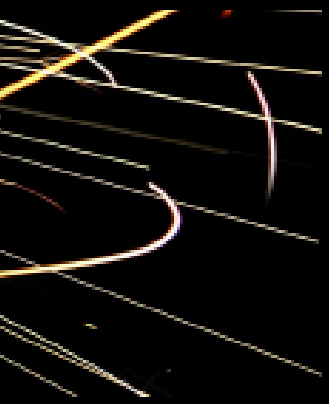
energy networks association

ENA RESPONSE

TO AEMC POWER OF CHOICE DRAFT REPORT: OCTOBER 2012



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EXECUTIVE SUMMARY

ENA welcomes the Australian Energy Market Commission (AEMC) *Power of Choice* draft report review and appreciates the opportunity to respond to the proposals put forward.

The draft report is wide ranging, seeking to develop a coherent framework across the complex issues of customer engagement and protection; pricing models; metering models; distributed generation; market roles; and energy efficiency. ENA acknowledges and supports the focus upon the critical value and role of customer choice, built upon improved information and understanding of options to manage energy use to reflect customers' values and needs. ENA supports innovative product development and offerings to customers by all parties within an appropriate framework to protect customers' interests.

ENA members have actively engaged in DSP initiatives despite policy and regulatory barriers which currently exist. ENA supports removal of these barriers to enable development of an effective and competitive market for DSP services to allow all parties to offer customers options to understand their energy use and to save money where this is their priority. DSP is useful to networks to reduce capital expenditure and offers potential reductions in electricity prices for customers.

AEMC has identified barriers to DSP and proposed some solutions. ENA looks forward to changes following this review that will accelerate the use of DSP. While ENA understands the desire to integrate responses on the range of issues impacting demand side participation, ENA is concerned at the approach relating to three issues:

1. The critical importance of DSP to network management and the related issue of market roles
2. The proposed principles relating to metering policy, and
3. The assessment of pricing reforms.

The following submission highlights ENA's key concerns. The key points that ENA wishes to bring to AEMC's attention are:

» ENA welcomes the report and the significant advances AEMC has made in assessment of the complex range of interactive issues impacting on DSP.

» ENA recognises the importance, value and role of customer choice, built upon improved information and understanding of options to manage their energy use with innovative product developments and offerings to customers by all parties within requisite customer protections.

» Networks utilise DSP extensively. There should be no barrier to the role of network businesses continuing to provide DSP to meet network needs. Network DSP is focussed upon efficient network investment, not competitive services to customers.

» ENA supports a competitive market where all parties are able to provide DSP services in the customers' interest. However, ENA cautions against arrangements that could undercut existing DSP in the hope to create or facilitate other DSP activities.

» ENA welcomes the proposal for an improved DSP incentive scheme.

» ENA supports use of price signals to guide and influence customer energy use and have used cost reflective prices over many years with commercial and industrial customers. ENA considers that price initiatives should not be limited to 'time varying' network tariffs, but should support the full range of cost reflective options, when implemented with customer 'informed consent'.

» The metering model proposed by AEMC is a valuable addition to the discussion on metering.

  - ENA supports the need to consider practicability of a proposed model, including the issues of standards and interoperability.
  - ENA welcomes removal of any barrier in the Rules to the roll out of interval/smart meters when justified by a business case.
  - ENA supports the idea of a minimum functional specification for future meter rollouts, but believes that the relative cost/benefits of proposing a limited meter capability as against the previously developed national minimum Smart Metering Infrastructure Functional Specification are worth further consideration.
  - Metering provides an enabling infrastructure platform for DSP. ENA considers that a systematic rollout of meters is more scale efficient and provides greater overall benefits realisation, including potential for broader customer options.
  - Consideration of potential for stranded assets and ensuring fair compensation will be a significant issue within the metering program. The limited compensation proposed by AEMC will not be adequate.
  - ENA considers that the option of a mandated rollout of smart meters should remain available to governments, due to cost benefit/efficiency arguments.
  - ENA looks forward to engaging actively in consideration of the proposed model.

