ATTACHMENT B

Conclusions from the Critique of Mountain (2011)

The NSW DNSPs are concerned to ensure that any benchmarking considered in the assessment of a network business's productivity is robust and appropriately considers business specific circumstances. This is particularly the case when comparing suggested international and interstate "peer" organisations.

Of particular concern are references in the Draft Report to two studies undertaken by Mountain (2011) regarding efficiency comparisons between Australian and UK distributors. In the Draft Report, the Commission recognises that the results are "flawed", but nonetheless appears to give weight to the studies' assertions as highlighted below:

> *"There are significant drawbacks in international comparisons (chapter 4) and, as such, Mountain's results and figure 6.2 are interesting but flawed. Nevertheless, they provide an indicator to be weighed up against other …*
>
> *Notwithstanding the various flaws in Mountain's research, the counter-evidence is not so strong as to invalidate the basic thrust of his conclusions"* Page 227 of the Commission's Draft Report.

The NSW DNSPs consider that referring to studies that are "flawed", but then not discounting the assertions is not helpful to the pursuit of sound benchmarking analysis based on valid comparisons.

The following is an extract from the April 2012 Energy Networks Association (ENA) submission to the AEMC titled "Response to AEMC Directions Paper – Economic Regulation of Network Service Providers" based on the advice of NERA on behalf of the ENA in critiquing two papers prepared by Mountain (2011) regarding the efficiency of Australian electricity network service providers:

> *"Bruce Mountain has prepared two papers for the Energy Users Association Australia (EUAA):*
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> - *Australia's Rising Electricity Prices and Declining Productivity: the Contribution of its Electricity Distributors (Mountain (2011)) published in May 2011;*[1] *and*
> - *Electricity Prices in Australia: an International Comparison (Mountain (2012)) published in March 2012*.[2]
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> *Following a review of the expenditure allowances of distribution network service providers (DNSPs), Mountain (2011) concludes that regulatory failure and government ownership are the major causes of recent price increases, rather than the oft cited need for investment to replace aging assets and meet the requirements of rising peak demand. On this basis, Mountain makes a number of recommendations that, the paper argues, would raise productivity in this sector.*
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> *Our assessment of the analysis undertaken in Mountain strongly suggests that it provides an insufficient basis for such conclusions. Failure to consider the many legitimate reasons for variances in costs per connection and a reliance on inappropriate comparisons has resulted in Mountain drawing unsubstantiated conclusions about the relative efficiency of DNSPs. Mountain's focus on ownership as the key distinction between DNSPs omits consideration of state-specific cost drivers.*
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> *Mountain begins by comparing revenue, capex and the value of the Regulatory Asset Base (RAB) per connection within each state, on a weighted average basis. The paper notes that growth in each of these ratios has been substantially higher for DNSPs in Queensland and New South Wales as opposed to South Australia and Victoria. On this basis, Mountain concludes that the financial performance of Government-owned DNSPs, being those in Queensland and New South Wales, is relatively poor compared to that of the privately-owned DNSPs, being those in South Australia and Victoria.*

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[1] Mountain, B.R., *Australia's rising electricity prices and declining productivity: the contribution of its electricity distributors*, May 2011.
[2] Mountain, B.R., *Electricity Prices in Australia: an International Comparison*, CME, March 2012

A comparison of these ratios is ill-suited to making conclusions regarding the relative efficiency of DNSPs. There are numerous reasons, besides relative efficiency, why DNSPs would have different levels of opex, capex and RAB per connection. These will include service quality standards, past expenditure decisions and the nature of the network, such as the mix between industrial and residential connections, network length, customer density, peak and average demand levels, the split between transmission and distribution networks, etc.

Furthermore, the use of averages for each state masks variations in costs between firms within a state. Such a loss of information makes it difficult to draw conclusions about the true causes of cost differences.

Mountain discredits the suggestion that cost differences may be due to differences in service quality by presenting the average from 2001 to 2009 of the System Average Interruption Frequency and the System Average Interruption Duration Indices. These averages show that service performance in New South Wales and Queensland has arguably been slightly poorer over this period than in Victoria and South Australia. The relevance of this information is highly questionable, given that Mountain is largely concerned with price increases that have occurred from around 2009 onwards, that is, after the period for which the quality data is presented. Its relevance is even further eroded by Mountain's use of the nine year averages, rather than presenting the time series on an annual basis.

Mountain (2011) develops a composite scale variable (CSV) to assess the relative efficiency of the DNSPs. In essence, this analysis assumes that customer numbers and network length are the only drivers of DNSP costs. In our opinion, that is not a reasonable assumption, since it overlooks the many other potential sources of cost differentials. This approach, therefore, does not provide a sound basis upon which to draw any conclusions regarding the relative efficiency of businesses.

