



# EnergyAustralia's submission on AER's draft regulatory determination for Victorian distributors

AUGUST 2010



# 1 Structure and key points of our submission

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EnergyAustralia's submission is primarily focused on the AER's decisions on forecast capital and operating expenditure. In sections 2 and 3, we raise the following high level issues with the AER's assessment of operating and capital expenditure:

- The AER's decisions have not given proper regard to the assessment framework prescribed under the National Electricity Rules (Rules). Consequently, the AER has rejected expenditure that satisfies the criteria under the NER and the Revenue and Pricing Principles in the NEL.
- The AER has developed new models and high level tests that do not provide a reliable or robust method for determining forecast expenditure requirements.
- The AER has not adequately applied the principles of transparency and predictability when making its decisions.

Section 3 of the submission raises issues with other elements of the AER's decision including rate of return, demand forecasts, incentive schemes, pass through, classification of services and control mechanism.

## 2 Capital expenditure

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### 2.1 AER's approach to rejecting and substituting forecast capex

EnergyAustralia is concerned that the AER's assessment approach to reject proposed capex and substitute an alternative amount is not consistent with the assessment framework prescribed under Chapter 6 of the Rules. The AER stated that its approach was to:<sup>1</sup>

“... consider the case put by the Victorian DNSPs for increases or changes in requirements that would justify a large increase in capital expenditure over the forthcoming regulatory control period”

The Rules do not require a distributor to justify an increase in requirements from the previous period as such. Rather, the Rules require the DNSP to propose a forecast of capital expenditure requirements that satisfies the capex expenditure objectives in the Rules. While the AER may have regard to expenditure in previous regulatory periods, it must assess the merits of the proposal put before it, rather than requiring a distributor to justify an increase from previous periods.

The AER's decision reflects a view that actual historical costs are likely to represent an 'efficient starting point' for capital expenditure. For instance, in respect of augmentation capex proposed by the DNSPs, the AER considers that the forecasts need to take greater account of historical actual expenditure levels as a starting point for forecast expenditure.<sup>2</sup>

The concept of an 'efficient starting point' is not reflected in the Rules. Further, it is a flawed analytical construct for evaluating the efficiency and prudence of capital expenditure due to the inherent 'lumpy'

nature of investment cycles and large projects. Regulators have long recognised the lumpy nature of capex profiles. For instance, when the ACCC developed the draft statement of regulatory principles, it stated:<sup>3</sup>

“Another feature of capital expenditure that should be recognised is that investment may be lumpy i.e. the next technically appropriate increment in capacity is large relative to existing capacity.”

The AER has also relied on historical expenditure to derive a substitute amount for total forecast capital expenditure. In certain cases, the AER has provided an increase from historical expenditure, for instance by deriving a 'weighted average increase' for augmentation capex, based on a review of detailed projects.

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<sup>1</sup> AER, Draft decision, Victorian electricity distribution network service providers: Distribution determination 2011–2015, June 2010, pvii

<sup>2</sup> AER, Draft decision, Victorian electricity distribution network service providers: Distribution determination 2011–2015, June 2010, p335

<sup>3</sup> ACCC, Draft Statement of Principles for the Regulation of Transmission Revenues, 1999, p57

EnergyAustralia is concerned that the AER's process for deriving a substitute amount for forecast capital expenditure is not in accordance with the Rules. Clause 6.12.3(f) of the Rules requires that the substitute amount or value on which the distribution determination is based must be determined on the basis of the current regulatory proposal; and be amended from that basis only to the extent necessary for it to be approved in accordance with the Rules.

Accordingly, the AER's substitute amount should be determined with respect to the current proposal, and not historical costs. We believe the AER's assessment processes would have provided the AER with an opportunity to review projects and forecasting inputs such that it could amend the proposal to reflect its findings from these detailed review.

## 2.2 Weight given to "previous expenditure"

The AER must have regard to ten capex factors, when deciding whether it is satisfied that the proposed expenditure meets the capex criteria in the Rules. Unlike previous decisions, the AER decided to give "greater emphasis" to historical expenditure as a basis for forecasting capital expenditure.

The AER has formed the view that the Victorian DNSPs must have systematically overstated capital expenditure requirements in the previous two regulatory periods because their most recent regulatory proposal did not demonstrate that the underspend over these two periods was due to efficiencies. The AER has therefore concluded that the next period forecasts are not 'fit for purpose' and have instead used historical expenditure as a 'fitter purpose' for deriving a substitute amount for forecast capex (as we discussed in section 2.1 above).

The AER's approach that places 'greater emphasis' on previous capex expenditure is a marked departure from previous decisions. We do not agree with the AER's decision making approach in this regard.

It is incumbent on the AER to demonstrate that any under-spend was related to a systematic over-forecasting of requirements by the DNSPs. To undertake this process EnergyAustralia considers the AER needs to have carried out the following steps;

- Firstly the AER would need to identify the errors in the DNSPs' forecasting processes that led to over-inflated estimates in the previous periods. This would involve a detailed examination of the reasons for variance in forecasts.
- Then the AER would need to assess whether the forecasting method utilised in the most recent proposal contains similar errors.

Only when it has undertaken these steps can the AER demonstrate that the forecasting processes are not fit for purpose. Once the AER has arrived at this conclusion, it must consider how the errors have resulted in an incorrect forecast of expenditure, and from that basis determine a substitute amount.

In this respect, we note that the AER seeks to compare the forecast amount proposed by the Victorian distributors with actual costs. This is an inappropriate basis for comparison, considering that the ESC decided to reduce the proposed allowance when making its decision. The Victorian distributors would have likely responded to the change in allowances by adjusting its capital expenditure plans.

We note that a key feature of our incentive based regulatory regime is the opportunity to earn a financial reward for reducing the costs associated with delivering capital programs in any one regulatory year. In our view, the AER's decision disincentivises the framework, or at least creates an additional layer of uncertainty for businesses undertaking investment decisions. If the AER arbitrarily penalises the business through lower regulatory allowances in future regulatory periods because the business underspends in the current period, this creates the perverse incentive for businesses to mechanically undertake capital programs, and not take opportunities to defer or reduce expenditure. We do not believe this is good regulatory practice.

We note that the AER has stated in its decision that the ex-ante incentives for capital expenditure are weak. In its draft decision, the AER noted that it was important to provide effective incentives for Victorian DNSPs to seek out efficiencies wherever possible in its capex programs:<sup>4</sup>

"...several stakeholders consider that the incentive framework for capex is relatively weak as it does not provide for ex post assessments. The AER also shares this concern."

For this reason the AER considered that a higher powered incentive was appropriate, and accordingly decided that actual depreciation should be used to establish the opening RAB for the 2016–20 regulatory control period for the Victorian DNSPs.

<sup>4</sup> AER, Draft decision, Victorian electricity distribution network service providers: Distribution determination 2011–2015, June 2010, p453

We note that this logic is contrary to the premise of the AER's decision to reject forecast requirements on the basis of underspends in the previous period. It appears that the AER has created high incentives for the business to underspend its forecasts but has penalised the business for making decisions in accordance with these incentive arrangements in the previous period.

## 2.3 Benchmarking

### a. Approach to benchmarking

The AER used benchmarking analysis to suggest that the overall Victorian DNSPs' levels of capex appears to be efficient relative to its peers. We note that benchmarking undertaken on 'total' capital expenditure is inappropriate and provides a misleading basis for comparing the relative efficiency of distributors.

Total capital expenditure is lumpy by nature. Further, capital expenditure is driven by network-specific factors. For instance:

- Augmentation capital expenditure is driven by a combination of peak demand growth on the network, utilisation capacity at specific locations on the network, and the costs of augmentation at that point of the network. These factors are likely to vary for each network.
- Replacement capital expenditure will be driven by the condition of assets on the network. Replacement expenditure will be different for each business based on the quantity of deteriorating assets on the network, and the relative expense of replacing these particular assets. Further, the level of replacement will be impacted by previous regulatory decisions made by different jurisdictional regulators, with a distributor having to 'catch up' on replacement as a legacy of insufficient allowances in the past.
- A change in licence conditions will likely result in a step change in reliability and other expenditure to ensure compliance with the new obligations. For instance, NSW distributors have faced a step change in capital expenditure to comply with new licence conditions in the regulatory period prior to its most recent determination.
- Connection expenditure will vary with the number and complexity of connection applications that a network receives. Further, jurisdictions have different contestability and capital contribution regimes for connections, which also impact the level of connection expenditure.

