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30 October 2009

Dr John Tamblyn Chairman Australian Energy Market Commission PO Box A2449 SYDNEY SOUTH NSW 1235

By email to: AMEC's online lodgement

Dear Dr Tamblyn

Review into the Use of Total Factor Productivity for the Determination of Prices and Revenues – Design Discussion Paper, 28 August 2009

EnergyAustralia's submission in response to the TFP design discussion paper is attached.

EnergyAustralia's assessment of the detailed design elements is within the context of whether the introduction of a TFP method would promote the National Electricity Objective (NEO) and the Revenue and Pricing Principles (RRP). EnergyAustralia submits that the introduction of TFP, at this time, as an economic regulation tool would not promote the NEO and RPP and would not be beneficial to customers, businesses or the regulator.

We consider that the introduction of TFP would give rise to substantial compliance burdens and costs on the businesses and increased administrative burden on the regulator, adding a layer of complexity to the current regulatory framework without any clear benefits. We consider that drawbacks cited for the building block approach are not substantially avoided by using TFP.

Further, in the design of a TFP method, a critical issue is whether the TFP and building block approaches can co-exist without substantially affecting the key principles underlying the decision making framework currently embodied in the National Electricity Rules (Rules). We consider that the application of a TFP method should not depart from the guided and accountable discretion in decision making which is a critical feature in the current Rules framework.

Please contact Mr Trevor Armstrong on 9269 2611 to discuss this submission at any time.

Yours sincerely

GEORGE MALTABAROW Managing Director





Submission on the AEMC's TFP design discussion paper October 2009



1 Overview

EnergyAustralia welcomes the release of the AEMC's design discussion paper (the design paper) and appreciates the opportunity to respond.

Our response to each of the design elements outlined in the paper is provided below. In considering the various design elements, our comments are underpinned by two important considerations.

- The need for any change to the existing framework to be guided by the National Electricity Objective (NEO) and Revenue and Pricing Principles (RPP).
- Whether the two approaches can co-exist without substantially affecting key principles underlying the existing decision making framework currently applied in the Rules.

First, in our February 2009 response to the AEMC's Framework and Issues Paper, we specifically commented that in the absence of a 'straw man' model upon which to comment, we were unable to express a definitive view on whether the use of a TFP method to determine regulated prices/revenue would promote the NEO and RRP. The design paper has now afforded us with a better opportunity to reassess and re-evaluate this primary threshold issue of whether TFP should be applied at all. Relevantly, the Commission stated in the design paper that:¹

the focus of this discussion paper is to obtain further information from stakeholders on TFP. This will be a valuable input into the development of the draft report for the Review.

The information obtained through this consultation (on the TFP design discussion paper) will assist in the development of the draft report for this review.

The focus of this paper is on the design elements of TFP and the subsequent draft report will set out the Commission's proposed recommendations on whether an application of a TFP methodology would promote the NEO and / or the NGO². However, EnergyAustralia submits the view that the introduction of a TFP method would not promote the NEO or RPP. We outline in this submission reasons why TFP would not be beneficial for customers (likely increase in prices), businesses (increased compliance cost and burden) or the regulator (increased burden in administering two different methodologies).

TFP is premised on the avoidance of business specific forecasts of costs. This could leave a disconnect between the allowance under TFP and a reasonable opportunity for the NSP to recover at least its efficient costs. The TFP design example attempts to counter this shortfall, using various tools such as off ramps, a capital module and adjustments to X factor. The necessity of countervailing "add ons" increases complexity in the framework and weakens TFP's suitability as a regulatory method to determine prices/revenue consistent with the RPP.

A further source of complexity is that TFP can only determine price/revenue movements within a regulatory period. The "starting" price is typically established using the building block approach, albeit for one year only. Therefore, we consider the introduction of TFP will add another (significant) layer of complexity into the existing approach to economic regulation without any clear benefits.

