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First Proposed Guidelines  
Australian Energy Regulator  
GPO Box 520  
MELBOURNE VIC 3001

Email: [aer inquiry@ aer.gov.au](mailto:aer inquiry@ aer.gov.au)

Dear Sir/Madam

### **FIRST PROPOSED GUIDELINES**

Thank you for the opportunity to comment on the Australian Energy Regulator's (AER) *First Proposed Guidelines for Electricity Transmission Network Service Providers (Guidelines)*. CitiPower and Powercor Australia (**CitiPower and Powercor**) are Victorian electricity distributors who are customers of transmission network service providers (TNSPs) and from 1 July 2007, when distribution regulation transfers to the AER, potentially subject to similar Guidelines.

Please find attached a paper outlining the CitiPower and Powercor positions on a number matters raised by the Guidelines.

Should you have any further questions in relation to this submission, please do not hesitate to contact me on (03) 9683 4508.

Yours sincerely

**Richard Gross**  
**GENERAL MANAGER REGULATION**

## 1. Introduction

The principal points of CitiPower and Powercor submission are as follows:

- The carry forward of negative pass through amounts into subsequent regulatory periods potentially undermines the viability of the network service provider and risks customer's being exposed to declining service standards. At the minimum, it will increase the regulatory uncertainty faced by network service providers raising costs and ultimately tariffs.
- A fair sharing ratio is equivalent to a 50:50 benefit sharing ratio. A five year benefit retention period, as proposed, does not achieve this.
- The effectiveness of a benefit sharing ratio should be measured in the context of any assumptions made with respect to productivity factors included within the expenditure forecasts.
- To create a continuous incentive for out performance, consideration should be given to increasing the benefit sharing available to top performing network service providers.
- It is not possible with any precision to separate those efficiencies resulting from management initiatives versus other exogenous factors. Consequently all efficiencies, except for those related to growth, should be considered management induced.
- Avoidable cost is a valid approach to efficiently allocating costs in certain circumstances.
- A review is required into how future risk free rate and inflation proxies are determined.

## 2. Negative carry over amounts in subsequent regulatory periods

CitiPower and Powercor disagree with the AER's position with respect to the carrying forward of negative carry-over amounts arising from efficiency losses in the current regulatory period.

### 2.1 Price service viability

Carrying forward a negative amount will, all else being equal, set the NSP benchmark expenditure forecast at a level below the reasonable expenditure forecasts of the network service provider. The AER has dismissed this concern on the grounds the decrement is smeared across multiple years, network service provider may make further efficiency gains to offset the decrement, the total revenue allowance may still be greater than the cost of service and the *National Electricity Law* does not place a 'floor' under network service provider revenues.

The arguments presented by the AER maybe plausible under a limited set of scenarios but in reality are likely to be improbable. Each subsequent regulatory period the available efficiency gains to a network service provider diminish as they approach the efficient frontier. Further the expenditure allowances provided to network service providers are routinely revised below what was sought. Under such circumstances it

would be expected that future revenues would fall below that reasonably required as a result of the carry forward of negative amount.

The consequences of a network service provider allowed revenues falling below that reasonably required may be profound and impact directly on customers. In an effort to remain financially viable it would be expected the network service provider will reduce expenditure on the network and consequently service performance decline. So whilst customers are receiving lower tariffs, they are also experiencing more frequent and extended outages. Declining network performance will invoke further penalties through the service incentive scheme. Again customer tariffs will fall further, but service performance will also fall further as the network is gradually starved of investment. It is the nature of networks that significant underinvestment can not be readily rectified in a short period and it may in fact take several regulatory periods to be rectified.

Such a scenario can not be considered consistent with NEL objective requiring the AER to protect the *'long term interests of customers with respect to price, quality, safety, reliability and security of supply of electricity'*. In fact it is more likely customers would prefer actions be taken to reduce further outages rather than the continuous ratcheting downward of price and service.

## **2.2 Revealed cost methodology**

An efficiency carry over mechanism can only operate effectively where a revealed costs approach is being applied to expenditure assessment. That is, the incentive properties of the efficiency carry over mechanism are considerably diminished where future expenditure is not established by reference to historical costs.

