

## Australian Energy Market Commission

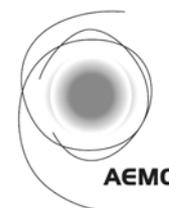
### Workshop

### Review into the use of total factor productivity for the determination of prices and revenues

Monday, 28 September 2009 & Friday, 2 October 2009  
Rydges World Square, Sydney

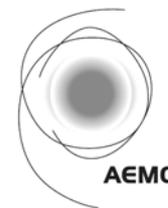
### Agenda for electricity sector workshop on 28 September 2009

10:15 am	Presentation on status of the TFP Review and role of the TFP design discussion paper Anne Pearson, Senior Director, AEMC
10:25 am	Presentation on key issues from the TFP design discussion paper Meredith Mayes, Senior Advisor, AEMC
10:45 am	Discussion session 1: <ul style="list-style-type: none"> <li>• How to apply a TFP methodology, including the role for the AER?</li> <li>• How should the industry be defined to calculate the TFP index?</li> <li>• What methodology to use to determine P0?</li> </ul> All attendees
12:15 pm	Lunch
12:45 pm	Presentation on sunk costs, asset valuation and productivity based regulation Dr Denis Lawrence, Economic Insights
1:05 pm	Q&A on sunk costs, asset valuation and productivity based regulation All attendees
1:20 pm	Discussion session 2: <ul style="list-style-type: none"> <li>• How should TFP index be calculated?</li> <li>• What terms should comprise the price path?</li> <li>• What should be the degree of flexibility in the TFP design?</li> </ul> All attendees
2.50 pm	Afternoon tea
3:00 pm	Presentation on the approach to assess TFP Eamonn Corrigan, Director, AEMC
3:20 pm	Open discussion on merits of a TFP approach and any other relevant matters All attendees



## Agenda for gas sector workshop on 2 October 2009

10:15 am	Presentation on status of the TFP Review and role of the TFP design discussion paper Anne Pearson, Senior Director, AEMC
10:25 am	Presentation on key issues from the TFP design discussion paper Meredith Mayes, Senior Advisor, AEMC
10:45 am	Discussion session 1: <ul style="list-style-type: none"> <li>• How to apply a TFP methodology, including the role for the AER</li> <li>• How should the industry be defined to calculate the TFP index</li> </ul> All attendees
11:45 am	Presentation and discussion session on what methodology to use to determine $P_0$ Meredith Mayes, Senior Advisor, AEMC All attendees
12:15 pm	Lunch
12:45 pm	Comments on the TFP design discussion paper from Dr. Larry Kaufmann, Pacific Economics Group Research (pre-recorded)
1.00 pm	Presentation on sunk costs, asset valuation and productivity based regulation Dr Denis Lawrence, Economic Insights
1:30 pm	Open discussion on how the TFP index should be calculated All attendees
2:00 pm	Discussion session 2: <ul style="list-style-type: none"> <li>• What terms should comprise the price path?</li> <li>• What should be the degree of flexibility in the TFP design?</li> </ul> All attendees
2.50 pm	Afternoon tea
3:00 pm	Presentation on the approach to assess TFP Eamonn Corrigan, Director, AEMC
3:20 pm	Open discussion on merits of a TFP approach and any other relevant matters All attendees



## Summary of discussion

On 28 September 2009 and 2 October 2009, the Australian Energy Market Commission (AEMC) held two separate workshops on the design of total factor productivity (TFP) for the determination of prices and revenues, which was presented in the AEMC's discussion paper. The first workshop focused on the electricity sector, with the following focused on the gas sector.

A copy of all presentations provided at the workshops can be found on the AEMC's website.

The forum commenced with Anne Pearson (AEMC Senior Director) welcoming all participants and presenters, and a presentation was provided on the status of the TFP Review and role of the TFP design discussion paper.

Meredith Mayes (AEMC Senior Advisor) then provided a presentation on the key issues from the TFP design discussion paper.