It is therefore inappropriate to aggregate capital expenditure on a 'total' basis, and compare outcomes across distributors. In addition, while the AER may consider a more granular level of comparison (for instance, comparing replacement expenditure needs), we consider that the outcomes of such analysis are similarly limited, and that no meaningful conclusion can be drawn on this comparison alone. As noted above, the factors driving replacement will vary with each business, and furthermore the outcomes will be affected by how the distributor allocates expenditure to each category. For example, replacement of assets may occur at the time when the network is also augmented, and each business may classify the expenditure in a different way.

In addition to this high level concern, we note that ratios such as capex/ RAB, capex/customers and capex/ line length, are very likely to provide misleading outcomes. For example, the RAB is a financial value based on historic valuation, incremented for indexation and capital expenditure and reduced by disposals and economic depreciation. It is unlikely to show any resemblance to the modern day replacement of the network. Therefore a firm undertaking a significant replacement program will have a high capex to RAB ratio at the beginning of the program, and a lower ratio toward the end of the replacement cycle, even if the same level of investment is taking place over the cycle.

Measures such as capex/ line length and capex/ customers do not adequately capture the relevant drivers of capital programs. For example, a replacement program is not driven by line length or customer numbers but the condition of the assets. Further, investment to meet a change in reliability standards is not related to any of the measures being assessed by the AER.

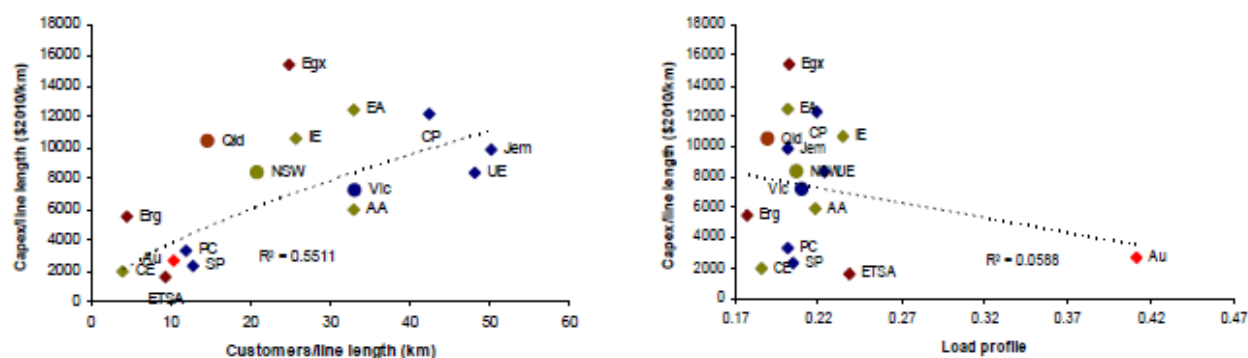
While we recognise that the AER must have regard to benchmarking in its analysis, we consider it would be appropriate for the AER to focus its benchmarking on areas where meaningful comparison can be made, for instance:

- capital governance, policies and procedures;
- forecasting approaches and risk assessments; and
- unit costs of electrical equipment.

### b. Presentation of benchmarking analysis

We note that the AER has presented the outcomes of its benchmarking analysis in Appendix I of its draft decision. We are unclear as to the information presented in Figure I.2 of the appendix. The graphs show ratios

of capex/ RAB, capex/ line length, and capex/ customers, and indicate whether the ratio is affected by customer/ line length ratio and load profile. We have produced the capex/ line length graph to show why the information presented may lead to misleading presentation of data.



EnergyAustralia considers that the horizontal axis in the graphs serves to confuse the analysis. It is not clear how the additional information on customer density or load profiles interacts with the ratio being measured (capex to line length). Further, there does not seem any basis in using line length on both the vertical and horizontal scales, and this would likely lead to correlation issues with the analysis. The regression line further confuses the analysis, and does not appear to serve any purpose. We note that the low  $R^2$  of 0.55 and 0.05 for each graph demonstrates that the regression line does not provide any meaning to the analysis.

We consider that the AER should simplify its presentation of material, and provide more explanations on how it has interpreted the graphs.

## 2.4 Inappropriate use of high level replacement model

The AER has relied on Nuttall Consulting to form its decision on capex forecasts. Nuttall Consulting's replacement capex forecasting model (the repex model) appears similar to that applied by Ofgem in the United Kingdom. The AER considered that the model provides a useful reference to assess regulatory proposal, and allows a common framework to be applied without the need to be overly intrusive in data collection and assessment of asset management plans.

The AER noted that in previous regulatory proposals, the DNSPs used complex forecasting models, and that some of these were black boxed proprietary models which the AER was unable to assess.<sup>5</sup>

We have a number of concerns with regards to the role and form of the AER repex model as well as the lack of AER transparency in developing new models to apply to regulatory decision making.

### a. Transparency of regulatory approach

The AER engaged Nuttall Consulting to develop the repex model in September 2009. However stakeholders have only been made aware of the repex model as part of this draft decision and, at this stage, still not have still not been provided with an adequate description of the methods, assumptions, equation forms and data underlying the model.

As a matter of good regulatory practice, the AER should have consulted with stakeholders on the model before applying it in a regulatory determination. This would have given stakeholders an opportunity to comment on the functional form and assumptions underlying the model as part of their regulatory proposal.

### b. Appropriate role of the repex model

<sup>5</sup> AER, Draft decision, Victorian electricity distribution network service providers: Distribution determination 2011–2015, June 2010, p339

It is not clear whether the AER has given weight to the outcomes of the repex model when making its decision on replacement capex. We request that the AER clarify whether the model has been a relevant factor in rejecting proposed expenditure, or substituting an alternative amount.

EnergyAustralia is of the view that a 'top down' model cannot be relied on to fulfil the AER's responsibility to thoroughly assess a distributor's proposal. It is therefore concerning that the AER considers that the model necessary to avoid engaging with the business's asset management plans.

It is clear in the Rules that the AER is to review and assess the material submitted by DNSPs in support of a regulatory proposal. In this respect we note that Victorian DNSPs have provided the AER with comprehensive 'bottom up' expenditure requirements based on the condition of assets in their network, and the costs involved in replacing particular assets. The businesses have developed quantitative risk/economic modelling tools to predict replacement needs that, in the view of Nuttall Consulting, were contemporary and rigorous.<sup>6</sup> It also appears that Nuttall Consulting was able to undertake a review of the forecasting process and methods, and the detailed plans underlying expenditure.

It is therefore unclear why the AER needs to undertake a further 'high level' test to inform its assessment of replacement capex requirements. The repex model relies on age as a proxy for condition, and is based on simplifying assumptions. Therefore its accuracy and robustness will necessarily be of a far inferior standard to a bottom up assessment based on condition of assets in a network.

If the AER still consider it necessary to undertake a high level test of replacement expenditure, we consider its proper role would be as a 'sanity check' of a distributor's proposal. If the model reveals significantly lower expenditure requirements than what was proposed, the AER would need to undertake further investigation to identify whether an error has occurred in a distributor's proposal, or if the error is an outcome of the model.

A good example of the appropriate application of a high level test was discussed by the AER in the 2008 Powerlink determination. The AER's final decision for Powerlink departed from the draft decision to set replacement capital expenditure on a 'top down' test. The AER's final decision drew on the advice of the AER's consultant (CHC)<sup>7</sup>:

"CHC believed it would have been prudent for PB to use a top down estimate only as guide to how vigorously to review Powerlink's policies and procedures and the sample projects. CHC indicated that, faced with a conclusion from its top down analysis that overscoping may be present, PB's approach could have been to review: the assumptions of the top down approach to determine what accuracy might be expected from it; and the sample projects to determine whether over scoping of this size could be identified."

The AER agreed with CHC that an appropriate role for a top down analysis is verifying that an allowance established through a bottom up review is of the correct order of magnitude.<sup>8</sup>

In summary, EnergyAustralia considers that:

- The AER has an obligation to reflectively assess material submitted by a distributor as part of its proposed replacement capex requirements
- A top down model will not provide a sufficient level of accuracy and rigour, relative to a detailed bottom up assessment of replacement needs.
- A top down test should not be used to derive a substitute expenditure allowances due to the errors that are likely to be associated with the outcomes.

### **c. Shortcomings of the repex model**

There is an inherent limitation developing a top down model that uses age as a proxy for condition. We also consider that the form and assumptions underlying the repex model are flawed, and as such, cannot be used as a reliable or robust indicator of forecast replacement capex requirements.

The repex model classifies the network into 11 asset categories. The model estimates the average age when an asset is replaced within a category, and the average cost of replacing the asset based on historic records. The repex model then predicts expenditure on each asset category based on the forward looking age profile of the assets in a category.

