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Australian Energy Market Commission
Level 5, 201 Elizabeth Street
SYDNEY NSW 2000

Submitted online

Review into the Use of Total Factor Productivity for the Determination of Prices and Revenues

APIA welcomes the opportunity to provide comments on the Preliminary Findings Paper (the Paper) of the Australian Energy Market Commission's (AEMC) Review into the Use of Total Factor Productivity (TFP) for the Determination of Prices and Revenues.

APIA agrees with the AEMC's assessment that a TFP approach for transmission assets is likely to be unfeasible. As APIA has stated in previous submissions, every pipeline in Australia is sufficiently unique that there is little merit in applying a benchmark to them. However, the AEMC's detailed assessment on page 80 leaves the question of TFP's applicability to transmission assets open and proposes the need for improved reporting for gas transmission in the same way as other sectors to better assess whether TFP is applicable.

APIA considers that no further information needs to be collected to arrive at the conclusion that a TFP approach would not be useful or beneficial in the regulation of gas transmission.

APIA wishes to support the efforts of the AEMC in investigating ways to streamline regulatory processes and reduce levels of contention and concerns about information asymmetry. We will provide some brief comments in response to the Brattle Group report and the AEMC's invitation to comment on alternatives to TFP and the current approach to building blocks in a submission by Monday 8 March.

If you wish to discuss further please contact me on (02) 6273 0577.

Yours sincerely

STEVE DAVIES
Policy Adviser

Introduction

The Australian Pipeline Industry Association (APIA) welcomes the opportunity to make a submission to the Australian Energy Market Commission's (AEMC) 17 December 2009 Preliminary Findings Paper (the Paper) relating to the Review into the Use of Total Factor Productivity (TFP) for the Determination of Prices and Revenues - project reference number 'EMO0006'.

APIA is the peak national body representing the interests of Australia's transmission pipeline sector. APIA's membership is predominantly involved in high-pressure gas transmission.

APIA is recognises the necessary role of regulation where gas transmission pipelines exercise substantial market power. APIA is keen to promote regulatory processes that are proportionate to the need and which are as simple and as effective as possible with a minimum of contention between the stakeholders and the regulator.

Suitability of the application of TFP to gas transmission

The AEMC's summary of findings[1] in respect of the applicability of TFP based regulation.:

"The material difficulties in constructing accurate productivity measures for transmission and the profile of capital expenditure, plus the more limited number of service providers, means that a TFP approach may not be feasible."

This is in line with APIA's view on the application of TFP to gas transmission pipelines.

In the detailed analysis[2] the Paper says

"A TFP methodology would be <u>less likely</u> to be appropriate for the electricity and transmission sectors because: …… However for reasons set out in chapter 5, improved reporting requirements should be applied to all energy sectors."

[1] TFP Review Preliminary Findings Paper, AEMC,17 December 2009, page x
[2] TFP Review Preliminary Findings Paper, AEMC,17 December 2009, page 80, 81

It appears that while the Commission is inclined to consider that it is not feasible to apply TFP to gas transmission, it needs further evidence to reach a final conclusion.

APIA's view is that there is more than sufficient evidence that the TFP is not feasible for gas transmission pipelines, and that no further information needs to be collected for the Commission to settle this point.

Of the matters identified by the Commission as affecting the feasibility of the use of TFP for transmission assets, lumpy capital, is the most relevant. Significant common ownership and small number of service providers also has some lower order impact. APIA considers the most significant reason why TFP is not applicable to gas transmission pipelines in Australia is that they are not comparable to each other for numerous reasons, including:

1. **They have markedly different histories, ages and applied technologies.** The costs associated with running a pipeline are dependent on numerous factors, and the costs associated with two pipelines of different age, using different coatings, or that were privatised at different times cannot be compared.

   Key examples are wall thickness and coatings. Newer pipelines have smaller wall thickness because they utilise higher strength steels. Pipeline coatings have developed significantly, reducing the potential for deterioration and associated reduction in cots of coating and pipeline defect repair, reduced costs of cathodic protection and reduced likelihood of other impacts on pipelines such as stress corrosion cracking.

   The result of these changes is a significant differences in capital and operating costs and differences in productivity that cannot be changed by introducing either new technology or new processes and systems. That is, opportunities for OPEX efficiency and therefore productivity improvement are limited and pipeline specific.

2. **Each regulated pipeline serves a unique market.** No two regulated pipelines serve the same market. Each have different (sometimes widely varying) load characteristics leading to differing usage of infrastructure. Productivity for pipelines serving mining regions such as Mount Isa (Carpentaria Gas Pipeline) looks quite different to that for a large integrated market such as Sydney where two pipelines deliver proportion of the gas from different sources.

3. **The different operating pressures and diameters of each pipeline produce scaling effects that void comparison.** Older pipelines are designed to operate at between 6,200 and 7,000 kPa. Pipeline design pressures have progressively increased to where pressures of up to 15,000 kPa have been adopted. This means that the capacity of the recent pipelines is more than twice that of those with the same diameter.

4. **Each pipeline has a unique configuration of key factors effecting operation that go to what is productivity for a particular pipeline:**
    - The amount of capacity supplied by looping and compression.
    - Whether it is point-to-point, one way flow, dendritic or bidirectional flow and the number of delivery and receipt points.
    - Whether it is a pressure control or flow control pipeline and the storage capacity of the pipeline and the linepack services it offers. Pressure controlled pipelines inherently have greater capacity to provide storage, which must be factored into productivity, and this cannot be compared to flow control pipelines.

5. **The different geographies and topographies that pipelines pass through require different operating environments.** Pipelines in a sparsely populated desert and rural setting, are heavily impacted in respect of operating costs (and to a lesser degree capital costs) than pipelines in more developed, urban setting.

