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Australian Energy Market Commission  
AEMC Submissions  
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Dear Sir / Madam

### **Draft Report – Review into the use of Total Factor Productivity for the determination of prices and revenues**

Ergon Energy Corporation Limited (Ergon Energy) welcomes the opportunity provided by the Australian Energy Market Commission (AEMC) to comment on its Draft Report regarding the review into the use of Total Factor Productivity (TFP) for the determination of prices and revenues.

This submission, which is available for publication, is made by Ergon Energy in its capacity as an electricity distribution network service provider (DNSP) in Queensland.

As articulated in our previous submissions Ergon Energy does not support the application of TFP at this time.

Ergon Energy notes that the AEMC is recommending a two part process for drafting of the Rules, which include (1) an initial Rule to facilitate data collection and testing, and (2) drafting of the detailed design and methodology. Proceeding to the second stage (detailed drafting) only if the necessary conditions have been met and it is considered there is still merit in implementing a TFP methodology.

Ergon Energy supports the delay in introducing the full set of rules, however considers that there are still numerous questions that need answering prior to any changes to the National Electricity Rules (NER) and the National Gas Rules (NGR) being implemented. Ergon Energy's concerns are set out below.

#### **Collection of necessary data for a TFP methodology**

Ergon Energy agrees that for any TFP methodology to be implemented a comprehensive data set will need collecting, on a consistent basis, over an extended period. However Ergon Energy is extremely concerned that whilst the AEMC's draft report is recommending changes to the NER and NGR detailing the data requirements, there has still been no articulation as to what the actual data variables and their precise definitions will be. Ergon Energy strongly disagrees with an approach whereby wide-ranging data is collected and engineered to fit a TFP specification. Ergon Energy believes prior to any rule change there needs to be significant collaboration between service providers and the AER to reach agreement on the data specifications that will be a true reflection of the inputs and outputs of all DNSPs. Only when specific variables have been agreed upon and clearly defined will like-for-like data collection across service providers be achieved, which in turn may result in the ultimate goal of a consistent and reliable data set.

## **Costs associated with implementation of a TFP methodology**

It has been widely accepted by industry that the substantial increase in data required for the development of a TFP specification will have a significant financial impact. The AEMC's opinions that "the additional cost for such a regime to provide TFP relevant data is likely to be marginal" and "the type of physical and financial data required for TFP should already be calculated by the service providers", are unsubstantiated. The AEMC has accepted that past data is likely to be unusable, and Ergon Energy believes that a significant factor contributing to this is that currently service providers do not necessarily report on comparable items with consistent agreed upon definitions. Changes to accounting and information systems in order to accommodate this necessary consistency will be extremely costly. In addition these costs will be incurred irrespective of whether a TFP specification is developed, and irrespective of whether the DNSP elects to adopt TFP. In Ergon Energy's view prior to any changes being made to the NER and NGR a comprehensive cost-benefit analysis should have been undertaken to see whether the potential benefits of TFP outweigh the additional costs.

Attachment 1 of this submission provides comments on the AEMC's recommended way forward. However, none of the comments in the attachment to this submission should be interpreted as reducing Ergon Energy's fundamental concerns about the application of TFP and its view that TFP should not be applied at this time.

If you have any questions or require any further information on the matters raised please do not hesitate to contact me on (07) 4121 9545.

Yours sincerely



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## Attachment 1 – Response to the AEMC’s Way Forward

Collection of necessary data for a TFP Methodology	Ergon Energy Response
<p><i>Proposed Rule:</i></p> <p><i>This rule would:</i></p> <ul style="list-style-type: none"> <li><i>Oblige all regulated distribution and transmission (electricity and gas) service providers to submit an annual disclosure of regulatory information to the AER</i></li> </ul>	<p>Ergon Energy:</p> <ul style="list-style-type: none"> <li>Considers that the AER already has existing powers under the National Electricity Law<sup>1</sup> (NEL) and National Gas Law<sup>2</sup> (NGL) to collect the data necessary to develop a TFP specification, and therefore a rule change to facilitate this is not necessary.</li> <li>Believes that further consultation to agree on the specifics of the data variables and their precise definitions is needed prior to any changes being made to the NER and NGR.</li> <li>Considers that the existing provisions in the NER<sup>3</sup> and NGR<sup>4</sup> will facilitate this consultation process. However, recognises that the timelines specified in the current Rules are probably insufficient to resolve a complex issue satisfactorily.</li> </ul>

<sup>1</sup> NEL, s. 28C, s. 28F and s. 28G.

