised data provided by AEMO in the 2012 National Electricity Forecasting Report (NEFR) is more up-to-date and therefore a more appropriate data set to use. We consider that either Electranet should revise its calculations or the AER should substitute a more accurate one.

The EUAA has used the more up to date AEMO data to estimate a more realistic price outcome.

AEMO has adjusted its methodology and subsequently has changed its forecast. For example, annual energy for 2011-12 is expected to be 5.2% lower than 2010-2011, and 10.5% lower than forecast in the 2011 ESOO (medium economic growth scenario). Annual energy delivered for 2012-13 is expected to

grow by only 0.1%, which represents a 12.2% reduction from the 2011 ESOO forecasts. Further, average growth in annual energy for the 10-year outlook period is now forecast to be 0.9 down from the 1.5% forecast in the 2011 ESOO (see NEFR[4]).

Table 1 illustrates various price outcomes assuming different energy delivered assumptions. For example, when we used the medium scenario energy (GWh) forecast for South Australia for the period 2013/4 to 2017/18, prices rise from $22.14 to $29.60. This is a compound average growth rate of 7.55% per annum. Using the low growth scenario and doing a similar calculation lead to prices going from $23 to $32/MWh or equivalent to a 8.6% compound average annual growth rate in Electranet's prices.

In the same vein, If energy delivered declined by 1%, prices will increase by around 9 % per annum. And annual percentage price increases could be up to 10 per cent p.a, or $28 per MWh by 2017-18 if energy delivered decline by 2%. In other words, energy consumers are more likely to pay between 7% to 9% more for transmission than the 2.8% ElectraNet is proposing.

Given the current general decline in the price of commodities, the slowdown of growth in China and the meagre growth in Europe, the EUAA is of the view that ElectraNet is too optimistic about mining investment growth (and therefore electricity demand) in South Australia.

More recently, additional factors have led to the fall in energy delivered and maximum demand. Briefly these are:

- A slower than expected forecast increase in consumption from large industrial customers, including developments in the mining sector and the Port Stanvac water desalination plant.
- The significant penetration of rooftop photovoltaic (PV). Among the regions, South Australia has the highest penetration of rooftop PV. In 2011-12, rooftop PV systems are estimated to have generated 306 GWh, or 2.4% of estimated annual energy. By 2021-22, this is forecast to increase to 900 GWh or 6.4% of annual energy. Over the 10 year outlook period, the average annual growth rate of rooftop PV energy is expected to be 8.1%.[5]
    - Reduced electricity consumption by manufacturing in response to the high Australian dollar.
- A moderation in gross domestic product compared to the 2011 ESOO economic outlook which will dampen annual energy delivered.
- Consumer response to rising electricity prices and (perhaps) energy efficiency programs.

This suggests that it is more realistic to use a lower growth rate such as the average of the AEMO's medium growth and low growth scenario for the price calculation. This would lead to a price increase of around 8% per MWh per annum. This is very different from the unrealistic 2.8 % increase proposed by ElectraNet. The EUAA is therefore concerned that the approach used by ElectraNet provides South

[4] *National Electricity Forecasting Report (NEFR)*

[5] *AEMO's Rooftop PV information Paper*.

Australian energy consumers with an unrealistically low indication of transmission price outcomes over the next regulatory period. This is even more of a concern given that electricity prices are under severe upwards pressure from a range of sources.

Given the above, the EUAA urges the AER to adopt a more realistic assumption about energy delivered in their Determination and to undertake sensitivity analysis to provide users with a realistic characterization of price impacts.

3. Peak Demand and Energy Forecasts

The future projection for peak demand allowed under this determination is a key driver of ElectraNet's expenditures.

The EUAA has identified a number of issues that it considers contribute to ElectraNet over-estimating its peak demand forecasts.

The EUAA compared ElectraNet's past demand forecasts with past actual demand and identified that ElectraNet has consistently and systematically over-forecast its demand. This has served to justify their proposed expenditures.

On page 64 of the RP, ElectraNet has relied upon demand forecasts provided by AEMO, ETSA Utilities and ELectraNet's directly connected customers in accordance with clause 5.6.1 and Schedule 5.7 of the National Electricity Rules. ElectraNet uses these forecasts to plan main grid augmentations, as well as main grid reactive requirements, both of which are driven by total demand levels across the network.

