

15 July 2019

John Pierce AO  
Chairman  
Australian Energy Market Commission

Dear Mr Pierce,

**ERC0266: DMIS and DMIA for TNSPs Rule Change Proposal**

Energy Consumers Australia appreciates the opportunity to provide comments on the *National Electricity Amendment (Demand Management Incentive Scheme and Innovation Allowance for TNSPs) Rule: Consultation Paper* (the Paper) of 23 May 2019. The Paper addresses a rule change proposal (the Proposal) made by Energy Networks Australia to the Australian Energy Market Commission (AEMC) that seeks to extend the Demand Management Incentive Scheme (DMIS) and Demand Management Innovation Allowance (DMIA) to Transmission Network Service Providers (TNSPs). We note that the Proposal includes no details of any consultation undertaken by the proponents before lodging the request.

Energy Consumers Australia is the national voice for residential and small business energy consumers. Established by the Council of Australian Governments Energy Council (the Energy Council) in 2015, our objective is to promote the long-term interests of energy consumers with respect to price, quality, reliability, safety and security of supply through advocacy on behalf of residential and small business consumers.

We see the current transformation of the electricity sector as part of the larger, longer-term project of building a dynamic and sophisticated energy system and energy services market. This is a system and market which will continue to include some big long-lasting infrastructure and but increasingly include distributed energy resources, over time delivering intelligent individualised services which are tailored to the unique circumstances and requirements of different people and businesses. Overall the system must optimise a large, distributed and increasingly complex energy system. In a highly capital-intensive sector, we need to optimise the way we build out and operate physical infrastructure to deliver energy services at the lowest possible cost for consumers.

In the immediate term, based on what consumers are telling us through the Energy Consumer Sentiment Survey our focus is to improve energy affordability for households and small businesses being negatively impacted by high energy prices.

To that end we welcome initiatives by networks designed to improve the long-term interests of consumers by pursuing options other than simple additions to the asset base.

On the one hand, we are currently assessing a range of propositions emerging from the Integrated System Plan (ISP) and other processes purporting to make the case for more transmission network investment and that these are essential for reliability and security. On the other hand, we have this rule change proposal that implies there are opportunities to not make transmission investment that are being foregone but for the want of a positive incentive.

Given this apparent conflict Energy Consumers Australia is taking a conservative approach — against change — in relation to all proposals related to transmission.



In addition to this general position we have are three technical reasons why we do not support the Proposal:

1. The Proposal makes no case for the need for an additional incentive.
2. The Proposal seeks to adapt an existing distribution incentive in an inappropriate way.
3. The DMIS is not an effective incentive scheme.

In this submission we focus on the Incentive Scheme part of the proposal.

*No case has been made*

The National Electricity Law (s88) requires that the AEMC only make a Rule 'if it is satisfied that the Rule will or is likely to contribute to the achievement of the national electricity objective.' That is the AEMC must be satisfied that the Rule will promote economic efficiency for the long-term interest of consumers with respect to price, quality, safety, reliability and security of supply.

The section allows the AEMC to give such weight to elements of the objective as it considers appropriate in the circumstances.

The proponents note that 'as technologies evolve there are increasing options for non-network options to provide a cost-effective alternative to managing flows on the transmission network and dealing with an increasing dynamic supply/demand balance.'<sup>1</sup> As a statement this is true in both relation to the development of technology and the dynamics of the market.

The submission continues 'The proposed Rule goes some way to addressing (via the DMIS) the lack of positive financial incentives under the current regulatory framework to implement non-network solutions that would provide an overall benefit to the market, as well as providing funding for innovation that can be expected to lower costs to consumers in the long-term (via the DMIA).'<sup>2</sup> There is no attempt to reconcile a claimed 'overall benefit to the market' to a specific element of the long term interest of consumers. The proponents cannot claim that the Proposal will increase the reliability or security elements of the NEO as it is assumed that the TNSP is choosing between schemes that are equal in their impact in relieving capacity constraints. Therefore, the Proposal can only contribute to the achievement of the NEO if it results in a reduction in price.

