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Total Environment Centre

DEMAND MANAGEMENT INCENTIVE SCHEME

RULE CHANGE REQUEST

Submission to Australian Energy Market Commission

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Introduction

The proposed Rule change (see Appendix 1) is being proposed by Total Environment Centre. TEC has been involved in National Electricity Market (NEM) advocacy since 2003. Since 2006 TEC's NEM advocacy has been funded by the Consumer Advocacy Panel (CAP). Throughout this time, TEC has argued consistently for greater utilisation of demand management (DM) or "demand side participation" (DSP) — energy conservation and efficiency, peak load management and distributed generation — to meet Australia's electricity needs at lower costs to consumers and with lower greenhouse emissions, all in the long term interest of consumers, pursuant to the National Electricity Objective (NEO).

If greater attention had been paid to TEC's advocacy for DM over the past decade, it is likely that much of the unnecessary network augmentation over the past six years could have been avoided and the consequent dramatic increases in electricity bills and prices would have been much less severe. Greater emphasis on DM would have also delivered major greenhouse gas emission reductions at low or negative cost and the current dysfunctional national debate about climate policy may have been avoided.

So while the past neglect of DM in the NEM has come at great cost to current and future Australian consumers, the point of this proposed Rule change is to learn from this experience and ensure that future costs and risks are minimised.

TEC's 2007 Rule change request

In 2007 TEC submitted a request for a change to the National Electricity Rules (the NER or the Rules) to the Australian Energy Market Commission (AEMC). That proposal had the following components:

- Including specifications in the Regulatory Test for demand management options to be considered prior to network options;
- Requiring TNSPs to publish robust data on upcoming network constraints that are relevant and useful to demand management service providers;
- Requiring the AER to design and implement a demand-side incentive scheme for TNSPs;
- Including requirements to recover expenditure on demand side activities in relation to components of the transmission determination and the post-tax revenue model;
- Ensuring that demand management activities are appropriately integrated into revenue determinations for TNSPs;
- Ensuring that there is an ability for NSPs to recover investment in small scale demand side activities; and
- Including a mechanism within the wholesale market pool that allows a price to be set for demand side response services.

The Rule as made in 2009 by the AEMC¹ was much more limited in scope than the original TEC request, covering

- The provision of specific information about forecast constraints by TNSPs in their Annual Planning Reports (APRs);

¹ National Electricity Amendment (Demand Management) Rule 2009 No. 11.

- The treatment of non-network expenditure incurred by TNSPs (e.g. demand management activities) by the Australian Energy Regulator (AER) in future revenue determinations;
- The obligations on the AER when assessing revenue proposals, to take account of whether the TNSPs have demonstrated, and made provision for, appropriate efficient non-network alternatives; and
- The related obligation on TNSPs to provide information on the appropriate non-network alternatives considered by the TNSP in their Revenue Proposals.²

The current Rule change request

TEC's decision to make this new Rule change request comes about as a result of its participation in the Australian Energy Regulator's (AER's) Better Regulation program, one of the workstreams of which, Power of Choice, includes reform of the Demand Management and Embedded Generation Connection Incentive Scheme (DMEGCIS). Early in 2013 the CAP decided to fund consumer groups to engage more effectively with the Better Regulation program. TEC successfully applied for funding for the Power of Choice workstream.

TEC engaged the UTS Institute for Sustainable Futures to prepare a draft report on reform of the DMEGCIS and a related Rule change. Two workshops were held in Sydney and Melbourne in September, and the outcomes incorporated into ISF's final report, *Restoring Power: Cutting bills & carbon emissions with Demand Management*.³ This Rule change request is based on, and accompanied by, that report.

Early in 2013, a reformed DMEGCIS was the AER's highest priority in the Power of Choice workstream. However, it then determined that reform of the DMEGCIS would require a change to the Rules to be implemented by the AEMC. The AEMC is, in turn, waiting for direction from the Standing Committee on Energy and Resources (SCER). Reform of the DMEGCIS is workstream 18 of SCER's demand side participation (DSP) workplan, but at the time of submission of this request it not yet made a Rule change request to the AEMC.

TEC has decided to proceed with its own Rule change request for two reasons:

1. Rule changes typically take up to 2 years, and it is important for a reformed DMIS to be in place for the implementation of the NSW/ACT and Queensland network revenue determinations on 1 July 2015 (the former after a 1 year transitional period in 2014-15).
2. There are some differences between the AEMC draft specifications for the DMEGCIS Rule change and our proposal, which we believe improve it by providing some additional clarity and scope.

Nevertheless, we understand that the AEMC is likely to wait to receive both Rule change requests (ie, TEC's and SCER's) and combine consideration of both into a single Rule change process.

Terms

In the current context, there are two distinct ways of defining demand management (DM):

² See <http://aemc.gov.au/electricity/rule-changes/completed/demand-management.html>.

³ Downes, J., Dunstan, C. & Sharpe, S. (2013) *Restoring Power: Cutting bills & carbon emissions with Demand Management*. Institute for Sustainable Futures, University of Technology Sydney.

