

# CCP Sub-Panel submission on Energex, Ergon and SAPN revenues controls

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# 1 Introduction

This document forms part of the CCP subpanel's submission to the AER on Energex, Ergon and SA Power Network's revenue proposals to the AER for the period 2016 to 2020.

This document contributes to the sub-panel's suggestions on how the AER might assess whether the distributors' proposals are in the long term interest of consumers, and if so how they should be amended. The first section suggests an approach that the sub-panel encourages the AER to consider. The second section illustrates the suggested approach with reference to determination of the closing RAB (for this regulatory control period); the treatment of Energex and Ergon capital contributions; the allowance for borrowing costs; the allowance for taxation and taking into account evidence of actual profits.

## 2 Approach to the assessment of the long term interest of consumers

The (single) objective of the National Electricity Law, set out in its seventh schedule, is to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers. The National Electricity Rules exist under the National Electricity Law, and are subsidiary to the Law. And so the objective of the Law also establishes the objective of the Rules.

The AER regulates distributors subject to various instructions, mainly set out in Chapter 6 of the Rules. Conflicts may arise between the instructions in the Rules and regulatory decisions that are consistent with the objective of the Law (and Rules). Some times the conflicts are clear-but, but most often it is debatable whether the Rules preclude the AER from making various decisions..

What should the AER do in the circumstance that it perceives a conflict between the objective of the Law and the instruction in the Rules? Preference could be given to the objective of the Law (the long term interest of consumers) rather than to the instructions in the Rules, or the other way around.

The sub-panel can not advise the AER whether, from a legal perspective, preference should be given to the objectives of the Law or the Rules. However we note that regulatory decisions that are consistent with the long term interest of consumers are surely preferable from consumers' perspective.

Where the AER decides to make decisions that it thinks are consistent with its obligations under the Rules, but at the expense of consistency with the objective of the Law, the sub-panel suggests that the AER should make this clear in its determination and should quantify the difference in the decision that it would make, if it was to make a decision that was consistent with the objective of the Law but not the instruction in the Rules. It would also be helpful if the AER were to suggest how the Rules should be

changed to ensure that it is able to make decisions that are consistent with the objective of the Law. We suggest that this would draw attention to those parts of the regulatory arrangements that should be changed to ensure that they deliver the objective of the Law. This approach will also ensure that the AER does not find itself in the invidious position of having to defend decisions that are substantively at odds with the objectives of the Law, even if not at odds with the instructions in the Rules.

In the next section we explore various examples where it might be suggested that conflicts exist between the objective of the Law and the instructions in the Rules.

