

18 April 2012

Mr Philip Weickhardt  
Chair – Electricity Network Regulation Inquiry  
Productivity Commission  
Level 2, 15 Moore Street  
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via email: [electricity@pc.gov.au](mailto:electricity@pc.gov.au)



positive energy

Dear Mr Weickhardt,

**Response to Productivity Commission's Electricity Network Regulation:  
Issues Paper**

Energex welcomes this opportunity to make a submission to the Productivity Commission's (the Commission) Issues Paper regarding practical or empirical constraints on the use of benchmarking of network businesses under the national energy legislative framework (the Inquiry).

Energex is a distribution network service provider (DNSP) operating in south east Queensland and is a member of the Energy Networks Association (ENA), the peak national body representing Australia's electricity and gas network service providers. ENA will be making a submission on behalf of its members. Energex supports the ENA's position and its responses to the Commission's questions as set out in its submission.

In this submission Energex provides specific comments on the following issues arising from the Commission's Issues Paper (submission attached):

- Scope of the Commission's Inquiry, including the current multiple overlapping reviews of network regulation under the national energy framework;
- The Commission's interpretation of a number of important provisions of the National Electricity Rules (NER);
- Use of benchmarking as a regulatory tool; and
- The application of benchmarking within the national energy regulatory framework.

Energex looks forward to participating in the Commission's consultation process and would be pleased to discuss this matter further. Should you have any enquiries please contact Sue Lee Manager Regulatory Initiatives

Yours sincerely

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**Regulatory Submission**

**Productivity Commission  
Electricity Network Inquiry**

**Response to Productivity Commission's Electricity  
Network Regulation Paper: Issues Paper**

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# 1 Scope of Commission's Inquiry

## 1.1 Background

In the Issues Paper the Commission notes the current debate on recent network price increases, declines in measured electricity sector productivity and changes to the national energy regulatory framework as being the basis for the Australian Energy Regulator (AER) and others to seek 'new regulatory approaches'.

In this regard, Energex has a significant concern that a simplistic linkage between price increases and changes to the national energy regulatory framework has been made by a number of stakeholders without undertaking any rigorous analysis of the reasons for the price increases. Similarly, as noted by the Commission, there have also been contentions that private distribution businesses are more efficient than government-owned businesses and that the regulatory incentive is different.

In Energex's view, the Commission could consider the reasons for the network price increases over recent years, having regard for a recent analysis performed by NERA Economic Consulting and submitted by the ENA to the AEMC's Directions Paper against claims that much of the increase in network expenditure has been inefficiently incurred. This would then provide the contextual basis for an assessment of the extent to which benchmarking (however it is applied) could be used within the national energy regulatory framework as a tool to facilitate efficient outcomes consistent with the National Electricity Objective (NEO).

## 1.2 Efficiency benchmarking in the context of the National Electricity Rules

The Issues Paper provides a high level summary of regulation as it is applied to the National Electricity Market (NEM). Energex notes the Commission's statement that the NEM is the most geographically dispersed electricity network in the world. In Energex's view this is pertinent to the Commission's consideration of the use of benchmarking under the national energy framework, particularly the appropriateness of applying international benchmarks of efficiency to network businesses in the NEM.

The Issues Paper discusses the benchmarking work of Mountain and Littlechild. Energex considers that the Commission should assess closely their research claims that Australian network businesses are inefficient compared to UK network businesses. This could be part of the Commission forming a view on the inefficiency or otherwise of network businesses operating in the NEM as the basis for determining how benchmarking may best be applied.

Energex also notes the Commission's presentation (Figure 2 of the Issues Paper) of a decline in measured Australian electricity sector multifactor productivity (MFP) since the late

1990s. The Commission recently released a staff working paper which presents MFP estimates for the whole electricity supply. The paper shows that MFP has been in decline since 1997/98 due to:

- Growing relative peak demand driven by widespread use of residential
- Air-conditioning;
- Increased undergrounding of electricity cabling at higher cost;
- Shifting toward higher cost gas-fired power and renewable energy sources; and
- Cyclical patterns of investment.

The paper recognises that improvements in quality of electricity supply are not properly captured by MFP estimates which typically require more inputs and no increase in the volume of output. At this stage, Energex does not consider any meaningful conclusions can be drawn from electricity sector-wide MFP estimates with respect to electricity networks performance.

### **1.3 Other major energy network reviews**

As indicated in Table 1 of the Commission's Issues Paper, there are numerous national energy network-related reviews currently under way, the majority being undertaken by the Australian Energy Market Commission (AEMC). Energex considers that the AEMC is making good progress across a wide range of issues and its processes have had a strong consultative and constructive focus.