1. Broadly, as the variety of ways that *overall electricity consumption* may be reduced – ie, by increasing energy conservation, peak load management, energy efficiency and distributed generation.
2. More narrowly, as the variety of ways that *network peak daily or annual demand* may be reduced. This may also be achieved by increasing energy conservation, peak load management, energy efficiency and distributed generation, but in this case these projects or activities are undertaken specifically in order to reduce the need for network augmentation, where DM is the most economically efficient option.

As both Clause 6.6.3 of the Rules and the AER's related DMEGCIS relate to networks, in this proposal demand management is used in the second, more narrow sense – ie, as synonymous with network DM.

In 2011 the AEMC completed a change to the NER to change Clause 6.6.3 from Demand Management Incentive Scheme (DMIS) to Demand Management and Embedded Generation Connection Incentive Scheme (DMEGCIS). This change was instituted in order to expand the scope of the DMIS to recognise the potential value to networks of connecting embedded generation alongside other forms of demand management as economically efficient alternatives to expensive network augmentation.⁴

However, in view of the clumsiness of the term DMEGCIS and the recognition that embedded generation can itself be a form of DM, this Rule change request proposes to return the Scheme to its previous name and acronym, DMIS. It therefore refers to DMEGCIS in relation to the present Rule and scheme, and DMIS in relation to the proposed Rule and related future Scheme.

“Network” refers herein to distribution network service providers or DNSPs.

Statement of Issue

As stated in *Restoring Power*, the need for more network DM is urgent:

- Electricity prices have more than doubled between 2007 and 2013.
- Network charges now make up half of the average Australian electricity bill.
- Networks are investing more than \$40 billion in electricity distribution and transmission networks in the current 5 year regulatory period.
- An estimated one-third of the current investment in the networks is to cater for growth, and in particular, growth in peak demand.
- The Productivity Commission estimates that peak demand events occur for less than forty hours per year (or less than 1% of the time) yet account for approximately 25% of the average residential bill.
- Current demand management is equal to less than 2% of NEM-wide peak demand⁵ and only about 1% of the generation capacity in the NEM.
- It is estimated that \$2.2 billion per year of avoidable network costs are being passed on to consumers Australia-wide.

⁴ For more detail see <http://aemc.gov.au/electricity/rule-changes/completed/inclusion-of-embedded-generation-research-into-demand-management-incentive-scheme.html>.

- The economic cost savings of peak demand reduction in the NEM are estimate to be between \$4.3 billion to \$11.8 billion over the next ten years. This translates to approximately \$500 of savings per customer each year in South Australia and Queensland, \$350 in New South Wales and \$120 in Victoria.⁵

It is widely recognised that the current regulatory framework does not support effective network DM.

Again according to *Restoring Power*,

The latest available estimates of demand management in Australia identified approximately 700MW of demand reduction in 2010/11, about half of which was from network demand management projects. While this is almost double the amount from 2009/10, it is still very low in an electricity system with more than 45,000 MW of generation capacity, and represents only about 2% of total peak demand.

Similarly, the size and uptake of the current [DMEGCIS] is also low. The total allowance available in the current regulatory period is \$36.5 million across the 13 DNSPs operating in the National Electricity Market (NEM). The yearly allowance ranges between \$100,000 and \$1 million depending on the size of the DNSPs. Only 13% of this has so far been claimed.⁶

A variety of reforms may be needed to fix this problem. Some, including the AER's Regulatory Investment Test – Distribution (RIT-D) guideline, have been implemented recently. Other reforms aimed at reducing incentives for overinvestment in network infrastructure, such as amending the AER's expenditure and rate of return guidelines, are currently underway as part of the AER's Better Regulation program. However, reform of Rule 6.6.3 and the AER's current DMEGCIS are, as the AEMC and the Productivity Commission have acknowledged, also likely to be part of the solution.

The current DMEGCIS

This proposal primarily involves changing Clause 6.6.3 of the NER (with minor amendments to Clauses 6.5.6 and 6.5.7, relating to building block determinations). The proposed Rule change is not intended to produce, on its own, any change in the operation of the NEM. Rather, it is intended to give the AER greater scope and direction in making and administering the DMIS in its five yearly network revenue determinations.

The purpose of the current DMIS is:

...to provide incentives for *Distribution Network Services Providers* to implement efficient non-network alternatives, or to manage the expected demand for *standard control services* in some other way, or to efficiently connect *Embedded Generators*.⁷

However, the current DMIS has not been very effective in meeting its objective. This was recognised in the AEMC's *Power of choice* final report:

However, to date, this scheme has been applied in a very limited manner and operates as a pass through of costs incurred in undertaking approved DSP activities plus an innovation allowance. This means the scheme is not a "true" incentive scheme; that is, a scheme which allows a business to earn extra rewards where it has delivered defined goals. For this reason networks may not be properly incentivised to explore and develop DSP options instead of capital investment given the relative risks and characteristics of such projects. We also

⁵ Downes, J., et al, *Restoring Power*, 5.