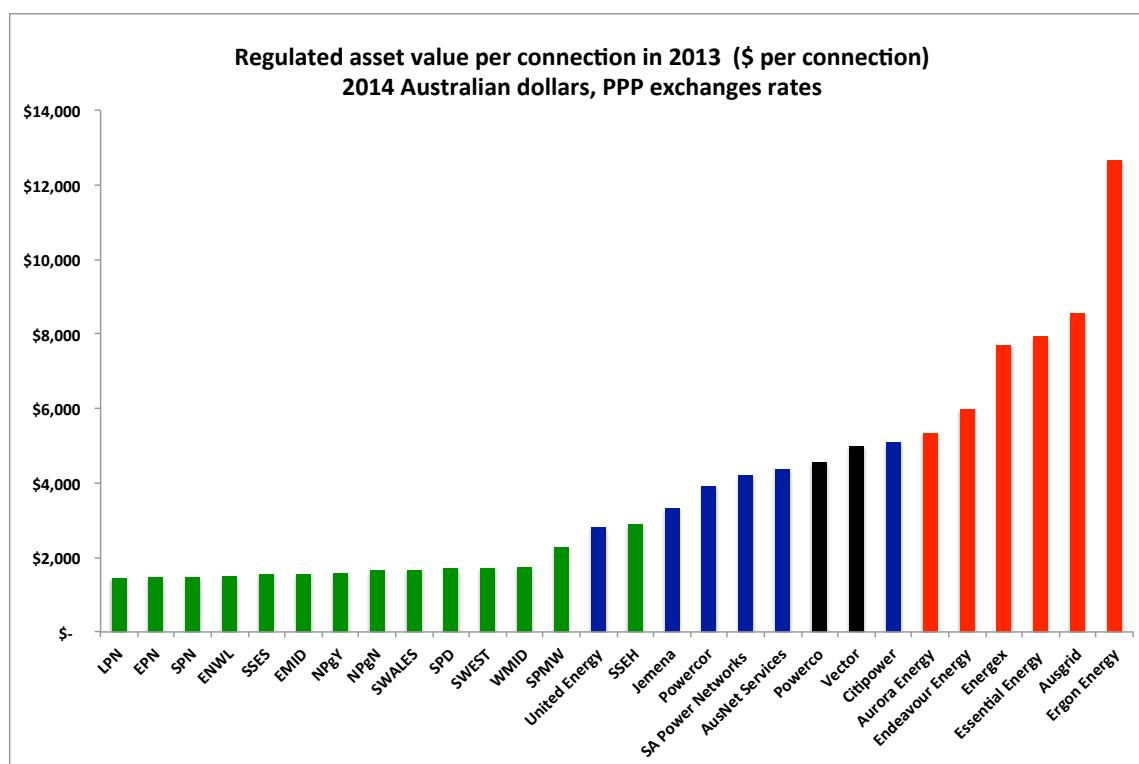
### 3 Examples

#### 3.1 Determination of the Regulatory Asset Base

The determination of the closing RAB is specified in the roll-forward model. If we understand the Rules correctly the AER has discretion to determine whether actual or forecast depreciation is used in determining the closing asset base. It is not clear to us whether or not the AER has the ability under the Rules to review the actual expenditure of Energex and Ergon and to exclude investment that has been unnecessary.

We recognise that this is not what was expected when the AER determined allowed revenues in 2010. However we think its is in the long term interests of consumers that such ex-post assessment is done. Figure 1 below shows the regulated asset base per connection in 2013 for Australian’s distributors (red - Australian government owned, blue - Australian privately owned, black- New Zealand’s two largest distributors and green - British distributors). It shows remarkably high valuations for all the government-owned distributors, but Ergon in particular stands out.

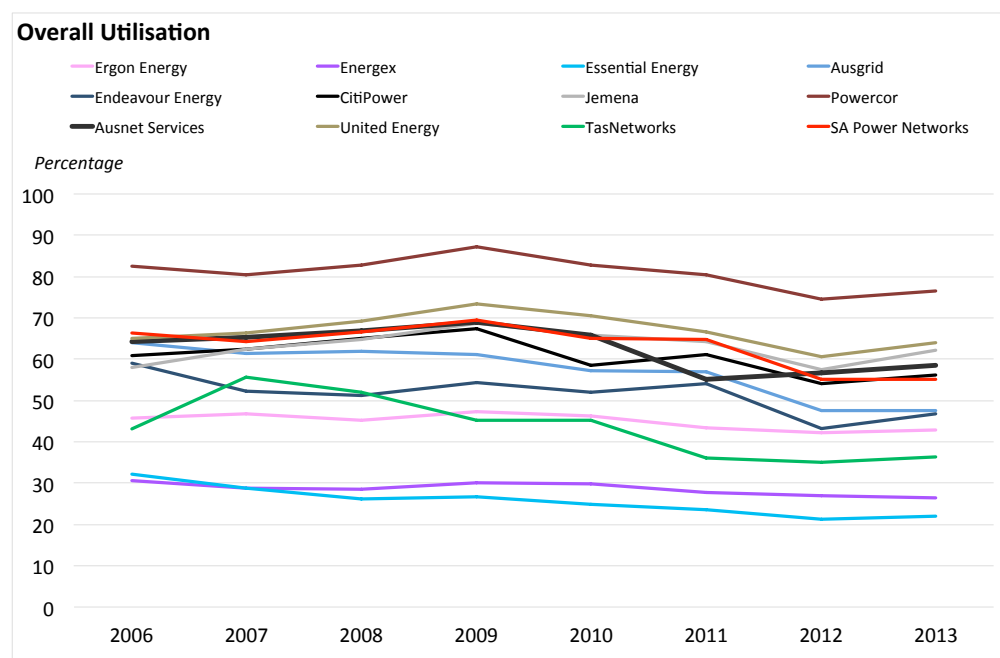
Figure 1. Regulated asset value per connection



Source: Mountain, B.R 2014. “The regulated asset value of Australian distributors: evidence and argument” (forthcoming)

The evidence of the extraordinary asset valuations for Energex and Ergon is matched by the evidence of their very low asset utilisation, based on the distributors’ data shown in Figure 2.

