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**Total Environment Centre**  
**TransGrid Revised Revenue Proposal 2014-19**  
**Submission to AER**  
February 2015

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## Total Environment Centre's National Electricity Market advocacy

Established in 1972 by pioneers of the Australian environmental movement, Total Environment Centre (TEC) is a veteran of more than 100 successful campaigns. For nearly 40 years, we have been working to protect this country's natural and urban environment, flagging the issues, driving debate, supporting community activism and pushing for better environmental policy and practice.

TEC has been involved in National Electricity Market (NEM) advocacy for ten years, arguing above all for greater utilisation of demand side participation — energy conservation and efficiency, demand management and decentralised generation — to meet Australia's electricity needs. By reforming the NEM we are working to contribute to climate change mitigation and improve other environmental outcomes of Australia's energy sector, while also constraining retail prices and improving the economic efficiency of the NEM — all in the long term interest of consumers, pursuant to the National Electricity Objective (NEO).

As with other current network revenue determinations, TEC's interest is primarily in demand management: that is, measures to reduce peak demand, thereby encouraging energy conservation and reducing unnecessary infrastructure investment, both leading to lower bills for consumers.

### DM in the NEM

The 1992 National Grid Management Protocol included the objective, 'to provide a framework for long-term least cost solutions to meet future power supply demands including appropriate use of demand management'. However, DM utilisation in Australia has been historically limited when compared to international best practice. The current value of network and non-network DM in Australia currently equates to less than 2% of total peak demand.<sup>1</sup> In the US DM meets 4.3% of total peak, with many states currently setting targets for peak demand reduction between 5 and 15%.<sup>2</sup> In California the equivalent peak load reduction is 6 percent.<sup>3</sup>

As noted by the AEMC and the Productivity Commission in the context of recent reviews, there is significantly more opportunity for DM in the Australian system than is currently being pursued.<sup>4</sup> It is estimated that \$2.2 billion per year of avoidable network costs are being passed on to consumers Australia wide<sup>5</sup>. While it is generally agreed that the current allocation of funds under the DM Incentive Allowance (DMIA) for distribution businesses is too low, utilisation of the scheme has been even lower, with just 13% of the scheme expended in 2012.<sup>6</sup>

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<sup>1</sup> Dunstan C, Downes, J & Sharpe, S. (2013).

Restoring Power: Cutting bills & carbon emissions with Demand Management. Institute for Sustainable Futures, University of Technology Sydney. Prepared for the Total Environment Centre, p 57.

<sup>2</sup> Productivity Commission, 2013, op cit., citing Faruqui and Fox-Penner (2011), p 46.

<sup>3</sup> Productivity Commission, 2013, op cit., and Australian Energy Market Commission, 2012, *Power of Choice Review – Giving Consumers options in the way they use electricity (Final Report)*.

<sup>4</sup> Futura Consulting, 2011, *Power of Choice – Giving consumers options in the way they use electricity*. Cited in Dunstan c, et al, 2013, op cit.

<sup>5</sup> Dunstan, C., Downes, J. & Sharpe, S. (2013) *Restoring Power*, p 27. TEC notes that Ausgrid increased its rate of expenditure in the 13/14 financial year, and is projecting a total spend of 4.1 m of the 5 m allocation.

<sup>6</sup> Dunstan, C., Downes, J. & Sharpe, S. (2013) *Restoring Power*.

There is a strong imperative to utilise DM in order to reduce costs and therefore increase the affordability of energy for consumers, but also to improve the environmental performance of the electricity system. For instance, the AEMC estimates that ‘the economic cost saving of peak demand reduction in the NEM is likely to be between \$4.3 billion to \$11.8 billion over the next ten years.’<sup>7</sup>

If more DM had been supported during this period consumers, the Australian economy and the environment could all have benefited. Despite the numerous reports (by the AEMC, Senate, Productivity Commission, etc) that have highlighted the gross errors in the AER’s current determinations, the AER shows signs of continuing not to take DM, energy efficiency and distributed renewable seriously as alternatives to network investment. There are increasingly loud warnings that the future will involve rapidly changing market conditions and technology including low cost solar and potentially affordable battery storage, carbon constraints, energy efficiency and more flexible energy management. DM is critical to this transformation. Networks need to be incentivised to embrace and facilitate not resist and obstruct this future. However, after more than six years of responsibility for network regulation, the AER still does not have an effective DM incentive scheme in place.