ElectraNet proposes an annual growth in maximum demand[6]of around 2.7 percent across the period shown with a projected annual increase in energy consumption of around 1.6 %. (p64, RP)

However, according to the NEFR /AEMO (2012), under the medium growth Scenario at 10% POE, maximum demand is estimated to rise from 3,332 MW to 3,439 MW between 2013/4 to 2017/18. This is a compound average growth rate of only 0.79 per annum, or around half of that proposed by Electranet. Using the Low Growth Scenario at 10% POE, maximum demand is to grow from 2,963 MWh in 2013/4 to only 2,975 MWh in 2017/18. This is a (CAGR) growth rate of only 0.16% p.a.

According to AEMO (2012), peak demand in the NEM is currently reducing. The EUAA taking into account various domestic and international factors , on the other hand, is of the view that forecast by ElectraNet is optimistic and actual growth is more likely to sit in between the medium growth rate (0.7) and low growth rate(0.16) as estimated by AEMO (2012).

We note that the regulatory framework is such that there are strong incentives for network companies to overstate their forecasts as they stand to benefit from the resultant increase in capex and eventually in their asset base (to which is applied the allowed rate of return). The EUAA has highlighted this tendency in a number of its previous submissions and tried to alert the AER to it by showing evidence of systematic over-forecasting by network businesses, and to a lesser (but still significant) extent the AER itself. In saying this, it is important to also point out that what the AER has allowed network businesses as a forecast for peak demand growth in their next regulatory period versus what has actually happened has shown an actual peak demand growth much lower than forecast across all NEM jurisdictions. The result is overinvestment, or 'gold plating', of the networks which is contributing to unnecessary increases in network charges. Given the widespread concern in

[6] We note that the 10 percent POE forecast is the accepted standard for main grid transmission planning.

the community about high and rising electricity prices, the AER needs to assiduously avoid such an outcome for Electranet in its next regulatory period.

Noting the important consequences for load driven capex and opex, the evidence and argument above strongly suggests that ELectraNet could be investing in capacity that is not needed if its proposals are accepted by the AER.

The EUAA considers that ElectraNet appears to implicitly accept this as shown by its proposal to reduce load based capex by 60 per cent in the next regulatory period. No doubt ELectraNet, notwithstanding that it is a monopoly provider of transmission in South Australia, is not immune from community and political concern about rising electricity prices in South Australia.

In a competitive environment, a reduction in demand would normally send a strong signal to reduce capacity/cost as much as possible so as to remain competitive. In contrast, ElectraNet is proposing more expenditure in the next regulatory period.

3.1. Energy delivered

The EUAA considers that the projections for energy consumption and energy delivered by ElectraNet are overstated and unrealistic. The main reason for this is that, as already stated above, ElecraNet used data (AEMO 2011) that are out of date and are overly optimistic.

It is well known that energy consumption has declined NEM-wide. For example, economy-wide, it has decreased by 5.2% from 2010-11 to 2011-12 (NEFR, , 2012). The NEFR forecast is that energy delivered in 2012-13 is expected to grow by 0.1%. South Australia is expected to grow by similar amount. Over the regulatory period, the NEFR estimates growth to be around 0.7%.According to the NEFR (2012), annual energy in South Australia is projected to grow over the 10-year outlook period from 2012-13 to 2021-22 at an annual average rate of 0.9 per cent under the medium scenario, and 0.03% under the low scenario.

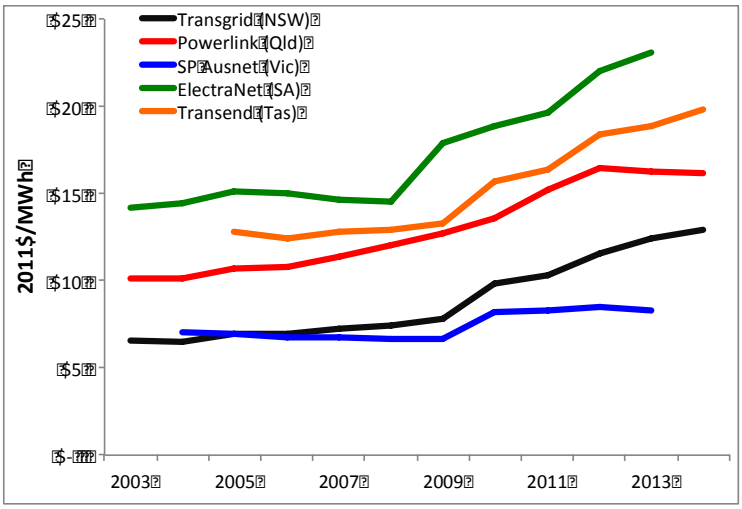
3.1.1. The EUAA response

The efficiency by which energy is delivered is important in assessing the performance of TNSPs and in setting their expenditure allowances.