The claim that there is no 'positive financial incentive' to prefer a non-network solution is not the same as there being an actual negative incentive. The proponents do separately address 'practical hurdles' to the adoption of efficient non-network solutions arguing these include shareholder preferences, licence conditions and 'reputational risk.'

In the current environment the biggest reputational risk to all NSPs is the perception that they have no separate interest in fulfilling the NEO and in particular in helping to reduce costs to consumers, but instead can only be expected to act in the interest of consumers in response to a specific identified financial incentive. The Proposal seems to reflect that position.

Finally, if the project is sufficiently large for the impact on prices to be material, the investment will need to satisfy the RIT-T. If there is a viable non-network solution, as is assumed in the case for the DMIS, then the network solution would not meet the requirements of the RIT-T and the TNSP would be required to implement the non-network solution to meet the requirements of their licence, which would seem to be incentive enough

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<sup>1</sup> Energy Networks Australia *Demand Management Incentive Scheme and Demand Management Innovation Allowance – Rule Change Request* February 2019. Page 3.

<sup>2</sup> *ibid* Page 6



### *DMIS/DMIA inappropriate incentive for transmission*

The proponents seek to mirror the existing provisions for a DMIS/DMIA for distribution networks. In doing so they note that they, Grid Australia, TransGrid and the City of Sydney proposed the scope of the rule change for the distribution networks be extended to transmission networks. They note that the AEMC ruled this was out of scope for the distribution network change, and that transmission networks can and do contribute to effective demand management 'albeit in a more limited capacity.'<sup>3</sup> The AEMC also noted that 'stakeholders have the ability to raise a Rule change to apply a similar framework to transmission.'

The proponents note further that the Australian Competition and Consumer Commission (ACCC) Retail Electricity Pricing Inquiry (REPI) recommended the extension of DMIS/DMIA to TNSPs.

It is worth noting however that the AEMC's rule determination noting that a rule change proposal could be lodged to extend the DMIS/DMIA to TNSPs was made in May 2015, while the ACCC reported in June 2018.

Energy Consumers Australia has been a strong proponent of the full adoption of the recommendations of the REPI report. The ACCC's view that 'The DMIS and DMIA should also be extended to transmission businesses' should be considered in the full context of Recommendation 22 (the full text of the recommendation is included as ATTACHMENT A to this letter).

To seek further guidance on the importance the ACCC attached to this part of the recommendation the text of the relevant section (8.4) of the report was reviewed to understand their view on the importance of this part of the recommendation. The entire discussion of transmission networks reads:

*There may also be benefits from extending the scheme to transmission businesses. However, the scale of projects at the transmission level means that a greater proportion are likely to be already captured under the RIT process.<sup>4</sup>*

They concluded the section:

*It is beyond the scope of this Inquiry to resolve all of these questions around the opportunity to participate in demand response in different markets. However, the AEMC's annual network framework review provides an opportunity for these issues to be considered in more detail.<sup>5</sup>*

Put simply, neither the earlier comments of the AEMC nor the recommendations of the ACCC provide a firm foundation for the application of DMIS/DMIA to TNSPs.

More particularly, if we were to accept the premise that solutions other than investment in additional transmission network capacity are warranted, any solution should consider all the available options.

In the case of transmission, the solution to a capacity constraint on one part of the network could be met by reducing demand, or by increasing supply on another part of the network. Consider a simple scenario of a single city being supplied by two transmission lines. One line can be congested while the other line has under-utilised capacity because there is simply not enough generation. In this circumstance the 'non-network solution' is the development of new generation sources in a geographic area well served by transmission.

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<sup>3</sup> *ibid* Page 6-7

<sup>4</sup> Australian Competition and Consumer Commission, Retail Electricity Pricing Review: Final Report June 2018 Page 206

<sup>5</sup> *ibid* Page 209



This is the intent of the proposals currently being considered by the AEMC in its Coordination of Generation and Transmission Investment (CoGATI) review. The TNSPs also acknowledge that their ability to directly affect the level of demand is severely limited. As ECA understands it, recent market testing of demand response at transmission scale has been disappointing.

