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SUBMISSION

Australian Energy Regulator

Potential development of demand management incentive schemes for Energex, Ergon Energy and ETSA Utilities for the 2010–15 regulatory control period

Issues Paper

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AER Potential development of demand management incentive schemes for Energex, Ergon Energy and ETSA Utilities for the 2010–15 regulatory control period
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1. Introduction

1.1 Previous submissions

Total Environment Centre (TEC) is pleased to have another opportunity to engage in the debate about demand management incentive schemes, which we believe are sorely needed to address the imbalance between the supply side and demand side of the National Electricity Market (the NEM), as well as to reduce greenhouse emissions. We are supportive of the issues paper overall, and commend the AER for its favourable discussion of the potential benefits brought by DM.

In December 2007 we responded to the AER's first Issues Paper on potential DM incentive schemes, regarding NSW and the ACT. Many of the issues we raised in that submission and our recommendations are highly relevant to the current focus of discussion, and we refer the AER to that response and attach it again here[1].

As we mentioned in our last submission, TEC – in conjunction with the Alternative Technology Association (ATA) and the Ethnic Communities Council of NSW (ECC) – covered various matters germane to this Issues Paper in 2007 in submissions to the Ministerial Council on Energy (MCE) on network incentives[2] (particularly pp 4-6) and network planning and connection arrangements[3] (particularly pp 4-5). We also commissioned the Institute for Sustainable Futures (ISF) (with assistance from the Advocacy Panel) to review the NSW D-factor mechanism regarding its success in promoting demand management and to recommend potential alternatives[4]. We have sent copies of all these to the AER previously and attach them again here.

We consider the attached submissions apply in the case of the Queensland and SA distribution companies, indeed to all distribution network service providers.

1.2 TEC's main recommendations

Our main recommendations in response to the Issues paper about Queensland and SA contain some that are specific to that paper but also include a number we have raised previously. Below we address issues that we consider have not covered adequately in previous submissions:

[1] TEC (2007) *Submission on Matters relevant to distribution determinations for ACT and NSW DNSPs for 2009-2014 – Issues Paper*, 11 December 2007
[2] TEC, ATA, ECC (2007) *Submission on Network Incentives for Demand Side Response and Distribution Generation*, 30 May 2007
[3] TEC, ATA, ECC (2007) *Submission on Network Planning and Connection Arrangements – National Frameworks for Distribution Networks*, 5 October 2007
[4] Institute for Sustainable Futures (2007) *Draft report: Win, win, win: Regulating Electricity Distribution Networks for Reliability, Consumers and the Environment*, Confidential draft, December 2007.

- The MCE should institute a proper review of DM across all sectors of the NEM and sectors with which the NEM interacts (such as climate change programs). More effective mechanisms for the promotion and implementation of DM across the NEM need to be properly explored and then implemented. We consider all current DM mechanisms, including the D-factor, fall well short of an effective counter to the massive incentive for inefficient electricity consumption and inefficient network investment.

  In addition, there are many uncoordinated processes under way at the moment (the AER's deliberations encompass only a few of them) that lack overarching guidance. At the very least it would give clarity and certainty for all stakeholders if the MCE played a coordinating role and informed stakeholders of how the various processes interact, not only in terms of National Electricity rule changes but for other regulations and policies as well.

- We continue to support, in principle, the D-factor incentive in the context of price cap regulation and in the absence of a more effective alternative. This is despite the fact that it fails on a grand scale to counter the massive incentives to encourage inefficient consumption and inefficient expansion of network infrastructure.

- We continue to support the concept of a "learning-by-doing fund" for all States, either as a supportive mechanism to a D-factor scheme (where regulation relies on a price cap) or as a measure within a revenue cap form of regulation. Such a fund should be vastly expanded beyond the current allocation proposed for NSW.

- Wider investigation of DM incentives needs to be undertaken, with the potential for future variations before the next determinations once NEM-wide approaches are established. We await the AER's national issues paper, due this year.

- We strongly promote a revenue cap for distribution networks over a price cap as the 'least worst' disincentive for DM. Where a price cap is in place, generous incentives should be developed to encourage cost-effective network DM, at least of the type of the "D" factor system but to a much greater degree.