Moreover, this broad body of work is being undertaken as part of the well-defined governance structure operating under the national energy framework with clearly defined and separated roles for the policy maker (the Standing Council on Energy and Resources (SCER)), the Rules maker (the AEMC) and Regulator (the AER).

In Energex's view, the Commission should have regard to this governance framework in undertaking its Inquiry with an overarching objective being to supplement the AEMC's work rather than duplicate it. Moreover, the Treasurer's Terms of Reference for this Inquiry state that the Commission should have particular regard for the AEMC's reviews'.

However, it appears from the scope of the Issues Paper that the Commission envisages a very broad objective for its Inquiry which will entail it significantly duplicating the AEMC's current work program, particularly in the following areas:

- The process for approving future capital and operating expenditure expenses (refer pages 20-23)
- A potentially excess cost of capital for regulated cost recovery (refer pages 24-26)
- Reliability standards and planning (refer pages 27-29)
- Demand side management (refer pages 29-31).

These areas of overlap are expanded upon below.

## 1.4 Overlap with AEMC work program

The Commission states that a key question is the extent to which the AER is required to undertake a forensic examination of a DNSP's building block proposal, as opposed to giving prominence to its own separate analysis or benchmarking results in reaching a determination. This issue is currently being considered by the AEMC as part of the Rules Change Proposals submitted by the AER and Energy Users Rule Change Committee (EURCC) and this is the appropriate forum for its resolution.

In this regard, Energex notes the following quote from the AEMC's Directions Paper which summarises our view on this issue:

*'No evidence has been presented of decisions where the references to "individual circumstances" in the opex or capex criteria limited the AER's ability to apply benchmarking. The AER has certainly applied benchmarking frequently in its regulatory determinations (as appears to be intended by the capex and opex factors).'*<sup>1</sup>

On the issue of determining an efficient cost of capital, Energex notes that the Commission's discussion of issues under the heading 'A potentially excess cost of capital for regulated cost recovery' duplicates the AEMC's current assessment of the AER's and EURCC's Proposed Rule Changes. As a result, Energex does not support the Commission considering these issues as part of its Inquiry.

In relation to the issues raised under the heading 'Reliability standards and planning', Energex notes that the AEMC will be undertaking a review of distribution reliability outcomes and standards under the NEM. Energex's planning, security and reliability standards have recently have been the subject of a review by an independent panel in late 2011 with recommendations being endorsed by Government. Energex agrees with the Commission that different reliability standards across the NEM should be taken into account in any benchmarking undertaken by the AER. However, broader decisions about the way in which reliability standards are set are expected to be considered by the AEMC's review.

Finally, in relation to issues raised under the 'Demand-side management' heading, Energex notes that the AEMC has been undertaking a market review of demand-side participation in the NEM since 2009. The review is now at its third and final stage. As a result, Energex considers that the issues raised by the Commission overlap significantly with the AEMC's work in this area.

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<sup>1</sup> Australian Energy Market Commission (2012), National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012, National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule 2012, Directions Paper, (March), p23.

From a benchmarking perspective, Energex sees little merit in attempting to measure DNSPs' performance against an efficient demand-side management benchmark because of the significant methodological difficulties involved in establishing the benchmark.

Moreover, the current regulatory framework requires DNSPs to consider demand-side management options in developing their capital expenditure forecasts (as an alternative to network capital expenditure) and the AER must assess the prudence and efficiency of a DNSP's decisions in this regard. The AER has also used its power under the NER to establish a demand management incentive scheme for Energex. As a result, Energex sees no constraints on the AER's ability to create incentives for and approve efficient demand-side expenditure proposed by DNSPs.

## **1.5 Energex's position on scope of Commission's Inquiry**

In summary, Energex is concerned with the Commission's proposed broad scope of inquiry and suggests that the Commission should look more closely at the detail of the AEMC's various Rule Change and Market Reviews (including those noted in Table 1 of the Issues Paper) to refine the scope of its Inquiry.

In general terms, Energex considers that the scope of the Commission's Inquiry should be confined to:

- Determining how benchmarking could be best used by the AER to promote efficient expenditure under the cost building block form of regulation, recognising that TFP-based economic regulation will not be feasible for a number of years;
- Assessing the data requirements and existing data sets currently available to the AER to determine if robust benchmarking techniques can be applied in relation to cost building block regulation;
- Assessing the rigour of the AER's on-going application of benchmarking to service providers' building block proposals under the current national energy framework; and
- Providing guidance to the AER on the development of best practice benchmarking techniques to promote efficient expenditure outcomes consistent with the NEO.

These issues are discussed further in the remainder of our submission.

## **1.6 Benchmarking and the National Electricity Rules**

Energex has a number of concerns about what appear to be misunderstandings the Commission has about the national energy framework, in particular, the issue of benchmarking under the current NER.