The relative performance of the TNSPs can be assessed by comparing the compound annual growth rates (CAGR) of their regulated revenues in absolute terms or normalised by energy delivered.

Comparing the performance of ElectraNet to other TNSPs on this basis shows that ElectraNet is not as efficient. This is shown in Figure 2 below.

Figure2: Maximum Allowed Revenues (2011$ million) per MWh of energy delivered



Source: TNSP Comparison Report by CME(2012) forthcoming.

Furthermore, given the perverse incentive for network companies to overspend, which the AER has itself rightly drawn attention to, it follows that energy forecasts by network companies will tend to be too optimistic. For this reason, the AER should be sceptical of ElectraNet's forecasts.

The EUAA suggests that an assumption of 1.4% pa growth in energy delivered as proposed by Electranet, is too high relative to what has been happening in the NEM and in South Australia. For example, as mentioned above, AEMO in its latest forecasts (Table 6-1, NEFR, 2012) is saying that energy consumption in South Australia will only grow by 0.77% per cent in the next regulatory period under Medium growth scenario.

If ElectraNet is allowed to overspend on capex and opex by a significant amount in the next regulatory period due to being allowed a higher growth in energy delivered than is necessary energy users will be paying higher TUoS charges and electricity prices will be higher than they need to be.

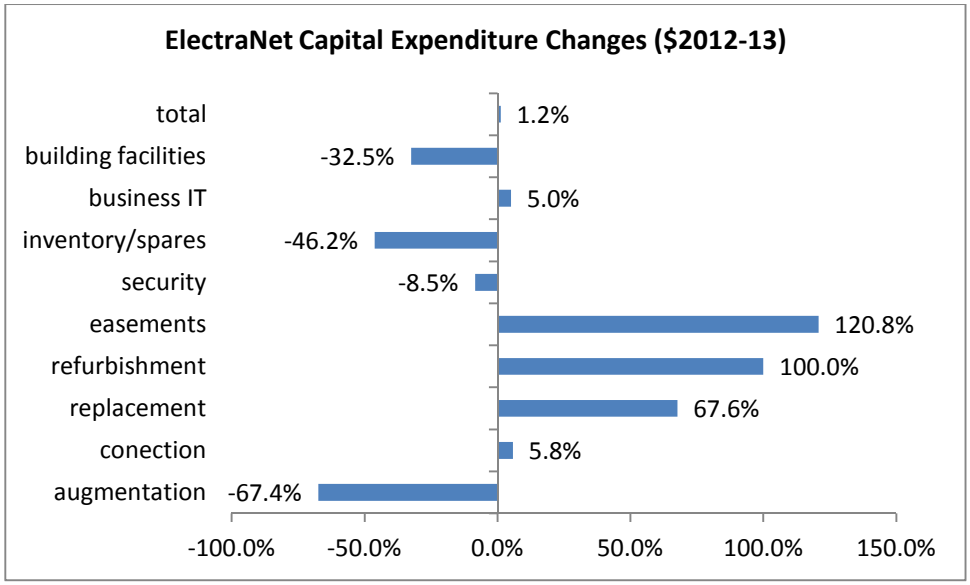
4. Capital expenditure

This section looks at ElectraNet's capex proposal and provides an EUAA response to it.

4.1. ElectraNet's proposal

ElectraNet has asked for a capex of $894m. This is roughly the same as the amount, $883m, for this regulatory period. Chart X below shows the changes in total capex and its main components comparing ElectraNet's proposals with the current regulatory period. Most notable is that augmentation capex has fallen from $361million in the current regulatory period to $118million in the next regulatory period (or by 67%). On the other hand, replacement capex has increased by 67% and easement capex has increased by around 120 per cent over the current regulatory period. We expect that the AER will closely examine the need for and appropriateness of these large increases. ElectraNet argues that the increase in expenditures and prices are necessary to meet peak demand, replace aging assets, and meet higher reliability standards.

Figure 3: Capital expenditure changes (nominal)



Source: EUAA

The EUAA notes that the Rules require all actual capex to be rolled into the asset base at the start of the next regulatory period without review of its efficiency in spite of the business spending more than its allowed expenditures. As the AER has itself remarked in its public comments and its network regulation Rule Change proposal to the AEMC, this results in step-change increases in revenue/prices at the start of the following regulatory period. Given the AER's clear recognition of the problem and its impacts, the AER will need to scrutinize closely the current roll forward amounts and the expenditures proposed for the next regulatory period to avoid any such unjustified impacts.

