17 March 2009

Dr John Tamblyn
Chairman
Australian Energy Markets Commission
Sydney

Dear John

Response to Framework and Issues Paper, Review into the Use of Total Factor Productivity for the Determination of Prices and Revenue

Please find attached our submission to your framework and issues paper *Review into the use of Total Factor Productivity for the determination of prices and revenues*. Thank you for the opportunity to participate in this review.

We would be pleased to discuss this with you and your staff if you think this would be useful.

Yours sincerely

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Response to Framework and Issues Paper, Review into the Use of Total Factor Productivity for the Determination of Prices and Revenue

Introduction

We strongly support the development of regulatory mechanisms that are able to strengthen efficiency incentives for network service providers. We also strongly support the twin objectives that you have said will guide your thinking on the issue: efficiency savings and market confidence in the regulatory framework.

The Energy Users Association of Australia (EUAA) is the national association of electricity and gas users and has over 100 members. This includes many of Australia's largest energy users. By way of background, we have participated in around 30 network regulatory determinations over the past twelve or so years and this experience is reflected in the comments provided below.

The Framework and Issues paper has identified 36 issues to which you are seeking stakeholder views. Most of these relate to the detailed design and implementation of a Total Factor Productivity (TFP) methodology. We are not in a position to respond to many of these detailed design issues. Instead, in this submission we have focussed on providing a clear statement of the problem, to which the implementation of a TFP methodology may be part of the solution.

A "statement of the problem" formed a large part of our presentation at the Framework and Issues Public Forum held in Melbourne in January. In this, we highlighted what energy users see as shortcomings in the present regulation of energy networks and strongly supported the need for greater use of benchmarking as a means of overcoming these and meeting the market objectives for electricity and gas.

In subsequent open discussion by participants at the forum, it was clear that many participants saw the need to establish more clearly why, if at all, TFP should be implemented.

A clear understanding of the problem will guide subsequent consideration of whether and, if so how, to incorporate TFP in the regulatory toolkit. This aligns with the counter-factual assessment ("assessing the advantages and disadvantages of the current application of the building block approach") that your Framework and Issues paper, describes as part of your assessment framework.

Our comments in this submission relate more directly to electricity distribution and transmission but many have similar applicability to regulated gas pipelines.

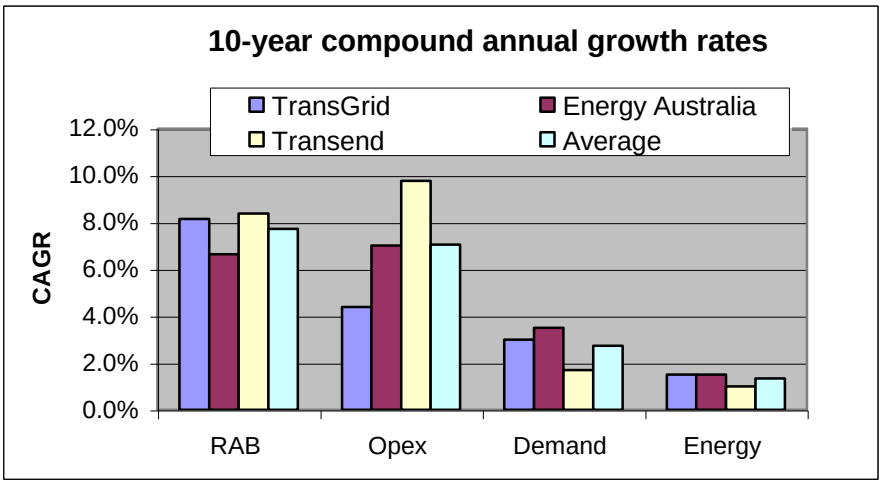
What is the problem?

In our view, the existing building block approach is failing to deliver the twin objectives that you have identified: it is not promoting efficiency savings and it does not inspire market confidence (or confidence among energy users). We believe it has failed particularly in the economic regulation of government-owned network businesses. We have more confidence in its application to the economic regulation of privately owned network business, most of which are located in Victoria. Ironically, it is the Government of Victoria and Essential Services Commission of Victoria, where most privately owned businesses are located, that are the strongest proponents of the TFP approach.

