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

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Dear Sir/Madam

TOTAL FACTOR PRODUCTIVITY FOR DISTRIBUTION NETWORK REGULATION

Thank you for the opportunity for CitiPower, Powercor Australia and ETSA (**the businesses**) to comment on the Department of Primary Industries (**DPI**) *Proposed Rule Change to the Australian Energy Market Commission to Permit the Use of the 'TFP Approach'* (**Proposed Rule Change**).

The businesses do see merit in having a TFP approach to regulation evaluated and potentially included as an alternative to incentive based building blocks approaches in the *National Electricity Rules* (**NER**). It must however also be recognised that the TFP approach is in its infancy. It is yet to be applied anywhere in the Australian energy sector and its application in other overseas jurisdictions, including the United States, is limited. It remains very much an evolving approach and as such, subject to further modifications and refinements. This creates risk for distributors potentially subject to TFP-based regulation.

Assessing the potential impact of the Proposed Rule Change on the National Electricity Law (**NEL**) *Objective* or the *Revenue and Pricing Principles* is made difficult by the lack of detail, certainty and clarity presented in the Proposed Rule Change. Although DPI established at a high level how it envisages the design of a TFP approach progressing, the proposal is not developed to an extent that allows a thorough assessment to be made of its implications. Further, the proposal passes very significant discretion to the Australian Energy Regulator (**AER**) in the development and application of a TFP approach for re-setting price controls – much more discretion than it currently has in the application of a building blocks approach. As a matter of principle, the businesses do not believe this is the best process for developing a new regulatory approach. Given the absence of practical experience with a TFP approach in Australia, it would be preferable that the NER with respect to the TFP approach is more rather than less prescriptive on how it is to be developed.

These absences of detail give rise to significant risks were the TFP approach to be approved by the Australian Energy Markets Commission (**AEMC**) in its current form. Many critical features of the TFP approach proposed have been left open, and it is implied that the AER would be charged with determining the details. This uncertainty not only makes any assessment of the merits of pursuing a TFP approach difficult, but will also give rise to a subsequent and very significant process for deciding the detail that will be necessary for it to be given effect.

For these reasons, the businesses consider that the current Proposed Rule Change be deferred and instead the Ministerial Council of Energy **(MCE)** requests the AEMC to undertake a full and detailed review of a TFP methodology. This review would provide the businesses greater confidence that the complex issues on the design and implementation of a TFP approach would be addressed in a considered and appropriate way.

The AEMC's consideration of the TFP approach should include the significant issues described in the sections below.

Specification of output/input data measures and data protocols

The estimate of industry-wide TFP is central to the TFP approach yet the Proposed Rule Change lacks any detail on how the TFP estimate is to be formulated. It is also unclear what businesses will be included as part of this 'industry-wide' estimate. Establishing appropriate arrangements for the development of a TFP estimate and the collection and management of relevant data is central to ensuring that a robust and credible TFP estimate is derived. This will give parties confidence in the integrity of the TFP estimation process, and the ensuing results.

At a minimum the Proposed Rule Change should specify the methodology for determining the TFP estimate, the input and output data indicies to apply, and provide a framework for resolving disputes of a technical nature. The Proposed Rule Change should also address:

- What formula will be used to derive the industry-wide TFP estimate?
- How will the 'industry' be defined for the purposes of this estimate?
- What price deflator should be used?
- Who will be responsible for deriving and updating the TFP estimate?
- What data sources will this estimate draw on?
- Will any costs be imposed on distributors from meeting these data requirements?

Further, it is noted the Proposed Rule Change does not mandate the AER use audited historical outturn information. This has been an issue in the Victorian context where the ESC initiated a project to review the use of TFP based approaches to regulate electricity distribution services because the Essential Services Commission and its consultants have made periodical adjustments to audited outturn information at their discretion. These adjustments have made it impossible for distributors to replicate the Essential Services Commission and its consultant's TFP calculations as the scope and justification for these adjustments is not made visible.