⁶ Downes, J., et al, *Restoring Power*, 6.

⁷ Chapter 6.6.3(a) of the NER.

note that both the AER and network businesses have raised concerns about the administrative burden and costs of the current scheme...⁸

We note that the NER already provides the AER with broad discretion with respect to the design and application of the demand management incentive scheme. However for a number of reasons the current scheme has been applied in a very limited manner. The AER has for some time refrained from making any material changes to its current scheme while various DSP reviews have been ongoing. We consider that it would promote the NEO to provide more principles, criteria and an objective into the rules on how the incentive scheme can be applied.⁹

The shortcomings of the current DMIS were also recognised in by Productivity Commission in its final report on electricity network regulation:

However... there is some contention about the effectiveness of the scheme. In particular, the AER has previously expressed concern regarding the high degree of complexity of the foregone revenue calculations.¹⁰

While the Rules allow the AER discretion about how it applies the [DMIS], to date it has applied the scheme in a narrow manner...¹¹

The AER has also noted shortcomings in the current scheme:

During the preliminary work conducted last year [in relation to the next round of NSW/ACT network revenue determinations], we received submissions from stakeholders on the current 2008 demand management incentive scheme applying in the ACT and NSW. These submissions generally identified the need to reform the current demand management incentive scheme to better incentivise ACT/NSW DNSPs. Briefly, the submissions noted that:

- the current scheme failed to create sufficient incentives for long-term structural change.
- the lack of funding provided under the DMIA reduced its effectiveness.
- demand side actions and technologies should be incentivised based on the actual reduction in electricity demand (particularly peak demand) it brings.¹²

The AEMC and Productivity Commission reports quoted above imply that the AER has not used its full discretion in applying the current Clause 6.6.3 to the design of the current DMEGCIS. The AER, however, considers that the AEMC's "proposed changes to reform the DMEGCIS scheme are dependent on making changes to the NER (DMEGCIS rule change)."¹³

Reform of the DMEGCIS

The *Power of choice* final report proposed a number of reforms to facilitate greater network DM, including "amendments to the pricing principles in chapter 6 of the NER to provide guidance on network tariff structures" and for the AER to "consider expanding the current application of the foregone profit under the

⁸ AEMC 2012, *Power of choice review - giving consumers options in the way they use electricity*, final report, 30 November 2012, Sydney, 205-206.

⁹ AEMC 2012, *Power of choice*, final report, 206.

¹⁰ Productivity Commission 2013, *Electricity Network Regulatory Frameworks*, Report No. 62, Canberra, Vol. 2, 475.

¹¹ Productivity Commission 2013, *Electricity Network Regulatory Frameworks*, Report No. 62, Canberra, Vol. 2, 480.

¹² AER, Information Paper, DMEGCIS, March 2013, 11.

¹³ AER, Information Paper, DMEGCIS, March 2013, 11.

DMEGCIS.”¹⁴ The AEMC’s *Power of choice* draft specifications include (in Chapter 5) a draft specification for a proposed rule change to reform the application of the DMEGCIS. The proposed Rule at Appendix 1 herein is based closely on that draft specification.

A major shortcoming of the AER’s current DMEGCIS is the lack of a sufficient financial incentive for networks to undertake demand management projects as an alternative to investing in capex, on which it gains a return for up to 40 years, depending on the deemed life of particular asset types. While it is not the role of the current or proposed Rule to create this incentive on its own, the proposed Rule gives the AER greater scope to incentivise network DM, particularly by allowing networks to retain up to 50% of the associated non-network related market benefits directly attributable to its DM activities.¹⁵

Restoring Power also proposes a reformed DMIS that could achieve this objective. Essentially, it proposes that networks be able to keep, for five years, up to half of the non-network benefits of network DM achieved above the targets set by the network itself. (The AEMC has also outlined a set of features it regards as important for a reformed DMIS.)¹⁶ We hope that the AER will closely consider the ISF’s proposed DMIS design while this Rule change process is underway, particularly so that a version of it could be in place for the Queensland, NSW and ACT network revenue determinations from 1 July 2015. However, the remainder of this document is restricted to the proposed Rule alone.

TEC expects this Rule change request to be relatively uncontroversial, in view of the widely identified need for it and the fact that it is “all carrot, no stick:” that is, there is no intention to mandate networks to undertake DM projects under this Rule.

Description of the proposed Rule

The proposed Rule seeks to make it easier for the AER to design and implement a reformed DMIS that will incentivise networks to do DM as an alternative to building new infrastructure, in addition to the requirements to examine non-network options to new infrastructure under the RIT-D. The main differences between the existing and the proposed Rule 6.6.3, Demand management incentive scheme, are that the latter includes:

- At 6.6.3(c), an explicit **objective**,¹⁷ namely “to provide an appropriate return to the network businesses for demand management projects which deliver a net cost saving to their consumers.”¹⁸

¹⁴ AER, Information Paper, DMEGCIS, March 2013, 11.