The National Electricity Rules (Rules) codify the process and requirements of a NSP in preparing a regulatory proposal and the process and decisions required by the AER in making a determination. It provides for a transparent framework within which the NSP and AER are provided with clear obligations and are accountable if obligations are not met. Fundamental to the existing framework is the guided discretion placed on the AER in making its determination. The AER:

¹ AEMC 2009, *Review into the use of total factor productivity for the determination of prices and revenues, Design discussion pape*r, 28 August 2009, pp 2 and 4. [hereafter, the design paper]

² Appendix A, Terms of Reference, AEMC 2008, *Review into the use of total factor productivity for the determination of prices and revenues, Framework and Issues paper*, 12 December 2008.

- considers the regulatory proposal submitted by the NSPs, including the information, data and analysis;
- decides to accept/approve or refuses to accept any element of a regulatory proposal, based on Rule requirements and the extent to which a proposal meets the Rule requirements; and
- makes constituent decisions including decisions to substitute a value, amount or methodology if the AER refuses to accept or approve a value, amount or methodology proposed by a business. The AER is required to give reasons for its decisions.

We consider it is very important that the decision making framework be considered carefully and in detail in a TFP design. We consider that the application of a TFP method should not depart from guided and accountable discretion in decision making which is a key feature of the current Rules framework.

To the extent possible, we have assessed how the current decision making framework would be applied to each of the TFP design elements contained in the discussion paper and have provided comments accordingly.

Our response to the TFP design paper can be summarised as follows:

- We prefer as much prescription in the Rules as possible.
- We agree that the businesses should have the sole discretion to apply TFP or to revert to the building block approach.
- We concur that, if selected by a business, a TFP methodology should be 'locked in' for the duration of a regulatory control period.
- Further work and discussion is required to determine the most appropriate methodologies (Fisher index method/Tornqvist index method/annual growth rate and regression-based trend method). The most appropriate method would then need to be specified in the Rules. It is inappropriate to leave the decision of such critical features of a TFP methodology to the openend discretion of the regulator.
- No workable solution has been found to incorporate quality of service (including safety and environmental concerns) and network security expenditure into a TFP method. It appears to us that this issue is becoming increasingly a 'too hard basket' issue. Given the importance of these aspects of network performance to modern economies, until this issue can be satisfactorily resolved, we do not consider the introduction of TFP as a regulatory method to determine regulated prices/revenue is warranted.
- We find it difficult to express a preference for either of the two options presented which define an industry group. We note some issues that EnergyAustralia would encounter if it were to apply either of these definitions.
- Certain aspects of the datasets used for TFP calculation require clarification. We note the significant and expensive task of establishing an appropriate and robust dataset for the calculation of TFP.
- Whilst we note that further work is required, we note our concerns regarding the business specific adjustment to the X factor.
- o In setting the initial price/revenue, we consider it is preferable to apply a building block method.
- In relation to the length of the regulatory period and cost pass through mechanism, we concur with the options presented in the design paper.
- We consider the inclusion of a capital module is preferable given the limitations of TFP in its vanilla form. We note further work is required and consider that in the design of this module, no 'ex-post adjustments' should be allowed.

- The inclusion of an off ramp mechanism is preferable. We however note some issues regarding the decision making framework surrounding the operation of this mechanism.
- We consider that a fixed X is preferable to a rolling X.

2.1 Prescription in the Rules

To the furthest extent possible, TFP principles, mechanics, rights and obligations and procedural requirements should be prescribed in Rules. This would provide certainty and stability for the regulatory framework.

Guidelines represent a poor substitute to codification in Rules, particularly if they encapsulate key design, decision making, or methodology elements. Guidelines are one step removed from the transparency and accountability of Rules in that they are owned and initiated by the regulator. Used inappropriately, guidelines become a form of rule making by stealth. While guidelines are not binding, it becomes increasingly difficult for the business to depart from a guideline if it contains design elements fundamental to the decision.

To the extent that guidelines are necessary, we consider that any TFP guidelines published by the regulator should follow the same procedural requirements that are currently embodied in the Rules; i.e. if the regulator departs from a relevant guideline, the regulator is to give reasons³.