**Figure 2. Network utilisation (%)**



**Source: Regulatory Information Notices, CME analysis.**

Ergon’s utilisation is barely unchanged from 2006 to 2013 despite its regulated asset base having almost doubled. Ergon’s network through-put showed no change over this period, its simultaneous peak demand was just 10% higher and network length was hardly changed. The picture for Energen is similar. This evidence suggests that the interest of consumers would be served by careful scrutiny of Energen and Ergon’s actual capital expenditure, and exclusion from the regulated asset base, of expenditure that has been unnecessary.

It might be argued that some form of ex-post adjustment would be undermining regulatory incentives for efficient spending, by, metaphorically, moving the goal posts after the fact. We recognise this argument, but are sceptical that the regulatory regime has provided incentives to efficiency (the businesses gain far more by adding to the RAB rather than not and this seems to explain why the RAB has increased so much in the absence of reasonable justification). In addition it seems quite clear that the excessive capex allowances that the AER set in 2010 suggest principally forecast error – on the businesses’ part in proposing and on the AER’s part in accepting unrealistic demand forecasts. The evidence for this is as follows:

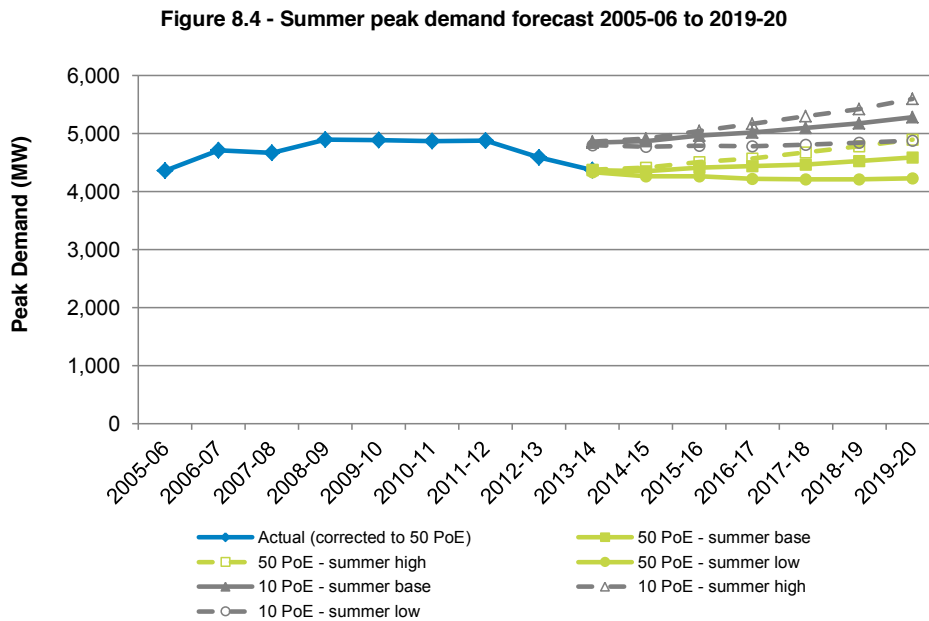
Table 6.3 below is taken from the AER’s Final Decision in May 2010 in respect of Energen and Ergon’s regulated revenues for the period from 2010 to 2015. It shows that Energen projected peak demand to increase by 3.8% per annum so that by the end of the regulatory period it would be 5,940 MW. The AER accepted this growth rate (it actually suggested an even higher rate of 4% although it expected demand to start from a lower level in 2010).

**Table 6.3: Energen’s maximum demand forecasts including demand management initiatives (MW)**

	2010–11	2011–12	2012–13	2013–14	2014–15	Average annual growth 2010–15 <sup>a</sup>
Energen original forecast	5126	5338	5633	5844	5941	3.8%
Energen revised forecast	5118	5376	5655	5814	5940	3.8%
AER draft decision forecast	4864	5027	5228	5466	5684	4.0%

Source: AER Final Decision, Regulated Revenue for Energy and Ergon, May 2010), page 40.