Only once the processes and protocols for deriving the TFP estimate are fully developed will it be possible to understand the full implications of the TFP approach. Without such detail, there is too much uncertainty to draw meaningful conclusions.

Exit policy for businesses once they have adopted TFP

The Proposed Rule Change binds a distributor indefinitely into a 'TFP Approach', once it has elected such an approach, unless it can obtain the AER's consent to revert to an incentive based building blocks approach. The businesses consider such an approach unsatisfactory on the basis:

- the NER continues to provide for an incentive based building blocks approach. As such, it remains an equally applicable alternative to the TFP approach;
- it denies distributors deemed suitable for a TFP approach the same rights as those available to other distributors i.e. other distributors will continue to have access to a incentive based building block approach; and
- under certain circumstances it may enshrine an extended period in which a distributor is unable to earn a reasonable rate of return i.e. a TFP approach may result in revenues less than costs over a prolonged period.

Under TFP approaches elsewhere, these concerns are addressed through 'off ramps' and normalisation provisions. The absence of these provisions under the Proposed Rule Change exacerbates the concerns identified above.

As a consequence the businesses believe a distributor should have the discretion to exit a TFP approach by giving notice to the AER prior to the expiry of a regulatory control period i.e. clause 6.2.4A(d) should be deleted.

Rolling X factor

Measurement of productivity growth is a highly imperfect process. Imperfections arise from uncertainty as to precisely how outputs, inputs and input cost changes should be measured, especially for outputs provided over networks for which the cost of provision is dominated by capacity (rather than usage).

It follows that uncertainty and imperfections in the measurement of TFP has meant, from the businesses understanding, that virtually all United States applications of the TFP approach use long term estimates of productivity growth, since estimates based on long term data are the only way to address these short term imperfections.

In light of the above, it is folly to subscribe to the view that it is important (or even possible) for TFP measure to be kept 'up to date' as is implied by a rolling X factor. Rather, the introduction of an updating process simply introduces a degree of randomness and uncertainty into the determination of price controls.

The above sequence of logic means that virtually all the claimed benefits of a rolling X factor are likely to be illusionary. In other words, the process that the proposal characterises as updating and better matching prices with costs is in fact more likely to involve:

- the introduction of *significantly increased uncertainty*, e.g. a distributor would only ever know its X factor one year in advance, and would have no way of predicting how its X factor could be expected to change;

- *controversy* as to the dynamics of *how new sample entities are introduced* into (or removed from) the pool of network service providers whose data is used to calculate the rolling X factor;
- *a case for stronger incentives* and longer periods between price reviews that is *illusory*, and so would be bound to fail under close scrutiny (such as empirical testing as to the stability or otherwise of any rolling X factor calculation); and
- ultimately, *damage to the credibility* of the TFP approach.

Finally it is worth noting that although the proposal gives the impression that the rolling X factor approach is applied elsewhere, it seems from the businesses understanding it is limited to the United States railroad regulation. The businesses are not aware of any instances where a rolling X factor has been applied to United States electricity network regulation.

Hence, clause 6.6A.6 should be amended to exclude the inclusion of a rolling X factor calculation.

Normalisation

The Proposed Rule Change makes no provision for managing specific environmental characteristics impacting on individual distributors i.e. clause 6.6A.6(f)(1) prohibits 'firm specific' adjustments other than that distributor opting out of the TFP approach entirely (although the distributor requires AER approval to opt out).

The assumption that normalisation should be excluded appears to be based on a false premise that all distributors have the same opportunities with respect to technical change and economies of scale and scope. The current advanced metering infrastructure project provides an example of why this is not the case. Urban distributors are able to avail themselves of relatively cheaper solutions such as mesh radio which rely on close proximity between customers. Rural distributors however are unable to use mesh radio in rural areas due to the sparsity of customer's hence are required to employ relatively more expensive technologies.

