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5 August 2009

Dr John Tamblyn
Chairman
Australian Energy Market Commission
PO Box A2449
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John
Dear ~~Dr Tamblyn~~,

Total Factor Productivity Review – Consultants' Reports

The Victorian Department of Primary Industries welcomes the opportunity to respond to three consultants' reports commissioned by the AEMC in its review of the potential for TFP based regulation of network businesses.

This submission provides DPI's response to reports from the Brattle Group and Insight Economics considering the adequacy of current regulatory data to support a TFP approach, a sensitivity analysis of different TFP methodologies, and incentive strength on businesses under the Victorian TFP proposal.

DPI's submission outlines its concerns that the advice sought has not adequately assessed and, in some cases, has not understood the case put forward by Victoria in favour of adoption of TFP.

DPI endorses the second supplementary submission made by the ESC on these consultant reports. The ESC is in a unique position to provide input on the potential application of TFP in the Australian energy market context, and DPI shares its concerns that this input has not been taken into account by the consultants.

DPI is nevertheless supportive of the AEMC conducting the review into the use of total factor productivity in pricing determinations. I hope AEMC finds this submission useful in its deliberations. For further information please contact Raif Sarcich (03 9658 4160) or Bron Cuthbertson (03 9658 4386).

Yours sincerely

Marianne Lourey
Executive Director
Energy Sector Development

AEMC Review of Total Factor Productivity

Victorian Department of Primary Industries

Submission in response to consultants' reports

7 August 2009

1 Introduction

This submission is made by the Victorian Department of Primary Industries (DPI) in re-sponse to three consultants' reports commissioned by the AEMC in its review of the potential for TFP based regulation of network businesses.

In May 2008, DPI made a submission to the AEMC proposing a series of Rule changes to Chapter 6 of the National Electricity Rules (NER) to permit what has become known as the TFP approach to be used to set the price controls for 'standard control' regulated business services (the Victorian TFP (VTFP) proposal). As well as enabling the use of the TFP approach, the Rule changes proposed also set out the appropriate direction and guidance to the AER when applying the TFP approach.

The AEMC responded to stakeholder calls for a wider consideration of the issues and initiated a review prior to making any decision to allow the TFP approach to be incorporated into the NER. In the process of this review, the AEMC has sought advice from Economic Insights and the Brattle Group consultants on:

- The adequacy of current regulatory data to support a TFP approach;
- A sensitivity analysis of different TFP methodologies; and
- Incentive strength on businesses under the Victorian TFP proposal.

DPI is concerned that the advice sought has not adequately assessed and, in some cases, has not understood the case put forward by Victoria in favour of adoption of TFP.

DPI further notes and endorses the second supplementary submission made by the ESC on these consultant reports (Essential Services Commission 2009). The ESC is in a unique position to provide input on the potential application of TFP in the Australian energy market context, and DPI shares its concerns that this input has not been taken into account by the consultants.

It is not DPI's intention to comment in detail on the findings of the consultants, and this submission will restrict itself to providing policy context and justification for, and clarification of, the Victorian TFP approach and other alternative approaches to TFP based regulation.

2 Economic Insights – Assessment of data

DPI notes Economic Insights' assessment that the quality of data available to regulators is currently best in the electricity distribution sector, and worst in the gas transmission sector, with data quality in the gas distribution and electricity transmission sectors falling between these extremes (Economic Insights 2009, p. v). This seems a fair assessment. It is for this reason that DPI concentrated on putting forward an option for TFP-based regulation first in the electricity distribution sector.

This brings into focus the general approach of the Victorian government and ESCV which is to support evolution with a view to improving the regulatory framework and associated outcomes for the community in the long term. All the regulated monopoly energy sectors have evolved (and will continue to evolve) from varying states of opacity and informational imperfection.

Had the quality of information available at the beginning of price regulation in Victoria (soon after the disaggregation and privatisation of the State Electricity Corporation) been considered inadequate for a building blocks based system of regulation, no progress would have been made in either the regulatory framework or information gathering. It was the disaggregation of the utility which made this progress possible. Arguably, the data available at the time *was* inadequate, but the decision to progress was made with the aim of pursuing the long term interest of consumers in establishing a system of regulation for the network businesses.

DPI contends that the issue of data quality in a TFP scenario is of no greater material importance than under a building blocks approach. Two decisions are made in a price review, (i) the level of the starting prices, and (ii) the rate of change. The first decision is the most significant and the hardest – it is where difficult issues of cost allocation and related party arrangements come into play. The second issue is less significant in terms of its impact on prices and in terms of the robustness of data required. The TFP approach is only about the rate of change decision – it can tolerate data that is not faultless. Indeed, the Victorian proposal – which is to ensure that there is a cost-based review after a TFP-price cap – was designed to cope with the potential for the TFP data not to be perfect initially. That is, the effects of an imprecise TFP estimate are only felt for a short period of time. The need for a decision about the starting level of prices is common to both the building block and TFP approaches. If the standards of data quality that Economic Insights imply are necessary were applied, regulatory progress would never have been made.