However, actual simultaneous peak demand in Energen’s network has not grown at all. In fact it has declined as shown in Figure 8.4 below, which is taken from Energen’s revenue proposal for the period 2015 to 2020.



Source: Energen 2015-2020 Regulatory Proposal, page 96

Comparing the actual demand over the period 2010 to 2015 with what Energen had proposed shows a huge error. Whereas Energen projected that peak demand would reach 5,940 MW in 2015, the actual outcome is that it will be more like 4,200 MW, about 35% lower. Instead of growing at 3.8% per year as Energen has predicted, it has declined by 4%.

The same problem is evident in Ergon’s prediction and outcomes. Table 6.4 shows that Ergon’s projected average annual growth in peak demand of 2.9% so that there was a 50% probability it would exceed 3330 MW by 2014/15.

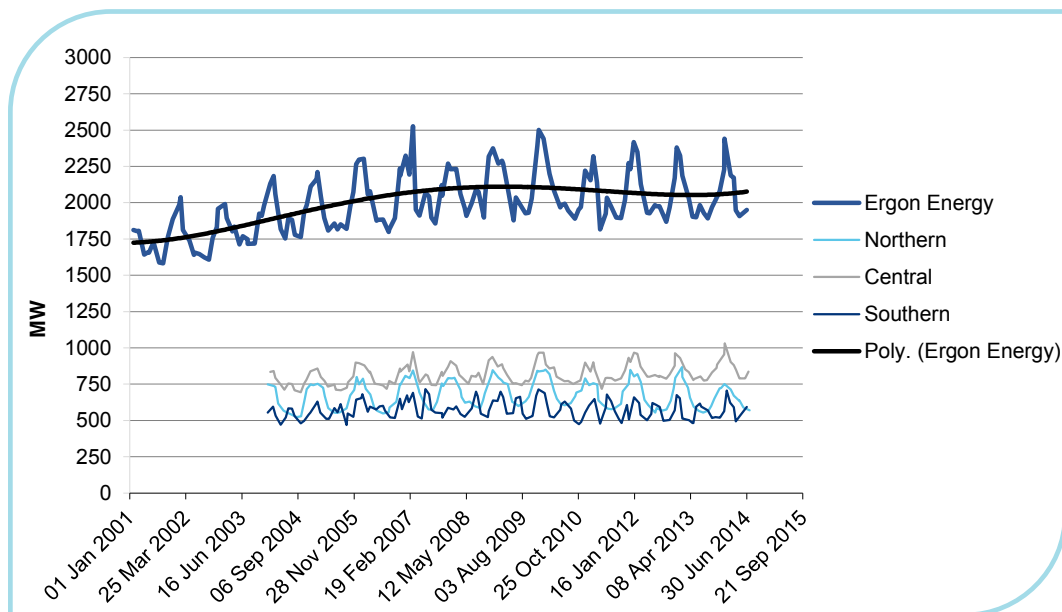
**Table 6.4: Ergon Energy 50% PoE system maximum demand forecast (MW)**

	2010–11	2011–12	2012–13	2013–14	2014–15	Average annual growth 2010–15 <sup>a</sup>
Original forecast	2967	3063	3153	3243	3330	2.9%

Source: AER Final Decision (2010, page 42)

Figure 16 below taken from Ergon’s proposal shows the actual outcomes. Peak demands reach their highest value in 2007 and are now on a declining trend. In the year to 2014, peak demand was less than 2,500 MW, 30% below the level that Ergon suggested had a 50% probability of being exceeded.

Figure 16: Monthly maximum demand



Source: Ergon 2015-20 proposal, page 97.

The errors that Energex and Ergon made in their peak demand predictions were equally bad in respect of their predictions for energy distributed. This is shown in Table 1 below which compares the forecasts that Ergon and Energex produced in 2010, for energy distributed just three years later (in 2013). It shows that they had over-estimated energy sales by around 20% - and this error is on predictions just 3 three years ahead!