The attendees were then organised into smaller groups and asked to participate in a break-out session to discuss one of the following issues:

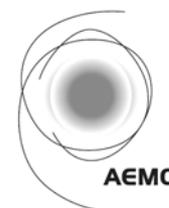
1. How would a TFP methodology be applied, including what should be the role of the AER?
2. How should the industry be defined to calculate the TFP index?
3. What methodology should be used to determine  $P_0$ ?<sup>1</sup>

The following comments were provided by participants (these views are not those of the AEMC) in response to the questions in this first break-out session during the two workshops:

1. Applying a TFP methodology
  - The proposed balance between Rules and guidelines in the design example was supported. The arrangements for a TFP methodology should not give rise to increased regulatory uncertainty. It was recognised that there was a robust Rule change process for any future amendments. The scope and limit of the guidelines needs to be clear.
  - The ability of service providers to either opt in or out of a TFP methodology at their own discretion was critical for businesses. It was considered that the risk

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<sup>1</sup> This issue was initially discussed in a smaller group during the break-out session at the first workshop, followed by an open discussion with all participants. It was only discussed as an open discussion during the second workshop.



of appeals would be high if the regulator had the ability to veto the business' decision.

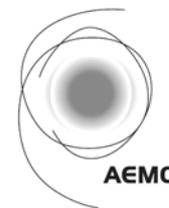
- A suggested periodic review of the TFP methodology should be included into the Rules was supported (similar to the currently required reviews of the rate of return under the NER). There was some discussion on whether the AEMC or the AER should undertake such a review.
- The right to dispute (appeal) a regulator's decisions needs to be maintained.
- It needs to be recognised that privately owned and government owned businesses will behave differently.
- There was some concern about the increasing data requirements. It was suggested that there was a need for transition provisions for any new data collection. Service providers should be able to agree to any data requirements under a TFP methodology.
- The assessment of a revenue proposal needs to be on an individual service provider basis. The use of TFP should not result in a 'one size fits all' approach.
- The AER should be required to calculate and publish the TFP index each year and the service providers should have access to the database.

## 2. Defining the industry group

- There are many reasons why businesses may be different and these should be taken into account when defining the industry group. There was agreement that urban/rural and density were the key considerations. However, it was acknowledged that these groups should not be too small.
- It is the potential for differences in productivity growth rather than productivity levels that need to be considered in defining the industry group.
- Some work is possibly required to identify clusters of businesses was discussed.
- There was agreement that overseas data should not be used.

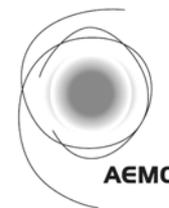
## 3. Methodology to determine $P_0$

- The service providers requested more guidance on how a "reasonable assessment of actual costs for determining operational expenditure and capital expenditure" would actually be applied. There was some concern about a possible prudency assessment of past expenditure.



- Clarification was provided that the  $P_0$  for a TFP methodology is the year preceding the start of the TFP regulatory period (ie. year 5 of the previous 5 year period).
- In the electricity workshop, there were some arguments against the need to do any reasonable assessment for determining capital expenditure for  $P_0$  since a service provider will ultimately get actual capital expenditure incurred in that year and therefore the regulator should accept the business' best estimate.
- It was suggested that there is a need for a reconciliation adjustment "true up" to account for differences between forecast capital expenditure and actual capital expenditure used to set the  $P_0$ . There was support for that reconciliation adjustment to occur early in the TFP regulatory period and not at the end of the TFP regulatory period, especially if the TFP regulatory period is longer than 5 years.
- It was recognised that the need to do a reasonable assessment of operational expenditure was to prevent gaming by the business. There was agreement that there would need to be specific criteria governing any regulatory decision.
- Many considered that the design example methodology would be very similar to the existing building block methodology and therefore there would not be much savings in time or resources. Some noted that currently under the building blocks, the AER focuses on setting the efficient cap in the first year of the period and then evaluates possible trends in costs over the period.
- It was not clear to attendees whether the  $P_0$  methodology would be sufficient to take into account expected step changes in costs over the forthcoming regulatory period. Businesses argued that it is important that the  $P_0$  does not lock in poor performance and discourages correct asset management techniques.
- An alternative of using current prices as the starting position was raised. This would lessen the regulatory burden but it may perpetuate monopoly profits.
- There was some discussion on whether there would need to be another  $P_0$  adjustment at the end of each TFP period if the business is continuing under a TFP methodology.
- Recognition that regular  $P_0$  adjustments will lessen the incentive properties of a TFP methodology.