ENA notes that the AEMC has indicated that some of their proposals, particularly in relation to metering principles, should be tested for practicability. ENA considers that significant value would be gained by working through some proposed approaches with stakeholder groups before policy positions are finalised. ENA has been cooperatively engaged over the past years with consumer representative organisations (including CALC, CUAC and ACOSS) and the ERAA to jointly consider matters of mutual interest and we have had some success in reaching agreed views.

ENA looks forward to discussing this submission and the potential for further DSP benefits realisation with the AEMC and other parties.

INTRODUCTION

The Energy Networks Association (ENA) is the national industry association representing the businesses operating Australia's electricity and gas transmission and distribution networks. Member businesses provide energy to virtually every household and business in Australia. ENA members have invested more than $65 billion in energy infrastructure.

With its focus on the central position of the customer, the Australian Energy Market Commission (AEMC) draft report *Power of Choice* makes a significant contribution to addressing the complex range of issues impacting upon demand side participation (DSP) in the electricity market. The Energy Networks Association (ENA) welcomes the opportunity to respond to the analysis and proposals put forward by AEMC and to work with the AEMC and other parties to advance customer choice in the electricity market.

This submission will focus upon the following issues within the report:

1. **Network role in DSP**
2. **Metering policy**
3. **Pricing reform**
4. **DSP incentive scheme**

1. NETWORK ROLE IN DSP

DSP has been successfully used in network operations over many years. Some examples include:

- Ausgrid manages about 300 MW of electrical load by direct control of off peak hot water systems.
- Citipower has contracted for the provision of up to 20MW of embedded generation and demand management for network support on request during summer maximum demand events across inner Melbourne.
- Endeavour Energy has around 350,000 residential customers with controlled off peak hot water shifting around 1,000GWh per year of energy from peak times. Targeted commercial and industrial demand reduction programs have achieved 38MW of peak demand reduction and Endeavour Energy is in the process of seeking a further 33MW of reductions.
- Energex manages approximately 550MW of peak load and 59% of their customer base utilise a demand managed service in exchange for a direct incentive. This includes load control for hot water, pool pumps and air conditioning for residential customers as well as demand reduction and energy efficiency programs with business customers.
- Ergon Energy is implementing a five year demand reduction program to control 103MW of peak load by 2015, with around 53MW successfully undertaken to date.
- In 2011-12, SA Power Networks (formerly ETSA Utilities) had 625 GWh of Controlled Load. 10 years ago, this number was 845 GWh, but efficiency improvements in hot water heating/ insulation, increases in solar HW and heat pump take up plus customers switching to gas have reduced the load. SA Power Networks have consolidated controlled off peak loads in winter time at 600 MW.

» Network businesses have managed the connection of 1,200 megawatts of embedded generation capacity (i.e. units with capacity greater than 100kW) to their systems. If smaller systems such as residential PV with export capability are included, 1,500 megawatts of capacity have been installed successfully in the National Electricity Market[1]. Embedded generation requires tailored solutions for each project, taking into account local network conditions as well as the design of the project itself (type and scale of generation, potential to export energy to the grid). ENA members have released comprehensive information to the market to explain the requirements for connection. In 2012, ENA released detailed guidelines to assist project proponents. While jurisdictions apply different regulations, ENA is investigating the potential for greater national consistency in the connection process.

DSP activities by the network businesses have been undertaken in the context of the network responsibilities to find the most cost effective and efficient solutions to address demand growth within the context of network investment. To enable demand management options to be used to offset network augmentation, it is critically important that the loads controlled are reliably removed from peak periods. Retention of control of these loads is essential to maintaining network security and ensuring that expansion of the networks to offset this currently managed load is not needed.

Networks must undertake systematic assessment of options to address peak growth within jurisdictional requirements and these obligations are due to be harmonised within the proposed RIT-T and RIT-D programs underway. ENA members have actively engaged in and supported refinement of these processes. Via their websites, network businesses make available network planning reports and management plans identifying constraints and future opportunities for DSP provision by outside parties. Interested parties are able to register to be advised of opportunities to nominate DSP services to fulfil a network constraint when options are invited. Systematic processes of advice, decision and review are routinely followed.