**Table 1. Comparison of actual and forecast energy distribution**

	Energy distributed in 2013 (GWh)
Ergon forecast (in 2010)	16,874
Ergon actual	13,496
Energex forecast (in 2010)	24,042
Energex actual	21,055

*Source: AER 2010 to 2015 Regulatory decision and Energex and Ergon 2015-2020 proposals.*

The network businesses, when challenged about their inaccurate demand projections, have typically responded that the future is uncertain and they cannot be blamed for factors beyond their control. We believe that this is an inadequate response. Consumer advocates strenuously argued during the 2010 regulatory decision that demand growth had been significantly over-estimated. Indeed, at the AER's 9 December 2014 regulatory forum in Brisbane, the Chief Executives of both Energex and Ergon stated that they realised soon after the regulatory control had been set in 2010, that demand would not expand as they had told the AER it would. As a result they realised they did not need to incur as much capital expenditure as they had been allowed by the AER to charge consumers.

We are sceptical that it was only after the AER's decision was made that there was a sudden realisation that demands had been over estimated. Such large errors in demand projection so near into the future are implausible.

To help to inform the implications of this for consumers, we have calculated the estimated financial gains (allowances for depreciation and return on the difference between allowed and actual capex) that Energex and Ergon have obtained as a result of the excessive capex allowances that the AER determined in 2010. This is summarised in Table 3 below:

**Table 3. Benefit to shareholders for the difference between actual and allowed capex**

	Benefit accruing to shareholders on the difference between actual and allowed capex (\$'million)
ERGON	\$452m
ENERGEX	\$563m

For the reasons set out in this subsection we believe that it is in consumers' interest that adjustment is made so that the part of this amount attributable to forecast error is not charged to consumers. We realise that the AER might consider that even if such adjustment is in the long term interest of consumers, it does not have the authority to



make the suggested change. If so, it would be very helpful for the AER to explain why it thinks this to be the case.

### **3.2 Customer capital contributions in Queensland**

In its 2010-2015 decision the AER allowed Energex and Ergon to include in their RABs total capital contributions of \$1086m. The actual capital contributions (the first four years are known, the fifth estimated based on the average rate of underspend from the first four years) is \$599m, just a little over half what was expected. The closing RAB will reflect the depreciated value of the actual expenditure, but Queensland electricity consumers have been charged depreciation and return on \$487m of over-estimated customer contributions. The effect of this is we estimate, excessive charges of at least \$160m.<sup>1</sup>

This excess charge can not be argued to be legitimate compensation to Energex and Ergon for managerial effort – these are customers’ capital contributions and are completely outside of Energex or Ergon’s control. This very large error is purely poor forecasting. We note in particular that Ergon (where most of the forecast error lies) increased its forecast capital contributions significantly in its revised proposal in 2010 and the AER seems to have accepted their much higher revised proposal without variation. There can be no argument that allowing Energex and Ergon to keep the benefit of this forecast error is not in consumers’ interest. A decision that is consistent with the long term of interest of consumers would therefore ensure that all of the \$160m is paid back to consumers.

We have discussed this with AER staff. It might be argued that since the AER accepted Energex and Ergon’s proposals in 2010 to include forecast customer contributions in the calculation of the RAB (this is a peculiar arrangement applicable only in Queensland and a carry-over from the QCA’s approach), that the AER can not now adjust for the large forecast error. However as far as we can determine there is not and never has been any obligation in the Rules for the AER to follow the QCA’s approach. The AER may however consider that its 2010 decision there was an implicit undertaking to allow all of the forecast error to accrue to the network service providers. Perhaps the AER might consider that this is implied by the Rules, and so no correction can be made to prevent \$160m of excess charges to consumers in respect of customer contribution forecast error. If the AER feels that the Rules, or its interpretation of the Rules prevents it from making a decision that is in the interest of consumers, it would be very helpful for the AER to explain why it sees it this way.