At the gas workshop, a pre-recorded presentation was provided from Dr Larry Kaufmann (Pacific Economics Group Research) in response to the TFP discussion paper. The presentation argued for a practical approach to TFP, and advised industry stakeholders and the AEMC on the overseas' experience with TFP-based regulation.



Dr Denis Lawrence (Economic Insights) then provided a presentation on sunk costs, asset valuation and productivity based regulation. The presentation considered traditional productivity-based regulation and the divergence and gaps in such an approach which has not explicitly recognised financial capital maintenance and sunk costs. A new productivity approach is proposed to address these issues, with the aim to reconcile productivity-based and building blocks approaches and to better reflect the characteristics of the industry. In developing such an approach, specification issues in the approach were discussed. This was followed by a questions and answers session for participants on this particular topic. From this discussion, the following points were made:

- The RAB and cost of capital under this new calculation can be the same as used by the regulator to set  $P_0$ .
- The AEMC has not yet decided whether this new approach should be applied under a TFP methodology.

In the second break-out session, the groups were asked to discuss one of the following issues:

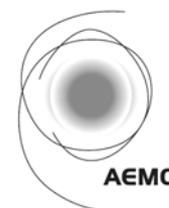
1. How should TFP index be calculated?<sup>2</sup>
2. What terms should be included in the price path?
3. What should be the degree of flexibility in the TFP design?

The following comments by participants (these views are not those of the AEMC) were made in response to the questions in this break-out session during the two workshops:

1. Calculating TFP index
  - There was open discussion on the appropriate outputs and inputs. It was recognised that there are many unresolved issues. There was wide-spread agreement that these issues need to be resolved before any business would seek to be regulated under a TFP methodology.
  - Some questioned whether a TFP methodology would appropriately recognise the difference between standard and non-standard services (eg. outputs).
2. Setting the price path under a TFP methodology
  - Some support was expressed for the formula in the design example.

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<sup>2</sup> This issue was initially discussed in a smaller group during the break-out session at the first workshop, followed by an open discussion with all participants. It was only discussed as an open discussion during the second workshop.



- Everyone agreed that it cannot be assumed that economy input prices would be equal to industry input prices. This has been accepted by the AER in recent determinations.
- It was noted that under Economic Insights' new formula, there was no need for an explicit industry input index.
- There was wide agreement on the reasons for a business specific adjustment factor.
- A significant level of forecasting will still be needed under the design example.

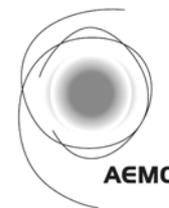
### 3. Flexibility in how a TFP methodology is applied

- Businesses wanted more guidance on how the AER would reach its decision regarding these parameters.
- The degree of discretion for the AER was a concern.
- It needs to be clarified how a service provider can respond to an AER decision to alter a proposal on these elements.
- Off-ramps can help to improve financial viability issues.
- Some concern was expressed about the loss of the efficiency carryover mechanism (ECM) for operational expenditure. It was noted that controllable operational expenditure is a significant expenditure item and there is a benefit from the operation of the ECM.
- There was some discussion on whether ECM (or some form of it) could still operate with TFP.

The last presentation was given by Eamonn Corrigan (AEMC Director) on the approach to assess TFP for the Draft Report.