ENA has engaged in two workshops with the Energy Retailers Association of Australia (ERAA) in May and July 2012 to improve understanding between the parties on how DSP operates within networks and how DSP can be enhanced in future. Some notable outcomes from these discussions were as follow:

1. ENA/ERAA agree that, post trial and development stage, broad-based DSR should be left first to the market to develop further. However, it was noted that if retailers, or third parties, do not pick up such a product, distributors may still need to provide such services.
2. ENA and ERAA have agreed to cooperate further to improve access by retailers to processes (either jurisdictional or within the RIT-D process) that provide opportunities for external parties to meet network constraints.
3. ENA/ERAA agree that where network businesses wish to offer 'contestable' DSR directly to customers, this should be done through an appropriately ring-fenced entity with the ring-fencing arrangements meeting appropriate regulatory requirements.
4. ENA and ERAA members acknowledged the legacy load management programs already operated by networks services to limit past network investment and agreed that management of this load would continue to rest with the networks, with a more precise definition of legacy load control to be confirmed.

ENA would be happy to provide further detail on these discussions to the AEMC.

ENA has noted with concern the comments within the AEMC Power of Choice draft report, *viz*:

> *Need to clarify the circumstances where distribution businesses can provide direct services to customers. AEMC is seeking stakeholder views on: Where AER has approved DSP network management services as a 'regulated network support services', network business should seek to engage with a retailer or third party to offer these services to consumers. In certain circumstances, the network business should be able to offer DSP network services directly to consumers"* (p. 32: emphasis added)

1 This is a very conservative number for 'installed PV with export capacity'. AEMO notes in the *Electricity Statement of Electricity Opportunities 2012* (p. 2-8) that 1,450 MW of solar PV capacity had been installed by February 2012.

Do you agree that the existing rules and guidelines should be amended to clearly outline the circumstances when distribution businesses are able to directly contract with residential and small customers to deliver DSP network management services/programs? (p. 41: emphasis added)

The ENA's concern is further fuelled by the subsequent comments within the Power of Choice draft report (p. 55-56) and the supplementary report on *Principles for metering arrangements in the NEM to promote installation of DSP metering technology* (p. 37) that advocate that all energy management services (including load management) should be contestable and can be provided by any third party.

ENA considers that the role of the networks to maintain system security and stability within the context of current managed load, network obligations and NECF relationships does not appear to be reflected within these proposals. Networks have the obligation to provide the most cost effective and efficient solutions to demand growth and management.

As noted above, DSP services are a critical part of network management processes. The National Energy Customer Framework (NECF) acknowledges the roles played by distributors, retailers and customers (the triangular relationship). The AEMC appears to be questioning this framework and seeking to constrain the ability of networks to provide DSP to customers in a cost effective manner. The ENA is concerned that constraining network engagement in this way could create inefficiencies in the supply chain and ultimately work against the objectives of the review to provide net benefits to end users through lower cost delivery of energy.

Electricity network businesses support the National Competition Policy reforms, which promote a framework under which activities that are able to be performed by a competitive market should be separated from a natural monopoly. Network businesses generally undertake DSP as an intrinsic part of their regulated network services. They do not generally earn direct revenue from offering DSP to consumers – these services will generally be an expense to the business, aimed at reducing longer term network costs and improving network operations.

Where network businesses undertake activities that are performed by a competitive market, they do so through a separately ring-fenced entity. This prevents monopoly network businesses from giving priority access, information or cheaper prices to any competitive operations that it has (if any). One key aspect of ring-fencing is to ensure that the revenues earned from a competitive activity are not cross-subsidised from regulated activities.

ENA considers that there is no need for network-initiated DSP activities, which are part of standard control services, to be undertaken through a separately ring-fenced entity. Indeed, doing so would undermine the reasons and efficiencies of the network business undertaking DSP as part of their delivery of monopoly network services.

Where distribution network businesses have an affiliated retail business, it is understandable that there could be concerns regarding the preferential treatment that distributors could potentially give to their affiliated retail business (for example, preferential access to load control or access to information regarding network constraints). These concerns are addressed through regulatory mechanisms that require structural separation/ 'ring-fencing' of these related entities and this is supported by the ENA.

As the AEMC has noted, DSP covers a wide range of activities and opportunities. ENA endorses the value of all relevant parties, including retailers, third parties and network businesses, engaging in provision of effective, innovative and cost efficient DSP services to customers.