### **3.3 Borrowing costs**

The AER has almost complete discretion to determine borrowing costs. This cost accounts for the bulk (60%) of the WACC and, when applied to the RAB, is by far the single biggest element of the “building block” allowed revenues. The AER does not contest that the debt costs that it set for Energex, Ergon and SA Powernetworks is far

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<sup>1</sup> This excludes other second order impacts from excessive RAB valuation including debt and equity raising allowances.

higher than their actual costs, but has blamed restrictions in the Rules for this. The revised rules remove the restrictions that the AER asked to be removed. However, we suggest that the AER, based on its Draft Decision for the NSW and ACT distributors, is still failing to set debt costs that are in the long term interest of consumers. We have two concerns in this regards:

- Firstly the AER has claimed that it will use BBB+ ratings for the debt benchmark. However the dataset of BBB+ bonds in Australia is limited, in practice a broad BBB rating is used (thereby including debt that is more expensive). In other words the AER has not implemented the approach it has claimed, and this results in a more generous benchmark and hence higher debt costs.
- Second, the evidence from the actual yields on network bonds and the price paid for bank debt shows that network businesses' actual borrowing costs are much lower than implied by their credit ratings. This is because lenders recognise that networks are monopolies and hence that even though credit rating agencies may, for example, assess the credit rating of a network business to be, say, BBB, its status as a monopoly means that actual credit risks are lower, and hence lenders are willing to lend money to network utilities at much lower rates than implied by their credit ratings. Evidence for this was set out in the Energy Users Rule Change Committee's submission to the AEMC in 2011, on actual network borrowing costs during the peak of the Global Financial Crisis. We also refer the Committee to the advice provided to the AER by its consultant, Associate Professor Lally and Chairmont Consulting<sup>2</sup> both of whom make the same point that we make in relation to the use of credit ratings to assess the debt costs of network monopolies. In addition, while we are not at liberty to divulge material provided to us in confidence, we can say that major investment banks and equity analysts have conclude, on the basis of their own proprietary analysis, exactly this point, suggesting a long run average cost of debt of around 5%, substantially below the level sought by Energex, Ergon and SAPN and even further below the rate that the AER has decided for the NSW and ACT distributors. The AER has said that it will have regard to analyst reports and so should be able to acquire this information for itself.

In addition, the AER has had many years to collect actual debt data to investigate differences between its BBB benchmark and actual costs. Such data is obtainable – but has so far the AER has not collected these data. We encourage the AER to obtain these data and ensure that its allowance for debt costs reflects actual costs rather than what the AER's own consultants suggest is an inappropriately specified index. To be clear and for the avoidance of doubt, establishing an allowance for debt costs based on actual debt costs does not undermine incentives to reduce debt costs, just as establishing an opex allowance based on a benchmark of actual operating costs does not undermine incentives for opex reductions.

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<sup>2</sup> Chairmont Consulting 2012. DEBT RISK PREMIUM EXPERT REPORT

### 3.4 Taxation

With respect to income taxes, the AER calculates the tax based on a “benchmark efficient entity” as specified in 6.5.3 of the Rules. Like the allowances for debt costs, equity costs, debt and equity raising costs this model fails to take account of the actual situation, instead it relies on a model of the actual situation.

There seems to be substantial evidence that there is a big difference between the AER’s assessment of income tax, and the actual situation. All of this difference accrues to shareholders. For example, SA Power Networks has proposed that electricity consumers be charged a little under \$450m for income tax for the coming five year regulatory control period. However their published financial statements in the current regulatory period shows that for the three years for which data is currently available, SAPN received a tax *credit* of around \$4m. This may be due to the specific structure of SAPN and that taxes are being paid at some other level of the organisation. For example SAPN has said in response to this information that it is a partnership and so not liable to tax.

Tax is complex, but on the basis of the available evidence there seems to be a big difference between the AER’s expectation of income tax and the actual situation, and specifically that the allowed tax seems to be far higher than the actual tax. SAPN has been invited to correct this perception.

If there is a big difference between the tax collected from consumers to compensate the businesses for tax costs and the actual tax costs paid by the distributors to the ATO then this is clearly not in the long term interest of consumers. As far as we can see there is no constraint in the Rules from the AER taking account of the actual tax situation in its estimate of the tax paid by a benchmark efficient network service provider. We appreciate that it would be a significant undertaking to do this, but since the tax allowances are very significant (\$1.7bn for Energex, Ergon and SAPN has been proposed for the next regulatory period), effort spent on this is, we suggest, essential in the calculation of tax allowances that are in the interest of consumers.

### 3.5 Profits

In its Guidelines, the AER has said it will have regard to actual profits in its calculation of the allowed returns. As far as we know this is allowable under the Rules. Specifically, what we would envisage is that the AER would consider the past and expected future profitability of the distributors in its consideration of the various regulatory decisions it makes on the weighted average cost of capital and a variety of other parameters including opex and capex allowances.