The carry forward of a negative pass through amount has the effect of reducing future expenditure allowances below those historically incurred by the network service provider. As a consequence, to achieve the regulatory rate of return, a network service provider would need to reduce its expenditure below that historically incurred for the period of the negative pass through. This would, all else being equal, appear an extremely onerous task.

## **2.3 Double jeopardy**

It has being common practice for Australian regulators to incorporate an efficiency factor explicitly in expenditure allowances. In some instances this maybe in addition to efficiencies already included by the network service provider. Because of this it is not simply good enough for a network service provider to reduce costs below their historical levels. In order to achieve a positive efficiency carry over allowance it needs to lower costs below their historical levels and below the efficiency factor incorporated by the regulator.

The inclusion of an efficiency factor in the underlying expenditure forecasts means it is possible that a negative carry forward amount may arise not because the network service provider has not reduced costs, but because the efficiency factor incorporated by the regulator proved excessive or too onerous. In such circumstances it would inappropriate that a network service provider to be punished because the efficiency factor calculated by the regulator was unreasonable.

## **2.4 Systematic underinvestment in service improvements**

The efficiency carry over mechanism also has a relationship with the service incentive scheme. In order for a network service provider to generate a service improvement, in almost all cases it will be necessary to incur additional expenditure above and beyond that permitted in the regulatory expenditure forecasts. As a consequence by deciding to introduce a service performance improvement, the network service provider will generate a negative carry forward amount.

Conceptually the network service provider should be indifferent to generating service improvements. That is, the network service provider will continue to incur penalties resulting from exceeding the expenditure benchmark up to the point the rewards through the service incentive scheme no longer cover that penalty. In reality however the respective schemes may not offset each other and as a consequence may result in delivery of a sub optimal level of service performance.

The likelihood of a sub optimal level of service performance being delivered is increased by allowing for the carry forward of negative carry over amounts. The efficiency carry over mechanism by its nature is a natural deterrent to further service performance as the network service provider is incurring a penalty that may or may not be offset by the service incentive scheme benefits. The carry forward of negative carry over amount magnifies this risk creating a further obstacle to investment in service improvements.

## **2.5 Consistency with National Electricity Market Principles**

The AER has referred to clause 6A.6.5(b)(2) of the NEL requiring it to consider the desirability of penalising TNSPs as well as rewarding them in addition to clause 16(2)(b) of the NEL that requires the AER to provide effective incentives to promote economic efficiency in the provision of services. Whilst there can be no disagreement with these principles in terms of creating future efficiency incentives, in the case of a negative carry over amount, the past conduct of the network service provider is sunk. No purpose is served by the AER seeking to revisit and penalise conduct in a prior regulatory period as history can not be changed. Further new management may potentially be penalised for an extended period through the actions of its predecessors. Arguable what should be of concern is ensuring the same situation does not arise again as opposed to introducing further penalties for past actions.

Preserving discretion for the carry over of efficiency losses creates uncertainties. The NEL requires the AER to 'promote efficient investment' in electricity services. This in turn requires an environment whereby adequate returns on investment and regulatory certainty are provided. CitiPower and Powercor submit the lack of regulatory certainty and sovereign risk are the two largest factors most likely to deter investment in regulated networks. Preserving discretion for itself on such an important element of the regulatory contract can only magnify uncertainty and suspicion from the point of view of the network service provider.

CitiPower and Powercor submit there should be no carry forward of negative carry over amounts. If the AER resolves it still wishes to preserve the discretion to carry forward negative carry over amounts to the next regulatory period, the guidelines should set out the exact circumstances as to process and criteria to be adopted when the AER chooses to exercise its discretion with respect to this matter.

### **3. Sharing of efficiency gains**

CitiPower and Powercor believe it to be appropriate that efficiency gains earned over a regulatory period be subject to a fair sharing between the network service provider and customers. The AER *Explanatory Statement and Issues Paper* accompanying the Guidelines infers a fair sharing is equivalent to a 50:50 benefit sharing ratio. CitiPower and Powercor agree with this conclusion.