Consequently, the simple adoption of the DMIS/DMIA rules for transmission networks is an inappropriate solution.

#### *DMIS/DMIA limitations*

The underlying principle of the DMIS is that the network business identifies an augmentation project and an alternative non-network solution. This construction is logical in the framework of regulatory processes but is illogical in terms of network constraints and consumer behaviour. It is based on a 'collision avoidance' mentality rather than a 'safe-driving' mentality.

Trying to implement actual demand management through changing consumer behaviour is not something easily invoked at the time of constraints limit supply. There are some cases where networks have been able to implement such programs, but they tend to be where the peak is extreme and highly seasonal.

The DMIS is a narrowly focussed scheme that in our view is not situated within a broad framework of understanding of the design of regulation for electricity distribution businesses. Attachment B contains a short description of types of regulation used in electricity distribution ending with current US descriptions of Performance Based Regulation. In these terms the DMIS is an example of a Performance Incentive Mechanism. These mechanisms can be far broader than the DMIS approach. As a simple example an 'asset utilisation rate' would encompass non-network strategies that included the benefits of generation location as well as of demand management.

#### *Conclusion*

Energy Consumers Australia supports the initiative of Energy Networks Australia in pursuing rule changes that would enable TNSPs to be rewarded for strategies that defer or replace the need for transmission network augmentation and hence benefit consumers by providing lower prices without compromising reliability.

However, the proposal to simply extend the DMIS/DMIA to transmission networks is not supported by evidence in the submission, nor have alternative incentive arrangements been considered.

We therefore cannot support the proposed rule. We remain open to further consultation with Energy Networks Australia if they want to demonstrate alternatives that they considered and why they were rejected.

Yours sincerely,

Rosemary Sinclair AM  
Chief Executive Officer



## **ATTACHMENT A– ACCC REPI Recommendation 22**

In relation to network demand response:

- The AER, in undertaking the revenue determination process, should include a more explicit focus on assessing the efficient use of non-network expenditure. This should involve a robust assessment of a network business's actual and proposed non-network expenditure, including a comparison of the overall proportions of non-network expenditures against the network's capital expenditure, and benchmarking across businesses. Further, consultation by the AER and networks through the process should include engagement with third party demand response providers.
- Distribution businesses should apply to the AER for early application of the new DMIS (ahead of their next regulatory determination) to bring forward incentives for greater use of demand response. The DMIS and DMIA should also be extended to transmission businesses.
- The AEMC should consider in its annual review of the electricity network economic regulatory framework whether network assets are being used efficiently to provide benefits in addition to distribution services (for example, as a substitute for generation in the wholesale, RERT or FCAS markets). This assessment should explore whether: clarification is needed of what services can be provided directly by network businesses in contestable markets
  - there are any aspects of the existing framework or technical barriers that prevent network assets being used to provide efficient non-distribution services
  - the shared asset arrangements provide for a reasonable share of value extracted from the provision of non-distribution services flowing to customers
  - it is appropriate for some non-distribution services (such as voltage control) to be obtained from network assets under direction from AEMO rather than procured through competitive markets.



## ATTACHMENT B – Types of regulation for electricity distribution

The regulation of electricity utilities has its longest history in the United States of America where these businesses have been subject to economic regulation since early in the twentieth century. That regulation has been based on a form of regulation called Cost of Service Regulation (CoSR) that addressed the primary concern that a monopolist would price above cost.

Rates the utility can charge are set at rate cases before the Public Utility Commission. In the simplest form of these, the business proposes rates which the Commission approves if they meet the revenue requirement which is equal to the costs of the business. The revenue requirement is calculated in the familiar way of determining a return for capital (rate of return\*assets) plus depreciation plus operating expenses (including tax). The timing of rate cases is at the discretion of either the business or the regulator deciding it is time for a review. While this is called 'cost of service' it is usually based on historic cost and so inherently has a lag. If a rate case was held annually the firm would cover its costs one year late.