## The regulatory framework for DM

Ideally, demand management would be encouraged through the following range of regulatory mechanisms:

1. *Overarching objective*: the National Electricity Rules ensure that DM and other non-network options (energy conservation and efficiency and local generation and storage) are given an opportunity to contribute to the National Electricity Objective (NEO) on an equal footing to capex spending.
2. *Incentives*: an effective DM incentive scheme (DMIS) for both transmission and distribution businesses drives DM wherever it will reduce net costs to consumers.
3. *Innovation*: network businesses use the demand management innovation allowance (DMIA) to drive real innovation to reduce peak demand.
4. *Targets*: network businesses set DM targets in collaboration with regulators.
5. *Expectations*: the AER clearly and consistently signals its determination to scrutinise network revenue proposals for evidence that DM and other non-network options are being considered seriously by network businesses.
6. *Benchmarking*: the AER compares the DM performance of all networks according to metrics such as the benefit:cost ratio and/or \$/kVA of energy saved, and applies these benchmarks to its revenue determinations.
7. *Timing*: DM and other non-network options are seriously considered prior to being included in networks’ revenue proposals, rather than through the regulatory investment tests (RITs) administered once revenues have already been guaranteed.
8. *Reporting*: network businesses report annually to the AER on their DM activities and outcomes, with inadequate performance penalised by reduced revenue allocations.

By contrast, there are currently significant impediments to DM being properly considered as an efficient alternative to capex spending. These impediments include:

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<sup>7</sup> Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education, 2013. *Quarterly Update of Australia’s National Greenhouse Gas Inventory, December Quarter 2012*.

- Unlike the returns on DM-related opex, capex spending adds to regulated asset bases (RABs) and earns a regulated return for an average of 30 years, leading to a significant incentive to ‘gold plate’ networks.
- The tokenistic nature of RIT processes to date, with very few RITs resulting in the decision to defer or abandon capex projects in favour of non-network options.
- The AER’s failure to signal to network businesses from the beginning of revenue determination processes that it takes DM and other non-network options seriously and will adjust revenues accordingly.
- The absence of a DM incentive scheme (DMEGCIS) to provide financial incentives for networks to spend money on DM-related opex.

Under the current regulatory framework, the incentives for DM are limited to the following:

- The DMEGCIS (in the case of distribution businesses), which is now restricted to the demand management innovation allowance (DMIA).
- An informal (that is, unregulated) innovation allowance for transmission businesses.
- Non-network options may be considered as alternatives to augmentation and replacement capex proposals in regulatory proposals.
- In theory but not in practice, non-network options are considered in the regulatory investment tests (RITs) undertaken for augmentation capex projects over \$5 million.

Since the AER has decided not to apply (to distribution network determinations) the incentive scheme in the DMEGCIS pending resolution of the rule change requests submitted by TEC and SCER, consideration of DM is restricted (in regular resets) to the use of non-network options to reduce augmentation capex (what the AER refers to ‘the capex/opex tradeoff’) and the use of the DMIA to incentivise networks to trial innovative DM projects and technologies.

In principle TEC supports DM spending by networks, and considers that the DMIA should not be limited to an arbitrary cap of \$1 million per year for innovative projects. However, we consider that, no matter what the proposed level of expenditure, DM revenue should comply with the following criteria:

1. Proposals should be truly innovative rather than continuing or rehashing projects that have already been undertaken by any network.
2. Learnings from successful past projects should be integrated into business as usual planning, particularly in respect of alternatives to augex plans.
3. Learnings from the next regulatory period should be shared with other networks and the public.
4. Networks should report annually in their Annual Planning Reports on their DM performance, preferably against metrics determined by the AER (such as the \$ cost per MVA reduced).