2.2 Selection of TFP or building block

The design paper proposes that the decision to apply TFP and its continued operation beyond the first regulatory period or to revert to the building block approach is that of the business. No approval from the regulator is required. We agree with this design principle as it reflects the views previously expressed by all businesses that there should be no avenue at all for the regulator to impose TFP⁴. Further, a business is more likely to understand its business and is better placed to decide which economic framework is most appropriate and therefore should have the sole discretion in choosing to apply TFP or building block.

2.3 Change to methodology

The design paper proposed that a business should not be able to switch between the building block and TFP during a regulatory period and that the principles and mechanisms of a TFP methodology would be unchanged for a regulatory period. We concur with these principles.

3 Calculating the TFP growth rate

3.1 Appropriate methodology

The calculation of the TFP growth rate requires:

- A method to combine a diverse range of inputs and outputs into measures of change in total inputs and outputs. The two methods often cited are the index method (which also has a range of methods) and the econometric methods.
- A method to calculate the TFP growth rate the choice is between the annual growth rate method and the regression-based trend method.

³ See clause 6.2.8 of chapter 6 of the National Electricity Rules.

⁴ Appendix C of AEMC, Review into the use of total factor productivity for the determination of prices and revenues – Framework and Issues Paper, 12 December 2008.

The design paper proposed that only the index method approach would be used to combine the various inputs and outputs. We consider this to be a preferable option as it has been observed by the Brattle Group that the econometric approach can be a 'black box'; potentially triggering disputes about the results.⁵

The design paper also proposed that the regulator is to decide:

- the index method (the Fisher method, Tornqvist method or another 'superlative' method) that produces the most accurate result and to specify its preferred method in guidelines; and
- the method (annual growth rate or regression-based trend method) to be used for calculating the growth rate. The regulator is to specify its preferred method in guidelines and commit to it for the regulatory period.

The sensitivity analysis performed by Economic Insights is highly relevant. Economic Insights noted that:

- the Fisher index method is being increasingly used in preference to the Tornqvist index method which can produce inaccurate results in certain situations (where the Fisher method does not)⁶.
- The difference between the annual growth rate method and regression-based method can be substantial in certain circumstances.⁷

Further analysis and discussion is required to determine the most appropriate methods to use and where there is a clear preference have them specified in the Rules.

We see no reason why this element of design should be left unfettered to the regulator to decide. The calculation of the TFP growth rate used to set the X factor is an integral aspect of the TFP methodology and therefore the methods used in this calculation are critical. We do not consider it appropriate to give the regulator such open-ended discretion with respect to the methods used to combine inputs and outputs and for calculating the growth rate. It would seem to make sense under the current regulatory framework for a business to propose an indexing method and have this proposal assessed by a regulator.

Furthermore, EnergyAustralia does not understand the basis on which an index method is selected, other than a choice of any superlative method producing the most accurate result. It is unclear how this will be determined and what the bounds of superlative method are.

3.2 Design of an index methodology

3.2.1 Outputs, inputs and appropriate weights

We note that the specification, measurement and weightings of inputs and outputs are highly technical matters and there is an ongoing debate on these issues. We agree with the Commission that further analysis and consultation is required on this aspect of the design. Should the final outcome of this Review recommend the introduction of a TFP method into the Australian regulatory framework (a result we do not consider warranted); we will engage the necessary expertise to contribute to the resolution of this matter.

One aspect of the specification and measurement of outputs that still poses serious concerns for us is the issue of quality of service and system security expenditure. We have commented on this issue previously

⁵ The Brattle Group, Use of Total Factor Productivity Analyses in Network Regulation – Case Studies of Regulatory Practice, October 2008, p 11.

⁶ Economic Insights, *Energy Network Total Factor Productivity Sensitivity Analysis*, 9 June 2009, pp 22-23.

⁷ Ibid, p 24. See also Economic Insights, *Electricity Distribution Industry Productivity Analysis: 1996-2008 – report prepared for Commerce Commission*, 1 September 2009, p 21.

and stated that we are not persuaded on the merits of a TFP approach until a workable method is found to accurately measure these outputs.⁸

We note the design paper recognised that this is an outstanding issue and that further analysis and consultation is required. To date, we know of no workable and/or satisfactory solution. The following recent observations from the Brattle Group and Economic Insights are highly relevant:

It is recognised that the current TFP method in New Zealand needs to be modified to take into account quality of service..., but this has not so far been achieved. Without such a modification, the method risks penalising firms that invest to improve service quality⁹.