We suggest that evidence of the failure of the building blocks approach can be seen in the very significant increase in operating and capital expenditure by government-owned regulated network businesses. For example, we have calculated the ten year compound annual growth rates in the regulatory asset base and operating expenditure for Transend, TransGrid and Energy Australia and

compared this to the compound annual growth rates in demand and energy in Tasmania and New South Wales.[1] This is shown in Figure 1 below.

Figure 1. Compound annual growth rates of expenditure, demand and energy for Transend, TransGrid and Energy Australia



These data show that the average rate of growth of the RAB has been almost three times faster than the average rate of growth in demand, and almost six times faster than the average rate of growth of energy.

These partial data are corroborated by aggregate expenditure data provided by the AER in its *State of the Market* report. For example, aggregate average annual capital expenditure by transmission network service providers in the NEM rose more than three times from $400m in 2002 to around $1,270m in 2008.[2] By far the biggest contribution to this increase has been from the government-owned transmission network service providers, with exceptionally large increases in expenditure by Powerlink, TransGrid, Energy Australia and Transend.

The AER data also shows that the government-owned transmission network service providers have consistently spent above their regulatory allowances for operating expenditure, while the two privately owned transmission network service providers have consistently spent less than their regulatory allowances.[3]

The overspending is also evident in capital expenditure where the government-owned transmission network service providers have consistently spent above their allowances, while the two private network service providers have spent below their allowances.

The same trend of very significant expenditure increases is evident amongst electricity distribution businesses. For example, the AER's data shows that the government-owned distribution network service providers in Tasmania, New South Wales, Queensland and Western Australia have typically raised average annual capital expenditure two to three times by 2008 compared to the expenditure levels in 2000. By comparison, for the privately owned distribution network service providers in South Australia and Victoria, average annual capital expenditure has remained approximately constant.[4]

[1] Whilst some of the differences may be attributable to higher load growth, especially in the case of Queensland, this does not seem to account for all of the difference. This point is also relevant to other comparisons later in this letter.
[2] *State of the Market 2008*, AER, November 2008. Figure 4.6, page 126.
[3] Ibid, Figure 4.12, page 128.
[4] Ibid, Figure 5.4, page 151.

In operating expenditure, the government-owned distribution businesses have typically been awarded much higher operating expenditure increases than the privately-owned distributors. In spite of this, the government-owned distribution businesses have invariably spent above their allowances, while the privately owned distribution businesses in Victoria have consistently spent under their allowances.[5]

The consistently lower rate of increase in expenditure of the privately owned network businesses has not resulted in lower reliability or quality of supply. On the contrary, the AER data shows that despite the much higher level of spend by the government-owned businesses, quality of supply and reliability is generally lower than their privately-owned peers. For example, the System Average Interruption Duration Index of privately owned distribution businesses in Victoria and South Australia was lower than that in any other jurisdiction in the NEM for all years from 2000 to 2007.[6] In transmission networks, system minutes unsupplied by the privately owned SP Ausnet is consistently better than that of its government-owned peers.

The clear picture that emerges from these data is that the building block regulatory appraoch applied by the AER and jurisdictional regulators appears to have worked very much better with privately-owned network service providers, than it has with government-owned businesses. This begs the question whether the problem is government ownership, rather than the design of the regulatory mechanism?

We agree that for government-owned businesses, efficient service delivery is only one of several objectives, and is generally accorded less significance than in privately owned businesses. Other factors driving government-owned businesses include the desires to create and retain jobs, a more limited commercial focus and a greater propensity to invest to extend services into uneconomic remote areas (where services are best extended based on government subsidies rather than cross subsidies). Jurisdictional governments have also shown a greater aversion to making the tough decisions that need to be made to deliver services efficiently. Government-owned businesses also have an incentive to expand their asset base, since under the building blocks regulatory formulation, this is a major factor affecting revenues and hence attributable income, through dividends that the governments are able to derive from these businesses.