<sup>2</sup> NGL, s. 45, s. 48 and s. 49.

<sup>3</sup> NER, Chapter 8, para. 8.7.3

<sup>4</sup> NGR, Part 17, para. 139 and Part 3, para. 8.



Collection of necessary data for a TFP Methodology	Ergon Energy Response
<ul style="list-style-type: none"> <li>The requirements and definitions will be specified in a schedule to the NER and NGR. It will include financial, asset and network operational data.</li> </ul>	<p>Ergon Energy:</p> <ul style="list-style-type: none"> <li>Notes that other than the general requirements set out in Appendix E of the Preliminary Findings<sup>5</sup>, the AEMC still hasn't clearly articulated the specific data that will be required.</li> <li>Considers that significant additional work needs to be done prior to articulating the data variables and their specific definitions necessary for the calculation of a TFP index.</li> <li>Agrees with the AER that these specific data requirements should not be detailed in the NER and NGR.</li> </ul> <p>Ergon Energy would like to draw the AEMC's attention to the AER's comments<sup>6</sup> regarding changes to the NGR and NER.</p> <p><i>"...the AER does not consider that there is a need to prescribe a timeframe for the implementation of reporting requirements to be included in the NGR and NER. Similarly it would be preferable for data requirements for TFP methodology to be detailed in a regulatory information notice, or order rather than the NER or NGR".</i></p> <p>Ergon Energy believes that prior to any rule changes there needs to be agreement between the AER and the DNSPs about what the definitions of the data should be. It is imperative that the TFP components and their respective weightings are a real reflection of the inputs and outputs of each DNSP and the electricity distribution industry.</p>

<sup>5</sup> AEMC, *Preliminary Findings, Review into the use of total factory productivity for the determination of prices and revenues*, December 2009, p.115 – 126.

<sup>6</sup> AER submission, March 2010, p.2.

Collection of necessary data for a TFP Methodology	Ergon Energy Response
<ul style="list-style-type: none"> <li>• <i>Include an obligation on the AER to develop supporting guidelines to assist in the information disclosure process. The AER will be required to establish a working group with industry representatives on the detailed coverage and specifications on the required data.</i></li> </ul>	<p>Ergon Energy:</p> <ul style="list-style-type: none"> <li>• Agrees that a collaborative approach is necessary to forming the data specifications.</li> <li>• Notes however this should be the first step in any movement toward the implementation of TFP.</li> </ul> <p>As detailed in the Draft Report<sup>7</sup> the starting point for any 'successful' TFP based methodology is a reliable, consistent, robust data set. For this reason Ergon Energy queries why the AEMC would recommend amendments to the NER and NGR specifying definitions and financial, asset and network operational data prior to this consultative process taking place.</p> <p>To enable the collection of a consistent data set there needs to be significant consultation between the AER and service providers to establish data specifications that are a true reflection of the inputs and outputs of each DNSP and the electricity supply industry, including their relative weightings. Only when data variables are agreed upon and clearly defined will like-for-like data collection across service providers be achieved, which ultimately may result in a consistent, reliable data set.</p> <p>Ergon Energy still has significant reservations as to whether a 'successful' cost effective TFP methodology can in fact be implemented. As noted in the Brattle Group Report<sup>8</sup>, "<i>we are not aware of any jurisdiction in which a pure TFP methodology has been adopted to replace a building block approach</i>".</p>

<sup>7</sup> AEMC, *Draft Report, Review into the use of total factor productivity for the determination of prices and revenues*, November 2010.

<sup>8</sup> The Brattle Group, *Use of Total Factor Productivity Analyses in Network Regulation, Case Studies of Regulatory Practice*, October 2008, p. 9.