This might be considered to be, philosophically, at odds with the “normative” regulatory approach adopted by the AER. We do not agree with this. The consideration of profitability in the context of normative approaches to set expenditure allowances or to determine the weighted average cost of capital, tax and other financial costs is absolutely consistent with such approaches. Indeed consideration of actual profitability

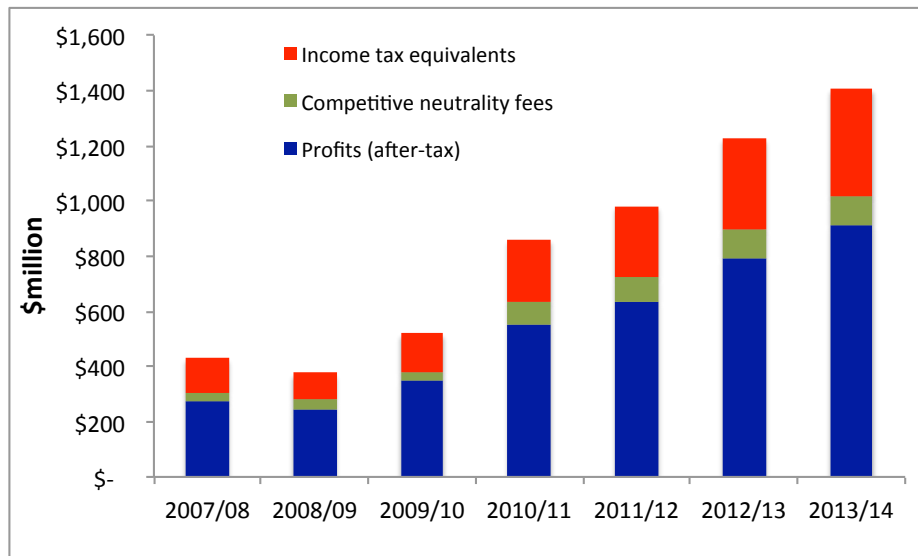
is a routine affair in the implementation of economic in Britain and New Zealand, two other countries that have adopted an approach that is philosophically akin to that in Australia. To our mind, there can be no doubt that consideration of information on actual profits is in consumers' interest: the purpose of the economic regulation is to provide incentives to efficiency and to allow firms to achieve returns above the weighted average cost of capital only if they become more efficient than the targets set by the regulator. It is vital that there is some assessment of whether this has actually occurred.

The AER has not, as far as we are aware, had regard to the actual profits of the distributors it regulates, despite having said that it would do this in its guidelines. We suggest that analysis of the difference between the actual profitability and the profitability that the AER expected in its determination of the regulated rate of return is essential and should be a significant factor in the decision that the AER makes in the coming regulatory period. In the next two sub-sections we present some analysis of profitability firstly for Energex and Ergon and then for SA Power Networks. This analysis does not pretend to be the last word, but rather we submit it for the AER's further consideration and scrutiny.

### 3.5.1 Energex and Ergon

Figure 3 below shows the aggregate pecuniary gain that the Queensland Government has obtained from its ownership of Energex and Ergon, distinguishing between after-tax profits, competitive neutrality fees and income tax equivalents. It shows a step change increase over the last regulatory control period, and a strongly rising trend of profit over the period.

**Figure 3. Pecuniary benefits from Ergon and Energex**



Source: Financial statements, CME analysis

In Tables 4 and 5 below we have analysed the profits based on data in Energex and Ergon's financial statements distinguishing between pre-tax and post-tax profits and taking account of the impact of the revaluation of assets in augmenting the value of equity through the "revaluation reserve".