The Commission notes that benchmarking could be used by the AER to corroborate conclusions it has made in relation to a service provider's forecast expenditure 'were the Rules to permit this'. As noted in the previous section, no evidence has been provided to

indicate that the NER constrains the AER from using benchmarking in this way and the AER has, in fact, made frequent use of benchmarking.

The Commission also notes that benchmarking could be used to test whether old assets still forming part of the Regulated Asset Base (RAB) should be excised, including if made redundant by technological change. Energex notes that as part of the capital expenditure incentives built into the national energy framework by the then Ministerial Council on Energy (now SCER) and AEMC, there are provisions in the NER regarding the treatment, including removal, of assets once incorporated into the RAB. For electricity distribution, specific asset values can only be included in the RAB if they are used to provide standard control service. Whilst there is currently no provision in the NER for an ex post capital redundancy review by the AER, the AEMC is currently considering an electricity and gas rules change request regarding the optimisation of the RAB and the use of fully depreciated assets. Energex considers that this important issue is far better addressed through clearly specified rules provisions rather than through benchmarking given the latter's practical limitations.

The Issues Paper discusses the apparent gap in efficiencies revealed by the results of using the building block approach and an aggregate benchmarking exercise undertaken by Mountain and Littlechild. The Issues Paper then suggests that the AER is not allowed under the Rules to use an element of discretion or judgement in assessing the existence of any such purported efficiency gaps. Energex notes that paragraph 6.12.3(a) of Chapter 6 of the NER provides that:

*' .....the AER has a discretion to accept or approve, or to refuse to accept or approve, any element of a regulatory proposal.'*

Given the AER's power under the current national energy framework to reject service providers' expenditure forecasts and substitute its own in their place, the Commission's statement that the AER cannot exercise its discretion or judgment in this regard is incorrect.

Consequently, Energex does not consider it is an important consideration for the Commission whether the effective use of benchmarking would require complementary changes to the NER. Moreover, the strong information gathering powers of the AER under the NER combined with its ability to exercise regulatory discretion provides ample opportunity for the AER to conduct robust benchmarking.

Energex also notes that the merits review process available under the National Electricity Law is not a limitation on the AER's use of benchmarking simply because that process exists to protect service providers from regulatory error. This protection should mean that only methodologically sound benchmarking parameters are adopted under the NER.



## 2 Use of benchmarking as a regulatory tool

### 2.1 What is benchmarking?

Energex supports the Commission's view that:

*'At its most general, benchmarking measures a business' efficiency against a best practice 'reference' performance to uncover costs that would hold in an efficient market.'*

Energex agrees that benchmarking is usually used as a regulatory tool to set efficient revenue or prices. Consequently, Energex see this approach as the best way in which benchmarking could be, and already is being, used to promote efficient outcomes under the national energy regulatory framework. The current use of benchmarking under the NER is discussed further in the next section of our submission.

Energex also agrees with the Commission that regulatory arrangements extend beyond the NER to a broad range of jurisdictional regulatory instruments. Regulatory instruments will likely differ across jurisdictions in their form and the nature of obligation imposed and clearly will have to be taken into consideration when undertaking benchmarking across network businesses in the NEM. This raises the fundamental issue of the need to standardise any data used for benchmarking purposes. In other words, ensuring that 'like-for like' comparisons are always made.

### 2.2 Guiding parameters for applying benchmarking

Energex notes the Commission's identification of the following criteria that need to be balanced in the practical use of benchmarking (refer Box 1 of the Issues Paper):

- Test efficiency without significant bias;
- Measure the relative or absolute degree of inefficiency with sufficient precision and with consistency across time and jurisdictions;
- Be transparent;
- Provide sufficient certainty to network owners such that they have confidence to make major capital investments in long lived assets;
- Not involve onerous data obligations or be time consuming to prepare;
- Have limited susceptibility to manipulation; and
- Be no more complex than is required to achieve the above criteria.

Energex supports these criteria, which recognises that properly formulated benchmarking can potentially provide a measure of relative performance and efficiency of comparable businesses. However, the criteria should also recognise that, as a matter of course, benchmarking will entail additional administrative costs for network businesses. In addition, there are potentially more significant costs if inappropriately formulated benchmarking is applied, including disincentives to invest.

Energex considers that the Commission should use these criteria as a guide in developing its views. More broadly, Energex considers that any application of benchmarking under the national energy framework should have regard to these criteria.

## 3 Application of benchmarking within national energy regulatory framework

### 3.1 Distinction between total factor productivity-based and cost building block regulation

Energex considers that it is important to distinguish between the use of benchmarking under the current national energy framework and its potential future use as part of the total factor productivity (TFP) index-based approach to economic regulation.