The businesses believe provision is required within the Proposed Rule Change to accommodate normalisation to manage the clearly differential impacts of technological change and scale on distributors. If such a provision is not included, it is essential that the option to revert to an incentive based building blocks approach be at the discretion of the distributor.

TFP criterion

Clause 6.6A.3(b) of the Proposed Rule Change seeks to impose a *Criterion* for the TFP approach. The need for such a *Criterion* is not clear given the NEL already provides guidance in terms of an *Objective* and a set of *Revenue and Pricing Principles*. The guidance provided in the NEL for building blocks has been deemed satisfactory by law makers and the case made by the proposal presents no compelling reason why a further *Criterion* is necessary.

The businesses also consider the *Criterion* inappropriate, as its focus appears to link the new TFP based outcome back to a building blocks outcome rather than ensuring whether or not the TFP path is in fact feasible. Further, clause 6.6A.3(b) as drafted implies an assessment of future expenditure by distributor to ensure the AER has allowed for the recovery of 'efficient costs' subject to the TFP approach over the regulatory control period.

The *Criterion* appears to enshrine the principle the TFP approach is designed to avoid, that is the nexus between costs and prices. Consequently the businesses believe the *Criterion* should be removed i.e. the deletion of clause 6.6A.3.

Length of regulatory period

Clause 6.6A.2(b) makes reference to the regulatory control period proposed by a distributor being not less than 5 years. However, the ultimate decision as to the length of the regulatory control period remains that of the AER (clause 6.6A.2(a)(6)).

A key advantage of the TFP approach over the incentive based building blocks approach is the potential for longer regulatory control periods, lowering the costs of regulatory review processes. Consequently, it would undermine the benefits of the TFP approach should the AER decide to maintain the status quo of 5 years. Further it is noted regulators in most jurisdictions have always had the power to allow for longer regulatory control periods but have chosen not to exercise this discretion.

The businesses believe clause 6.6A.2 should be modified such that if a distributor proposes a regulatory control period of between 5 and 10 years, consistent with the concept of propose-respond used elsewhere in NER, the AER be obliged to accept the regulatory control period proposed by the distributor.

'Industry wide'

The Proposed Rule Change allows for the inclusion of distributors from other Australian States and Territories and overseas jurisdictions (for example clauses 6.2.8A(9) & (10) and 6.6A.6(f)(1) with TFP data sets. It also allows for the inclusion of non-TFP participating distributors within a jurisdiction. The inclusion of data from these sources is laden with difficulties related to differing regulatory and service obligations and corporate objectives. In case of the overseas jurisdictions, these difficulties are magnified by differences in accounting policies, tax laws and corporate structures (e.g. separation of retail and distribution costs).

The businesses do not believe the differences identified can be managed without considerable normalisation which would require detailed knowledge of the circumstances in which distributors in other jurisdictions operate. Whilst the AER will understand Australian distributors, it is unlikely to have a comparable understanding of distributors in overseas jurisdictions. Hence the businesses believe it would be highly problematic to include overseas jurisdictions.

Summary

The businesses reiterate their belief there is merit in having a TFP approach available as an alternative to the incentive based building block approach. However, it should be recognised that the TFP approach is in its infancy and this potentially creates risk for distributors subject to TFP.

Many critical features of the TFP approach proposed have been left open. This uncertainty not only makes any assessment of the merits of pursuing a TFP approach difficult, but will also give rise to a subsequent and very significant process for deciding the detail that will be necessary for it to be given effect.

For these reasons, the businesses consider that the current Proposed Rule Change be deferred and instead the AEMC undertakes a full and detailed review of a TFP methodology. This review would provide the businesses greater confidence that the complex issues on the design and implementation of a TFP approach would be addressed in a considered and appropriate way.

I would be pleased to discuss the businesses' concerns further with the AEMC should that be of benefit.

Yours sincerely

Rolf Herrmann
MANAGER REGULATION