4.2. View of the EUAA

Generally, the EUAA supports investment in the transmission network that is shown to be efficient and necessary. However, we strongly oppose gold plating or other forms of over-investment that forces users to pay for unnecessary transmission costs. We are concerned that elements of Electranet's proposal may contain unnecessarily high elements of capex.

lectraNet has developed its network capital expenditure plans in consultation with AEMO, which also reviewed ElectraNet's load-driven investments. For each project identified, AEMO has assessed that the need exists, that the timing is appropriate and that the solution being proposed appears reasonable.

A notable feature of the transmission network capital expenditure forecast for 2013-14 to 2017-18 is that the argumentation and distribution connection point's projects identified are largely independent of the generation development and demand forecast assumptions considered in the various scenarios modelled.

ElectraNet (p76, RP) argues that the large majority of network projects included in the capital expenditure forecast are required to be completed within the forthcoming regulatory period (to be consistent with National Transmission Network Development Plan (NTNDP), irrespective of whether demand growth follows the high, medium or low demand forecast and irrespective of where new generation sources locate to meet the growth in demand.

The EUAA urges the AER to confirm that the above claim is accurate, to ensure that the scenario and forecast in the NTNDP are still robust and to verify that (even if they are) the expenditures proposed by Electranet are actually an efficient means of meeting them.

Furthermore, the EUAA urge the AER to carefully examine the large increases in easement expenditure (120%), refurbishment expenditure (100%) and replacement expenditure (67%).

The EUAA is of the view that ElectraNet's procedures and processes do not necessarily result in satisfactory decisions about non-load driven capex.

ElectraNet's justification for its asset replacement expenditure is dominated by generalisations regarding the need to replace groups of assets on the basis of age alone. They need to be justified on sound and specific grounds and stand up to close scrutiny.

For example, consider the implications of the above replacement policy for the most expensive component of substation plant – transformers. Given the conservative "N-1" reliability criteria inherent in the NEM transmission rules, transformers are generally loaded at below 50% of their nameplate rating throughout their lives. In addition, the transformer ageing process is predominantly driven by the thermal ageing of its insulation, which is inversely proportional to the transformer load. Consequently the "actual" age of most Australian transmission transformers is, in general, much "younger" than their "nameplate" age.

In practice, there are many "healthy" transformers throughout Australia that are over 50 years old, with no imminent need for replacement. Yet, ElectraNet's replacement policy will result in the early

retirement of all transformers with a nameplate age of over 35 years. There seem to be grounds for serious questioning by the AER here.

Similarly, not all secondary systems have an asset life of less than 25 years, and not all transmission lines have asset lives of less than 35 years.

As the AER would be aware from recent commentaries by Professor Garnaut, IPART and others have identified that premature replacement of assets is one of the key drivers in unnecessary network investment and unnecessary electricity price increases.

Further, there must be robust benchmarking of ElectraNet's forward capital expenditures to provide some discipline against the incentive to over spend and goldplate. Noting that the NER specifically requires the AER to do so, the EUAA has been disappointed with the AER's lack of benchmarking in past determinations and urges it to undertake such an analysis in this determination.

The EUAA also notes that the AEMC's recent draft Rule Change proposal includes a requirement for the AER to benchmark capex and to share this information with consumers so that they are better informed of the impacts of regulatory proposals. The EUAA hopes to see the AER as an 'early mover' by adopting the AEMC's draft proposals in this determination.

5. Operational Expenditures

This section looks at ElectraNet's opex proposals and provides the EUAA's views on them.

5.1. ElectraNet's proposal

ElectraNet has asked for total opex of $478m, which is 40% more than current opex allowance($340). ElectraNet has argued that it has achieved some cost savings but that these have been overtaken by cost increases resulting from operational refurbishment and maintenance. . Further, these underlying cost drivers are expected to continue in future.