<sup>6</sup>Nuttall Consulting, Report- capital expenditure, Victorian Electricity Distribution Revenue Review, 4 June 2010, p65.

<sup>7</sup>AER, Decision: Powerlink Queensland transmission network revenue cap, 2007-08 to 2011-12, 14 June 2007, p29

<sup>8</sup>AER, Decision: Powerlink Queensland transmission network revenue cap, 2007-08 to 2011-12, 14 June 2007, p30

A key shortcoming of the model is that within each asset category, there is likely to be a wide variety of asset types. These assets will have different expected lives, failure modes, technologies and costs of replacement. Applying a simple average to estimate the unit costs and average age for a 'typical' replacement asset will not cater for the differences between asset types within a category. As such, the model is constructed at too high a level to derive meaningful outcomes.

There are other specific issues with the assumptions:

- The model cannot account for the lumpiness of large scale replacement expenditure. For instance, a distributor may be required to replace a number of high value assets in the future period. This would not be evident in historical unit costs.
- Data on the average age at which assets were replaced in the past assumes that historical replacement has been efficient and prudent. Due to low replacement budgets in the past, distributors such as EnergyAustralia have prolonged the life of assets on the network beyond the optimal point. Therefore, average age of replacement is likely to reflect low replacement investment in previous periods rather than the optimal time to replace assets.
- Unit costs will vary with the type of asset being replaced and the location of the asset. For instance, historical expenditure may have been focussed on low value assets in non-CBD areas. The driver of replacement capex in the next period may be based on high values assets in the CBD area.

EnergyAustralia is also concerned about data quality and validation in that the allocation of expenditure to certain asset categories appears to result in anomalous outcomes in the model. This is clear from input data which would suggest that SP AusNet does not have network control and SCADA assets. Unless the information can be verified, the model will provide unreliable and inaccurate estimates of forecast capital expenditure requirements.

EnergyAustralia is also very unclear on the process that the AER has taken to re-calibrate the model. We note that the original model outcomes show replacement capex requirements in excess of that proposed by the distributors. We question whether the AER would have undertaken the recalibration exercise if the original model had shown outcomes consistent with the AER's expectations.

We consider that the need to re-calibrate the model is due to an inadequacy in the design and assumptions underlying the model. The outcomes of the re-calibrated models provide more 'reasonable' outcomes, but this is only due to back-solving asset replacement lives to derive the result. On this point, EnergyAustralia struggles to understand the difference between the replacement lives of the 5 distributors, or the seemingly excessive asset lives that have been derived. EnergyAustralia questions whether the average replacement life of an asset is between 53 and 77 years of age, when certain system equipment such as metering and SCADA systems have far shorter lives.

For these reasons, we consider that the AER should not give weight to the outcomes of the model as a basis for substituting DNSP forecasts:

- there is a clear conceptual issues with the repex model including assumptions and input data;
- the original model appears to provide an anomalous outcome, which demonstrates the systemic issues with the assumptions and input data of the model; and
- the re-calibrated outcomes have been back-solved using inappropriate asset replacement lives.

## 2.5 Assessment of real cost escalator inputs

There are two factors that have increased the importance of the real cost escalation forecasts:

- The move to the ex ante regulatory framework adds forecast risks. Under previous ex post regimes the forecast was less important as the efficient costs would be recouped or rebated in the next regulatory period and therefore there was no forecast risk. Any prudent cost under recovery or over recovery would be paid by or rebated to customers in the next regulatory period.
- The introduction of an EBSS systematically penalises DNSPs when the AER's forecast real cost changes are under forecast.

The AER's decisions in the draft determination on real cost escalators consistently refers to previous decisions as a basis for rejecting and substituting a distributor's proposed methodology and values. The AER has not re-assessed whether the reasons are relevant to the particular decision. Further, the AER does not test whether its previous method or values has yielded the correct forecast. For instance, the AER's decision on wood poles does not take into account actual costs being faced by distributors.



EnergyAustralia is concerned with the approach adopted by the AER to substitute a value of zero when it is “not satisfied” by the analysis provided by the DNSP. For example, the AER’s draft determination rejected the Victorian DNSPs’ proposals to escalate costs of imported manufacturing inputs by a single Trade Weighted Index (TWI) on the basis that the DNSP had not provided sufficient granularity of information on the location from where it imports equipment and the CPI of each country. However, instead of requesting information or conducting further analysis, the AER substituted a value of zero.

Whilst the AER did recognise there is a cost associated with importing equipment, rather than modifying the Victorian DNSP’s estimate, the AER applied no real cost. This approach systematically penalises DNSPs under the current regulatory framework. Further the AER’s substitution of zero real increase for imported manufacturing inputs is subject to the exact same criticism as the DNSPs’ proposed use of the TWI.

#### **a. Provision of information**

In requesting regulatory proposals from DNSPs, the AER advised it “prefer[ed] that all submissions be publicly available to facilitate an informed and transparent consultative process”. It further noted that parties providing confidential information must also provide a non-confidential version of the submission. EnergyAustralia supports transparency in the provision of information to the extent that this is possible whilst still protecting the confidential nature of some material.

As an example of this, in EnergyAustralia’s regulatory determination process the AER insisted on non-confidential versions of spreadsheets that it could provide to customers. EnergyAustralia was able to replace confidential numbers to protect the information.

The AER’s decisions should be subject to the same transparent process and therefore it is reasonable to expect that the AER could do the same thing with its own spreadsheet underlying the cost escalation factors. EnergyAustralia has requested a copy of the AER’s spreadsheet to assist with understanding the approach and calculations. The AER denied EnergyAustralia this spreadsheet as it stated it contained confidential information. This asymmetric approach to information provision prevents EnergyAustralia from providing an informed submission.

Until we receive the quantitative information EnergyAustralia’s submission is constrained to the AER’s qualitative analysis that has been provided in the draft decision and the appendices.

#### **b. AER self-fulfilling precedents**

The AER has adopted its own approach to forecasting from its previous decisions without testing whether it systematically under estimate costs.

For example, the AER rejected the real increase in the costs associated with wood poles. EnergyAustralia has suffered real cost increases in the very first year of the regulatory period, which should be the most accurate year in the forecast.

The basis of EnergyAustralia’s regulatory proposal in 2008 for real cost increases for wood poles was similar to the current proposal of the Victorian DNSPs. The AER has rejected EnergyAustralia’s 2008 proposal. EnergyAustralia objected to the AER’s decision in relation to wood poles for its NSW determination. We provided the information available which indicated that costs were increasing. The AER was not satisfied with that information.

Now the AER has rejected the Victorian proposal on the basis of an absence of information that would offset future cost increases:

“The AER considers that CitiPower, Powercor and Jemena have not demonstrated that new alternatives are not gaining penetration at a rate that will have a material impact on the supply or price of the existing Australian wood pole market over the forthcoming regulatory control period.”<sup>9</sup>

If the AER continues to reject the increases in wood poles, then it should undertake the necessary analysis to demonstrate the proposed increases are unlikely to occur. Further, in adopting the CPI only approach, the AER has relied on its past decisions, which are now known to be wrong.

“CitiPower, Powercor and Jemena have also not demonstrated whether the poles they expect to purchase are materially different from those that are expected to be purchased by DNSPs in other

<sup>9</sup> AER draft determination Appendix K page 141

jurisdictions, such as Queensland and New South Wales. In the distribution determinations for those jurisdictions, the AER determined that wood poles should not be subject to any real price escalation.”

“The NER requires the AER to have regard to the benchmark capital expenditure that would be incurred by an efficient DNSP over the regulatory control period. As noted previously, the approach to escalating the cost of wood poles that has been applied to other DNSPs has been to allow CPI increases only.”<sup>10</sup>

The AER has implied that its previous decision in NSW sets a benchmark capital expenditure. This is not the case. The AER’s ex ante forecast allowance in NSW may be a benchmark of regulatory allowances, but can not reasonably be considered to be a benchmark of actual costs. The AER bases its decision on the fact that it should be consistent with other decisions, but consistency should only be afforded where the previous decision was correct.

Since the AER’s forecast of zero real increase for EnergyAustralia’s wood poles, EnergyAustralia has entered a supply contract for FY09 that resulted in approximately 6% increase in prices. These increases were largely driven by increases in costs of royalties, labour costs & chemical costs.

Therefore, if the Victorian DNSPs are expected to purchase wood poles at the same cost, then the allowed “CPI only” increase is, again, inadequate.

### **c. Labour costs (EGW)**

The AER intends to not apply EGW escalation rates to clerical staff. This may be appropriate. However given the significant labour costs of a DNSP it would be appropriate for the AER to first determine how the EGW index is collated. It may be the case that the clerical and other employees within electricity, gas and water businesses are included in the EGW index. If so, then it would be appropriate to apply the EGW rate across all employees.

