

26 February 2010

Dr John Tamblyn  
Chair  
Australian Energy Market Commission  
PO Box A2449  
Sydney South NSW 1235



Dear Dr Tamblyn

**Response to AEMC's Preliminary Findings – Review into the Use of Total Factor Productivity for the Determination of Prices and Revenues**

ENERGEX welcomes the opportunity to comment on the Australian Energy Market Commission's (AEMC) preliminary findings on the review into the use of total factor productivity (TFP) for the determination of prices and revenues.

As articulated in our previous submissions, ENERGEX does not support the introduction of TFP as an alternative form of regulation. ENERGEX does not consider that TFP would contribute to the promotion of the National Electricity Objective (NEO)/National Gas Objective (NGO) and the Revenue and Pricing Principles.

ENERGEX has significant concerns regarding some of the key findings in particular the relative efficiency properties of TFP compared with building block regulation. The rationale provided by the AEMC in reaching its conclusions appears to be largely theoretical and unsubstantiated at this time. However, ENERGEX welcomes the AEMC's acknowledgement that the necessary data to support the application of TFP regulation is not currently available and agrees with the proposed requirement of a minimum of eight years data.

ENERGEX considers that there needs to be a significant efficiency-based point of difference between the two methodologies to justify the TFP methodology being incorporated in the National Electricity Rules (NER)/National Gas Rules (NGR) as an alternative form of regulation. Based on these preliminary findings and the supporting rationale, ENERGEX believes that the purported benefits of enhanced performance incentives under TFP are indeterminate. The costs associated with the introduction of TFP, that is the cost of data collection and operating two forms of regulation will accrue upfront with no certainty as to the benefits of improving the regulatory framework and outcomes. ENERGEX questions whether this is in the interests of consumers.

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The AEMC's intention to proceed to stage two of the review and draft rules for the inclusion of TFP as an alternative form of regulation is premature at this time. ENERGEX is not satisfied that TFP regulation would deliver stronger efficiency properties and incentives or that net benefits would be realised by consumers in the longer term.

There are outstanding issues that would need to be resolved prior to the drafting of rules, such as:

- establishing whether the pre-conditions for TFP exist, and
- the development of a TFP specification and methodology (having regard for the availability of data and its cost) to form a better understanding of the relative incentives.

Given that it will take eight years to obtain a robust and credible dataset, the AEMC should defer any commencement of stage two. The development of rules prior to establishing whether the pre-conditions for TFP regulation exist may be inefficient, as inevitably any draft rules would need to be significantly revised before coming into effect. If the purpose of drafting rules is a means to obtain the TFP data, ENERGEX proposes that the AEMC investigate the current scope of information-gathering provisions to assess its adequacy for TFP.

Deferral of stage two would allow rules to be better informed, as uncertainties around the future productivity of network businesses and TFP regulation are resolved. Furthermore, deferral would allow the consideration of TFP regulation to be informed by Ofgem's current regulatory review. ENERGEX notes that the Ofgem review does not support shifting to a TFP approach.

The attachment addresses the findings regarding:

- the efficiency properties under TFP and the resulting service provider behaviour under TFP regulation (chapters 2-4), and
- the practical considerations of implementing TFP regulation (chapters 5-7).

Please do not hesitate to contact Leigh Henderson, Network Economist on 07 3407 4439 should you wish to discuss our comments further.

Yours sincerely



Michael Ryan  
Acting Group Manager, Regulatory Affairs

*Attachment*

## ***ENERGEX Comments on the Efficiency Properties under TFP and Practical Considerations***

### ***The Efficiency Properties under TFP Regulation***

The discussion on relative efficiency properties and incentives is largely hypothetical in the absence of a TFP methodology and specification. The TFP specification and design will determine the relative efficiency properties and incentives placed on service providers. The report acknowledges that the actual strength of incentives would depend on the design combination of various factors<sup>1</sup>.

The preliminary findings state that the strength of the incentives would depend on the length of the regulatory period and the application of any efficiency carryover mechanism (ECM)<sup>2</sup>. ENERGEX considers the strength of incentives due to the length of the regulatory period to be comparable under either approach, as service providers will be able to nominate the period under TFP as is currently the case under the building block approach. If the regulatory periods for a TFP methodology and the building block approach are the same and revenue/prices are reset regularly then the incentive properties of the two approaches are likely to be the same. ENERGEX notes that service providers have rarely sought regulatory periods greater than the minimum five year term. The preliminary findings report recognises that an ECM can not be adapted for TFP which could weaken the efficiency incentive for recurring operating expenditure<sup>3</sup>.

Moreover, the inclusion of a range of safeguard mechanisms such as the ramp offs and the capital module will weaken efficiency incentives. Service providers are unlikely to opt to be regulated by TFP unless there are sufficient safeguards in place allowing service providers with a reasonable opportunity to recover at least efficient costs. While a pure TFP approach could deliver some efficiency benefits, such an approach would not be feasible given the level of uncertainty service providers would face in recovering capital investment.