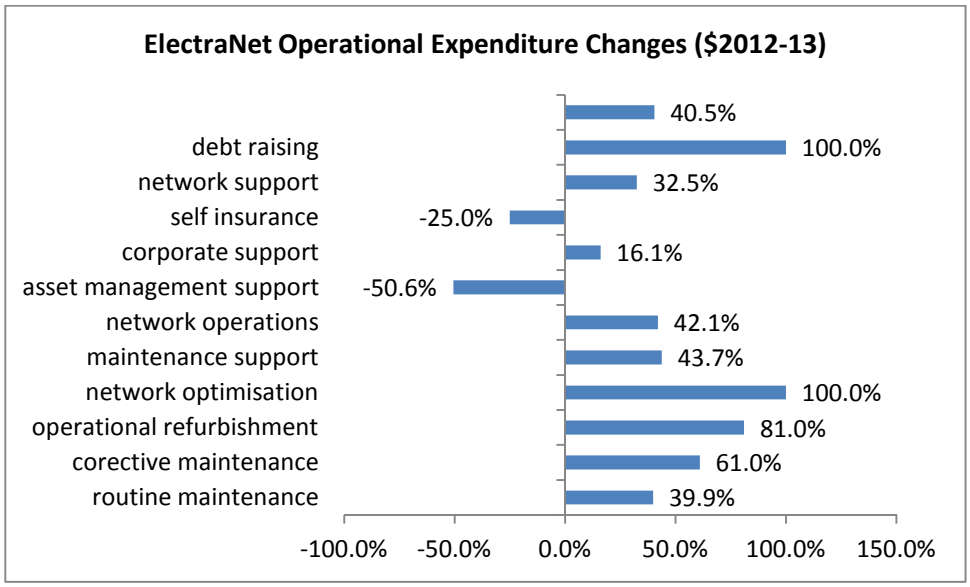
The key cost drivers contributing to the level of forecast operating expenditure are:

- a growing asset base to meet increased customer demand;
- continued implementation of a best practice asset management;
- the drive to improve asset utilisation;

real wage growth related to the projected strengthening in employment demand in the mining and construction sectors in South Australia.

ElectraNet argues that its operating expenditures are efficient and prudent. However, some of ElectraNet's opex components are proposed to increase by amounts of up to double that in the current regulatory period (see figure 4 below).

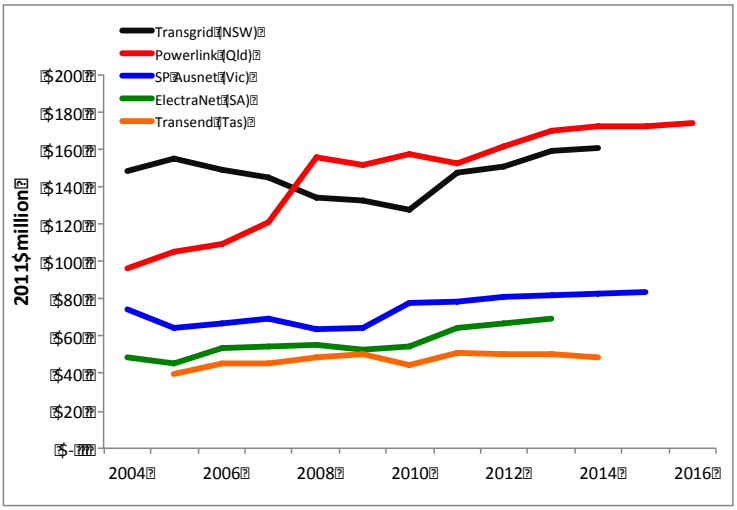
Figure 4: **Changes in operational expenditure between the two regulatory periods**



5.2. View of the EUAA

Figure 4 below shows how ElectraNet performs relative to other transmission companies in the NEM. When normalised for energy delivered, the growth in operating expenditure per unit of energy delivered is highest for Electranet.

Figure 5. Operating expenditure (2011$million)[i]



Source: TNSP Comparison Report - CME (2012) forthcoming.

Based on this information, ElectraNet is unlikely to be as efficient.

Another point that the EUAA would like to make is that the demand forecasts which form the basis of ElectraNet's operating expenditure as described in section 5.8.1 of its RP (and discussed in section 3 of this submission) is unrealistic and inappropriate. At the very least, ElectraNet should use the estimate for energy delivered and peak demand in AEMO (2012).

The EUAA has a number of concerns regarding the magnitude of Electranet's proposed opex increases. For example, ElectraNet's proposed opex would result in its Opex/MWh more than doubling from the start of the current regulatory period to the end of the next regulatory period.

ElectraNet's reasoning for this large increase in opex is vague and not convincing. We urge the AER to look closely at this issue. The EUAA is sceptical about the need for such large increases in operational refurbishment (of around 80 percent) and the need for network optimisation (of around 100 percent).

The EUAA has also identified numerous elements of ElectraNet's proposed opex which it considers could well be overstated, and urges the AER to subject those elements to a particularly high level of scrutiny. In particular, we raised the following key issues:

- The need for benchmarking by the AER (as required under the NER) to assess ElectraNet's relative operational efficiency. The EUAA urges the AER to perform benchmarking of ElectraNet's opex with the other NEM TNSP's using accepted and objective ratios. Examples

include, Opex/Line length, Opex/MWh of energy delivered, growth rate of revenue normalised by energy delivered or annual peak demand.