## **3 Capital expenditure**

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### **3.1 AER’s assessment approach**

EnergyAustralia notes that the AER’s approach to assessing operating expenditure forecasts began by assessing whether the last year of actual expenditure (fourth year) is an efficient starting point for forecasting expenditure requirements. The AER then assessed the proposed growth in operating expenditure from the starting point with regard to workload drivers, proposed step changes, and forecast real escalators.

At a high level, there is merit in the AER’s overall approach:

- All distributors with the exception of United Energy<sup>11</sup> have estimated forecast operating expenditure requirements based on this approach.
- Unlike capital expenditure, operating expenditure is likely to be less lumpy in nature, and as such future expenditure is expected to have a deeper relationship with recent historical information.

Nevertheless, EnergyAustralia has strong concerns about the manner in which the AER has applied its assessment approach to reject and substitute the forecasts proposed by the business. We note that the AER has developed approaches, criteria and tests that do not fully reflect the opex criteria in the Rules and which do not provide for an allowance that is consistent with the Revenue and Pricing principles. These issues are discussed in the sections below.

### **3.2 Interaction of the EBSS in assessing ‘starting point’ for forecasting opex**

While we generally support the AER’s approach to determining the efficient starting point for forecasting opex, we believe it reveals an emerging gap in the Rules.

A central premise of the EBSS is that it incentivises firms to ‘reveal’ the efficient level of expenditure in Year 4 of the current period, and is therefore an appropriate basis for confirming the efficiency of the starting point for

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<sup>10</sup> AER draft determination Appendix K page 141

<sup>11</sup> We have not reviewed United Energy’s proposed approach in depth, and therefore we cannot provide a view as to whether it was appropriate for the AER to use a starting point method to assessing the proposal of United Energy.

operating expenditure. At the same time, the AER has been clear that it will not mechanically apply the fourth year expenditure to determine the efficient starting point for forecasting expenditure in future periods. As such, it has had regard to other factors such as benchmarking, and has also removed one-off non-recurrent costs when deriving its substitute value for opex.

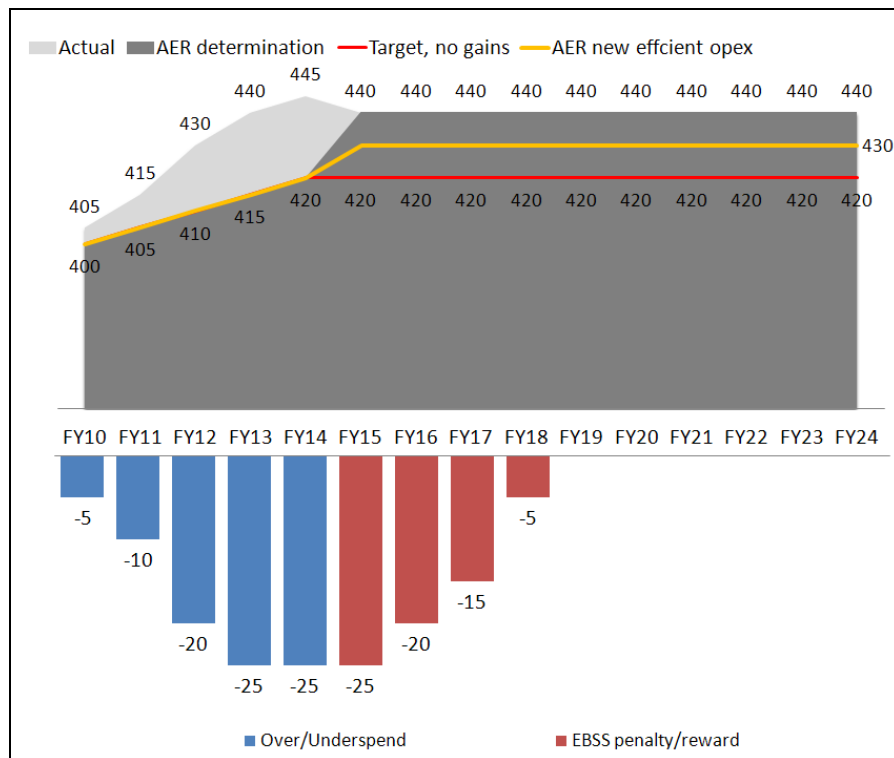
We agree with the AER’s statement that it cannot mechanically apply fourth year actual expenditure to derive a starting point for opex. In the EBSS guidelines that apply to NSW distributors, the AER has correctly noted that<sup>12</sup>:

“Chapter 6 of the NER sets out the matters that must be addressed when a DNSP proposes to the AER the level of efficient opex to apply in the regulatory control period 2014–19. When assessing the forecasts proposed by ACT and NSW DNSPs for the 2014–19 regulatory control period, the AER will consider all of the objectives, criteria and factors required by the NER.”

While we agree with this approach, our concern is that the AER may adjust the ‘starting point’ from Year 4 actuals, and mechanically apply the carryover amount determined under the EBSS. This would not provide for a fair sharing of efficiency gains or losses between the distributor and customer, as required by the Rules and intended by the scheme.

Under the EBSS, the key mechanism for sharing efficiency losses is through a higher opex allowance relative to the implicit efficient level. That is, while a distributor receives a penalty for efficiency losses (by way of a 5 year carry over penalty), it is able to share the loss with customers through a higher opex allowance. This can be seen in the example below.

In the example, the opex allowance is set at the fourth year actual expenditure, which is higher than the implicit efficient level (the red line). If the AER adjust the starting point (yellow line) and still mechanically applies the EBSS penalty, then the distributor is not able to fairly share the efficiency loss as required under the Rules and the scheme.



EnergyAustralia notes that the AER was aware of this issue when making its draft decision. To address the issue, the AER used its discretion to not apply negative carry-over penalties for costs removed from the starting point for operating expenditure<sup>13</sup>:

<sup>12</sup> AER, Efficiency benefit sharing scheme for the ACT and NSW 2009 distribution determinations, February 2008, p4.

“The AER has excluded non recurrent costs from the determination of forecast opex. The AER in this draft decision has excluded these costs from the base year for the purpose of ensuring that DNSPs have an incentive to reveal efficient costs over the forthcoming regulatory period. Therefore based on these circumstances, the AER has decided to override the presumption and not apply the negative carryover amounts associated with non recurrent costs that are incurred in the base year. The AER has done this because this will remove the efficiency loss to be carried forward for five years thereby resulting in the abatement of incentives for DNSPs to reveal their efficient level of costs over the forthcoming regulatory control period contrary to clause 6.5.8(c) of the NER.”

The AER considered that it had the ability to not apply negative penalties based on its interpretation of the efficiency scheme which applied to Victorian distributors under the 2006 ESC decision.

It is unclear whether the AER considers that a similar approach is open to it under the national or transitional EBSS schemes. We note that the AER has made statements in the draft decision which indicate that the AER will not accept ex post adjustments to either the benchmark allowance or actual expenditure to account for cost categories that have not been identified ex ante in the EBSS.<sup>14</sup> This is a concerning issue for EnergyAustralia and we seek clarification on the approach that the AER will take in future decisions.

We would be interested in the AER’s own views on this matter. In our view, the issue of how the EBSS interacts with the setting of operating expenditure forecasts reveals an emerging gap in the Rules for assessing operating expenditure. We consider that there are 2 potential solutions:

- A change in the Rules to prescribe that the AER must use fourth year actual operating expenditure as a basis for establishing a starting point for assessing operating expenditure.
- A change to EBSS schemes to explicitly enable the AER to exclude carry over penalty in cases where the AER does not mechanically apply fourth year actual expenditure to establish the efficient starting point.

### 3.3 AER’s assessment of proposed increase from starting point

The AER’s decision on the growth rate in the opex allowance is critical to determining the magnitude of penalties and rewards under the EBSS. The scheme measures an ‘efficiency loss’ by comparing actual expenditure with the opex allowance for each year of the period. An efficiency loss occurs when a DNSP overspends its allowance by more than the previous year. It is therefore the trajectory of growth in the operating expenditure allowance that is critical in determining whether a distributor has incurred an efficiency gain or loss.<sup>15</sup>

This can be seen from the following 2 examples comparing the benefit/ penalty under the EBSS for two rates of escalation in an opex allowance.