- The AER needs to give greater consideration to how demand management incentives interact with other incentive schemes (for instance service performance and efficiency benefit). This has been raised in both issues papers, but has not yet been grappled with.

- The ISF report, *Win, Win, Win* (referred to above and attached here) contains a number of detailed recommendations which should be investigated by the AER – it is not clear from the latest AER Issues paper whether these recommendations have been thoroughly assessed.

2. Demand management target scheme – the California example

In May 2008 TEC held a forum for non-government consumer advocates on economic regulation of networks with a focus on demand management[5]. Michael Peevey of the California Public Utilities Commission took part in the forum and highlighted the vast

[5] Total Environment Centre (2008) Forum on Price Caps, Revenue Caps and Total Factor Productivity –Which is best for demand management and the long term interests of consumers?

differences between the approaches of Californian and Australia's National Electricity Market regulators. Demand-side response is second only to the overarching priority of energy efficiency for the California Public Utilities Commission. By contrast, NEM regulators approach DM as a mere footnote to the narrow goal of 'economic efficiency' which in practice excludes efficiency in the use of electricity. A simple version of the California energy savings program is that each utility is given a specific annual target for each year of in terms of the total electricity savings in GWh for that year[6]. Although Californian utility companies are vertically integrated and serve all sectors, nonetheless this program could – and should – serve as a model for the distribution companies in the NEM. The target-style program gives concrete goals that must be met, rather than marginal adjustments that fail to counter the enormous incentives for networks to sell more electricity and expand their asset bases in order to earn a return on investments.

The incentive mechanism includes various features, such as:

- whenever the utility achieves savings within the higher end of the target they are able to retain the savings in relation to avoided investment
- if they fall below 65% of the target they must pay a penalty[7]
- the businesses are required to submit program planning and budgets to the regulator each year.

With this and other supportive mechanisms, California has been very successful in addressing demand growth in terms of per capita consumption, in particular due to their energy savings program. Indeed, California has been able to hold demand flat for the past 30 years and now has a goal of ***reducing*** demand. By contrast, under the passive, narrow economic focus of NEM regulators, demand continues to grow.

TEC considers that the potential for DM savings from such a target scheme warrants further investigation by the AER, and we strongly recommend this action. Furthermore, such a target scheme may complement proposals for energy efficiency trading schemes for retailers in Australia.

The concept of targets was given general support at TEC's consumer advocacy forum, and the participants identified the following as core values (in no particular order):

- Minimise consumption of electricity
- Effective consumer protection
- Consistent regulatory mechanisms and incentives
- Reduced greenhouse emissions.

[6] California Public Utilities Commission (2004) *D.04-09-060 – Interim Opinion on Energy Savings Goals for Program Year 2006 and Beyond*; and California Public Utilities Commission (2007) *D.07-10-032 – Interim Opinion Relating to Future Savings Goals and Program Planning for 2009-2011 Energy Efficiency and Beyond*.
[7] The Economist (2008) *Energy efficiency – The elusive negawatt*, Accessed online 23.5.2008

3. Hierarchy of action – the California example

TEC has been arguing in many forums for DM to be investigated and implemented before network augmentation. Again California has an approach that we strongly support: energy efficiency measures must be pursued first, then other DM measures, followed by renewable energy, and after that clean distributed generation before any fossil fuel generation or augmentation of a network will be accepted[8].

4. Demand management incentive schemes

This section contains a number of items that we consider require highlighting from the issues paper and should not be regarded as a full statement of TEC's position on such schemes. There are a number of matters we will raise in a future submission on a national Demand Management Incentive Scheme (DMIS).

4.1 DM as a priority over augmentation for networks

Demand management (DM[9]) in all its forms must be recognised as the priority instead of the current 'build and sell' practices throughout the NEM because of the benefits that it delivers to consumers and to improving efficiency across the whole market.