Moreover, recent evidence suggests that determinations made under the building block approach, where the rate of change in prices is determined by looking at firm-specific forecasts of operating and capital expenditure, have been not been without fault.

It is in this context that DPI would like to situate the criticisms of currently available regulatory data made by Economic Insights (Economic Insights 2009, p. v). Whilst DPI appreciates that data quality may be found wanting, and even so far as to preclude a TFP approach from being applied at a given price review, this is not a sufficient argument to prevent a TFP approach being instituted in the energy Rules, and the institution of such an approach may give the impetus needed to improve regulatory information to the point where it may be applied.

Indeed, it is worth revisiting the conclusions and recommendations of the Expert Panel review in 2006 with respect to TFP which noted that *"a significant proportion of a typical process for determining price controls in the Australian energy sector is currently pre-occupied with determining reasonable estimates of cost and demand forecasts"* (Expert Panel 2006, p. 100). This has consequent implications for regulatory burden and the likelihood of appeals over regulatory decisions with respect to these forecasts, illustrating the extant informational problems associated with the building blocks approach. The Expert Panel stated that an adequate data set was a necessary prerequisite to the implementation of a TFP approach, but nevertheless that the approach should be pursued. The Expert Panel's recommendation was that TFP *"should be facilitated by the legal and regulatory framework, but not mandated"* (Expert Panel 2006, pp. 105-108), through providing for the approach to be implemented in the Law, and for the AEMC to develop the Rules which implement this. The VTFP proposal was intended to initiate this process of rule-making, consistently with the Expert Panel's findings, in a way which was facilitative but not mandatory.

DPI further notes that Economic Insights concludes that:

1. comparability between data from different jurisdictions is, in general, low; and

2. adoption of a TFP based approach predicated on the data and specification of the ESC may "lock in" the Victorian TFP specification and preclude improvement of the specification or its use outside Victoria (Economic Insights 2009, p. vi).

DPI regards this criticism as misconceived. As the ESC notes in its supplementary submission, the data collected thus far by the ESC is sufficient to support a TFP approach based on the specification developed by Pacific Economics Group (PEG) in conjunction with the ESC, and suited to application in at least one jurisdiction with the possibility of rolling in data from other businesses over time.

DPI also argues that much of the data that Economic Insights suggest as necessary, for example measures of physical capital inputs, are actually redundant in most methods used for determining TFP. Moreover, the measure of output proposed by Economic Insights reflects its own conceptual view of the services that a network provides. DPI believes that, as TFP is being used as a determinant of a price cap, Economic Insights' view of what data is necessary is overstated for the purpose.

There is no reason why adoption of the PEG specification should preclude the use of alternate TFP specifications in time, if there is a strong case found for such a specification and data can be collected. Regulatory evolution can happen wherever there is a strong case for its benefits, and this is a key rationale for the rule-making role of the AEMC.

3 Economic Insights - Sensitivity Analysis

Economic Insights suggest that TFP analyses of Australia's distribution system will be relatively sensitive to the differences in chosen input and output specifications. DPI considers this point to be well made.

DPI is of the view that the Australian Energy Regulator will be best placed to determine the right specifications for the TFP analysis and that, whilst the issue of choosing specification is important, it is not insurmountably difficult, as the ESC's work to date demonstrates.

4 Brattle Group - Incentives

DPI notes the Brattle Group's analysis suggesting that retaining periodic revenue resets means that there is a lack of connection between cost control efforts in one period and prices in the next (Brattle report, p iii).

The decision to limit the use of TFP to the setting of the X-factor whilst preserving the P_0 periodic review in Victoria's original proposal (VTFP) was considered and deliberate. The proposal was designed to allow a rate of change in prices to be determined that does not require an assessment of the businesses' own forecasts of operational and capital expenditure, and instead focuses on measurable information. By reducing this information asymmetry problem with respect to the rate of change in prices, the intention was that regulators would be confident enough to determine longer regulatory periods and thus create better incentives for efficiency.

The issue that the Brattle Group considers in its report – that the retention of revenue resets would result in out turn costs still being used in the determination of the prices for the next period, is therefore not part of the proposal, which was to address the rate of change element of the equation.

In addition, the VTFP approach provided for the retention of a modified Efficiency Benefits Sharing Scheme to moderate the loss of incentive to act efficiently in the late years of a regulatory period.

Over time, extension of the length of the regulatory period and adoption of a 'rolling' X calculation would improve the sharing of efficiency benefits between businesses and their customers. Further evolution in the Rules could modify the nature and timing of the periodic reviews, together with providing for longer or even indefinite regulatory periods.