The preliminary finding that a TFP methodology creates stronger incentives for service providers to pursue cost efficiencies than the building block approach relies heavily on the information asymmetry. ENERGEX believes the issue of information asymmetry is overstated. The new national energy framework and the AER's strong information-gathering legislative powers mitigate this concern. The Australian Energy Regulator (AER) has access to cost information for a range of electricity distribution and transmission businesses, which allows it to compare costs across similar businesses. The AER has strong legislated powers to obtain information to undertake its functions through Regulatory Information Orders and Regulatory Information Notices.

ENERGEX concurs with the Australian Pipeline Industry Association's view that the ability of service providers to recover efficient costs would be questionable given the significant pre-conditions for TFP, namely that:

- the initial cap is set to recover efficient level of costs, and
- the historical TFP growth rate is representative of the future TFP growth rate.

The initial cap to recover efficient level of costs will be set under a building block approach and therefore will be based on business specific forecast costs and will be subject to the same assumed information asymmetry issues (although potentially to a

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<sup>1</sup> AEMC's Preliminary Findings p33

<sup>2</sup> AEMC's Preliminary Findings p11

<sup>3</sup> AEMC's Preliminary Findings p24

lesser extent as the forecasts will be for one year as compared with forecasts for the entire regulatory period). The determination of the  $P_0$  level will be absolutely critical to service providers in securing a reasonable rate of return and recovery of efficient costs. Failure to set the  $P_0$  level at an adequate level, regardless of the application of appropriate X factors will have far reaching, adverse impacts for service providers. Given the importance of  $P_0$ , ENERGEX considers that there should be some discussion on how productivity is implicitly factored into the setting of  $P_0$  and how this relates to the X factor. The incentives placed on service providers under a TFP methodology will be as a result of both  $P_0$  and X factor.

The assumption regarding the stability of the TFP growth rates has not been tested and validated. The challenges of responding to climate change are likely to have a profound impact on network businesses. ENERGEX questions the stability of future TFP growth rates considering the potential future take-up of smart meters, embedded generation and demand management initiatives. To provide greater clarity as to whether the pre-conditions exist and the revenue and pricing principles are met, a costly, comprehensive, empirical analysis would need to be undertaken for which the benefits are not readily evident.

If this review determines that there are grounds for the introduction of TFP regulation, ENERGEX strongly supports that this is on an optional basis only. ENERGEX agrees that the ability of service providers to revert to the building block approach should be constrained to limit gaming. ENERGEX believes there could be scope for gaming under a TFP methodology; for instance, a service provider could deliberately allow a deterioration of its productivity levels towards the end of the regulatory period in seeking to obtain a favourable  $P_0$  outcome for the next regulatory period. Consideration needs to be given to the relationship and/or interaction between  $P_0$  and the X factor and potential to game under TFP regulation.

According to the preliminary findings higher returns will be achieved by service providers that invest and improve operating practices which deliver continuing productivity improvements. The issue of convergence, where inefficient firms may achieve productivity improvements such that these firms converge on the industry average or better still the efficiency frontier, is not considered in the context of incentives. In cases where firms achieve convergence, incentives become relatively weaker.

In summary, while ENERGEX appreciates the difficulty in assessing the efficiency merits of TFP and building block regulation, the discussion is entirely qualitative with no estimation or sense of the magnitude of the enhanced incentives and ultimately the extent to which consumers may benefit in the long term. ENERGEX does not accept the view, that timing differences of when prices are adjusted for savings are substantially different under the two approaches. Furthermore, ENERGEX believes that the issue of information asymmetry is given too much weight, noting the significant improvements that have been made under building blocks. As such ENERGEX is of the view that there is no significant efficiency-based point of difference.

### ***Practical Considerations***

The AEMC's preliminary findings have taken into account concerns expressed by stakeholders regarding the availability of data to support the implementation of TFP. ENERGEX supports this finding and the proposed requirement of a minimum of eight years of data. While the preliminary findings present an extensive list of potential data requirements (appendix E), the report offers no clarity as to likely data requirements. ENERGEX has previously advised there is likely to be considerable additional cost incurred by business for the collation and provision of TFP data as system changes will

be required. As quality data is critical to the derivation of accurate TFP growth rates, ENERGEX understands that audited data is likely to be required. This would be a further cost imposed on businesses that would be required to engage various auditors to validate financial, economic and engineering data.

In addition, the AER is likely to incur additional costs of having to concurrently operate two forms of regulation. Notably the AER suggested that the regulatory period under TFP should be at least seven years to increase the incentives and reduce the regulatory costs. These costs will be incurred upfront despite the possibility that no service provider may seek to be regulated by TFP.

There is no evidence to suggest that there will be fewer reviews and appeals under a TFP approach. New regulatory approaches are likely to coincide with increased challenges as service providers test the interpretation/effectiveness of the rules and the scope of regulator's discretions. To some extent, the TFP design features will influence the types and likelihood of reviews/appeals. For instance, allowing the regulator to make business specific adjustments to the X factor may result in service providers' challenges. In any case, service providers will apply great scrutiny to  $P_0$  determinations, given that  $P_0$  underpins revenue/price outcomes for the regulatory period.

While proponents of TFP regulation advocate the increased transparency and reduced regulatory burden, a TFP approach is likely to be complex in practice. The level of complexity depends on TFP design including the number of safeguards, the extent of discretion by service providers and the regulator, the existence of a homogeneous cohort, the TFP index calculation and the estimation of the other X factor variables (for example industry input prices).