- The EUAA identified what it believes could be significant inadequacies in ElectraNet's opex efficiency claims, including the limitations of its use of the Opex/RAB ratio. For example, this ratio can easily be reduced by expanding the asset base inefficiently.
- In light of the major increases in operational expenditure being sought by ElectraNet, the EUAA highlights the need for the AER to undertake a thorough review, informed by benchmarking, of each element of ElectraNet's opex, including field maintenance, operational refurbishment, asset management support, corporate support, maintenance support and network operations .
- The EUAA's concerns regarding the extent to which the proposed opex increases are driven by ElectraNet's network growth projections.
- The extent to which ElectraNet's opex proposals involve a 'trade off' with its capex proposal and whether this is justified?
- The extent to which ElectraNet is actually employing best practice asset management, the evidence for this and whether its expenditures are justified.
- The extent to which its opex proposals are actually contributing to improved asset utilisation and whether its approach to this is optimal.
- The justification for ElectraNet's claims that its wage costs are being impacted significantly by growth in the mining sector in South Australia. To what degree is there actually a link in skills and the demand for labour by ElectraNet and the mining sector (eg some industry experts have told us that there is at best only a minor link)? How significant is the growth in mining in South Australia and if it is, how long will it continue?[7] To what extent has EletraNet considered deferring work because to proceed with it at a time of high costs would not be prudent and not be in the interests of its shareholders or customers?[8]

5.2.1. Identification of Efficient Base Year Opex

A significant part of opex assessment is the identification of efficient opex costs for the base year. All other elements of opex assessments involve adjustments to this baseline assessment.

ElectraNet's revenue proposal assumes that its base year opex is efficient. However, ElectraNet does not provide any sound justifications within its proposal to validate this assumption.

[7] For example, BHP Billiton has recently shelved its proposed expansion of Olympic Dam indefinitely.

[8] This was major factor mentioned in BHP Billiton's announcement to indefinitely defer the expansion of Olympic Dam.

The EUAA queries the assumption that ElectraNet's base year opex is efficient. The EUAA's rationale for doing so is outlined below.

5.2.1.1. Choice of Base Year

ElectraNet considers that its expected 2011-12 opex outcomes are representative of current costs, and provide an efficient base level from which to forecast future expenditure requirements.

The EUAA disagrees with ElectraNet's proposed use of 2011/12 as the base year and considers it inconsistent with the intent of the Efficiency Benefit Sharing Scheme (EBSS). We submit that 2010/11 is a more appropriate base year since it matches more closely the average opex expenditure for the current regulatory period. The EUAA notes that the year ElectraNet has chosen, i.e, 2011/12 is the highest opex expenditure year for the current regulatory period. The EUAA is therefore concerned that 2011/12 is not a normal or efficient operating cost year. The EUAA urges the AER to examine this issue closely and ensure that a year is chosen that is truly representative of efficient opex.

5.2.1.2. Removal of Non-Current Costs from Base Year Expenditure

It is also important to note that ElectraNet has only identified scope changes that result in cost increases, with no identified cost reductions. It is unlikely that a thorough analysis would conclude that all future scope changes are cost increases, with no cost decreases.

Given the magnitude of the one-off costs being claimed by Electranet for future years, the EUAA expects the AER to perform a thorough assessment of ElectraNet's base year expenditure, to identify and remove all non-recurrent expenditure items.

5.2.2. Opex Benchmarking

As identified within the various submissions, ElectraNet has a long track record in focusing on the Opex/RAB ratio as the key indicator of its operational efficiency – a ratio that significantly favours entities such as ElectraNet, which have undertaken major increases in capital expenditure in recent years, by providing them with high asset values and with the benefits of lower operational and maintenance costs associated with newer assets.

As the AER is aware, ElectraNet has consistently used this ratio in its regulatory proposals to claim that it is efficient and prudent. As the AER is also aware, the EUAA has been urging the AER to implement formal objective benchmarking to assess the veracity of such claims.

The EUAA welcomes that the AER has performed some high level benchmarking in recent times to assess TNSP's operational efficiency claims, using alternative ratios including Opex/Line Length, Opex/GWh delivered and Opex/Peak Demand. The EUAA strongly encourages the AER to develop its benchmarking approach further and in greater detail, including in this determination and also to utilise it in its decision-making (as provided for in the NER).