¹⁵ Allowing networks to retain a share of the associated non-network related market benefits directly attributable to its DM activities was proposed in the *Power of choice* final report, although the AEMC did not suggest a cap on this share: see *Power of choice* final report, 210. DM projects subject to a RIT-D would be subject to a calculation of non-network benefits. DM activities not subject to RIT-Ds would require the AER to develop a methodology for calculating non-network market benefits.

¹⁶ *Power of Choice* final report, 207-208.

¹⁷ As stated in the *Power of Choice* final report (206),

The rule change will also include an objective to clarify the purpose of the incentive scheme – that is to correctly incentivise the network business to develop and pursue DSP option as an efficient alternative to capital investment. This includes permitting the network businesses to retain a share of the non-network related market benefits arising from the DSP option.

¹⁸ *Restoring Power*, 7. This objective differs slightly from that proposed by the AEMC.

- At 6.6.3(c)(1), clarifying that network DM may include “demand response, energy efficiency or embedded or distributed generation.”
- At 6.6.3(f), a set of **guiding principles**, including (3), “the need to incentivise network DM over the long term, and not just for the forthcoming regulatory period.”¹⁹
- At 6.6.3(g), a requirement for networks to **monitor and publish** the results of DM projects undertaken pursuant to the DMIS.
- At 6.6.3(h), an expanded series of **criteria for applying** the DMIS (compared with the existing 6.6.3(b)).²⁰
- At 6.6.3(2), explicit recognition for the AER’s DMIS to include a **calculation of the share of non-network market benefits** to be retained by networks.

As with the AEMC’s *Power of choice* draft specifications, the proposed Rule retains unaltered the existing demand management innovation allowance (DMIA) scheme. While currently grossly underutilised by networks,²¹ the DMIA nevertheless provides a source of income for innovative DM projects that may be otherwise hard to justify on economic grounds alone, and is therefore worth retaining.

Aside from minor changes of terminology and expression, primarily to reduce any ambiguity, *TEC’s* proposed Rule differs from that proposed by the AEMC in its *Power of choice draft specifications* in the following respects:

- At 6.6.3(b), the inclusion of price-based as well as project-based demand management: that is, provision for changing network tariffs to encourage more demand management.
- At 6.6.3(f)(1), provision for network DM projects to include anticipated as well as current network issues.
- At 6.6.3(h)(1), the need for the AER to have regard, when developing the DMIS, to past Australian and international experience of comparable projects.
- At 6.6.3(2)(b), two conditions pertaining to the circumstances under which networks may retain a share of the non-network benefits of demand management activities.
- At 6.6.3(2)(n), a cap of 50% of the share of non-network market benefits to be retained by networks, in order for these benefits to be equitably shared with consumers.
- At 6.6.3(4)(a), allowance for foregone profit is change to allowance for foregone revenue, since the NER should be concerned to limit network costs and prices but not network profits.

Consequential changes

As with the AEMC’s *Power of choice* draft specifications, changes have also been proposed to Ch. 6.5 of the NER to include consideration of the potential non-network benefits of proposed DM activities among the matters relevant to the AER’s making of building block determinations based on a *Distribution Network Services Provider’s* revenue proposal.

¹⁹ See *Restoring Power*, 8.

²⁰ These are listed in the proposed Rule under “In developing the demand management incentive scheme, the AER must have regard to...”

²¹ See *Restoring Power*, 27.

The national electricity objective

The proposed Rule change will contribute to the achievement of the national electricity objective (the NEO) – ie, “to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers” – indirectly, by giving the AER greater scope and direction in the preparation of its reformed DMIS. Thus the *Power of Choice* final report argues that “it would promote the NEO to provide more principles, criteria and an objective into the rules on how the incentive scheme can be applied.”²²

A reformed DMIS will contribute to the achievement of the current NEO in three main ways:

1. By promoting economic efficient investment by distribution networks. This will constrain the need for network augmentation to meet peak demand, which, as noted above, constitutes an average across the NEM of ~25% of retail bills to cater for only about 40 hours per year. As noted by the AEMC, the value of savings in peak demand in the NEM could amount to \$4.3 to \$11.8 billion over the next decade, or 3 to 9 per cent of forecast network expenditure.
2. By assisting consumers to save energy through network DM to contribute directly to lower bills.
3. By constraining retail bills. Because distribution network charges constitute up to 40% of retail bills, more efficient network investment should in turn constrain customer bills.

The third process may not happen quickly, however, for several reasons:

1. Because the current regulatory period in each jurisdiction has seen large increases in network capex spending, consumers are locked in to correspondingly large ongoing repayments for these assets for their regulated lifespans, ie, up to 40 years.²³
2. There will still be some locations (such as new housing estates and commercial developments) where network augmentation may be required.
3. Other components of the supply chain may incur price increases that are passed on to consumers.
4. Because NEM-wide seasonal peak demand as well as total consumption has been trending downwards since 2008,²⁴ networks are likely to seek to recover foregone sales through higher network charges, independent of this Rule changed and reformed DMIS.