While a significant advance over earlier TFP specifications, this general specification of outputs (i.e. throughput, system capacity and customer numbers) and inputs (opex, overhead lines, underground cables, transformer capacity and other capital) still has a number of limitations. Prime among these is the desirability of including reliability as an additional output variable.....Previous attempts to convert reliability measures into a format consistent with the productivity framework have proven unsuccessful and so more work is required on this task. An additional important but problematic issue is the one of what output weight to assign to a measure of reliability in calculating total output within a TFP study¹⁰.

It seems to us that a common response to this problem is to omit quality of service from TFP calculation and to regulate quality through side constraint and/or separate service quality incentive mechanisms. We consider this to be inadequate.

Apart from having to fulfil our fundamental obligation of providing energised connection that is safe, reliable and available, EnergyAustralia's network covers the Sydney CBD which has a high density population and our customers include Australia's largest industrial customers. Therefore, safe, secure and quality supply is of paramount importance to us. Further, EnergyAustralia is subject to design, reliability and performance (DRP) licence conditions which establish minimum performance levels, network back up capacity and limits for loads at risk. These licence conditions are major drivers of our capital and operating expenditures. Without a workable solution that provides an appropriate recognition of these expenditures, we remain unconvinced of the merits of TFP as an alternative economic regulation tool to determine regulated prices/revenue.

3.2.2 Defining the industry

Options for industry definition

In our February 2009 submission on the Commission's framework and issues paper, we had outlined the numerous reasons why we consider it is very difficult, if not impossible, to find a group of <u>comparable</u> businesses to constitute an industry¹¹. Our view is that this difficulty seems to be inherent in a TFP method.

Further, from 1 July 2008 EnergyAustralia's transmission assets are classified as dual function assets for the purpose of economic regulation; i.e. they are subject to the same economic regulation arrangement as distribution assets¹². This gives rise to two issues:

⁸ See EnergyAustralia's submission to the AEMC's Framework and Issues Paper, February 2009, section 4.3

⁹ The Brattle Group, *Use of Total Factor Productivity Analyses in Network Regulation – Case Studies of Regulatory Practice*, October 2008, p 21.

¹⁰ Economic Insights, *Electricity Distribution Industry Productivity Analysis: 1996-2008 – report prepared for Commerce Commission*, 1 September 2009, p 20.

¹¹ See EnergyAustralia's submission to the AEMC's Framework and Issues Paper, February 2009, section 4.2

¹² National Electricity Amendment (Economic Regulation of Transmission Services undertaken by Distributors) Rule 2008 No.3 (Rule Amendment 2008 No.3)

(a) how to find a business comparable to that of EnergyAustralia i.e. a predominantly distribution services provider which also provides incidental transmission services regulated under the banner of distribution for revenue setting purposes; and

(b) whilst our dual function assets are regulated under chapter 6 of the Rules for economic regulation, the values of these dual function assets can be determined by the AER to be material such that the pricing in respect of the transmission services provided by dual function assets should be regulated under Part J of chapter 6A of the Rules i.e. EnergyAustralia could be subject to both distribution pricing rules under chapter 6 and transmission pricing rules under chapter 6A.¹³

Given the above, it is unclear as to how the above pricing arrangements would operate under a TFP methodology:

- how would an X factor be determined for transmission services provided by dual function assets should part J of chapter 6A applies?
- should our dual function assets revert back to transmission assets and separately regulated (creating redundant and duplicative regulatory determination processes) or be grouped under the "transmission industry" under their own unique TFP methodology?

We find it difficult to express a preference for the two options presented in the design paper on how an industry should be defined. On the one hand, defining the industry as all distribution businesses within the NEM suffers the various difficulties/issues we had previously outlined. On the other, using industry subgroups suffers from other issues that the design paper identified.¹⁴ One further difficulty for us is that EnergyAustralia as a whole does not fit neatly within one of the four sub-groups, but parts of EnergyAustralia can fit neatly in any one of the sub-groups.