For a TFP approach to be workable businesses being compared must ideally be generic or at least materially similar, or in the alternatively it must be possible to normalise for the differences. This is not possible in the Australian setting for at leats two reasons:

- the very small sample set of regulated gas transmission pipelines, making statistically valid normalisation impossible; and
- The fundamental different expressions of productivity for which it is not possible to normalise.

This qualitative analysis should provide sufficient evidence that a TFP based approach is not, and will not be, feasible for gas transmission assets.

Need to establish a new data set

Given the conclusions about the feasibility about the use of TFP in relation to gas transmission any further information gathering or review process beyond the current phase of the TFP review would be wasteful.

APIA has concerns with the rationale for introducing new information gathering rules and sees these as problematic and may not reflect either the AEMC's To R for this review nor the existing powers of the AER and their current exercise of them

Validity of the recommendation relating to transmission

It is well understood that the introduction of a TFP approach to energy regulation in Australia would have implications for regulatory data collection. However, APIA considers that statements in the Paper are stepping outside the Terms of Reference (ToR) for this Review. From page xi:

*"This Review has **highlighted the inadequate nature of the current regulatory reporting requirements. This is a problem for market efficiency and cost reflective regulation irrespective of whether a TFP methodology is applied**. Establishing well targeted and consistent regulatory data reporting requirements will not only facilitate the possible introduction of a TFP methodology but would also support the more effective application of the building block approach in the event that a TFP methodology is not applied."*

and

"There will be additional benefits from establishing a consistent and appropriate targeted regulatory data-set. It would improve transparency and stakeholders' understanding of the performance and efficiency of service providers. It would also increase the regulator's ability to apply other innovative methods to the price determination process (for example, the use of benchmarking). The regulatory price determination process should also improve as the regulator would need less information provided at every five year reset. Hence, better regulatory reporting requirements are needed not just for distribution but also for transmission."

The ToR for the Review clearly states the objectives as being:

"• the circumstances in which an application of a TFP based price setting methodology would contribute to the NEL and NGL objectives;
• the arrangements including information, reporting and data requirements that need to be put in place to facilitate its application; and
• as appropriate, the development of proposed rules to support the applications of a TFP based form of control for any individual or group of electricity or gas distribution or transmission service providers."

It is outside the ToR for this Review to make recommendations on the need for better regulatory data-sets other than as they relate to the application of a TFP approach.

Page 59 of the Paper states:

"That is, even if a TFP methodology is not ultimately included in the NER or NGR or, if the methodology is not selected by service providers, or if it is not used for the transmission sectors, the collection of relevant, robust data using consistent definitions is an important part of cost effective economic regulation. Reliable and useful data will go some way to address the information asymmetry problem that regulators face under the building block approach."

It must be noted that the AER has specific and strong powers to gather information that it considers is necessary, including information that would be used for estimating TFP. If the AEMC is forming the view that the AER should be exercising those powers this Review is not the appropriate vehicle to address that matter. While it may be legitimate for this Review to address the perceived information asymmetry and its impact on the building block approach in determining the

benefits of a TFP approach, it is not legitimate for the Commission to use this Review to recommend amending the Rules in respect of the current building blocks methodology.

The proposal is quite concerning as the AER already has the power to collect information for pipelines through regulatory information instruments and does not need any additional powers through changes to either the NGL or NGR to obtain the required information in relation for TFP. Moreover, the AER is already empowered to use TFP as a methodology for assessing the efficiency of costs. The AER's Access Arrangement Guideline sets out the information it requires service providers to include with Access Arrangement proposals and has issued regulatory information orders (RIN) for its first access arrangements. The information which is required is a superset of the information required to estimate TFP. It is hard to contemplate what additional powers would be necessary.

In APIA's view the issue of information asymmetry is in fact substantially overstated, and will address this issue in a brief submission in response to the Brattle Report.

Imposition of a new data-set

The AEMC states on page xii:

"We are not proposing that more regulatory data be collected nor do we anticipate that the reporting requirements would become onerous. Rather, we consider that there should be a collection of a standardised, relevant and robust regulatory data-set which is consistent with best practice regulation."

If the proposal does not require more regulatory data be collected, does the AEMC believe that existing data is sufficient, but perhaps could be better organised or presented?

Those items listed in Appendix E for gas transmission pipelines are already provided for Access Arrangement determinations.

In any event given the evidence that TFP is not workable for gas transmission any further focus on information gathering for this purpose is unwarranted.

Alternatives to TFP

APIA is keen to explore options for improving the building blocks approach or developing alternatives to it other than TFP with the AEMC.

APIA appreciates that the AEMC has commissioned the Brattle Group to outline some alternatives to TFP, but considers there is a fundamental question in typical regulatory approach that could be reviewed. Current regulatory practice, by any method, is to determine an efficient level of costs and then determine an appropriate tariff.

Given that most energy infrastructure, and particularly gas transmission infrastructure, is capital intensive and the operating expenditure represents under 25% of the total costs, APIA believes that a considerable level of effort and resources is being allocated to determine the hypothetical 'efficient costs', a level that is not warranted given the impact it will have on the final tariff determination when compared to capital costs.

APIA considers this is especially valid for gas transmission infrastructure, whereby the service users are almost exclusively large, sophisticated entities that are capable of protecting their own interests and ensuring a reasonable tariff is charged. The fact that such a large number of gas transmission pipelines are unregulated is evidence that the market is comfortable this is true. The tariffs achieved by these entities serve as a benchmark for smaller customers that may not be in such a position.

APIA has no particular view as to an appropriate alternative at this time, but would welcome further discussions.

APIA will provide an expanded position to the AEMC by 8 March 2010.