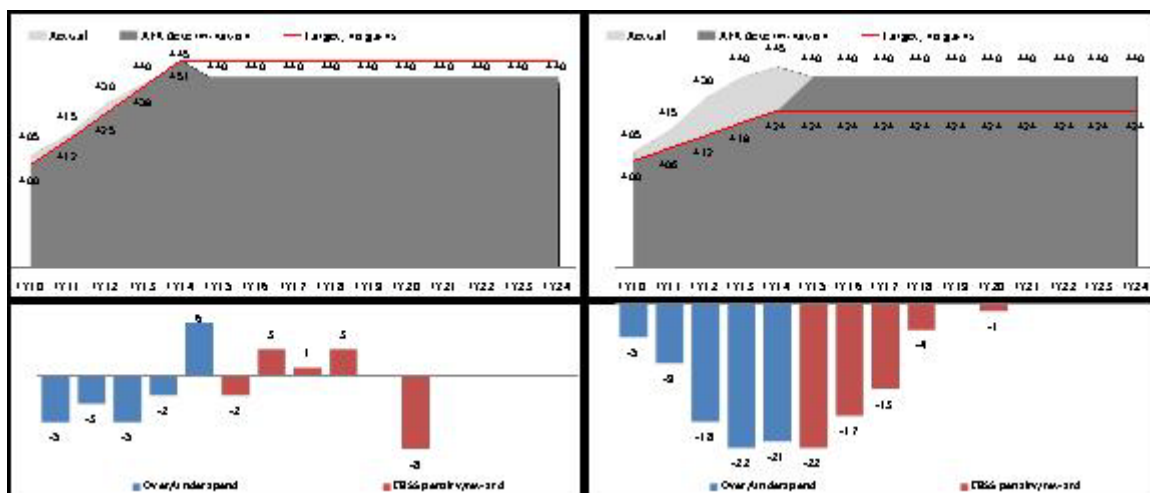
In the first example, the escalation rate for forecast opex is 3 per cent per annum. For a given a profile of actual expenditure, the total penalty under the EBSS is \$12 million. In the second example, the escalation rate for forecast opex allowance is 1.5%, which would result in a penalty of \$122 million (assuming the same actual expenditure profile as example 1). This serves to show the sensitivity of the AER’s decision on escalation in respect of determining the magnitude of penalty or reward under the EBSS.

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<sup>13</sup> AER, Draft decision, Victorian electricity distribution network service providers: Distribution determination 2011–2015, June 2010, p594

<sup>14</sup> AER, Draft decision, Victorian electricity distribution network service providers: Distribution determination 2011–2015, June 2010, p593.

<sup>15</sup> As a general point, we note an inherent contradiction within the EBSS. A central premise of the scheme is that a regulator suffers from an asymmetric information problem where it is unable to adequately estimate the efficiency of a forecast. It therefore illogical that the magnitude of rewards or penalties under the EBSS is a function of the AER’s decision on network scale escalation.



Given the importance of the AER’s decision on escalation, we are concerned that the AER’s approach will not provide a forecast allowance that satisfies the Revenue and Pricing principles in the NEL. The principles require that a regulated network service provider be provided with a reasonable opportunity to recover *at least* the efficient costs the operator incurs in providing direct control network services, and is provided with effective incentives in order to promote economic efficiency with respect to direct control network services.

The Australian Competition Tribunal recently commented on the reason why the Revenue and Pricing Principles include the concept of providing a distributor with the opportunity to recover at least its efficient costs<sup>16</sup>:

“It might be asked why the NEL principles require that the regulated NSP be provided with the opportunity to recover at least its efficient costs. Why ‘at least’? The issue of opportunity is critical to the answer. The regulatory framework does not guarantee recovery of costs, efficient or otherwise. Many events and circumstances, all characterised by various uncertainties, intervene between the ex ante regulatory setting of prices and the ex post assessment of whether costs were recovered. But if, as it were, the dice are loaded against the NSP at the outset by the regulator not providing the opportunity for it to recover its efficient costs (eg, by making insufficient provision for its operating costs or its cost of capital), then the NSP will not have the incentives to achieve the efficiency objectives, the achievement of which is the purpose of the regulatory regime.”

Thus, given that the regulatory setting of prices is determined prior to ascertaining the actual operating environment that will prevail during the regulatory control period, the regulatory framework may be said to err on the side of allowing at least the recovery of efficient costs.”

We consider that the AER has inappropriately developed approaches and criteria to assess proposed expenditure that do not enable a distributor to recover at least its efficient costs. For instance:

- The AER’s approach for assessing ‘network scale escalators’ and ‘economies of scale’ has been based on unreliable, high level, mathematical functions, that do not account for relevant factors.
- The AER has purported to test the outcomes of its network scale escalators using an inappropriate and statistically invalid method.
- The AER has developed criteria for assessing ‘step changes’ that do not adequately reflect the opex criteria in the Rules, and which exclude prudent and efficient expenditure.
- The AER has developed a new concept termed “self-financing expenditure” and used this concept to exclude costs that result in long term efficiencies that are not shared or realised by the business.

We are concerned that a distributor faced with a within period and carry-over loss will be incentivised to cut costs in an unsustainable way to limit the penalty. For instance, a distributor may reduce its preventative maintenance or defer investment in information systems so as to reduce the penalty under the EBSS. In doing so, the distributor is ‘locking’ itself into a lower level of expenditure in future periods, as the EBSS will perceive the unsustainable cut as an ‘efficiency gain’.

Such an outcome will be inconsistent with the National Electricity Objective as it will not benefit the long term interests of customers:

<sup>16</sup> Australian Competition Tribunal, Application by EnergyAustralia and others (includes corrigendum), 1 December, paragraph 81.

- The business will undertake sub-optimal maintenance programs that result in early replacement of assets and a decline in the reliability, quality and security of the network.
- The distributor will not undertake investment in information systems, and this will not enable continual improvement in planning optimal capital and operating programs.

EnergyAustralia is also concerned with the transparency of the AER's decision making on escalation. Stakeholders have not been provided with the data and analysis underlying substitute amounts determined by the AER, and high level tests of expenditure. This is particularly concerning given that the AER appears to be using data provided by EnergyAustralia, for instance line length and customer number information, when constructing equations to derive substitute amounts. Such models should be subject to scrutiny by stakeholders and published as part of the AER's draft decision.

Our issues concerning the escalation rates applied by the AER are discussed in section 3.4 to 3.7 of our submission below.

## 3.4 Network scale escalators

Victorian DNSPs used network scale escalators in their proposal based on factors such as line length, customer numbers, energy consumption, peak demand and increase in zone substations. The AER rejected the majority of growth drivers and derived a substitute amount based on an equation that relates increases in opex to increases in line length and customer numbers. Similarly, the AER rejected the proposed economies of scale proposed by the businesses and substituted a higher ratio.

The term "network scale escalator" does not adequately capture the expected increase in operating expenditure associated with a change in the volume of activities undertaken by a business. We note that EnergyAustralia's operating expenditure model sought to allocate a key workload driver to each activity conducted by the business, and provided reasons why the driver was appropriate. EnergyAustralia also identified the fixed and variable element of expenditure, as required under the Rules, and as such appropriately considered economies of scale. In its draft decision for NSW distributors, the AER stated that<sup>17</sup>:

"Wilson Cook indicated that the workload escalators used by EnergyAustralia were generally a reasonable representation of expected workload changes over the next regulatory control period"

Relevantly, EnergyAustralia's model included factors that are not captured in the AER's substitute amount. EnergyAustralia considers that such a granular approach is necessary to determine the efficient forecast of expenditure. The AER's high level equation does not adequately account for the full suite of workload drivers impacting forecast opex requirements, and does not take into account how those drivers impact particular activities. For this reason it is unlikely to estimate the correct level of escalation for workload drivers.

In respect of the actual method, we note that the AER has not provided adequate detail on the functional form of the model, the underlying data, or the equation that has been used. We do not consider that the sample size is sufficient to draw any relationship between line length, customer numbers and operating expenditure.

The AER may consider that the functional form of the model is strong based on a high  $R^2$ . However, caution should be applied by the AER if it uses  $R^2$  to infer the strength of the relationship. Small data sets are likely to result in higher  $R^2$ . Further, the underlying data is likely to result in a 'self fulfilling prophesy', as the observed outcomes relate to previous regulatory decisions rather than the requirements of the business. We note that the ESC used a similar approach in the 2006 decision to determine network scale escalation, and this drives the observed relationship.

EnergyAustralia also questions the robustness of the underlying data. Distributors are likely to have different methods for calculating line length, and the method often changes over time. For instance, time series data of line length between 2004-05 to 2008-09 for EnergyAustralia shows a decline in line length. This is due to a change in allocation where privately owned lines were taken out of the calculation.

Given these issues with the method and underlying data, we consider that the AER should not apply its network scale escalation to future regulatory decisions.