In other words, government-owned businesses have generally been able to pass onto energy users the higher costs associated with the delivery of other objectives such as job protection, less than fully commercial operation, and investment and service extension in unprofitable areas. This has come about in several ways:

- There has been a steady degradation in the role of profit-based incentives, and in their place is ever-expanding provision for cost pass-thoughs, reopeners and "contingent" projects. These arrangements allow regulated business to easily pass costs onto users, and make it easy for them to ask for more approved expenditure during the regulatory period. These developments have weakened efficiency incentives and passed risks onto energy users, when they should rightly lie with shareholders and managers;
- Australian utility regulators have failed to hold regulated businesses to account for overspend against their regulatory allowances. Other than for TransGrid's MetroGrid project, all significant capital overspend has been rolled into the regulatory asset base and through this, recovered in regulated charges. If businesses know that there is no recourse for spending above their allowance, why have regard to that allowance?
- The application of the building blocks regime has facilitated cherry-picking. For example, under the guise of "competitive neutrality" (i.e. regulators should treat government-owned businesses as if they were privately owned), government-owned business have applied-for and generally

[5] Ibid, Figure 5.8 page 155.
[6] Ibid, Table 5.6, page 159.

received generous allowances for the cost of equity and debt raising, despite the fact that these government-owned business incur very little such cost themselves.

In addition to this, we are concerned that the current approach towards building block regulation has become increasingly more information intensive and created an environment where the regulator is increasingly dependent upon the regulated businesses for information upon which to make decisions. This has facilitated the capture of regulators by the regulated businesses. This has undermined the ability of our regulators to achieve the electricity market objective, *to promote efficient investment in, and efficient operation and use of, electricity services for the long-term interests of consumers of electricity*.

The application of the regulatory regime has also resulted in ever more inward-looking business-specific expenditure assessments. Advice in these assessments is often provided by engineering consultants, who almost invariably suggest cosmetic changes to the proposals put by the regulated businesses. These consultants are often heavily reliant on information provided by the businesses. This is not a process that users can have confidence in, especially when we also know that those consultants derive significantly more income from the regulated industry, than they are likely to derive from their advice to regulators.

We accept that regulators should have regard to company-specific factors that are likely to affect the efficient level of expenditure. However, we think that too much is made of this. In competitive markets, customers care little whether one supplier faces higher costs or adverse circumstance compared to its peers. The supply-side is expected to innovate and restructure as necessary to manage risks and costs, to defend their place in the market. In the regulation of monopoly network businesses, it is the regulator's task to act as a proxy for the market. Our strong view is that the application of building blocks regulation in Australia has generally insulated regulated network businesses, and particularly government-owned businesses, from the incentives that competitive markets deliver for innovation and efficient service delivery. The result of this has been lower efficiency and higher electricity prices. This message has perhaps been of academic interest during Australia's long economic boom. Now, in the early stages of what could well be a steep and sustained economic decline, this inefficiency matters and must be addressed.

It is quite possible for building blocks regulation to be an effective regulatory approach. Indeed, there is evidence suggesting that it has generally been more effective when applied to privately-owned network service providers in Australia. However, there is also evidence that it has failed to deliver efficiencies to end users in its application to publicly owned network businesses in Australia but has saddled end users with higher and higher costs.

In Britain where the building blocks regulatory approach (known as *RPI-X* regulation) has been applied far more extensively and for a much longer period than in Australia, reviews by the National Audit Office[7] and other institutions[8] have generally concluded that it has been successful.

Although TFP offers the prospect of regulatory determinations that have much greater regard to sector or economy-wide trends, the actual application may be somewhat different to this. We refer, for example, to the report by Farrier Swier Consulting for the ACCC in 2002, which developed ideas on off-ramps, re-openers and so on that would allow company-specific adjustment to a sector wide measure of TFP. If this is where the adoption of TFP will lead, then we see little to be gained by energy users in its adoption.