DPI advances the same argument in relation to the Brattle Group's contention that the voluntary nature of the proposal would weaken its efficacy.

Brattle suggests that only those businesses that are outperforming the industry norm will 'opt-in', whilst those for whom the building blocks approach affords greater profits will remain in the current scheme, thus creating a 'win-lose' outcome for businesses and consumers (Brattle report, p iv).

Allowing businesses to opt in to the scheme will, in the short term, favour those businesses whose performance exceeds the industry trend. However, DPI stresses once again that the intent of the proposal is to offer a pathway for evolution of the regulatory regime to one that encourages real efficiencies. At a time when the regulatory approach is suitably mature, the determination on whether to apply TFP or building blocks may appropriately be shifted to the regulator.

DPI also challenges the Brattle Group's assertion that the voluntary nature of the scheme will make it easy for businesses to 'opt out' of TFP pricing to maximise short term financial gains.

Victoria's proposal made it quite clear that this would not be the case. Whilst a mechanism for reversion to the building blocks regime is necessary to provide for serious exogenous impacts on businesses, the ability to 'switch' between approaches would be strongly policed, and a rigorous test be implemented (VTFP proposal, p. 21).

> "...if the TFP approach was applied, then it is important that distributors not be free to switch from the TFP approach to the building block approach and back again without constraint. Otherwise the distributors may be encouraged to seek a change to the regulatory regime where that would deliver a short term financial benefit, potentially providing windfall returns but also increasing the administrative costs of the regime. Having said that, if the conditions underpinning the original justification

for the TFP approach no longer hold, then the capacity for the AER to permit a reversion to the building block approach clearly should exist." (VTFP proposal, p. 21)

The reasoning for the reversion mechanism proposed by the VTFP is analogous to that for the use of 'off ramps' and other pricing path amendments used in a full TFP pricing scenario, as noted by the Expert Panel (2006, pp. 100-101).

The Brattle report also notes that a pure TFP approach would impair businesses' access to capital. DPI feels that this is based on first principles approach without regard to real world experiences. However, DPI notes that the VTFP proposal does not advocate a pure TFP approach. Instead, the proposal provides regulators with the means of setting the rate of change in prices between review that is less exposed to information asymmetry issues, and in turn provides the confidence to set long regulatory periods.

The VTFP proposed changes accord with the NEL revenue and pricing principles in that they allow a reasonable opportunity to recover at least the efficient costs the operator incurs in providing direct control services. Under a full TFP approach, there may be periods where, due to industry downturn or exogenous factors, a profit may not be achievable. As previously noted, other jurisdictions have taken a range of approaches to managing the risks that TFP poses to under-performing businesses, whether this is for endogenous or exogenous reasons. These approaches should be examined in concert with further development of a maturing TFP regime.

The partial TFP approach advocated by DPI is an evolutionary step on the path to better pricing regulation for the energy sector. It will give impetus to develop and refine specifications and collect data, allow business the opportunity to become more efficient and allow the AER to gain knowledge through the application of a new approach.

Menu approach proposal

The Brattle report has proposed an alternative building blocks 'menu' approach, where the regulator would offer a choice of high or low prices depending on their forecast costs, with a reward for electing low prices and keeping costs lower.

DPI considers the report's description of the menu concept to be confusing, in particular with regard to the 'reward from the regulator' that is suggested as an incentive for businesses to elect the low price regime (Brattle report appendix 1). The precise nature of the reward is unclear, as are the administrative implications.

A further concern is that the menu approach would be inconsistent with the NEL pricing principles to the extent that the regulator offered a 'low' tariff option that is inadequate to provide a reasonable return on the firm's investment, whilst the 'high' tariff option all but eliminated the incentive to gain efficiencies. On the other hand, setting the 'low' tariff option to provide a reasonable return may make the 'high' tariff option an unintended regulatory gift, to the extent that a distributor is still able to use information asymmetries to forecast an investment 'bow-wave' in the following period.

In any case; for the approach to work the regulator would need to have the information to set the 'high' and 'low' tariff scenarios at a level which will force a regulated business to show its hand in regards to its own cost assessment. This is at odds with its objective to rectify the information imbalance which makes these kinds of judgements difficult.

With some regulated businesses approaching the conditions identified by the Expert Panel as necessary for the application of TFP, the necessity of the 'menu' approach, versus moving toward known and measurable industry productivity data as a benchmark, is questionable. Furthermore, it does not appear to be relevant to the review at hand, which is to investigate the implementation of a non-mandatory TFP approach consistent with the provisions of the NEL. Its merits appear to lie in situations markedly different from those in which TFP is intended to apply, such as where there is no 'steady state' and the historic cost profile of the regulated business has not been subjected to a long period of productivity measurement. DPI suggests that the TFP review is not the appropriate forum to assess this approach and that the AEMC should concentrate on the merits of TFP itself.

References

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