Collection of necessary data for a TFP Methodology	Ergon Energy Response
<ul style="list-style-type: none"> <li><i>This information will be publicly available (subject to substantial and approved commercial confidentiality) and audited (financial data only). It will be provided under the certification of the CEO, Company Secretary and/or Board of Directors.</i></li> </ul>	<p>Ergon Energy:</p> <ul style="list-style-type: none"> <li>Reiterates, there has been no full cost-benefit analysis done with respect to the initiation of TFP.</li> <li>Agrees with the ENA's view<sup>9</sup> that "a full assessment of the potential quantum of additional costs should form part of a balanced cost-benefit assessment by AEMC to MCE prior to the development of any detailed TFP rules".</li> <li>Disagrees with the AEMC's opinion that supplying the data on an audited basis won't increase the costs significantly.</li> <li>Notes that the costs could be in the millions of dollars for each DNSP that is required to change its accounting and other recording systems to accommodate TFP data provision. These costs will be in addition to ongoing data provision, record keeping and audit costs. Consequently Ergon Energy believes DNSPs should be compensated for the costs associated with providing the additional information requirements including audit fees.</li> <li>Has reservations that the audit function will 'ensure consistent treatment (of data) across service providers'. To ensure consist treatment of data across service providers it is necessary for the DNSPs and the AER to reach agreement on the appropriate data specifications and their precise definitions.</li> </ul>

<sup>9</sup> ENA, *Response to Australian Energy Market Commission Preliminary Findings*, February 2010, p. 7.

Requirement on the regulator to produce annual TFP index & calculation report	Ergon Energy Response
<p><i>Proposed Rule:</i></p> <p><i>The AER will be required to;</i></p> <ul style="list-style-type: none"> <li><i>Publish an annual TFP calculation and annual TFP report discussing its analysis on the aspects of the TFP specification/methodology. The AER can only make adjustments to the data provided by the service providers to: a) adjust for structural differences to improve the consistency of the data (for example, for different classifications of services); or b) to adjust certain years' data for certain service providers because of exceptional circumstances. Any adjustment of the data must be fully explained in the annual TFP report.</i></li> </ul>	<p>Ergon Energy:</p> <ul style="list-style-type: none"> <li>Agrees with the provision that the AER should produce an annual report discussing its work on measuring TFP growth and the development of the TFP specification.</li> <li>Is still however concerned about the potential for the AER to make adjustments to the data provided by DNSPs, which could adversely affect Ergon Energy's revenues and prices under a TFP approach.</li> <li>Considers (as previously stated)<sup>10</sup> that any discretion afforded to the AER needs to be: <ul style="list-style-type: none"> <li>Limited;</li> <li>Transparent;</li> <li>Carried out in consultation with the DNSPs; and</li> <li>Consistently applied through a clearly defined process. <ul style="list-style-type: none"> <li>This could include specific exclusions applicable in very limited circumstances.</li> </ul> </li> </ul> </li> <li>Believes that if a collaborative process is carried out between the AER and DNSPs upfront to ensure data specifications are clearly defined and interpreted consistently then the need for the AER to adjust data can be minimised.</li> </ul>

<sup>10</sup> Ergon Energy submission, October 2009, p. 2.



Use of the data to test TFP specification options	Ergon Energy Response
<p><i>Proposed Rule:</i></p> <p><i>The AER would be required to;</i></p> <ul style="list-style-type: none"> <li>• <i>use the data provided under the disclosure Rule to test for the appropriate specifications for calculating TFP, and the appropriate definition of the industry groups (to be included in the TFP report).</i></li> </ul>	<p>Ergon Energy:</p> <ul style="list-style-type: none"> <li>• Is concerned that the AER is being afforded the discretion to test a variety of specifications until an 'appropriate' specification that fits the AER's requirements is derived.</li> <li>• Believes once reliable, consistent data is collected a working group with industry representatives should be established to work together on the derivation of the appropriate TFP specifications.</li> </ul>