As the costs of electricity declined while consumption grew (up to the 1980s mostly) increasing economies of scale meant the lag worked in favour of the utilities. With more volatile fuel costs, it became the norm for determinations to include 'cost-trackers' to accommodate these rather than require additional rate cases.

The main alternative to CoSR is *ex ante* price or revenue caps also called 'CPI (or RPI) -X.' This form of regulation was famously adopted for British Telecom following a report by Stephen Littlechild.<sup>6</sup> It has been habitually referred to as the British or UK model of regulation.<sup>7</sup>

Interestingly the concept of CPI-X regulation had been suggested by William Baumol in 1982 as a 'productivity incentive clause.'<sup>8</sup> In his excellent *The Fifty Most Important Papers in the Economics of Regulation* Darryl Biggar hypothesises that this influenced Littlechild's thinking.<sup>9</sup> In correspondence Stephen Littlechild has said he doesn't recall having read the paper but he does not in a 2014 paper that the idea for RPI-X came from bankers advising BT.<sup>10</sup>

CPI-X is also sometimes called 'incentive regulation' though that term should have a wider use. For example, in a 1986 article Paul Joskow and Richard Schmalensee identified 31 incentive schemes involving electric utilities in twenty states.<sup>11</sup> That paper mentions the early work of Laffont and Tirole<sup>12</sup> and both the Baumol paper and the implementation of RPI-X. The identified schemes, however, mostly related to the generation activities of the regulated utilities and took the form of rewards based on targeted operating characteristics. For example, a scheme that targeted generating capacity factors with a 'dead band' between 60 and 75%, achievement between 75 and 85% results in a 50% reward

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<sup>6</sup> Littlechild, S 1983, *Regulation of British Telecommunications' Profitability: Report to the Secretary of State*, Department of Industry, London.

<sup>7</sup> Lodge, M & Stern, J 2014, 'British utility regulation: Consolidation, existential angst, or fiasco?', *Utilities Policy*, vol. 31, pp. 146-51.

Bartle, I & Marchant, J 2003, 'The UK model of utility regulation', *CRI Proceedings*, vol. 31.

<sup>8</sup> Baumol, WJ 1982, 'Productivity Incentive Clauses and Rate Adjustment for Inflation', *Public Utilities Fortnightly*, no. July 22.

<sup>9</sup> Biggar, D 2011, 'The Fifty Most Important Papers in the Economics of Regulation', ACCC/AER, No. 3.

<sup>10</sup> Littlechild, S 2014, 'RPI-X, competition as a rivalrous discovery process, and customer engagement—Paper presented at the Conference The British Utility Regulation Model: Beyond Competition and Incentive Regulation?', *Utilities Policy*, vol. 31, pp. 152-61.

<sup>11</sup> Joskow, PL & Schmalensee, R 1986, 'Incentive Regulation for Electric Utilities', *Yale Journal on Regulation*, vol. 4, no. 1-49.

<sup>12</sup> Laffont, J-J & Tirole, J 1986, 'Using Cost Observation to Regulate Firms', *Journal of Political Economy*, vol. 94, no. 3-1 (Jun), pp. 614-41.



of fuel cost saving to the business, while over 85% the business kept all the fuel cost saving, with the reverse applying for underperformance. (In the dead band the cost was just a straight pass through to consumers.)