Still, this AEMC Rule change and reformed AER DMIS should lead to lower capex spending in future, where and when capacity constraints and/or reliability concerns do emerge. This will prevent one cause of unnecessary spending leading to higher consumer bills, and will therefore create greater certainty for consumers and regulators as well as networks.

The proposed Rule change will also contribute to attaining the *long term* interest of consumers in a safer climate, because greater network demand management is likely to lead to lower greenhouse emissions from the electricity sector – the largest source of emissions in Australia.²⁵ This occurs for several reasons: because lower peak demand often results in load shedding rather than load shifting; because energy efficiency is often the most economically efficient form of demand management; and because DM activities

²² *Power of Choice* final report, 206.

²³ See *Restoring Power*, 20.

²⁴ See AER seasonal peak demand stats at <http://www.aer.gov.au/node/9766>.

²⁵ See Australian National Greenhouse Accounts, Quarterly Update of Australia’s National Greenhouse Gas Inventory, March Quarter 2013, Figure 5.

involving distributed generation are often met by renewable energy. There may be other environmental advantages from reducing peak demand, including avoiding the waste of resources in building unnecessary infrastructure; avoiding biodiversity impacts from land clearing associated with new lines; and potentially reducing the frequency of bushfires frequently caused by fallen lines.

Benefits, costs and potential impacts

The Rule change as proposed would, on its own, have no direct benefits or costs, since it does not mandate networks to undertake DM activities additional to those identified in its revenue determinations and subsequently the subject of RIT-Ds. Benefits and costs would arise from the AER reform of the DMEGCIS. This section therefore canvasses the latter.

SCER summarises the intended benefits of a reformed DMIS in its DSP workplan as follows: it “would help to overcome a preference towards network capital investment resulting from insufficient financial rewards from undertaking demand side participation projects.” However, as the Productivity Commission notes,

This scheme is not meant to be the primary source of recovery of demand management expenditure. Rather, it is intended to complement the incentive regulation structure and correct any disincentives that might discourage network businesses from undertaking demand management.²⁶

The proposed Rule is consistent with the way the AEMC refers to the benefits of the proposed reformed DMIS — ie,

This change will address current ambiguities and clarify the application of the demand management incentive scheme, and hence put beyond doubt the interpretation of the provisions. The change will also promote flexibility and adaptability, enabling the regulator to make decisions that take account of changing circumstances and different characteristics of network businesses. Overall the change will provide more opportunity and certainty for networks to pursue DSP projects which deliver savings to consumers and therefore will in the long run interest of consumers. This position has been supported by all stakeholders, including network businesses and the AER.²⁷

The financial costs to networks of the reformed DMIS are limited by the fact that it is intended to be an “all carrot, no stick” scheme; in other words, networks will not be forced to participate. Should the AER adopt the DMIS proposed in *Restoring Power*, the main material cost would be in the form of extra incentives, payable for 5 years, to networks for their DM activities in the band of 80-150% of their nominated annual targets. However, this would be more than offset by lower investment in capex in the current and future regulatory periods. (TEC does not have the resources to quantify these benefits, but welcomes any independent cost-benefit analysis.) And, pursuant to the proposed Clause 6.6.3(f), demand management activities must still be the most economically efficient options available in order to qualify under the reformed DMIS, so there should be no additional financial burden on consumers.

If the proposal to allow networks to retain a share (up to 50 per cent in this proposal) of the non-network market benefits of DM activities is also implemented, there should also be benefits to consumers as well as

²⁶ Productivity Commission 2013, *Electricity Network Regulatory Frameworks*, Report No. 62, Canberra, Vol. 2, 480.

²⁷ *Power of Choice* final report, 206.

networks, since the remaining 50 per cent or more should (depending on the methodology developed for this calculation by the AER) flow back to consumers in the form of lower bills and/or tariffs.

A reformed DMIS, alongside other DM reforms, should also help to constrain retail bills by reducing the number of critical peak pricing periods in the wholesale market, since these often coincide with periods of peak demand. Lower peak demand “flows through to customers in the form of a reduced electricity generation component in their electricity tariff.”²⁸

The costs and benefits of the DMIA would not alter, as it is not proposed to change the relevant provisions in Clause 6.6.3 of the NER.

²⁸ *Restoring Power*, 22.

APPENDIX 1

PROPOSED RULE CHANGES

National Electricity Rules

6.5.6 Forecast operating expenditure

(add)

- (a) (5) ensure efficient and prudent use of non-network alternatives, including demand management.

(and)

- (e) (11) the extent the *Distribution Network Service Provider* has considered the potential non-network benefits of demand management in its revenue proposal.

6.5.7 Forecast capital expenditure

(add)

- (a) (5) ensure efficient and prudent use of non-network alternatives, including demand management.