As the Commission notes, the AEMC recently concluded that existing data was not consistent, reliable or robust enough to use as part of TFP-based economic regulation. Hence, Energex considers that the use of benchmarking for this purpose cannot be considered as part of the Commission's Inquiry.

It is likely that as a result of the AEMC's recommendation to SCER, all DNSPs in the NEM are soon expected to commence reporting an extensive list of input and output data to the AER for the purpose of establishing a robust data set for TFP purposes.

### 3.2 Benchmarking under cost building regulation

The significance of the AEMC's findings in relation to TFP-based regulation is that the available data sets for network service providers in the NEM are not suitable for price setting purposes. However, Energex recognises that there is potentially a scope for benchmarking to be used by the AER as part of a suite of regulatory tools used to assess network service providers' building block proposals.

The AER has itself summarised how benchmarking can be used in the Australian national energy framework given current data constraints<sup>2</sup>:

*'The AER used benchmarking in its electricity distribution determination for the Victorian DNSPs. It was an informative tool that enabled conclusions to be drawn about the performance of the Victorian DNSPs against efficient regulatory benchmarks, and against the performance of their peers.'*

*In contrast, Ofgem uses its benchmarking to directly inform its regulatory*

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<sup>2</sup> Australian Energy Regulator (2012), Draft Distribution Determination Aurora Energy Pty Ltd 2012–13 to 2016–17, (November), p 321.

*allowances. The key distinction from the AER's current practice is Ofgem went through an extensive process with industry to develop comprehensive sets of data to support and enable the benchmarking it undertakes.*

*The availability and quality of data limits the benchmarking techniques that can be applied by the AER.'*

In regards to the AER's assessment of a DNSP's capital and operating expenditure forecasts under the NER, it has the power to compare costs incurred by DNSPs across the NEM. For example, in deciding whether or not to accept a DNSP's forecast of operating expenditure, clause 6.5.6(e)(4) of the NER provides for the AER to have regard to:

*'benchmark operating expenditure that would be incurred by an efficient Distribution Network Service Provider over the regulatory control period.'*

A similar clause also applies in relation to capital expenditure under the NER (refer to clause 6.5.7(e)(4)).

Given the AER's power to reject a DNSP's proposed expenditure forecasts, it is able to substitute its own forecasts, provided it is able to substantiate the replacement forecasts as required under clause 6.12.3 of the NER.

Energex notes that benchmarking has been used frequently by the AER since 2008 in the assessments of DNSPs' expenditure forecasts. Importantly, it should also be recognised that under the NER and National Gas Rules, the cost of capital of electricity and gas network service providers is set using an efficient benchmark service provider (rather than individual businesses).

In its distribution determination for the Victorian DNSPs, the AER stated that it had used the following high level benchmarking techniques to compare the relative performance of DNSPs across the NEM<sup>3</sup>:

- Capital and operating expenditure comparative ratio analysis;
- Replacement capital expenditure modelling;
- Capital expenditure governance relative to PAS 55:2008<sup>4</sup>;
- Service performance against key performance indicators; and
- Trend analysis of proposed allowances against actual incurred operating and capital expenditure.

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<sup>3</sup> AER (2011), Victorian electricity distribution network service providers, Distribution determination 2011–2015 Draft Decision, Appendices, pp 58-74.

<sup>4</sup> This is an asset management standard developed by The Institute of Asset Management.

In the paper, the Commission noted that the AER used benchmarking to assess the Victorian DNSPs' vegetation management expenditure forecasts, including substituting the forecasts proposed by two of the DNSPs.

In addition, Energex notes that the AER has used labour input cost escalator forecasts generated from a national proprietary macroeconomic model. These forecasts are effectively benchmarked labour cost forecasts and have often been substituted for those proposed by DNSPs (including Energex for the 2010-15 regulatory control period).

In terms of the AER's ability to undertake benchmarking, the AER has extensive information gathering powers that it has been using to collect significant amounts of expenditure data from DNSPs since distribution regulation was transferred to the AER. For example, Energex recently responded to a Regulatory Information Notice issued by the AER which included extensive data requirements.

Consequently, Energex considers there are no constraints on the AER's ability to gather the data it needs to perform robust cost benchmarking. Rather, the key issue is the quality of the benchmarking data that is used by the AER given that the risks of poorly constructed data sets will be borne by DNSPs whose expenditure forecasts could be inefficiently based on such a benchmark.

In conclusion, Energex submits that the Commission could provide guidance to the AER to develop robust benchmarking techniques to be used in the assessment of major expenditure forecasts included in network service providers' cost building block proposal. This would likely contribute materially to facilitating efficient outcomes consistent with the NEO.