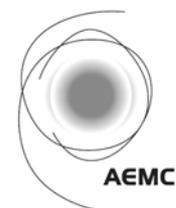
The following collated issues were raised in the open floor discussion during the two workshops:

- Optionality
  - There is a risk that the regulator could also game the options if it had a preference for one methodology over another.
  - Although the businesses like having the option without needing the AER's consent, there was some concern about the increases in regulation costs caused by having two methodologies. Concern was expressed about the increasing data requirements.



- Rolling X or fixed X
  - There was little support for rolling X. There was general support for certain price paths eg. service providers would want to know what the price cap will be each year.
- Electricity issues
  - There were concerns about the treatment of non-economic investments that are mandated by jurisdictional governments under a TFP methodology. There was a general concern about how the different jurisdictional standards would affect a TFP methodology (eg. community service obligations).
  - Some thought that expenditure on the S-factor incentive scheme should be excluded from the TFP calculation.
  - The advent of smart meters may lead to step increases in efficiency. Therefore, historical TFP may be inappropriate.
- Gas issues
  - The variation between gas service providers can be significant. For example, Melbourne and Brisbane gas networks are very different with different penetration rates and volumes/cost drivers. There are also significant differences between the larger urban networks and systems based on regional centres. This will affect the comparability of these networks for any TFP index calculation.
  - There was recognition that it would not be possible to collect data from uncovered pipelines. However, it should be possible to collect data from light regulation pipelines.
  - There was some discussion on whether regulated Western Australian pipelines should be included in a TFP methodology.

At the conclusion of the two workshops, AEMC staff thanked all for participating in the workshop and encouraged interested parties to continue their participation in the TFP Review. The next stage will be the publication of the AEMC's Draft Report in December 2009.



## Participants

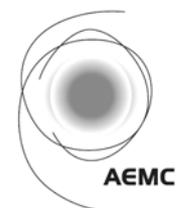
The AEMC invited all industry stakeholders to attend the workshops. The following attended the workshop on 28 September 2009.

### Organisation

Aurora Energy  
Aurora Energy  
Australian Energy Market Commission  
Australian Energy Market Operator  
CitiPower/Powercor  
Country Energy  
Country Energy  
Dept. of Primary Industries, Victoria  
Dept. of Resources, Energy and Tourism, Commonwealth  
Economic Insights  
Economic Insights  
Energy Networks Association  
Energeia  
Energex  
Energex  
Energy Australia  
Energy Australia  
Envestra  
Ergon Energy  
Infrastructure and Regulation Services  
Jemena  
Network Advisory Services  
Parsons Brinckerhoff  
SP AusNet

### Name

Philip Bowe  
Leigh Mayne  
Eamonn Corrigan  
Charles Hoang  
Meredith Mayes  
Anne Pearson  
Leen Van den Eynden  
Louis Tirpcou  
Stephanie McDougall  
Jason Cooke  
Natalie Lindsay  
Raif Sarcich  
Jessica Brown  
John Fallon  
Denis Lawrence  
Tim Kane  
Ezra Beeman  
Leigh Henderson  
Rachel Leaver  
Trevor Armstrong  
Son Truong Vu  
Craig de Laine  
Peter Brennan  
Scott Young  
Mark Allen  
Malcolm Tadgell  
John Thompson  
Anh Mai



The following industry stakeholders attended the workshop on 2 October 2009.

**Organisation**

APA Group  
Australian Energy Market Commission  
Australian Energy Market Commission  
Australian Energy Market Commission  
Australian Energy Market Commission  
Babcock & Brown Infrastructure  
Country Energy  
Economic Insights  
Energy Networks Association  
Energy Networks Association  
Jemena  
Major Energy Users  
SP AusNet

**Name**

Stuart Ronan  
Eamonn Corrigan  
Meredith Mayes  
Anne Pearson  
Leen Van den Eynden  
Anthony Vaughan  
Maree Richards  
Denis Lawrence  
Vicki Brown  
Tim Kane  
Warwick Tudehope  
Bob Lim  
Anh Mai