The paper suggested that business specific adjustment could be made to the X factor to account for the different characteristics and circumstances of the various service providers. This indicates for us the imprecise nature of a TFP method and the complexity that is required to ensure that a TFP method takes into account, at least partially, the business specific circumstances of each service provider so that TFP can meet or promote the NEO and RPP. Our further comments on business specific adjustment are in section 3.2.4

3.2.3 Data set

In relation to the data set; the paper proposed that: ¹⁵

- For the calculation of TFP, the regulator is required to use audited historical data provided by the service providers.
- The regulator is allowed to adjust these historical audited data for structural differences or to remove certain years' data due to exceptional circumstances.
- All service providers must provide data irrespective whether they have elected to apply TFP or not.
- o No overseas data will be used but it may have a role as a 'sanity check'.

¹³ See part N of chapter 6 of NER.

 ¹⁴ i.e. influence of one particular business; subgroup division could be contentious and could give rise to 'gaming' and multiple X factors for subgroups would be harder to implement and administer than having one X factor for the whole industry. The Design paper, p 28.
¹⁵ The design paper, p 30.

"Audited historical data"

It is unclear to us what "audited historical data" will be used for TFP calculation. It appears to us that the design paper is proposing to use currently available historical data for the application of TFP. If this is the case, we have serious concerns with such a proposal. We, and a number of other stakeholders, have already expressed concerns about the suitability of currently available data for the calculation of TFP. Our concerns were validated by Economic Insights who stated that¹⁶:

Both regulators and regulated businesses have expressed the view that currently available regulatory data are not sufficiently robust to support TFP analysis of the standard to base regulatory pricing and revenue determinations on. Our assessment of the available regulatory data supports this view.

Further, Economic Insights highlighted a litany of problems and issues associated with the existing data set¹⁷. These findings were further reinforced by a report prepared by Network Advisory Services¹⁸. Economic Insights also stated that:

Data based on currently available regulatory reporting requirements have not been purposely specified or collected for productivity analysis.

We concur with this statement and strongly consider that the existing data set cannot be relied upon to calculate TFP. To use the current data is to gloss over the various critical problems besetting these data sets; thereby undermining the results, the regulatory process and confidence of businesses and customers.

If currently available historical data is to be used for TFP calculation; it would mean that adjustments to 8 years of financial data would be required. This would be a costly exercise and may not be possible. Records from 8 years ago might not be available in sufficient detail or accuracy to enable a proper restatement of data. We consider that the magnitude and cost of such a task should not be taken lightly. The difficulty of such a task is echoed in the following statement by Economic Insights¹⁹:

The difficulty the AEMC and Economic Insights have had in getting timely responses and, in some cases, any response from jurisdictional regulators on the data availability questionnaire is likely to be reflective of the much greater difficulties that would be experienced in compiling a retrospective database.

Data adjustments

The design paper proposes that the regulator can adjust the dataset for structural differences between businesses and for exceptional circumstances. The design paper stated that the "cleansing" of data will be made transparent and be done in accordance with the guidelines published by the regulator. We are trying to grasp how this proposal can work properly in practice. Some relevant questions are:

¹⁶ Economic Insights, Assessment of Data Currently Available to Support TFP-based Network Regulation, 9 June 2009, p vi.

¹⁷ These include: limited availability of physical data – a key variable; variability in definitions across jurisdiction and over time; nonuniformity in regulatory reporting requirements across jurisdiction; arbitrary "adjustments" made to data by regulators, and no consideration of differences in activities between utilities. See Economic Insights, *Assessment of Data Currently Available to Support TFP-based Network Regulation*, 9 June 2009, p 11. Furthermore, it should be noted that the asset values disclosed in the annual regulatory accounts reflect the accounting values of these assets. The accounting values may include revaluation adjustments. In the context of setting regulated prices/revenue, it is the values based on the roll forward of the regulated asset base that is relevant. This RAB value is not available from the annual regulatory accounts.