ENA would welcome clarification from the AEMC that its proposals do not intend to restrain appropriate DSP activity by network businesses, but rather enhance the opportunities for all parties to offer appropriate services to customers.

ENA supports development of new roles in the market to provide additional energy services and would welcome the process of working through how these roles will operate in the energy market. However ENA endorses the view of the AEMC (at pp. 80-81) that establishment of these roles will require resolution of issues including eligibility, metering and procedural requirements, and obligations and liabilities.

In particular, ENA considers that engagement of additional parties in significant load management activities has potential to impact upon network stability and security. While switching individual residential customer loads is unlikely to create network problems, synchronised switching of aggregated customer load in and out of service has the potential to destabilise the distribution network supply of electricity to customers which may result in:

» **Network Interruption** - poorly managed load control can result in network protective devices (eg. fuses) operating and causing unnecessary outages for customers. This also results in unnecessary costs for response by the distributor.

» **Damage to Network Equipment** - poorly managed load switching can result in overloading of lines, transformers or other major network components. Such overloading can cause plant failures and this will inevitably result in long duration outages for customers.

» **Voltage Variation** - switching of loads in the network without adequate control can result in significant voltage variation at customer premises. This means that customers will see flickering lights and that some appliances will perform poorly and in extreme cases can fail.

» **Damage to Customers Equipment** - poorly managed load control can result in power quality issues including voltage variation as above. Further to this, frequent and uncontrolled switching of customer appliances can cause premature ageing and failure of those appliances.

ENA has provided draft Protocols on *Load Management and Network Security* and *Communications and Data Security* to the AEMC and would welcome the opportunity to further discuss these matters in the context of expanded market roles.

" ENA supports development of new roles in the market to provide additional energy services"

2. METERING POLICY

ENA notes the metering model proposed by AEMC in its draft report and supplementary paper and considers it to be a valuable addition to discussion on metering and looks forward to engaging actively in consideration of the issues. We support the need to consider practicability of the proposed model, including the proposed applications of contestability in rollout of advanced meters and issues of standards and interoperability.

These issues have received little coverage in the AEMC DSP reviews to date and ENA believes that further consultation is required to define the real benefits, costs and impacts of the proposed roll-out model. ENA had understood that AEMC was to undertake a substantial review of metering contestability after the conclusion of the DSP Stage 3 review and is surprised at the level of prescription relating to metering that has been included within these reports.

Regarding the model proposed, ENA would make some initial comments as follow:

- ENA considers that the option of a mandated rollout of smart meters should remain available to governments, as endorsed by the initial cost benefit analyses undertaken for the Ministerial Council of Energy (MCE).
- ENA considers that network suburb by suburb rollout of meters is an efficient and cost effective process. Where access is facilitated across the network, it will provide a base for other parties, including large and small retailers and third parties, to build competitive and innovative energy services for customers. This model is most likely to enable capture of benefits to all the parties. ENA's preferred policy outcome is for networks to rollout meters and provide facilitated access to all other relevant parties under service agreements.
- By contrast, a piecemeal rollout of meters without practical interoperability and clear procedures may result in cost inefficiencies due to system incompatibilities; inefficient and costly duplications in communications systems; 'cherry-picking' sites leading to more costly management of remaining manual sites by a distribution business; multiple meter providers may result in multiple Meter Data Management systems (back office IT); and issues with responsibility for metering 'difficult' sites. In particular, a piecemeal rollout will actively inhibit realisation of network benefits for advanced metering, which were identified in cost analyses undertaken for the MCE to be significant in justification for metering rollouts.
- ENA supports the idea of a minimum functional specification for future meter rollouts, but believes that the relative cost/benefits of proposing a limited meter capability, as against the previously developed national minimum Smart Metering Infrastructure Functional Specification, require further consideration.
- ENA believes that the issue of stranded assets has potential for significant cost impact on distribution businesses. A blanket 30% fixed cost of a replaced meter does not take account of all costs associated with this process, including treatment of related existing load control infrastructure plus administrative and disposal costs.
- Where a mandated rollout of smart meters is not authorised, ENA supports removal of barriers to rollout of smart meters by any registered party when justified by a business case. As such, ENA welcomes the proposed removal of the distinction between meter types that limits distribution businesses from rolling out a remotely read interval meter.
- As is noted in section 1, ENA is concerned at the practical application of the AEMC's proposed contestability of 'non-metering services', which are identified as energy management services and smart grid business functions. ENA endorses the view of the AEMC (at pp. 80-81) that establishment of a new role for non-metering services will require resolution of issues including eligibility, metering and procedural requirements, and obligations and liabilities. In particular, ENA considers that engagement of additional parties in significant load management activities has potential to impact upon network stability and security. ENA has provided draft Protocols on *Load Management and Network Security* and *Communications and Data Security* to the AEMC.