**Table 4. Energex profitability**

	2009/10	2010/11	2011/12	2012/13	2013/14
Pre-tax return on equity (excluding revaluation reserve)	21%	25%	33%	36%	45%
Post tax return on equity (excluding revaluation reserve)	15%	17%	24%	25%	32%
Post tax return on equity	7%	8%	10%	11%	13%

**Table 5. Ergon profitability**

	2009/10	2010/11	2011/12	2012/13	2013/14
Pre-tax return on equity (excluding revaluation reserve)	17%	30%	32%	37%	34%
Post tax return on equity (excluding revaluation reserve)	12%	22%	22%	27%	24%
Post tax return on equity	6%	10%	10%	12%	12%

The bottom rows of Table 4 and 5 provide a measure of the post tax return on equity for Energex and Ergon. The figures for 2013/14, 13% and 12% (Energex and Ergon respectively) are similar to the AER's post tax nominal return on equity as set in its 2010 decision. On this measure, it might be suggested that Energex and Ergon's actual profits are broadly acceptable and consistent with the AER's determination.

However, the AER's determination of the return on equity is based on an equity risk premium that is established with respect to a market in which accounting values of tangible assets are generally based on historic costs and where, if ever, upward revaluation above cost are reflected in statements of comprehensive income and so will be reflected in the market equity risk premium<sup>3</sup>. Taking account of this<sup>4</sup>, the appropriate return on equity metric is in the middle row (32% and 24% in 2013/14) which excludes from the value of shareholders equity, the amount that is accounted for by upward asset revaluation. On this measure, these businesses are delivering a return on equity that is 2-3 times the rate that the AER envisaged.

Furthermore, the reality ignored in the AER's regulation, is that these businesses' profits are untaxed (the government collects the tax and the pre-tax profits) and hence the actual return on equity (even before considering debt guarantee fee income) is the amount shown in the top row i.e. 45% and 34%, in other words 3 to 4 times the rate the AER set in its WACC determination. These remarkable returns are being delivered by distributors that, the AER's benchmarking shows, are highly inefficient. Surely such profit outcomes are not consistent with the interest of consumers and the AER should have regard to this evidence in its determination of Ergon and Energex's coming revenue allowance.

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<sup>3</sup> International Accounting Standard 16 allows both a cost model and revaluation model for the valuation of property, plant and equipment. But if the revaluation model is employed (which is seldom the case anyway), upward revaluations above historic cost must be charged to comprehensive income.

<sup>4</sup> To be clear, in its determination of allowed returns the revaluation of assets is not included in the AER's measure of regulated income. So to ensure a like for like comparison with the equity returns on the market, an adjustment can occur either to the denominator (the value of equity) or profits to take account of the effect of asset revaluation.

### 3.5.2 SA Power Networks (SAPN)

We are unable to replicate the return on equity analysis for SAPN since their equity is accounted for through partnership capital and operating accounts and hedging reserves, reflecting their partnership structure. Some work would need to be done to properly understand this structure and build appropriate return on equity comparisons.

As the AER knows from our predetermination conference we have presented comparative per connection profitability analysis comparing SAPN's profits with those of UK Power Networks in whom it shares a common dominant shareholder. In that presentation we noted that in 2012 the regulated business of UK Power Networks (majority owned by CKI) achieved profit before interest and taxes (PBIT) of GBP711m for delivering electricity to around 8 million connections, giving a PBIT per connection of \$161 per connection. In 2012/13 SA Power Networks' distribution business achieved PBIT of \$595m for delivering electricity to 838 000 connections to give PBIT margin of \$710 per connection. Even after adjustment for financing costs, SAPN's regulated distribution business still seems to deliver about 4 times more pre-tax profit than UKPN per connection.

SAPN has underspent regulatory capex and opex allowances but not by large amounts. Why then is SAPN so profitable in absolute terms and in comparison to UKPN ? Regulatory asset valuation per connection is about 4 times higher for SAPN than UKPN and (real) WACC has been about 33% higher in SA than GB. Can these differences be justified or is this evidence of regulatory failure ? SAPN has noted that its network is less dense than UKPN's and the load it serves is more peaky. This may explain why SAPN's costs are higher, although there are also good reasons (much less underground network) to suggest why their costs are lower. However even if we accepted that SAPN's costs per customer are higher, why should this explain why its profits per customer are so much higher? Given that SAPN is now seeking substantial increases in both its capex and opex allowance, the need to understand how past allowances have generated this level of profit is even more urgent.

For the reasons set out in the introduction to this sub-section we consider that analysis of actual profits will be highly valuable in ensuring that the decisions that the AER makes for Energex, Ergon and SAPN are in the long term interest of consumers.