¹⁸ Network Advisory Services, *Issues in relation to the Availability and Use of Asset, Expenditure and Related information for Australian Electricity and Gas Distribution Businesses*, August 2009, pp3-4, 70-82.

¹⁹ Economic Insights, Assessment of Data Currently Available to Support TFP-based Network Regulation, 9 June 2009, p 27.

- Is it the regulator who makes the adjustments? If so, how can the regulator adjust the data for structural differences without having intimate and detailed knowledge of each business?²⁰ What are the criteria for making adjustments?
- Or is it the businesses themselves who make the adjustments in accordance with the guidelines published by the regulator? If so, does this impose another regulatory reporting requirement in addition to the annual regulatory reporting requirement, therefore resulting in two different versions of the same data?
- o Does (or should) the adjusted data need to be audited?

In relation to adjustments for exceptional circumstances, whilst we appreciate that "these exceptional events could be dealt with on a case by case basis and would often be straightforward to identify"²¹, we nevertheless consider that a framework should be established to clearly articulate how adjustments for "exceptional circumstances" can/should be triggered.

Provision of data

Firstly, it seems to us that if the final outcome of this Review is to allow for the use of TFP in the Australian regulatory framework (an outcome that we neither advocate nor consider warranted), the appropriate approach is to commence a consultant process that examines and considers the requirements for a robust, consistent and complete data set, including the associated costs and benefits (if any) in setting up this database. The need for a robust and well specified data base was the recommendation of Economic Insights and is recognised by the Commission²².

Having considered the key issues that may affect data consistency over time and comparability across jurisdictions and businesses identified by Economic Insights²³, we do not consider that the development of a dataset of sufficient quality to support the application of TFP in determining regulated prices and revenue would be an insignificant task or an inexpensive one.

Even then, TFP will not be able to be properly applied for 8 years after the completion of this consultation process as a data series of 8 years minimum is required. Further, the following statement from Economic Insights is a timely reminder of the magnitude of the task²⁴:

The range of variables collected should be sufficient to cover the currently used TFP specifications and likely future extensions. It is important that definitions and collection methods remain unchanged for an extended period...

The need to maintain consistency in definitions and collection methods is paramount. But the difficulty of doing this should not be underestimated in an environment which is itself changing... it is essential to have tight reporting rules in case of ownership changes and amalgamations to preserve data continuity.

In a changing environment, we have no doubt that ultimately businesses will have to maintain two 'sets of books'; one for TFP and one that reflects its current/changed structures and circumstances. Not only is

²⁰ The following comment by Economic Insights is relevant in this context, Economic Insights stated that "...it will be difficult for the AER to acquire and understand the 'corporate history' behind the previous regimes and resulting characteristics of and inconsistencies in the data". Economic Insights, *Assessment of Data Currently Available to Support TFP-based Network Regulation*, 9 June 2009, p 26.

²¹ The Design paper, p 31.

²² The Commission stated that: "A better long term solution to this problem, however, would be to ensure all service providers supply TFP data on the same basis and subject to the same rigorous and detailed definitions"; p 30. Economic Insights, *Assessment of Data Currently Available to Support TFP-based Network Regulation*, 9 June 2009, p 11.

²³ Economic Insights, Assessment of Data Currently Available to Support TFP-based Network Regulation, 9 June 2009, p 17.

²⁴ Economic Insights, Assessment of Data Currently Available to Support TFP-based Network Regulation, 9 June 2009, p 44

the costs of maintaining two set of data substantial but there will be other practical issues such as reconciliations between the two data sets that will be required.

Secondly, the design paper proposes that all businesses within the sector must provide data even though they have not elected to apply TFP. However, the requirement that all businesses must supply data ultimately imposes a costly obligation on businesses that do not elect to apply TFP and have to set up systems to record and maintain data to be used by other businesses. In this instance the consequences and risks are that:

- o ultimately all customers bear higher prices as businesses recover initial setup and ongoing maintenance costs; and
- businesses for which TFP has no benefit or practical application may chose to provide "best estimated" or "allocated" data instead of setting up IT systems and processes to capture the data more accurately; thereby potentially compromising the robustness of the data supplied.