The EUAA also notes that the AEMC's recent draft Rule Change proposal includes a requirement for the AER to benchmark opex and to share this information with consumers so that they are better informed of the impacts of regulatory proposals. The EUAA hopes to see the AER as an 'early mover' and adopt the AEMC's draft proposals in this determination.

5.2.3. Service standard

The EUAA is also concerned about the proposed service performance targets.

The key issue of concern to the EUAA is that Service Target Performance Incentive Scheme (STPIS) is intended to incentivise improvements in service performance, rather than providing rewards for maintaining average historical service performance. The EUAA is concerned that ElectraNet's performance standards appear to have been set too low. The magnitude of ElectraNet's recent capex program should automatically result in improved service performance levels but this does not seem to be so.

The EUAA suggests that the AER, together with relevant stakeholders, set efficient performance targets for the next regulatory period so that there is a real incentive to improve performance. If it were to be set below ELectraNet's historical average performance, then it would amount to a pure transfer from energy consumers to ElectraNet, which would not be acceptable to energy users.

5.2.4. Accounting for Network Growth

The EUAA is concerned that ElectraNet's proposed opex related to network growth factors could well be systematically biased towards proposals that would increase its RAB. A key point is that neither the RAB, nor the undepreciated value of the assets, are appropriate factors in accounting for network growth, as both of these measures give a greater weight to the cost of recent additions to the network than is appropriate.

The EUAA considers that there is a need for a composite measure to be developed for ElectraNet and other revenue determinations in order to determine an appropriate escalator for network growth which can be used to help set relevant opex. This composite measure needs to incorporate appropriate weightings for changes to asset value, demand, consumption and line length.

Given the implications of network growth on ElectraNet's opex allowances, the EUAA urges the AER to develop such a composite measure for ELectraNet's network growth escalation in this Determination.

5.2.5. Economies of Scale Factors

The EUAA suggests that ElectraNet has not achieved the scale economies of a monopoly asset management business.

The EUAA considers that ELectraNet has not provided any substantiation for its proposed scaling factors, and that the AER should require ElectraNet to demonstrate why it considers its scale factors to be appropriate, based on facts and clear specific justification.

5.2.6. Real Cost Escalation

Labour costs will be a key consideration in are a key consideration in of ElectraNet's operating expenditure forecasts.

The EUAA is concerned about aspects of ElectraNet's proposed real cost escalators (ie, cost increases greater than the forecast inflation rate) including their proposed labour cost escalators, material cost escalators and land value escalators. The AER will need to thoroughly assess these to establish their veracity.

5.2.7. Wages growth & Labour Price Index (LPI)

ElectraNet's labour cost escalation forecast has two components. One component is the annual wage increases included in ElectraNet's 2012 Enterprise Agreement (EA).[9] The other component is the LPI forecasts as set out in Table 6.10 on p103 of the RP. In brief, it rises from 2% real in 2013/14 to 2.8% in 2017/18. The implications are discussed below.

The EUAA considers that the AER should impose a labour productivity driven reduction to these forecasts. This will provide additional incentives for network businesses to improve their efficiency. In this regard we note that there is a need for the AER to verify the LPI claims of Electranet and to ensure that its EA is appropriate to the needs of a network business that should be seeking to drive down and contain costs. The relatively weak regulatory environment in which Electranet has operated in the recent past, which on the AER's own public statements has lead to regulatory proposals that are near or above what could be considered "reasonable", could well have created an environment in which Electranet's EA and it LPI do not reflect efficient costs. No regulatory environment should ever result in such outcomes but, given that the current one has given rise to excessive costs, it is incumbent on the AER to ensure that this does not continue, especially given the community angst about high and rising electricity prices.

5.2.8. Other Opex

The EUAA urges the AER to examine the reasonableness of ELectraNet's other opex, such as insurance, corrective maintenance, network support costs, debt raising costs, revenue reset costs and so forth. We make the point again that the current lax regulatory environment has resulted in the allowance of excessive costs by the AER in the past (on its own admission) and this must cease. Energy users are now looking for the AER to ensure that it does not continue.

[9] The ElectraNet Enterprise Agreement 2012 was approved by Fair Work Australia to commence on13 March 2012.

6. Cost of Debt

The 'return on capital' (WACC times RAB) is the most significant component of ElectraNet's 'building block' revenue, accounting for approximately 55% of the total revenue.

ElectraNet has asked for a WACC of 7.73% and a debt risk premium (DRP) of 3.98%.