#### **3.1 Fair sharing**

There appears to be some confusion in the *Explanatory Statement and Issues Paper* as to how a 50:50 benefit sharing ratio is achieved. The Paper refers to allowing a network service provider to retain the benefits of out performance for a period of 5 years as representative of a 50:50 sharing. This is incorrect. A five year retention period for network service providers equates to a 30:70 benefits sharing ratio, not 50:50. To implement a 50:50 benefit sharing ratio, network service provider would need to be able to retain the benefits of out performance for a period of 10 years or retain a higher amount in the first 5 years.

#### **3.2 Managing frontier performance**

Australian regulators utilising a benefit sharing scheme have adopted benefit sharing ratios of 30:70. The reasoning for this appears to be a benefit sharing ratio of 30:70 aligns with a 5 year retention period which is considered the longest customers should wait before receiving the benefits of any out performance. A direct consequence of this position however is as performance of the network service provider approaches frontier performance, the incentive to pursue further efficiencies diminishes.

Ofwat acknowledged this issue in its deliberations for the 2005-10 water and sewerage charges determination. Ofwat concluded that a 30:70 benefit sharing ratio provided only weak incentives for frontier network service providers to strive for further efficiencies. Further, continuing with the current approach it was likely current laggard network service providers would be over rewarded whilst top performers would be under rewarded. This issue was of particular concern to Ofwat because it is improvements by the frontier network service providers benefit all customers, not just those of the specific network service provider.

Two options were considered to increase the power of incentives to frontier performers. The first was to extend the period over which the benefits of out performance are retained. The second involved the use of multipliers to escalate the rewards available to frontier performers. Ofwat decided not to extend the period over which efficiencies were retained on the basis it further delayed the return of benefits of out performance to customers and secondly, new managers within a network service provider would gain the benefits of their predecessors actions. The multiplier approach was also preferred as it provided earlier and bigger rewards within a single regulatory period.

CitiPower and Powercor believe that as the industry matures, the scope for large and cost effective efficiency gains will diminish. In the case of Victorian network service providers, it has been more than ten years and two regulatory periods since the vertical and horizontal separation of the industry. Evidence collected by the Essential Service Commission through its total factor productivity measurement exercise demonstrates a discernable decline in efficiency gains, particularly over the last 5 years. In the case of more mature network service providers, CitiPower and Powercor

consider there to be a strong case for the AER considering the Ofwat approach to ensure the incentives for network service providers to continue to pursue efficiency gains remains strong.

### **3.3 Dilution of sharing ratio**

A further issue the AER should address is the impact of productivity assumptions included in expenditure forecasts and the treatment of efficiency gains. It has been reasonably common practice for Australian regulators to include an estimate of real productivity improvement in determining final expenditure allowances. This productivity factor is usually applied in addition to the economy wide productivity improvements implicit in the Consumer Price Index to convert expenditure allowances from real to nominal dollars.

Whilst it is appropriate that economy-wide productivity improvements flow through to consumers via the CPI-X mechanism, as these improvements are exogenous from a network service provider's perspective, it is inappropriate to be including an additional network service provider specific forecast of productivity improvement in the expenditure forecast. This is because for network service provider to break even, it will need to make underlying efficiency savings equivalent to the productivity factor each year over and above efficiency achieved in the general economy. However the network service provider will not get to share in any of these efficiency savings as they will be directly passed in full to customers.

A productivity factor has the effect of passing through 100 per cent of efficiency improvements to customers. As a consequence the network service provider will receive significantly less than a fair sharing of the productivity improvements it actually achieves over a regulatory period. Further, to the extent the productivity factor assigned to a network service provider is overestimated, a network service provider will actually receive less than its efficient costs leading to a sharing ratio of over 100 per cent to customers. This scenario is a real possibility in an environment where historical productivity improvements are used to estimate future productivity improvements.

A productivity factor can also effectively claw back efficiency benefits generated by a network service provider in the previous regulatory period. To demonstrate how this comes about, consider a situation in which a network service provider achieves industry average productivity improvement over the previous regulatory period, but anticipates no further improvements over the next regulatory period. Due to its productivity improvement over the current regulatory period, the network service provider would receive a positive efficiency carry over. However, this would be more than offset by the regulator assigned historically determined productivity improvement factor.