It is also concerning that the AER has purported to apply a high level test to assess whether its high level equation is appropriate. The AER assessed the increase in actual opex in 2003 with the amount incurred in 2007<sup>18</sup>, and compared this with the expected increase under the AER's scale network equation. The AER noted that its model predicted an increase of 0.4 per cent in opex, but that Victorian distributors exhibited a reduction in costs of 2.4 per cent. The AER concluded that the impact of efficiency gains significantly outweighed the impact of growth over the period.

<sup>17</sup>AER, Draft decision New South Wales draft distribution determination 2009–10 to 2013–14, 21 November 2008, p168

<sup>18</sup> The AER only examined costs in 2003 and 2007, and deflated the 2007 costs to exclude the real change in input prices.

EnergyAustralia is very concerned that the AER has used such questionable statistical analysis to satisfy itself of the adequacy of its own network scale escalation equation. The outcomes of the AER's analysis suggest that an increase in the volume of activities results in a reduction of costs. Clearly such a conclusion is illogical and suggests inherent issues with the statistical method and assumptions used in the analysis.

### 3.5 Maintenance escalation

The AER has determined future maintenance requirements by reference to its network scale equation (discussed above), and its review of the capex-opex models proposed by the distributor. The AER is taking a dangerous path in substituting a DNSP's forecasting process (based on the DNSP's own prudent considerations of its specific circumstances) with a high level spreadsheet model using loosely correlated drivers and inputs.

EnergyAustralia has concerns with the AER's approach to estimating maintenance requirements. We consider that the AER has adopted an unreliable 'high level' approach to estimating maintenance requirements, when it should forecast requirements at a more granular level of detail. In addition to evaluating the efficiency and effectiveness of maintenance policies and procedures, the AER's assessment process should consider two relevant drivers of future maintenance expenditure:

- The amount of additional maintenance required as a result of new assets on the network. This will largely be driven by the preventative maintenance requirements for these new assets, but may also include correction, breakdown and nature induced costs.
- Maintenance requirements based on the condition of the asset base over the regulatory control period. This is generally determined using an opex-capex model that accounts for the forecast replacement of assets, and the resulting age profile of assets on the network.

In regards to the first factor, the AER has decided to substitute a network scale escalation equation to derive the expected increase in maintenance requirements over the period. We consider that a high level equation provides a poor approximation of forecast costs. In the previous section, we noted significant issues with the statistical method and data applied by the AER in developing its equation.

We also cannot understand why customer numbers would drive maintenance costs on new assets. While line length may be one indicator of maintenance requirements, the AER's assessment process should account for the type of new asset being installed on the network, and the expected maintenance requirements of these assets. For instance, a transmission substation will have different preventative maintenance requirements relative to a distribution feeder. Further, the characteristics of a new feeder will also drive maintenance requirements, for example an underground line will have different preventative regime to an above ground line.

EnergyAustralia also has strong concerns with the AER's assessment of capex-opex trade off models. The AER has seemingly rejected the proposed models put forward by the distributors, and preferred an alternative approach developed by Parsons Brinckerhoff (PB) as part of the South Australian distribution determination<sup>19</sup>:

"The methodology for determining the quantum of the trade-off used in this draft decision is based on the approach adopted by PB. Specifically, the methodology involves calculating the annual ratio of compounding renewal capex to an estimate of the current (undepreciated) replacement cost of the asset base, and then applying 20 per cent of this ratio to calculate the recommended adjustment to the forecast operating and maintenance expenditure allowance"

It is unclear how this substitute method adequately captures the change in maintenance requirements that arises from replacing assets on the network. The AER's approach should consider the type of asset being replaced on the network, and the expected change in maintenance requirements.

Further, the approach does not adequately capture the increase in maintenance requirements resulting from the deteriorating condition of assets on the network. While Nuttall Consulting recommended an allowance for the increase in the ageing of assets, it appears that the AER has not adopted this recommendation. The AER has referred to advice provided by Wilson Cook (as part of the NSW regulatory determination) which noted that the defect of assets is likely to remain relatively flat during the majority of an asset's life, and it is only when the asset reaches the end of its life does the defect rate rise. The AER has then referred to advice from Nuttall Consulting which shows that there are only a small proportion of aging assets on the networks of Victorian distributors.

The AER's analysis contains the following errors:

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<sup>19</sup> AER, Draft decision, Victorian electricity distribution network service providers: Distribution determination 2011–2015, Appendix, June 2010, p107

- Acceptance that the majority of assets have a flat defect rate over the life of the asset. The defect rate will vary with the type of asset, and the physical condition that the asset is exposed to (including preventative maintenance programs and environmental circumstances).
- Wilson Cook's observations on defect rate does not relate to its findings on the expected costs of maintaining assets as the age of the network increases. Wilson Cook noted that "it is well understood that, other things being equal, the level of maintenance expenditure needed on a network will increase as the network ages". The AER has also previously relied on Wilson Cook's empirical analysis of New Zealand distributors which stated that "even within networks of the same general type, we found no obvious regression and, if anything, a direct linear relationship between direct costs and age seemed to have stronger trends."
- Nuttall Consulting's conclusions on the age of assets on the distributors' networks are based on a re-calibration of data for the replacement model. This data suggests, among other things, that the average life of the distributors' assets is between 53 and 77 years of age. We believe that such a result indicates an input error in re-calibrating the model, and the analysis should not be used for the purposes of estimating forecast maintenance requirements.

As a final point, we note that the AER's substitute value for the capex-opex trade off model does not reflect its decision to reduce replacement capex. All things being equal, we would expect maintenance requirements to rise if there are a greater proportion of aged assets on the network.

## 3.6 Step change escalators

Unlike its decision for EnergyAustralia, the AER reviewed each step change proposed by the distributor rather than simply rely on high level advice of its consultant. We consider this is the appropriate approach to assessing the proposal submitted by a distributor, and avoids situations where the AER rejects expenditure on an uninformed or mistaken basis.<sup>20</sup>

Nevertheless, EnergyAustralia is concerned that the AER has continued its practice of developing sub-criteria to inform its assessment of whether a proposed step change should be accepted or rejected. The AER's definition first requires a distributor to demonstrate that the costs relate to a change in regulatory obligation and subsequent change in operating environment:<sup>21</sup>

"In assessing the Victorian DNSPs' proposed step changes, the AER has in the first instance had regard to changes in the regulatory obligations and subsequently changes in the operating environment. Consistent with the AER's approach to step changes in the New South Wales final electricity distribution determination, the AER has then assessed whether the proposed (operating expenditure) opex is prudent and efficient. In determining whether the opex is prudent and efficient, the AER has had regard to whether the proposal has appropriately quantified all cost savings and benefits."

EnergyAustralia has previously stated that the AER ought to assess proposed step changes against the opex criteria, having regard to the opex factors. We consider the AER is applying criteria which do not reflect the opex criteria in the Rules, and has accordingly rejected expenditure that would otherwise satisfy the criteria.

To emphasise this point, we note that EnergyAustralia's 2009 proposal included a number of step changes which, if assessed now, would not satisfy the AER's current criteria for acceptance as a step change:

- Increase in demand management expenditure, related to a deferral of capital works in the forecast capital program.
- Increases in external insurance premiums and workers compensation costs, based on an evaluation of future liabilities.
- Increases in property tax liabilities, as a consequence of net acquisitions of property.
- Incremental metering charges based on number of new customers.

We note that each of these items would satisfy the Rules requirements relating to prudent and efficient operating expenditure. However, these amounts would not satisfy the AER's definition of step change, or be factored into the AER's network scale escalators. It is therefore apparent that the AER's use of sub-criteria to assess step change expenditure does not reflect the Rule requirements.

<sup>20</sup> For example, in its final decision the AER rejected additional demand management expenditure on the basis that the amount reflected expenditure on IT.

<sup>21</sup> AER, Draft decision, Victorian electricity distribution network service providers: Distribution determination 2011–2015, Appendix, June 2010, p154. We note that the AER's definition suggests that the change in operating environment must be a consequence of a change in regulatory obligation.



We also note that the AER's criteria for accepting step changes have narrowed in recent regulatory determinations, such that expenditure that would previously have been accepted as a 'step change' no longer meets the criteria. This represents a further continuation of the AER's practice of "moving the goal posts" between decisions by changing its own sub-criteria (which are outside the rules requirements) and then making adverse decisions on the basis that the business did not comply with its newly established sub-criteria.