4.2 Recognising the wider benefits of DM

There also needs to be a shift in emphasis in the way DM is discussed and viewed. So far, policy and regulation makers (such as the AER) discuss DM in terms of what is "cost effective". In this issues paper this term is defined as, "cost effective (that is to say, permits ETSA Utilities to meet its supply obligations at a lower cost than expenditure on network augmentation)." (p. 5) There is no good reason why DM solutions should only be acceptable at a **lower** cost. They bring so many extra benefits to consumers and the NEM in general that they should be placed at the top of a hierarchy of options (as we discussed above for California).

4.3 DM incentive under a price cap

If a price cap methodology is applied to DNSPs, then it must include incentives for DSR and DG to counter the massive incentives and cultural bias for DNSPs to sell more electricity. Such incentives should ensure that networks are able to recoup revenue for both the efficient cost of carrying out a non-network solution as well as for the foregone revenue from sales that would have been raised had the DSR and/or DG not gone ahead. The purpose is to promote consideration of more efficient non-network solutions and, conversely, to reduce the incentive for the networks to encourage excessive consumption (that is, by selling more electricity).

4.4 Minimum spending target for DM of 5%

We note that the AER refers to the potential for a minimum spending target on DM (p. 19). TEC strongly advocates that the 1-2% presented in the paper is too low in light of

[8] US EPA (2005) *State EE/RE Technical Forum – Call #7: Energy Efficiency Resource Standards*, pp. 2-3.

[9] DM in this submission can be read to include 'demand response', 'demand side management', 'demand side response', 'energy efficiency' and 'non-network solutions'. In general, DM can include both the management of peak loads and energy efficiency as a way of meeting capacity requirements most cost effectively. It includes a diverse array of activities that meet energy needs, including cogeneration, standby generation, fuel switching, power factor correction, interruptible customer contracts, and other load shifting mechanisms.

the minimal DM achieved so far and the vast potential for DM remaining untapped. At least 5% of the projected network capital expenditure should be set aside for DM projects, on 'use it or lose it' terms, even if this is only an interim measure to help networks gain experience. We regard this as an essential adjunct to a learn-by-doing fund. Ex-ante approvals for DM expenditure should be considered in more detail as well, for both opex and capex. The example of the Victorian sum for DM within opex is an interesting approach that could also be pursued.

Since the requirement for either of these would be to implement DM wherever possible, such incentives in fact promote efficiency within the NEM. In a competitive market, the failure of networks to weigh up non-network and alternative generation options goes against the intentions of the National Electricity Law objective (promoting efficient use of electricity) and adds unnecessary costs for consumers.

4.5 DM reporting

Another issue we consider of primary importance in expanding DM measures across the NEM is that of reporting. It is essential that DNSPs accurately and thoroughly report their investigations and implementation to the AER; that these reports are publicly available; and that the AER compiles a database of all DM attempts and successes. These reports would help change the cultural bias against DM and serve to focus the DNSPs energies on the wide range of successful approaches, as well as suggesting entry points for DM businesses.

4.6 Supporting measures for the D-factor

In terms of applying the D-factor scheme there are supporting measures that are critical to achieve a successful D-factor mechanism, which we reiterate from previous submissions:

- short-term incentives relating to the annual price control formula within regulatory periods should be neutral between DM and network investment options, and should "decouple" DNSP profit and revenue from electricity sales;
- long-term incentives between regulatory periods should be neutral between DM and network investment options in terms of recovery of costs and sharing of efficiency benefits between shareholders and customers;
- planning and development regulations should ensure that there is equal opportunity for DM and network investment options to be both considered and adopted;
- regulation should ensure that network planning and operational decisions take account of the implications of these decisions on the external environmental costs and, in particular, the costs associated with greenhouse gas emissions.

4.7 Learn-by-doing funds for all jurisdictions

In addition, since there have been positive reports of the ESCOSA scheme – named a "learning-by-doing fund" by the AER – TEC would also support the implementation of such a fund for all jurisdictions. It would certainly bring benefit, and would act as an additional trial of the measure before potential implementation in other parts of the NEM.

In summary, most important is that these must be viewed as **interim measures** while a full range of options for regulations to promote DM by DNSPs are pursued. There are too many ad hoc processes under way at the moment with no clear overarching guidelines for the promotion of DM across the NEM. TEC urges that every possible entry point for DM be activated.