When considered over the long term, the inclusion of a productivity improvement factor in the expenditure forecasts in addition to an efficiency carry over mechanism substantially reduces the incentives for efficiency creation and, if calculated based on network service provider's historical productivity improvement, may ultimately neutralise any incentive for efficiency creation. That is, a network service provider may gain little from pursuing productivity improvements and may in fact stand to lose substantially to the extent that the scope for anticipated productivity improvements diminishes over time.

CitiPower and Powercor would therefore urge the AER in considering what constitutes a fair sharing of efficiency gains to consider the impact of productivity improvements and their potential role in distorting outcomes.

#### **4. Distinguishing uncontrollable elements of operating expenditure for the purpose of the ECM**

The AER intends to use its discretion in excluding changes in expenditure that are argued to be outside the control of network service provider. The AER should be extremely cautious in exercising such discretion on a number of grounds.

The AER position amounts to a requirement to distinguish management versus exogenous based efficiency gains. This issue was subject to considerable debate during the first Victorian electricity distribution price review. At the time a number of robust submissions were made to the Office of the Regulator-General (**ORG**) that:

- The uncertainty surrounding the treatment of efficiency gains would have a ‘chilling effect’ on the network service provider’s pursuit of efficiency gains.
- It may prove impossible to ever definitively determine the extent of management induced versus exogenous efficiency gains and, as a consequence, the possibility of any consensus being reached would be extremely remote.
- Determining management induced versus exogenous efficiency gains would be a costly process for both the regulator and the network service provider.
- An examination of the issue would necessarily prove highly forensic and time consuming.

An outcome of the debate surrounding this issue was the ORG decision to use the ‘rule of thumb’ whereby all efficiency gains were assumed to be management induced, whether positive or negative. The ‘rule of thumb’ was consequently subject to appeal proceedings that modified the ‘rule of thumb’ such that adjustments would be made for changes in ‘scale and scope’.

The Essential Service Commission (**ESC**) reaffirmed this approach as part of its *2006-10 Electricity Distribution Price Determination*. There was no attempt made to distinguish management versus exogenous efficiency gains however an adjustment was made for differences between actual and forecast growth.

CitiPower and Powercor believe the arguments to support the modified ‘rule of thumb’ to be highly persuasive. Consequently the businesses believe the AER should adopt the same approach as that applied by the ESC in the *2006-10 Electricity Distribution Price Determination*.

#### **5 Avoidable cost as a cost allocation methodology**

The *Cost Allocation Guidelines* propose that avoidable cost method should only be allowed under circumstances where the costs being considered are immaterial. CitiPower and Powercor consider there to be a number of circumstances in which the use of an avoidable cost methodology is economically justified and a prohibition for only cases other than where the costs are considered immaterial can not be justified.

It is important to stress that the use of an avoidable cost allocation methodology is consistent with the national electricity market (NEM) objective, which has economic efficiency as its core principle. Avoided costs represent one end of a range of potential cost allocation methodologies that are consistent with economic efficiency, and to limit this range unnecessarily would be inconsistent with the NEM objective.

This fundamental, efficiency-based property of the avoidable cost concept is reinforced by transmission pricing Rule 6A.9.1 (2). This Rule explicitly refers to ‘avoided costs’ as the lower bound at or above which prices for individual transmission services must be set. It follows that if a TNSP is not able to allocate costs to services in a manner that is consistent with this lower bound pricing principle, then prices for transmission services that would otherwise be permitted under Rule 6A.9.1 (2) would effectively be precluded by the AER’s proposed Guidelines.

Citipower and Powercor therefore submits that the AER’s effective prohibition on avoidable cost methods of allocation is inconsistent with the transmission pricing Rules and the NEM objective.

The AER’s proposed prohibition on avoidable cost methods of allocation is also inconsistent with the AER’s own stated primary purpose of the Cost Allocation Guidelines<sup>1</sup>, ie:

*to ensure that.....the prices paid by end customers for these services are not inappropriately inflated or discounted.*

As noted, avoided costs represent the lower bound for efficient pricing and so the maximum extent to which discounting is appropriate. Again, precluding cost allocations on an avoidable cost basis would preclude discounting that may be appropriate, and efficient.