In the final decision for NSW distributors, the AER accepted its consultant's (Wilson Cook) advice that<sup>22</sup>:

For a step change to be accepted, the business should then be able to demonstrate that:

(a) it is related to a fundamental change in the business environment arising from outside factors or offset by cost efficiencies in other areas (the original criterion);

(b) it is attributable to the imposition of new or changed obligations due to external factors including, if relevant, mandated improvements in service levels (an extension of the interpretation of (a) above);

(c) it is of a type that will improve service levels voluntarily as opposed to being mandated – in respect of which customers' willingness-to-pay for the improved service should be demonstrated (a further extension of the first criterion);

(d) it will bring cost savings or benefits to customers – in respect of which, the business should be able to demonstrate that: (i) it is continually looking for better ways of using its resources and improving its processes and systems to improve service levels or achieve cost efficiencies; (ii) it has defined the savings and benefits in terms of their nature and the expected time of their realisation; and (iii) where the savings and benefits are quantifiable, they have been quantified in sufficient detail for cost-benefit analyses to be prepared and that the cost-benefit analyses justify the investment; or

(e) alternatively, if it does not meet any of these criteria, the business has demonstrated that it will continue to operate efficiently as a whole, despite the cost increase.

The AER's new definition of step change does not encompass items (c), (d) and (e) set out above. Our first issue is whether the AER informed Victorian distributors of the criteria that would be used to assess step change expenditure. As a matter of regulatory principle and legal obligation (under section 16 of the NEL), a distributor should be aware of the criteria on which its proposal will be assessed.

Our second issue is that the AER's new criteria does not enable a business to recover costs associated with new technologies or processes even where the business can quantify efficiencies, benefits or risk mitigation from expenditure on new technologies or processes. For example, the following types of costs would be rejected as a step change:

- the incremental costs of system and non-system IT investments, for example the costs in maintaining a new outage management system.
- new technologies or processes that result in long term cost benefits to customers, such as the use of field computing technologies.
- operating expenditure associated with new information systems, that provide a better basis for developing optimal capital and maintenance plans, and which provide better quality information to the regulator.
- expenditure that focuses on prudent risk mitigation, such as the consolidation of data centres to mitigate the risk of losing data from incidents such as floods.

In applying its criteria, the AER stated that any business improvements which result in lower costs will be self financing as the net costs should be expected to be less than those reflected in the revenue requirement. We consider that there are several shortcomings to this view:

- The AER assumes that efficiencies from business improvement or technologies accrue within a regulatory period. EnergyAustralia refers the AER to advice from Concept Economics<sup>23</sup> which notes that "productivity gains driven by technology investments are not instantaneous but rather, a lag between the primary and complementary investments and those investments reaping efficiency gains is normal." If the productivity saving does not accrue in the immediate period, the distributor faces a higher cost than the regulatory allowance. Further, if the expenditure is sustained over the period, then the distributor carries forward a negative penalty under the EBSS.
- The AER has not given sufficient regard to the concept of 'dynamic efficiency' when interpreting the concept of efficiency in the opex criteria. New technologies or processes result in lower long term prices

<sup>22</sup> Wilson Cook, Re: Review of proposed expenditure of ACT and NSW electricity DNSPs: EnergyAustralia's submissions of January and February 2009, March 2009, p21.

<sup>23</sup> Concept Economics, Operating efficiencies in periods of high investment and technology change, 9 January 2009, p10.

for customers, consistent with the National Electricity Objective in the NEL. The AER's decision provides disincentives to undertake investment that will result in lower medium to longer term costs.

- The AER's definition would preclude expenditure on process improvements, actions or technology that prudently mitigate risks faced by the business. This is contrary to the AER's final decision for NSW distributors where it responded to criticisms made by EnergyAustralia on the criteria to apply for step changes in the draft decision<sup>24</sup>.

"As a general point, the AER considers that expenditure for risk management is consistent with the transitional chapter 6 rules requirements because ..... risk mitigation is to be expected from a prudent DNSP. However, the AER notes Wilson Cook's advice that risk cannot be considered unless costs, benefits and potential adverse impacts are quantified."

As such, we do not consider that the AER's criteria for step changes address the Rule requirements concerning prudent expenditure. We also note that these types of expenditures are efficient to the extent that that the costs of the event occurring have not been included in the base year.

- The AER is "disincentivising" firms from investing in information systems that enable more efficient and prudent decisions. For example, our asset management system will provide better quality information on failure modes of assets, such that EnergyAustralia can develop best practice maintenance and replacement programs. Ultimately, such systems result in lowest costs to customers through effective investment strategies and maintenance approaches. However, these systems are not self financing, in that the business will not realise the efficiencies associated with better forecasting of capital and maintenance programs in the future. Any efficiency would be factored into the efficient forecast for the next regulatory period and not returned to the business in terms of better financing outcomes.

## 3.7 Benchmarking

EnergyAustralia has previously raised issues with the AER's approach and method to benchmark operating expenditure. We note that the AER has sought to apply a lower level benchmarking approach to guide its assessment on the efficiency of actual fourth year costs of Victorian distributors. Instead of using a high level regression analysis (which we consider entirely inappropriate), the AER has assessed total operating expenditure of NSW, Queensland, South Australian and Victorian distributors relative to RAB, line length, customer numbers, peak demand and energy consumption.

We consider that the analysis underscores an inherent issue with benchmarking. The differences in outcomes reflect the unique operating characteristics of each business. We consider that the AER could not draw meaningful conclusions on the relative efficiency of distributors from this level of analysis. As noted in previous submissions, we consider that the proper role for benchmarking is to identify areas of further examination by the AER. We also have noted that different methods and approaches will yield different outcomes, and as such, benchmarking cannot be relied on to infer the efficient level of expenditure.

# 4 Other decisions

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## 4.1 Rate of return and gamma

The AER's decision in respect of WACC parameters and gamma and, in particular, the basis for decisions to depart (or not) from existing parameters affect us directly as it will be influential both in the weighing up of evidence we may choose to submit in a regulatory proposal and how the AER treats that regulatory proposal.

Of considerable interest to us is:

- The extent to which the AER considers new evidence which casts doubt on the AER's SORI decision to depart from the previously adopted parameter for gamma and the extent to which it adopted a higher value for the Market Risk Premium.
- The sub-criteria applied by the AER in determining the debt risk premium.

We support the Victorian DNSP's revised proposals in respect of these matters. We have a particular interest in the basis of the AER's decision not to depart from previous parameters. We note that the AER has reached conclusions that differed from the SORI review based on new evidence provided by the businesses and the

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<sup>24</sup>AER, Draft decision New South Wales draft distribution determination 2009–10 to 2013–14, 21 November 2008, p167

AER's own consultants. Despite this the AER chose to remain with the existing parameters on the basis that evidence was not persuasive.

To the extent that the AER still does not depart from existing parameters, we see significant benefit in understanding the difference between the evidence that persuaded it to depart from previously adopted parameters in its review of WACC parameters and the new evidence which is insufficient to persuade it to depart from these new parameters.

## 4.2 EBSS

The AER has decided to apply the National EBSS to Victorian distributors. As part of this submission, we have raised issues with the mechanical application of negative EBSS carry over penalties, in cases where the AER has not directly applied fourth year actual costs, when determining the starting point for forecasting opex.

EnergyAustralia remains concerned with the AER's EBSS scheme, and does not support the application of carry over penalties in regulatory determinations.

## 4.3 Demand management incentive scheme (DMIS)

The AER's DMIS is limited to the demand management innovation allowance (DMIA) and recovery of foregone revenue from approved projects under the D-factor. Our experience to this date is that the amount is insufficient to develop broad based DM projects.

We note the AER has not developed a scheme which provides a positive incentive for distributors to undertake demand management to defer capital projects, or an allowance for these types of projects. We note that NSW distributors are subject to a d-factor scheme that provides an incentive payment for undertaking demand management projects that defer capital expenditure. While we note there are complexities in such a scheme, and current issues with the recovery of these payments, that the d-factor nevertheless provides EnergyAustralia with additional incentives to pursue DM opportunities.

## 4.4 Demand and energy forecasts

EnergyAustralia notes that the AER has concluded that the Victorian DNSP's peak demand, energy consumption and customer number forecasts are not considered appropriate, and that in arriving at this conclusion the AER has accorded considerable weight to the variance between the DNSP's forecasts and state-wide Victorian volume forecasts prepared by VENCORP in 2009.

The primary purpose of the VENCORP forecasts (and forecasts prepared by the similar jurisdictions in the other National Electricity market states) is to inform the generation capacity supply-demand balance outlook which is contained in AEMO's annual "Electricity Statement of Opportunities" document. Although the focus of the supply-demand balance is based on maximum demand, state-wide forecasts of energy consumption are also presented in that document.