Further, we do not consider that the drawbacks that have been cited for the building block approach²⁵ would substantially be avoided by using TFP. We consider that:

- o TFP would be as information intensive as the building block approach;
- As mentioned above, TFP would involve significant costs in setting up systems to record and maintain the required data; and
- similar to the building block approach, prices are reset to efficient cost at the beginning of each regulatory control period under TFP.

We also note the Brattle Group's observation in their review of overseas jurisdictions that "TFP methods can be technically difficult and controversial" and its application relies heavily on the use of outside expertise.²⁶ In this context, we consider that it is likely that the costs for a regulatory process under TFP would be as substantial as (or alternatively not significantly less than) that incurred under the building block approach.

3.2.4 Business specific adjustments (stretch factor)

The design paper proposed that the regulator be allowed to make business specific adjustments to the X factor. This decision by the regulator would be based on a mixture of benchmarking and judgment.

In our February 2009, without the benefit of a 'straw man' model, we expressed that firm specific adjustment to the industry TFP growth rate must be allowed.²⁷ However, having now assessed the specific design of a business specific adjustment and whilst acknowledging that further work on this issue is required, we have some concerns with this aspect of a TFP design.

We had already expressed serious reservations about the validity of benchmarking. We maintain our view in our February 2009 submission that "benchmarking has inherent limitations and benchmarking results are informative at a high level at best. Benchmarking results are not definitive and cannot determine the relative efficiency of a business".²⁸ Indeed this is demonstrated by the New Zealand example given in the

²⁵ Ibid, p 7.

²⁶ The Brattle Group, *Use of Total Factor Productivity Analyses in Network Regulation – Case Studies of Regulatory Practice*, October 2008, p 9.

²⁷ EnergyAustralia's submission to the AEMC's Framework and Issues Paper, February 2009, section 4.4

²⁸ Ibid, p 5.

design paper where the division of businesses into "efficiency groups" were ultimately based on judgement.²⁹

Given the limitations inherent in benchmarking; we are concerned that final determination of the stretch factor adjustment would ultimately be based on the open-ended discretion of the regulator and may not be applied consistently over time. We would oppose any such design of an economic regulation methodology. Such a design is also contrary to the current decision making framework embodied in the Rules.

4 Setting the initial cap

We support the use of the building block approach for setting the initial price/revenue as this maintains the current regulatory framework under which sunk and current investments are made. It also maintains the current approach to the roll forward of the regulatory asset base, cost of capital and efficient tax and therefore maintains consistency with the building block approach. This is a desirable feature for a business that wishes to revert to the building block approach after having applied TFP in a previous period.

Nevertheless we are concerned with the discretion afforded to the regulator to use actual year three data as a proxy for year five estimated costs and to make adjustments to these data accordingly³⁰. We are uncertain as to the scope of this discretion or what it entails. We consider that it is desirable that the "proposed-respond" framework should be applied in the setting of the initial cap. That is:

- o a business proposes its best estimate of year five operating and capital expenditure; and
- the regulator assesses and responds to the proposal including substituting its own estimates and giving reasons for its decision.

We consider the above is analogous to the current decision making framework with respect to a business's forecast of expenditure and is desirable to ensure consistency and stability with current practice.

We acknowledge that the key aspect of a TFP approach is the avoidance of business specific forecasts. However, in practice, a business would still be required to forecast its costs for management purposes. Faced with a choice of TFP or building block, a prudent business (or regulator) is also likely to assess and compare the costs and benefits of each approach before committing to one for its upcoming regulatory review. This process would inevitably involve detailed forecasts of costs.

Additionally, the design paper stated that:

the regulator would determine the level of operational and capital expenditure for that year (i.e. year 5 of the current period) based upon a reasonable assessment of actual costs incurred in the current period.³¹

We seek clarification as to what "a reasonable assessment of actual costs" entails. Does this mean that there would be an ex-post review of actual costs? Or does this mean that actual expenditure is one of the factors that the regulator would have regard to in assessing the estimated expenditure for year 5; similar to the assessment of forecast expenditure under the building block approach in the current Rules?