## **The AER’s role**

As with other network revenue resets, TEC considers that the AER has sent a message to TransGrid that it does not consider DM to be an important part of the 2015-20 revenue proposal. This began with the 2013 Framework and Approach Paper, which made no mention of demand management. Ditto the 2014-15 transitional determination.

In its draft determination for TransGrid the AER has shown a belated interest in DM by rejecting TransGrid’s proposed DMIA spending on the basis that its proposed opex step change for this purpose was not presented as a capex/opex trade-off or the result of either a new regulatory obligation or a projected

increase in peak demand (7-58). It did, however, approve a continuation of the current \$1 million per year DMIA.

By adopting an all-stick, no carrot approach to DM in TransGrid's draft determination, TEC considers that the AER appears to have continued to send the message that DM is not an important element of networks' revenue proposals. TEC therefore proposes that the AER should develop a clear, consistent and strong message about the importance of DM by developing a Guideline to this effect. For its part, TEC is seriously considering a rule change request which would require RITs to be carried out for asset replacements (replex) with a capital cost over \$5 million; to require the capital cost threshold for RITs to be lowered; and to ensure that RITs are conducted before large capex projects are included in regulatory proposals. We would like to discuss this regulatory reform proposal with AER staff.

## **The latest instalment**

In its regulatory proposal, TransGrid did not propose any DM projects as capex alternatives, in spite of arguing that DM is a 'compelling value proposition' as an alternative to augex to meeting increases in peak demand. It did, however, propose a substantial opex step change in the DMIA from \$1 million per year in the previous regulatory period to a total of \$18 million for the period 2014-19. This was to cover three areas: collaboration, market understanding and development, and technology trialling. However, as the CCP notes in its critique, 'Despite proposing an \$18 million DMIA allowance, TransGrid is not proposing to progress any actual demand management for the next regulatory period.' That is, it is not intending to use this allowance to actually reduce peak demand.

While TEC did not make a submission on TransGrid's original proposal, we discussed the DM plans with the CCP and largely concur with the CCP's critique – ie, that TransGrid's DMIA proposal amounts to an attempt to do more projects that are not particularly innovative, and that they have not translated into TransGrid's mainstream business through the use of DM as augex alternatives. We acknowledge that TransGrid has proposed significantly reduced its proposed augex over the previous regulatory period, but this is primarily due to flat peak demand rather than the employment of DM activities as alternatives to augex.

We also concur with the CCP (through our own experience with TransGrid's recent Mid North Coast and Far North Coast proposals) that its past performance in regard to its RITs and Requests for Proposals has been largely tokenistic, and that the new regulatory proposal gives little reason to believe that this is likely to change in the near future. We further note that other stakeholders made submissions including similar critiques of TransGrid's DMIA proposal, with only one company active in the DM space offering conditional support for TransGrid's 'pre-emptive network support' proposal. The AER rejected that proposal in its draft decision, as it was based on a the contingent Western Sydney project that the AER has determined is not justified. In principle, pre-emptive network support should be supported, but only where it reduces likely augex or replex spending.

We are sceptical of some elements of the proposed DMIA spending, such as \$1.75 million for 'understanding peak demand.' This was a key focus of TransGrid's 2009-14 DMIA, and it is not clear from the regulatory proposal just what aspects of peak demand remain opaque.

Finally, we were surprised at the lack of specificity in the proposal. For instance, in spite of TransGrid being a partner in the ISF's ARENA-funded Network Opportunity Mapping project, which involves spatial mapping of emerging network constraints, in Appendix R TransGrid pasted a solar resource map from Italy to illustrate 'indicative demand resource' (whatever that means). Such a lack of relevance and specificity gives the impression that TransGrid has not adequately thought through what it plans to do with the DMIA it is asking for (in this case given that mapping is not in itself a form of DM).