6.1. The AER methodology for calculating the DRP

The method for calculating the DRP is in dispute. It has a big bearing on network revenues and charges. The EUAA has long argued that using the Bloomberg fair value curve is too subjective and unreliable. Further, the EUAA has suggested that it is more reliable and objective to estimate the DRP by mostly relying on the actual cost of debt incurred by TSNPs. This is significantly less than the allowance for debt provided by the AER and has been a significant contributor in driving up network charges in recent years.

More recently, the AER has moved in this direction. For example, in its April 2012 Final Determination on Powerlink, the AER's proposed approach to calculating the DRP was to calculate it from a sample of nine Australian corporate bonds, using a simple average of the margins over the relevant Australian Government bonds.

Having determined the bonds to be included in the sample, the AER has then calculated annualised yields from the sample (which includes converting floating yields to fixed), converted these to spreads over the estimated risk free rate, and calculated the debt risk premium as an average of the spreads.

Nonetheless, it is the understanding of the EUAA that the Australian Competition Tribunal (ACT) subsequently decided that the AER cannot use a new method of calculating the DRP without having conducted a proper public consultation on the issue.

6.2. The EUAA Response

The EUAA notes that the ACT decision did not say that the method used by the AER is inappropriate or unreliable in estimating the DRP. The ACT decision really relates to procedural fairness. If this is the case, then the EUAA suggests that the AER promptly conduct a public consultation on this issue in order to ensure that end users in South Australia are not subjected to excessive transmission charges as a result of the AER continuing to use an inferior methodology for the DRP.

The EUAA is of the view that Price Waterhouse Coopers's (PWC) argument that the BFV curve should be used by the AER because it is observable and simple to apply does not provide a sufficient reason for doing so. The fact is, the BFV term to maturity extend only to 7 years. Hence, it is only partially observable. Thus, some form of extrapolation is required to derive the DRP for a 10 year BBB+ benchmark bond, but extrapolation is subjective. Reasonable people can differ both on the method to use as well as on the final estimation.

The EUAA notes that the BFV is illiquid and that there is lack of transparency with regard to its methodology and data set. Bloomberg has so far refused to make these public.

As for the test that Bloomberg implements to screen different bonds for inclusion, again, we have no way of assessing this because it is proprietary.

Non-public information is not a sound way for regulatory decisions to be made.

The EUAA is of the understanding that there are currently long dated bonds in the market but Bloomberg has yet to include them in the BFV curve. The EUAA also notes that Ofgem has discontinued using the BFV because Ofgem has found it unreliable.

This view is further supported by the fact that individual Australian corporate bonds are often not traded daily in the Australian financial market. The daily bond prices provided by Bloomberg do not necessarily reflect executed trades in the market on the day. For some days when there are not enough trades in the market, the daily bond pricing from Bloomberg is only an approximate market value of the bond.

It is also our understanding that the AER wrote to Bloomberg and asked them about the purpose and usage of the BFV curve. Bloomberg replied that the BFV curve was not meant for deriving the DRP. This implies that Bloomberg, the source of the information, also hold a view that the BFV is not a suitable for establishing a WACC in regulatory settings.

Conclusion

Energy users in South Australia could be forced to accept higher transmission prices of up to 30 per cent in the next regulatory period if Electranet's proposals were to be accepted by the AER. This would fund the higher capex and opex proposed by Electranet but which has significant question marks around it. EUAA believes the forecasts for growth, energy transmitted, capex, opex and cost of debt to be inflated, and that this is largely a reflection of the perverse incentives inherent in the current regulatory approach and its application. A systemic bias in the current regulatory framework towards excessive expenditures is an outcome that has been acknowledged by the AER.

As we mentioned in our previous submissions, the challenge for this AER is to avoid such an outcome even within the confines of the existing Rules. For electricity consumers in South Australia, being asked to pay even higher electricity prices as a result of flaws in the Rules, is not a situation that they, or the AER, should accept.

Higher electricity costs inevitably lead to higher costs of living and of doing businesses, to lower output and lower competitiveness for business users. For business, which is already under cost and competitive pressures, accepting ElectraNet's proposal would do even more damage to their difficult position.

To be clear, users support efficient expenditures on the transmission network consistent with maintaining a reliable and secure supply. Unfortunately, the design and administration of Australia's regulatory framework as it currently stands leads to expenditures and prices that are inefficient and

not consistent with the electricity market objective. This is not a situation that electricity consumers can continue to accept, including in this determination and they are looking towards the AER to ensure that this does not happen and that Electranet is forced to accept an outcome that reflects efficient costs and a rate of return that is consistent with the fact that it enjoys a monopoly position in a low risk environment. With electricity prices in South Australia now close to the highest in the world, it is time for the AER to ensure that its Determination starts to reverse this situation.