More should be made of benchmarking

Australian regulators have had too little regard to the development of benchmarks or similar comparative assessments. This is despite the fact that an obligation exists in the National Electricity

[7] "Pipes and Wires", April 2002, National Audit Office, Britain.
[8] See for example the RPI-x@20 review currently being undertaken by Ofgem.

Rules for such benchmarking to form part of the information that the regulator has regard to, in assessing the efficiency of expenditure proposed by regulated businesses.[9]

By contrast, the National Gas Law is silent on the factors that the regulator should consider in the assessing the efficiency of expenditure proposals, indicating a weakness and inconsistency in its approach compared to electricity. A change in this area should be carefully considered by the AEMC.

We strongly support the use of benchmarks in regulatory assessments. Benchmarking provides a way for regulators to overcome the information asymmetry to which they are captive, if they only have regard to information provided by the regulated businesses. There is an extensive academic and applied literature on the use of benchmarking in utility regulation and it is well established as a regulatory approach in many other countries.

Our view of the relative merits of TFP compared to building block regulation

The Issues Paper alluded to several ways in which TFP may be superior to the building blocks approach. These included that it could be lighter-handed, result in lower regulatory cost, be less open to dispute, that it provides a solution to information asymmetry, that it attenuates the problem of substitution between capital and operating expenditure, that it may provide higher-powered incentives and that it could encourage the pursuit of non-network solutions.

Some of the participants are the Forum suggested that the application of TFP would be data intensive, contentious and opaque.

We think that categorical judgements of the relative superiority or inferiority of the TFP approach is neither possible nor helpful. There is considerable scope for TFP approaches to be designed in ways that are light-handed, transparent and provide powerful efficiency incentives. However, there is considerable scope for exactly the opposite to occur as well. Much the same can be said for the building blocks approach.

As discussed above, we think the building blocks approach has failed energy users in some important areas. It has become highly data intensive, opaque, heavy-handed, contentious, has resulted in costs escalations of orders of magnitude from one regulatory reset to another and it provides weak efficiency incentives. However, as discussed, our view is that this is more the case with government-ownership, and governance (the problem of federal regulation of jurisdictionally-owned network utilities).

The relevant question, in our opinion, is whether TFP will be any better at overcoming the intrinsic regulatory challenges attributable to ownership and governance. We have not undertaken an exhaustive analysis to inform our response to this question. However, we are skeptical that it will *necessarily* be any better. It could be, but may not.

Our judgement is that TFP may be just as susceptible to gaming by the regulated businesses, as the building blocks approach has been. If this judgement is correct, then it should be expected that the TFP approach may degenerate into a morass of pass-thoughs, off-ramps, caps, collars and so on, in an attempt to bend TFP outcomes to fit the revealed costs of the regulated businesses. In this case, the application of TFP would be no improvement on the building blocks approach. We suggest that it would be helpful for the AEMC to explore this in more detail and to make a judgement on this, as part of its counterfactual assessment.

Notwithstanding this, we do think that the act of gathering and presenting information on productivity and efficiency would be valuable. This would be of most value if it were centrally used to help determine future price paths for regulated network business but even if it is not (initially) formally used in setting regulated prices, it could still be useful.

[9] See clauses 6.5.6(e)(4); 6.5.7(d)(4); 6A.6.6(e)(4) and 6A.6.7(e)(4)

Next steps

We welcome the AEMC's discussion in the Framework and Issues Paper, and also the reports it has commissioned from the Brattle Group and London Economics. This has helped to establish a more solid base of technical information on the various design issues that need to be considered in deciding whether to adopt TFP and if so, how.

However, we think that the AEMC should have singificant regard to developing a clear assessment of the performance of the existing arrangements, in order to assess whether the implementation of TFP is likely to be useful in rectifying some of the problems that have become evident (some of which are referred to above).

For example, it is possible that more could be achieved without changing regulatory regimes, if the AER made more extensive use of benchmarking, as it is obliged to do under the existing National Electricity Rules. And if this requirement was extended to regulated gas businesses.

We hope that you find that this submission has set out clearly where we think that the existing building blocks arrangement is failing energy users, and how this information could be used in your counter-factual assessment.