This mixture of terms can be The National Electricity Rules at 6.2.6(a) state:

*For standard control services, the control mechanism must be of the prospective CPI minus X form, or some incentive-based variant of the prospective CPI minus X form, in accordance with Part C.*

The Part C referred to outlines the ‘building block’ nature of determinations, which are fundamentally the same elements used in CoSR. This is the kind of arrangement referred to by Joskow in his *Incentive Regulation in Theory and Practice: Electricity Distribution and Transmission Networks* in 2006. In that paper he notes:

*The implementation of incentive regulation concepts is more complex and more challenging than may first meet the eye. Even apparently simple mechanisms like price caps (e.g. so-called “RPI – x” regulation) are fairly complicated to implement in practice, are often imbedded in a more extensive portfolio of incentive regulation schemes, and depart in potentially important ways from the assumptions upon which related theoretical analyses have been based.<sup>13</sup>*

In 1990 Thomas Weyman-Jones prophetically asked:

Throughout the debate of **RPI-X** regulation, the most usual question has been: how does it differ from US-style rate of return or cost of service regulation? Put another way, what will prevent **RPI-X** from becoming simply rate of return regulation by another name at the regulatory review stage?<sup>14</sup>

In 2006 Joskow concluded:

*Incentive regulation has been promoted as a straightforward and superior alternative to traditional cost of service or rate of return regulation. In practice, incentive regulation is more a complement to than a substitute for traditional approaches to regulating legal monopolies. In some ways it is more challenging. Whether the extra effort is worth it depends on whether the performance improvements justify the additional effort. Incentive regulation in practice requires a good accounting system for capital and operating costs, cost reporting protocols, data collection and reporting requirements for dimensions of performance other than costs. Capital cost accounting rules are necessary, a rate base for capital must still be defined, depreciation rates specified, and an allowed rate of return on capital determined. Comprehensive “rate cases” or “price reviews” are still required to implement “simple” price cap mechanisms.*

*Planning processes for determining needed capital additions are an important part of the process of setting total allowed revenues going forward. Performance benchmarks must be defined and the power of the relevant incentive mechanisms determined. The information burden to implement incentive regulation mechanisms well is similar to that for traditional cost of service regulation.*

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<sup>13</sup> Joskow, PL 2006, ‘Incentive Regulation in Theory and Practice: Electricity Distribution and Transmission Networks’.

<sup>14</sup> Weyman-Jones, TG 1990, ‘RPI—X price cap regulation: The price controls used in UK electricity’, *Utilities Policy*, vol. 1, no. 1, pp. 65-77.





Notwithstanding these limitations there is renewed interest in alternatives to CoSR in the USA described as Performance Based Regulation (PBR). As Lowry and Woolf note 'PBR is not a one-size-fits-all construct designed uniformly wherever it is applied. Instead, PBR is made up of several elements intended to strengthen utility performance incentives that can be applied in different ways and in different combinations. Some of these elements are applied as stand-alone elements in regulatory systems that are largely traditional.'<sup>15</sup>

PBR employs three concepts:

1. The multi-year rate plan (MRP), which combines a rate case moratorium with an attrition relief mechanism (ARM) and some performance incentive mechanisms (PIMs). An ARM is basically something of the form of  $CPI-X$  though it may be as complex as  $\% \Delta P = I - X - S + Z + K$  where I is inflation, X is productivity, S is a stretch factor, Z is used to incorporate exogenous factors like a policy change, and K is a 'supplemental capital factor'. A PIM is a device whereby revenue is allowed to increase based on some performance criteria.
2. MRPs may also feature revenue regulation (also called revenue decoupling), earnings sharing mechanisms (ESM) and other techniques. The standard model to which PBR is applied is the US style CoSR which is still a price setting whereas PBR targets either revenue or a price index. An ESM is the device used to determine how under or over performance is distributed, and these are usually just based on a post fact comparison of allowed to realised rate of return.

The Australian distribution network model is therefore a very simple five-year MRP that decouples revenue using a simple ARM of  $CPI-X$  where X isn't an efficiency measure but is just a 'smoothing' mechanism. The EBSS and CESS are both just ESMs that have the intent of sharing efficiency outcomes 30:70 between networks and consumers respectively. Finally, the STPIS and DMIS are very simple PIMs.

The example PBR that US papers reference is the RIIO program of Ofgem.

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<sup>15</sup> Lowry, MN & Woolf, T 2016, *Performance-Based Regulation In A High Distributed Energy Resources Future*.