More generally, the Guidelines appear not to appreciate that avoided costs are in fact a *causal* form of cost allocation methodology. Avoided cost measures those costs would *not be caused* if the service was *not provided*. It is therefore incorrect of the Guidelines to rule out application of an avoided cost allocation method on the implicit ground that is not causal in nature.

In a similar vein, the Guidelines make reference<sup>2</sup> to ‘incremental’ and ‘marginal’ (along with avoided) costs as all being recognised methods of attributing costs to services or prices - each of which is a causal form of cost allocation. In Citipower and Powercor’s view, there is no valid basis on which to rule out one of these allocation methodologies, since it is not different in principle<sup>3</sup> to the other two.

The Guidelines also misrepresent the practical difficulties of measuring avoidable costs, where it is stated at page 19 of the accompanying Issues Paper that this “can be a matter of considerable judgement”. In Citipower and Powercor’s experience, no

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<sup>1</sup> AER, First Proposed Cost Allocation Guidelines – Issues Paper, page 3

<sup>2</sup> *Ibid*, page 19

<sup>3</sup> Avoided costs are those saved by not providing the relevant services, whereas incremental and marginal costs are those incurred by deciding to provide it (or to provide more), as compared with the option of not providing the service (or not providing as much).



more judgement is required to estimate avoidable costs than there is to estimate marginal or incremental costs. Both involve estimating the causal relationship between changes in service (with incremental and/or marginal referring to increased services, while avoidable refers to decreased services) and changes in costs. Each involves a degree of hypothesis; however, this is common to any cost allocation method. In practice, causal-based allocation methods involve less hypothesis and judgement than no-causal methods, since they are grounded in tangible physical relationships.

More generally, in Citipower and Powercor's view, the Guidelines appear to characterise an avoidable cost approach to cost allocation as somehow 'too extreme'. In practice, however, this is an unwarranted characterization. The extent to which costs are avoidable (or incremental) is highly dependent on the time horizon that is adopted for assessing what costs can be saved (or will be incurred). The Guidelines should not make the implicit presumption that avoidable cost methods of allocation involve an extremely low attribution of costs to services.

To summarise, in Citipower and Powercor's view the AER's proposed rejection of avoided costs allocation methods (in all but immaterial circumstances) is:

- inconsistent with the NEM objective;
- inconsistent with the Transmission pricing rule, 6A9.1 (2)
- inconsistent with its own interpretation of the goals of cost allocation, ie, ensuring there is no inappropriate discounting;
- based on a mis-interpretation of the concept as not being causal in nature; and
- potentially based on the mis-understanding that avoided costs approaches always give a low number and so are somehow unacceptable.

CitiPower and Powercor recommends that the AER amends its draft guidelines to remove its prohibition on the potential for use of avoided costs

## **6 Derivation of real risk free rate**

Until recently, it was standard Australian regulatory practice to derive the real risk free rate from the ten year yield on Indexed Commonwealth Government Bonds and inflation inferred from the real and nominal ten year yields. However, recent research has shown there to be a number deficiencies with this approach:

- Recent evidence presented by NERA strongly indicates that since 2004 there has been a 20 basis point downward bias in real yields relative to nominal yields (see attached document).
- Further evidence from NERA that there is a downward bias in nominal yields.
- At the time of the 2006-10 Victorian Electricity Distribution Price Determination Final Decision one of the four Indexed Commonwealth Government Bonds matured. The Essential Services Commission accepted that yields were distorted around the time of the maturity of the Bond and hence had to adjust their approach to finding a proxy for the real risk free rate. The next indexed bond will

mature in August 2010, around the time of the next Victorian Electricity Distribution Price Determination.

- The longest dated Indexed Commonwealth Government Bond is one that matures in 2020. Therefore from 2010 there will be no ten year indexed bond to use as a proxy for the ten year risk free rate.

CitiPower and Powercor therefore recommend that the AER initiate a consultation process to specifically address the issue of how the nominal risk free rate and inflation will be determined in future reviews to provide clarity to all network service providers.



NERA report - Bias  
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