Conditions needed to be met before a TFP methodology could be applied	Ergon Energy Response
<p><i>Proposed Rule:</i></p> <p><i>The AER would be required to use the data provided and test for the conditions necessary to support the implementation of a TFP methodology and to inform stakeholders on its assessment in its annual TFP report. The conditions are;</i></p> <ol style="list-style-type: none"> <li>1) <i>The available data is robust and consistent and can produce a TFP growth rate consistent with the criteria specified for the TFP index calculation</i></li> </ol>	<p>Ergon Energy:</p> <ul style="list-style-type: none"> <li>• Agrees that the data set needs to be consistent over time and across service providers.</li> <li>• Agrees that if TFP data collection begins the data needs to be assessed as to whether it will be sufficiently robust and consistent to support rigorous TFP analysis to the standard needed to meet a TFP specification.</li> <li>• Disagrees with the AEMC's view that it may be appropriate for the AER to backcast data to earlier years, i.e. prior to the start of formal TFP data collection. Ergon Energy emphasises that significant work on reporting systems will need to be done to enable the collection of accurate data, and therefore disagrees with the use of historical data prior to the actual implementation of TFP data collection. In addition, as the data variables and their precise definitions have not yet been defined historical data is likely to be derived differently across service providers which will contribute to inconsistencies in information.</li> </ul>



Conditions needed to be met before a TFP methodology could be applied	Ergon Energy Response
<p>2) <i>That the TFP index growth is likely to be a reasonable estimate of future potential productivity growth of the industry group</i></p>	<p>Ergon Energy:</p> <ul style="list-style-type: none"> <li>• Agrees that it is essential for the TFP index growth to be a good estimate of future potential productivity growth.</li> <li>• However queries whether historical data will in fact be a reasonable representative of future potential productivity growth.</li> <li>• Would like to re-emphasise that climate change initiatives, development of smart grids and the 'wall of wire' effect will make future conditions less stable than historically and therefore are very likely to create unpredictable productivity growth.</li> <li>• Is concerned that the wording surrounding these rules is very general by nature, and therefore could be open to significant discretion. For example, the condition requires; that the TFP index growth is 'likely' to be a 'reasonable' estimate. Ergon Energy would like to see further detailed clarification on how the AER will measure whether or not these conditions have been met.</li> </ul>
<p>3) <i>Service providers within an industry group face comparable productivity growth prospects</i></p>	<p>Ergon Energy:</p> <ul style="list-style-type: none"> <li>• Agrees that this is a necessary condition that must be met prior to the application of any TFP methodology.</li> <li>• Believes however, that due to the very different environments many DNSPs operate in, this will be a condition that is very unlikely to be met. For example (as previously stated<sup>11</sup>), Ergon Energy's region covers more than one million square kilometres which is over six times the size of Victoria. Ergon Energy owns and operates a total line length of 146,339 kilometres with a customer density of 5.2 customers per kilometre of line (the lowest density of customers in the western world for 100,000 kilometres of line west of the Great Dividing Range). Differences like this, across service providers and even within a DNSP like Ergon Energy, may contribute significantly to the inability to make productivity comparisons across DNSPs.</li> </ul>

<sup>11</sup> Ergon Energy submission, February 2009, p. 3.

Principles for the design of a TFP methodology	
<p><i>Proposed Rule</i></p> <p><i>The specification for calculating the TFP growth rate &amp; forming a TFP methodology for price determinations must comply with the following conditions:</i></p> <ul style="list-style-type: none"> <li><i>• must use the index no. approach – econometric approaches are not permitted;</i></li> <li><i>• output quantities used in the calculation accurately reflect the services supplied;</i></li> <li><i>• capital users costs are set exogenously, are consistent with the service provider's regulatory asset base and are consistent with the property of financial capital maintenance (FCM) – this means that a regulated business is compensated for efficient expenditure and efficient investments such that its real financial capital is at least maintained in present value terms;</i></li> <li><i>• measures of capital input quantities accurately reflect industry production characteristics;</i></li> <li><i>• results in a reasonable stable index over time;</i></li> <li><i>• creates no systematic bias in the TFP growth estimate; and</i></li> <li><i>• is consistent with promoting economic efficiency &amp; does not result in any perverse incentives.</i></li> </ul>	<p>Ergon Energy generally agrees with the AEMC's principles for the design of a TFP methodology, however as previously discussed considers it is too soon to adopt these changes in the Rules.</p>