(and)

- (e) (11) the extent the *Distribution Network Service Provider* has considered the potential non-network benefits of demand management in its revenue proposal.

6.6.3 Demand Management Incentive Scheme

(replace all existing wording with the following)

- (a) The *AER* shall develop and *publish* an incentive scheme or schemes (*demand management incentive scheme* or *DMIS*) to provide incentives for *Distribution Network Services Providers* to implement efficient demand management options.
- (b) Demand management options include demand management projects which involve the *Distribution Network Services Providers* offering assistance, funding or other incentives (financial or otherwise) to encourage consumers to reduce or shift demand, and “price-based demand management”, which involves changing the structure of network pricing to encourage demand management. Demand management projects may also include a price-based component.
- (c) The scheme must be applied in a manner consistent with the following objective: “*To provide an appropriate return to the network businesses for demand management projects which deliver a net cost saving to their consumers,*” having regard to the following:
 - 1) demand management projects are defined as any conscious use by the *Distribution Network Services Provider* of non-network solutions including demand response, energy efficiency or embedded or distributed generation to reduce load at risk, improve reliability or defer the expenditure of capital on the network; and
 - 2) efficient demand management is defined for the purposes of the incentive scheme as any demand management project that delivers a net benefit to consumers as a whole, regardless of where in the electricity supply value chain those benefits arise.

- (d) The *AER* has the option to include the DMIS as part of the *Distribution Network Services Provider's* distribution determination. The application of the scheme can differ by *Distribution Network Services Provider*.
- (e) The *AER* can amend the DMIS in accordance with the *distribution consultation procedures*.
- (f) The DMIS must be applied in a manner consistent with the following principles:
 - 1) demand management projects should address (current and/or anticipated) network issues in order to qualify for inclusion in the DMIS, noting that potential network issues include network supply capacity, reliability, asset replacement and changing demand or local generation patterns;
 - 2) expenditure on demand management projects approved under this scheme must be treated equitably with other network expenditure approved under the determination process;
 - 3) notwithstanding the above, consideration of funding for qualifying demand management projects shall recognise the need to incentivise network demand management over the long term, and not just for the forthcoming regulatory period;
 - 4) payments to customers or other providers of demand management services under the scheme should reflect consideration of timing to smooth the bill impact on consumers;
 - 5) the scheme design should be as simple as practicable to apply, such that it is easy to understand, implement and administer for all market participants; and
 - 6) the scheme should contribute to achieving a material change that maximises in the amount of efficient demand management in the market.
- (g) As one purpose of the DMIS shall be to build capability among *Distribution Network Services Providers* in planning and implementing demand management, the scheme should include requirements regarding the monitoring of demand management project outcomes and publication of results as a means for maximising the impact of the incentive scheme expenditures.
- (h) In developing the DMIS, the *AER* must have regard to:
 - 1) where available, past experience (in Australia and internationally) including costs, benefits and outcomes for comparative demand management services;
 - 2) the need to consider in the cost-benefit assessment the value to customers participating in the demand management project of any significant additional cost or benefit of their participation (including the electricity they would have used or wasted except for that participation);
 - 3) the range of market benefits permitted under the regulatory investment test for distribution;
 - 4) the effect of the particular control mechanism to which the DNSP is subject on incentives to adopt or implement efficient non-network alternatives;
 - 5) the extent a distributor is able to offer efficient pricing structures;
 - 6) any possible interaction with other incentive schemes;
 - 7) the willingness of customers to pay for any increases in costs or prices resulting from the implementation of the scheme; and
 - 8) the distribution of any benefits of reduced costs or bills resulting from the implementation of the scheme.
- (i) The *AER* shall decide what information is needed from the *Distribution Network Services Providers* to monitor the application of the DMIS and to verify outcomes.
- (j) The *AER* shall publish the DMIS no later than nine months after the commencement of this Rule.

Calculation of the share of non-network market benefits and demand management performance incentives

- (k) Recognising the barriers to network demand management, the AER shall provide *Distribution Network Services Providers* incentives to undertake efficient demand management.
- (l) Under the scheme, the *Distribution Network Services Provider* is permitted to retain a share of associated non-network related market benefits of demand management as determined by the AER, if
 - 1) the network has made a material contribution to this demand management, and
 - 2) the demand management is unlikely to have been delivered without this network support.
- (m) The share of associated non-network related market benefits retained by the *Distribution Network Services Provider* must be proportional to the net benefits delivered to the market.
- (n) The maximum percentage of non-network related market benefits which can be retained by *Distribution Network Services Providers* shall be determined by the AER but should not exceed 50% (the actual percentage can vary by business and by time).
- (o) Any standardised values for non-network benefits used to calculate the value of the incentive must be broadly consistent with the *RIT-D* guidelines.
- (p) Methodologies used to determine the extent of the consumer demand response should be consistent with baseline consumption methodologies approved for the demand response mechanism proposed for the wholesale market where the circumstances are similar, except where the *Distribution Network Services Provider* can provide justification for a different value being used.