Also, the design paper stated that³²:

²⁹ See footnote 55 of the Design paper, p 55.

³⁰ The Design discussion paper, p 37 where it stated that "it would be more appropriate to permit the regulator to make an assessment of whether actual year three data is the best estimate of costs for year five and to make any adjustments accordingly". ³¹ The Design paper, page 35.

³² The Design paper, p 37.

the current approach to calculating the rate of return for the duration of the forthcoming regulatory period and the resulting tax allowance would continue...This does not preclude the regulator from calculating a different return under TFP compared to the building block approach.

We seek clarification on the above statement. It is unclear what exactly is meant by "the regulator can calculate different returns".

5 Additional design terms

5.1 Length of the regulatory period

The design paper proposes that the current provisions with respect to the length of the regulatory period be applicable to a TFP methodology. We concur with this proposal and do not consider that a longer period than five years should be mandated in the NER. We note the recommendation of the Brattle Group that a period longer than five years is less practical with TFP because of the greater risk that prices will be significantly below costs.³³

5.2 Cost pass through

We consider the availability of a cost pass through mechanism is preferable and that the current Rules with respect to its operation should be maintained for a TFP method.

5.3 Capital module

We consider the inclusion of the capital module in a TFP approach is preferable and note that further work is required on the design of this module. We note that the capital module recently adopted by the Ontario Energy Board includes a prudency assessment and an ex-post adjustment between actual and forecast expenditure. We would have concerns about an alternative economic regulatory methodology that involves "ex-post adjustments" as this represents a departure from the incentive arrangements that exist in the current framework.

5.4 Off ramps

In general, we consider the inclusion of an off ramp mechanism is preferable to no off ramp at all. We however, note and concur with the Commission's view that further details and guidance on the design operation of an off ramp mechanism is required³⁴. In developing the design of this mechanism; some important issues that should be considered /clarified are:

- The decision framework within which the regulator can require the inclusion of an off ramp mechanism and the decision framework with respect to a proposal by the business to include an off ramp mechanism. What are the rights and obligations of the regulator and the businesses? The design paper stated that "the regulator should not be able to reject" a decision by the business to include an off ramp mechanism. Does this mean that there is no scope at all for the AER to reject such a proposal and therefore symmetrically there is no scope for a business to appeal a decision by the regulator to impose an off ramp mechanism?
- What are the criteria guiding the regulator's decision with respect to the design and terms of an off ramp mechanism? We note the design paper stated that the regulator's decision would have

³³ The Brattle Group, *Incentives Under Total Factor Productivity Based And Building-Blocks Type Price Controls*, June 2009, p 41. ³⁴ The Design paper, p 46.

regard to the NEO and RPP. Whilst the NEO and RPP serve as over-arching principles, it would be beneficial to set the criteria for the regulator's decision with respect to the specific terms of the off ramp mechanism; for example, how would the regulator determine the boundaries of a rate of return or revenue band; is it 20% as proposed by the business or 5% as determined by the AER? How to determine that the off ramp event is significant and therefore should be included in the mechanism?

5.5 Form of X

The design paper asked whether a business should be able to select the form of X and whether one is preferable to the other and therefore should be encapsulated in the Rules relating to TFP.

We consider that a fixed X for the duration of a regulatory control period is preferable to a rolling X. This is because:

- o A fixed X provides more certainty.
- More practical than a rolling X which is required to be updated annually; therefore is more likely to result in increased administrative costs.
- As noted by the Brattle Group, under a rolling X, there might not be an opportunity to perform proper review of the results.³⁵

Further, the use of a fixed X maintains consistency between the TFP and the building block approaches; and given the option to choose TFP or building block, maintaining as much consistency as possible between the two approaches is desirable.

 ³⁵ The Brattle Group, *Incentives Under Total Factor Productivity Based And Building-Blocks Type Price Controls*, June 2009, p 43.
EnergyAustralia's submission on TFP design discussion paper