## TransGrid's revised proposal

TransGrid has now responded to the draft determination by essentially proposing a similar level of expenditure on the DMIA as was contained in its original proposal. The only rationale offered for ignoring the AER's draft determination is that

At TransGrid's recent workshop on the draft decision and demand management innovation forum, consumer representatives expressed overwhelming support for TransGrid to pursue activities that would develop the demand management market. (102)

TransGrid has not provided any evidence to support this assertion in the revised proposal or on its so-called 'Have your say' website (which does not reveal what people have said!). Even if consumer representatives had expressed overwhelming support for such activities, there is a great deal of difference between support for DM in general, and support for the extent and content of TransGrid's proposed DMIA step change.

TEC is surprised that TransGrid has not responded to the critiques of the AER and some other stakeholders. What it has done instead is to publish a detailed rebuttal of the CCP submission on its original DMIA proposal. In the rebuttal, which we cannot go into in detail, TransGrid makes some relevant arguments, including that DM can also be 'a genuine option for addressing network replacement requirements, rather than only augmentation requirements' in the context of low or no peak demand growth. We agree. The problem is that there is no evidence that the application of this approach in 2009-14 has resulted in DM being proposed in preference to augex or repex projects in 2014-18, or that this approach in 2014-18 is likely to lead to greater network DM in the following regulatory period. In other words, the DMIA appears to remain adrift in the sea of TransGrid's overall revenue proposal, rather than signalling a change of culture that will lead to DM being seriously considered from the outset wherever augex or repex projects are proposed.

## Conclusion

Under the circumstances, TEC supports the AER's decision to limit TransGrid's DMIA request to \$1 million per year. We look forward to seeing evidence that TransGrid is using this money to pursue innovative projects that it will seek to translate into its mainstream business as an alternative to augex and repex spending in the forthcoming regulatory period. If this happens, we would support a higher DMIA in the 2018-23 regulatory period. Meanwhile, we would be happy to provide stakeholder input into this ongoing process.

Further, we note that there is nothing in the Rules that would prevent TransGrid from spending more than \$1 million per year on DM projects in 2014-18, given that the AER approves total revenue and allows the network to determine how it is allocated. Should TransGrid find savings elsewhere, identify projects capable of a capex-opex tradeoff, or decide that DM is so important that it will fund it internally regardless of the revenue cap, it is welcome to do so. Given that in respect of Ausgrid the AER identified a benefit to cost ratio of around 2.5:1 from DM projects, this should be in TransGrid's interests to pursue. Investigating the integration of widespread grid scale storage at the sub-transmission level (in conjunction with distribution businesses) in response to emerging localised demand constraints would seem a good place to start.

Finally, TEC recognises that TransGrid has made great strides in its consumer engagement over the past two years, and that DM staff are clearly committed to their task, but they do not appear to have the opportunity to influence major spending decisions at the appropriate time – that is, when capex projects

are first being developed. We look forward to seeing further improvements in future years, including evidence that feedback has substantially altered corporate investment decisions. In this respect we are bemused that the amendments to its DMIA proposed by TransGrid as point 8 of its response to the CCP – all of which TEC would support – have not also found their way into its revised proposal.

We also recognise that to date the AER has not sent strong signals that it expects a significantly greater involvement by networks in DM activities as business as usual instead of as boutique projects funded by the DMIA. There is therefore a role for the AER to play here too, including sending a signal at the outset of regulatory determination processes about the importance of DM, reviewing all networks' past DM activities, requiring annual DM performance reports, and setting DM targets for capex-opex tradeoffs. Providing incentives to increasing the DMIA should also be considered in future revenue determinations as part of this package of reforms.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Jeff Angel', written in a cursive style.

**Jeff Angel**  
Executive Director