Demand Management Innovation Allowance

- (q) The *AER* shall establish a demand management innovation allowance scheme for research and development activities related to demand management.
- (r) The innovation allowance scheme shall provide funding for, and an incentive to, *Distribution Network Services Providers* to undertake activities that will increase their knowledge regarding
 - 1) the ability of different approaches (both technology and pricing based) to achieve useful and reliable demand reductions,
 - 2) the costs of those approaches, and
 - 3) their impacts (if any) on network systems operations.
- (s) The *AER* has the flexibility to determine the amount of the innovation allowance for each distribution business (noting that these amounts could vary by business and over time).
- (t) The *AER* has the discretion to develop the design of the innovation allowance scheme subject to the scheme being simple for it and the *Distribution Network Services Providers* to administer (i.e., that its associated transaction costs are appropriate).
- (u) Businesses must provide all relevant information and data arising from such pilots/trials approved under this scheme to the AER in a timely manner and that all such information be available for publication unless reason for confidentiality is established to the satisfaction of the AER
- (v) Results of the projects approved under this scheme must be published in the *Distribution Network Services Provider's Distribution Annual Planning Report*.

Include allowance for foregone revenue under the DMIS

- (w) In order to treat demand management equally with other network expenditure, the *AER* shall ensure that allowance is made to allow *Distribution Network Services Providers* to recover revenue lost as a

consequence of the *Distribution Network Services Provider* undertaking any approved demand management project.

(Note: in the case of *Distribution Network Services Providers* operating under a revenue cap control mechanism, there will not be foregone revenue.)

- (x) Revenue lost by the *Distribution Network Services Provider* is only recoverable in relation to demand management projects undertaken by them.
- (y) In calculating foregone revenue, the AER must have regard to the tariff structure of the *Distribution Network Services Provider*.

APPENDIX 2

HOW THE PROPOSED RULE CHANGES DIFFER FROM THE AEMC'S DRAFT SPECIFICATION

Text in black below indicates where TEC's proposed Rule is identical with the AEMC's Draft Specifications. Where it differs, the AEMC text is in red and TEC's replacement is in blue.

5 Network incentives

Draft specification for the proposed rule change to reform application of the demand management and connecting embedded generation incentive scheme.

Objective: The objective of this proposed rule is to ~~To~~ reform the current demand management incentive scheme to ~~provide the possibility of support~~ appropriate incentives for distribution network service providers (DNSPs) to pursue efficient ~~DSP demand management (DM) projects~~. The incentive scheme will be developed with an overarching objective and supporting principles. The AER should have sufficient discretion to develop the detailed design of the scheme – which may contain multiple mechanisms – and the flexibility to adapt the application of the scheme to the individual circumstances of each distribution business.

Application: Proposed rule change to replace current clause 6.6.3

1. Demand Management Incentive Scheme

- The AER shall publish an incentive scheme or schemes (*demand management incentive scheme or DMIS*) to provide incentives for DNSPs to implement efficient ~~DSP demand management~~ options.
- DM options include “DM projects’ which involve the DNSP offering assistance, funding or other incentives (financial or otherwise) to encourage consumers to reduce or shift demand, and “price-based DM”, which involves changing the structure of network pricing to encourage DM. demand management projects may also include a price-based component.
- The scheme must be applied in a manner consistent with the following objective: “to provide an appropriate return to the network businesses for ~~DSP demand management projects which deliver a net cost saving to their consumers to support efficient demand management by networks~~”:
 - 9) ~~DSP demand management~~ projects are defined as any conscious use by the DNSP of non-network solutions including demand response, energy efficiency or embedded or distributed generation to reduce load at risk, *improve reliability* or defer the expenditure of capital ~~to augment on~~ the network.
 - 10) Efficient ~~DSP demand management~~ is defined for the purposes of the incentive scheme as any ~~DSP demand management project that delivers a net benefit to consumers as a whole, regardless of where in the electricity supply value chain those benefits arise.~~
- The AER has the option to include the ~~demand management incentive scheme~~ DMIS as part of the DNSPs distribution determination. The application of the scheme can differ by DNSP.
- The AER can amend the incentive scheme in accordance with the distribution consultation procedures.
- The demand management incentive scheme must be applied in a manner consistent with the following principles:
 - ~~DSP demand management~~ projects ~~should~~ ~~must~~ address ~~an underlying~~ (current and/or anticipated)

network issue in order to qualify for inclusion in the incentive scheme (potential network issues include: network supply capacity, reliability, asset replacement and changing demand or local generation patterns)