Mountain (2011) also provides a comparison of the costs of NEM and UK distribution companies. However, making such comparisons is not straightforward and there are a number of potential shortcomings with the analysis presented by Mountain (2011) that reduces its applicability. For example:

- *The use of different exchange rates can greatly affect the results and it is arguably more appropriate to use a Purchasing Power Parity (PPP) index rather than a market exchange rate for making comparisons.*
- *The use of a PPP index significantly reduces the gap between NEM and UK costs;*
- *Government policies and system standards can affect prices; and*
- *Regulatory and accounting differences between jurisdictions can mean that costs are not directly comparable.*

Furthermore, even if one can conclude that costs are higher in the NEM than in the UK, there are many legitimate reasons why this may be the case. For instance:

- *There may be many differences in the characteristics of the networks being considered, such as the line length and the level and change in peak demand;*
- *There may be distortions in the current prices due to past regulatory decisions;*
- *There may be legitimate differences in the cost of inputs, particularly, the cost of capital is likely to be higher for Australian DNSPs.*

It would be inappropriate to conclude that NEM distributors are less efficient than their counterparts in the UK on the basis of the comparisons provided by Mountain.

Mountain reviews a number of potential cost drivers that may have been responsible for recent price increases in Australia. In our view, a number of conspicuous deficiencies in Mountain's analysis mean that one cannot reasonably conclude that Government ownership and the regulatory framework are the key drivers of price increases.

First, Mountain dismisses the claim that investment has been driven by the need to meet rising peak demand by considering the growth in historic aggregate and average demand. Mountain finds that growth related expenditure has been four times higher for Government owned NSPs even though average demand has grown more strongly in Victoria than in Queensland or New South Wales.

However, networks must be configured to meet peak demand, not average demand. Furthermore, the demand growth considered by Mountain is historic not forward looking. NSPs must invest to meet anticipated demand growth, not past demand growth. The AEMC has previously published9

forecast growth in maximum demand in the NEM that suggests NSW and Queensland DNSPs are likely to experience stronger future growth than those in South Australia and Victoria.

Mountain rules out claims that investment has been driven by the need to replace aging assets on the basis of the average effective remaining life of assets for the various DNSPs. However, the average effective remaining life is only of limited applicability for determining the value of assets that need replacing in any year, it is the age profile of assets that is more relevant.

Mountain also dismisses claims that there is an element of "catch-up" in investment due to past levels of under-investment. Mountain notes that many commentators have expressed a view that there has been under-investment in the past but dismisses these claims on the basis of a study carried out in the 1990s, which concluded that between 1982 and 1994 NSW distributors were inefficient and capital productivity was poor. Inefficiency and low capital productivity tells us very little about past underinvestment levels, especially when such a study refers to information that is up to 30 years old.

The ENA is of the view that the analysis provided in the NERA report Analysis of Key Drivers of Network Prices Changes, which was discussed above, provides a significantly better basis for determining the actual cost drivers that have led to the recent price increases.

Mountain's second paper for the EUAA, Electricity Prices in Australia: An International Comparison considers household retail prices and concludes that Australian prices are high and rising relative to those in other countries. This paper was not submitted to the AEMC as part of the review of the NER and is of limited relevance as it considers retail prices, and only for household customers, rather than the costs of DNSPs. However, given the timing of its release it may receive some attention in the course of this review and is therefore worthy of comment.

It is interesting to note that, although Mountain provides price comparisons on the basis of both market exchange rate and purchasing power parity (PPP) adjustments, the focus of the paper is on the former. However, the PPP-based comparisons are arguably more informative and significantly lower the Australian retail prices relative to those in other countries. On this basis, Mountain shows that Australian household retail prices are actually lower than those in Japan and the EU.

It is also important to bear in mind that the overseas data is older, further reducing the relevance of the comparison. Specifically, the Canadian and Japanese prices are for the 2010 calendar year. In fact, the conclusions Mountain draws are inconsistent with those reached by a number of other commentators. For example, a 2012 report by the Bureau of Resources and Energy Economics concluded that Australian Household electricity prices were the 24th cheapest out of 32 OECD countries.

Finally, it must be borne in mind that many other factors may result in differences in retail prices including government policies, how electricity is generated and geographical and meteorological factors. Even if Mountain's comparisons did credibly establish that retail prices in Australia were higher, which it does not, there are many potential, legitimate, explanations for why this may be the case."

We note that the Commission has highlighted the need for more detailed analysis before benchmarking can take on a more prominent role in assessing productivity, as set out below:

"Several commentators have highlighted the need for more detailed evidence of inefficiency (ENA, sub. 17, appendix A or B; Yarrow 2012). For example, Yarrow noted that:

> *… much more specificity in the identification of causal links is required, even to [begin] to pin down the elements of the wider system of relationships that might usefully be considered to be candidates for reform.*
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> *… In relation to capital costs for example, it can be asked: if there is a tendency for networks to over-forecast, why do a number of utilities then tend to over-spend relative to such inflated forecasts?*

> *… Is it that utilities simply take on too many projects, or that they over-engineer projects? Or is it that utilities undertake the wrong projects? Or then again, is it just that whatever they do, they do it at a higher cost than necessary? None of this is very clear. (p. 10)*

The Commission has identified many data and model development problems (chapter 4 and 8), for which resolution would be the necessary precursor for more definitive benchmarking. However, there is some evidence — beyond that analysed by Mountain — that provides further information about the cost drivers behind recent network price increases."

The NSW DNSPs agree that benchmarking of utility productivity is in its infancy and that more analysis needs to be undertaken before benchmarking could be relied upon as a core element of regulatory revenue or price setting.