We would caution any approach which dogmatically substitutes a business's own forecasts with other forecasts which have been developed for different purposes. Given the importance assigned by the AER to the VENCORP forecasts, the AER should undertake a rigorous analysis of the historical forecasting accuracy of the VENCORP forecasts, in the same way that the DNSPs' 2006 forecasts were subject to testing. EnergyAustralia notes that the latest (2010) VENCORP/AEMO forecast for 2014/15 Victorian native energy of 53,930 GWh is 2.0% lower than the corresponding 2006 forecast for 2014/15 native energy. The suggested forecast accuracy analysis would demonstrate whether or not the "benchmark" VENCORP/AEMO forecasts contain any consistent error bias.

EnergyAustralia also notes that, at least on face value, the Vencorp forecasts imply that the various existing and mooted greenhouse gas reduction policies will be ineffective in reducing future electricity consumption. Further, it is noted that AEMO's 2009 "Gas Statement of Opportunities" document indicates that Victorian gas consumption by the non-electricity generation sectors will increase by 1.3% per annum over the next 20 years. While it is recognised that greenhouse reduction can be sourced by less carbon-intensive generation, it is suggested that such generation fuel replacement would need to be very significant to offset the projected increases in electricity and gas usage.

## 4.5 Pass through

The AER's draft decision for Victoria applies a different materiality threshold for pass through events from that established in previous determinations. The AER considered that the appropriate materiality threshold for all

pass through events for the Victorian DNSPs is one per cent of the smoothed forecast revenue in each of the years of the regulatory control period. This contrasts with the threshold applied in the NSW regulatory determination and is inconsistent with the approach taken in the National Electricity Rules.

The Rules attribute a specific meaning 'materially' for pass through provisions that are applicable to Transmission Network Service Providers.<sup>25</sup> In other context, the Rules ascribe a different meaning in that it requires 'materially' to have 'its ordinary meaning'.<sup>26</sup> The Rules do not provide further guidance on the meaning of this term or criteria upon which its meaning should be discerned.

In drafting the Distribution Rules, the Standing Committee of Officials of the Ministerial Council on Energy considered the final Transmission Rules and stated that<sup>27</sup>:

"To achieve the MCE's objective of consistency where appropriate, the Exposure Draft of the distribution revenue Rules largely builds on the AEMC's approach to economic regulation of electricity transmission. The Exposure Draft takes into account differences in the nature of transmission and distribution networks, based on analysis of these differences undertaken during the development of the draft Rules."

It was clearly the intention of the MCE that Distribution Rules depart from the Transmission Rules where appropriate or alternatively Distribution Rules are not required to be the same as Transmission Rules in all aspects.

We consider that the meaning of the term 'materially' must therefore be interpreted based on its 'ordinary meaning' in the context of pass through provisions applicable to a DNSP.

The Oxford Dictionary gives the meaning of material in this context as "essential or relevant: evidence material to the case"<sup>28</sup> which does give wide scope for the AER in determining a threshold. Nevertheless, like all elements of the Rules, where it is required to exercise discretion, this interpretation must be subject to other relevant guidelines and principles contained in the NEL and Rules.

We note in this context the Revenue and Pricing Principles states:

"A regulated network service provider should be provided with a reasonable opportunity to recover at least the efficient costs the operator incurs in (a) providing direct control services; and (b) complying with a regulatory obligation or requirement or making a regulatory payment."<sup>29</sup>

"A regulated network service provider should be provided with effective incentives in order to promote economic efficiency with respect to direct control network services the operator provides."<sup>30</sup>

"A price or charge for the provision of a direct control network service should allow for a return commensurate with the regulatory and commercial risks involved in providing direct control network service to which that price or charge relates."<sup>31</sup>

It is important therefore exercising its discretion to determine the meaning of 'materially' in relation to a pass through application, that the AER may take notice of:

- The fact that the Rules differentiate between the meaning of materiality for transmission and the meaning of materiality for other purposes;
- The importance of the interaction between the allowance for forecast operating and capital expenditure and the level of the threshold applied.

We consider that in deciding whether a pass through event materially increases the cost of providing direct control services, the correct threshold that the AER would need to apply is the level of costs that if not passed through would infringe the revenue and pricing principles. In other words, the DNSP would be deprived of a reasonable opportunity to recover at least the efficient costs it incurred or likely to incur as a direct consequence of the occurrence of the pass through event if recovery of these costs were not approved.

This is not to say that the threshold must be set abnormally low or high. However there is an important link between the allowance for expenditure and the threshold applied. If the AER cannot demonstrate that there has been an appropriate allowance for likely increases in costs due to unforeseen events over the period, the

<sup>25</sup> That is, for the purpose of the application of clause 6A.7.3

<sup>26</sup> See the definition of 'materially' in Chapter 10 of the NER.

<sup>27</sup> Standing Committee of Officials of the Ministerial Council on Energy, Changes to the National Electricity Rules to establish a national regulatory framework for the economic regulation of electricity distribution, Explanatory Material, April 2007; page 5.

<sup>28</sup> Oxford Dictionary and Thesaurus 2007

<sup>29</sup> NEL, clause 7A(2)(a)&(b)

<sup>30</sup> NEL, clause 7A(3)

<sup>31</sup> NEL, clause 7A(5).

threshold for materiality of cost pass through is likely to be lower than where the AER demonstrates that an allowance for unforeseen costs and events has been made.

Unless there is a provision or allowance included, the forecast costs at the time of the regulatory determination will be understated because at the time of submission of the regulatory proposals, the timing and/or cost impacts of new or uncertain events could not be reasonably forecast.<sup>32</sup> Therefore the recovery of costs needs to be catered in the forecast allowance or pass through arrangements.

We note that this has relevance for the AER's recent approach to assessing self insurance costs. The AER considered that certain self insurance items would be pass through events, and therefore the efficient costs can be recovered if the event occurs. At the same time, the AER has moved to a 1 per cent materiality threshold for all pass through events.

We consider that this may result in a distributor being unable to recover its efficient costs if a pass through event occurs, but the costs are lower than the threshold.

## 4.6 Control mechanism

The AER considered that the Rules do not allow for recovery of inter-regional charges and avoided DUOS and TUOS charges, and stated that the Victorians could propose a Rule change. We believe this is an extremely narrow and particularly unhelpful interpretation of Part I of the Chapter 6 Rules which is completely inconsistent with its interpretation in other jurisdictions.

We note the AER's own guidelines for NSW DNSPs in respect of transmission cost recovery:

The AER will allow each DNSP to recover its actual transmission related payments, net of transmission settlement residue payments, through transmission cost recovery tariffs. Transmission related payments include:

- transmission charges paid to TNSPs for use of transmission system
- avoided TUOS paid to embedded generators
- payments made to other DNSPs for use of their network.

Each DNSP bases its transmission cost recovery tariffs for each year on a forecast of the transmission related payments for that year. Where there is a difference between the forecast and actual transmission related payments, resulting in an over or under recovery of TUOS charges for year t-2, DNSPs will be able to recover or return this amount in year t

In accordance with clause 6.18.7 of the transitional Chapter 6 rules, the AER will use the following formula to determine the amount DNSPs will recover for TUOS charges:

Amount to be passed onto customers in year t = Forecast TUOS<sub>t</sub> + overs and unders adjustment to be applied in year t

Where:

overs and unders adjustment to be applied in year t = amount actually paid by DNSPs for TUOS in year t-2, minus the amount passed onto customers by way of TUOS charges by the DNSP in year t-2<sup>33</sup>.

We accepted this approach and submitted our regulatory proposal on this basis. The AER's final determination (page 463) confirms this approach. The approach taken by the AER in making its determination considering 6.12.1(19) should be consistent with the approach it has already applied in New South Wales.

We see no basis for a departure from the approach adopted by the AER in interpreting 6.18.7 for EnergyAustralia and why such an approach is not appropriate for Victorian DNSPs. We also do not understand what the AER refers to when it states that charges are recovered under 6.18.7 of the NER.

What flows from the AER's departure from its interpretation of 6.18.7 of the Rules in New South Wales to a narrow, unhelpful and, in our view incorrect interpretation of 6.18.7 is a complicated cost recovery framework incorporated under Part C of the Rules which is proposed by Victorian DNSPs. EnergyAustralia can only hope that sanity will prevail and the AER will reconsider its approach and interpretation of this specific Rule provision.

<sup>32</sup> AER, EnergyAustralia distribution determination 2009-10 to 2013-14, 28 April 2009, page 281.

<sup>33</sup> Refer AER Guideline on control mechanisms for direct control services for the ACT and NSW 2009 distribution determinations