- Expenditure on ~~the demand management~~ projects approved under this scheme must be treated ~~the same as~~ equitably with other network expenditure approved under the ~~normal expenditure~~ determination process.
- Notwithstanding ~~the item-2~~ above, ~~that the~~ consideration of funding for qualifying ~~DSP demand management~~ projects shall recognise the need to incentivise networks demand management over the long term and not just for the forthcoming regulatory period.
- Payments to customers or other providers of demand management services ~~any reward available~~ under the scheme should reflect ~~the consideration of~~ timing of benefits in order to smooth the bill impact on consumers.
- The scheme design should be as simple as practicable to apply, such that ~~the incentive design~~ it is easy to understand, implement and administer for all market participants.
- The scheme should contribute to achieving a material change that maximises ~~in~~ the amount of efficient ~~DSP demand management~~ in the market.
- As one purpose of the incentive scheme ~~shall could~~ be to build capability among DNSPs in planning and implementing ~~DSP DM~~, the scheme should include requirements regarding the monitoring of ~~DSP demand management~~ project outcomes and publication of results as a means for maximising the impact of the incentive scheme expenditures.
- In developing the demand management incentive scheme, the AER must have regard to:
 - Where available, past experience (in Australia and internationally) including costs, benefits and outcomes ~~market rates~~ for comparative ~~DSP demand management~~ services;
 - the need to ~~include consider~~ in the cost-benefit assessment the value to customers participating in the ~~DSP demand management~~ project of any significant additional cost or benefit of their participation (including the electricity they would have used or wasted except for that participation);
 - the range of market benefits permitted under the regulatory investment test for distribution;
 - the effect of the particular control mechanism to which the DNSP is subject on incentives to adopt or implement efficient non-network alternatives;
 - the extent a distributor is able to offer efficient pricing structures;
 - any possible interaction with other incentive schemes; and
 - the willingness of customers to pay for any increases in costs or prices resulting from the implementation of the scheme
 - the distribution of any benefits of reduced costs or bills resulting from the implementation of the scheme.
- The AER shall decide what information is needed from the DNSPs to monitor the application of the demand management incentive scheme and to verify outcomes.
- The AER shall publish the demand management incentive scheme no later than nine months after the

commencement of this rule.

2. Calculation of the share of non-network market benefits

- Under the scheme, the DNSP ~~network~~ is permitted to retain a share of associated non-network related market benefits of demand management as determined by the AER, if
 - a) the DNSP has made a material contribution to this DM, and
 - b) the demand management is unlikely to have been delivered without the DNSP's support.
- The ~~value of the incentive~~ share of associated non-network related market benefits retained by the DNSP must be proportional to the net benefits delivered to the market.
- ~~We propose that t~~The maximum percentage of non-network related market benefits which can be retained by ~~network businesses~~ DNSPs shall be determined by the AER but should not exceed 50% (the actual percentage can vary by business and by time).
- Any standardised values for non-network benefits used to calculate the value of the incentive must be broadly consistent with the RIT-D guidelines.
- Methodologies used to determine the extent of the consumer demand response should be consistent with baseline consumption methodologies approved for the demand response mechanism proposed for the wholesale market where the circumstances are similar, except where the DNSP can provide justification for a different value being used.

3. Innovation Allowance

- ~~Introduce a new clause which permits t~~The AER shall establish a demand management ~~to approve an~~ innovation allowance scheme for research and development activities related to ~~DSP DM~~.
- ~~Note that t~~The objective of the innovation allowance scheme shall ~~should be to~~ provide funding for, and an incentive to, DNSPs to undertake activities that will increase their knowledge regarding (a) the ability of different approaches (both technology and pricing based) to achieve useful and reliable demand reductions, (b) the costs of those approaches, and (c) their impacts (if any) on network systems operations.
- The AER ~~should have~~ has the flexibility to determine the amount of the innovation allowance for each distribution business (noting that these amounts could vary by business and over time).
- The AER ~~should have~~ has the discretion to develop the design of the innovation allowance scheme subject to the scheme being simple for it and the DNSPs to administer (i.e., that its associated transaction costs are appropriate).
- Businesses must provide all relevant information and data arising from such pilots/trials approved under this scheme to the AER in a timely manner and that all such information be available for publication unless reason for confidentiality is established to the satisfaction of the AER
- Results of the projects approved under this scheme must be published in the DNSP's distribution annual planning report.

4. Include allowance for foregone ~~profit~~ revenue under the DMIS

- In order to treat demand management equally with other network expenditure, the AER shall ensure that allowance is made to allow DNSPs to recovery revenue lost as a consequence of the DNSP undertaking any approved demand management project.

- (Note, in the case of DNSPs operating under a revenue cap control mechanism, there will not be foregone revenue.)
- Revenue lost by the DNSP is only recoverable in relation to demand management projects undertaken by the DNSP
- ~~Lost revenue can be used as a starting point for calculation of lost profit associated with any approved DSP demand management project.~~
- In calculating foregone ~~profit~~ revenue, the AER must have regard to the tariff structure ~~and costs~~ of the DNSP ~~network business~~.

5. Capital and Operating Expenditure Objectives

- Amend NER Clauses 6.5.6 (a) to (c) and 6.5.7(a) to (c) to enable the AER to consider potential non-network benefits when assessing the efficiency of proposed ~~DSP demand management~~ activities included in business revenue proposal.