ENA considers that practical issues such as these should be worked through more thoroughly before final decisions are made regarding a preferred metering model. ENA is keen to work with all stakeholders to increase understanding on these issues and work through to efficient and cost effective solutions in the interests of customers.

ENA has included for the information of the AEMC a copy of the *Smart Metering Pilots and Trials report for 2012* to provide some detail on initiatives and results from projects undertaken by distribution businesses in testing and deploying smart meters.

3. PRICES

In addressing pricing issues, the AEMC recommends phased in changes commencing with introduction of 'time varying tariffs' in the network tariff component of the customer's bill. In addition, AEMC recommends a segregation of residential and small business customers into three categories with different application of pricing changes.

ENA finds these proposals questionable on several bases:

» ENA endorses the concept of assisting customers to understand and manage their energy use (to the extent that they wish to engage) and protecting vulnerable customers with appropriate support (such as the concession policies operated by governments and the hardship policies operated by retailers).

» AEMC is effectively proposing a prescriptive pricing system as a tool to implement social policy, rather than supporting flexible and competitive solutions to develop appropriate and innovative products to suit customers.

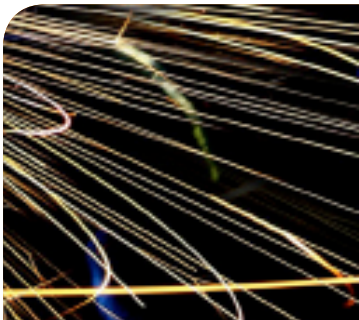
» The AEMC recommendation is limited to introducing mandated 'time varying' prices on the network segment of a customer's tariff. In the view of the ENA, this is unnecessarily prescriptive and limited. ENA considers that the full suite of cost reflective price options (including critical peak pricing, etc,) should be endorsed when customers have meters and information enabling informed choice. It is not clear why only the network tariff should be addressed. ENA would draw attention to the case study included at page 87 in the Power of Choice report reporting on positive outcomes generated in SP-Ausnet's case study on critical peak tariffs.

» Network businesses utilise price signals with industrial and commercial customers and have been moving towards their introduction to smaller customers when the requisite technology and support is available. ENA does not consider that additional regulatory controls on distribution business price structures are warranted, noting that relative drivers of cost structures may differ markedly between network businesses and within network businesses over time. ENA does see value in further discussion between network businesses, retailers and consumer groups on how overall tariffs may be reformed or structured to support the interests of all parties. For example, when considering application of time varying network tariffs, it should be remembered that energy market peaks of concern to retail businesses may occur at different times to network 'peaks'.

» In some cases, network businesses have attempted to introduce more cost effective price reforms essential to curbing the growth of peak demand, however governments have baulked at the proposed introduction of these initiatives. ENA considers that it is important that cost reflective price signals are passed to customers.

» AEMC's proposed stratified model of residential and small business customers is very complex and will require rather arbitrary separations of customer categories, which are further expected to be set within jurisdictions. This will lead to significant management and process complexities as customer loads change, customers move addresses, etc. The proposed Victorian option of phase in of new price packages including an initial period enabling opt out without penalty appears to enable more flexible options to be developed by the market with appropriate protections for customers and the ENA would recommend that this option is considered by the AEMC[2]. If the AEMC seeks to retain the customer segregation model, then the ENA would recommend that a simpler two level scheme is adopted, by amalgamating the proposed Bands 1 and 2.

» ENA notes AEMC's proposal for distribution businesses to consult with retailers and consumer groups in setting network prices within the current annual pricing review process. ENA has no objection in principle to these recommendations but notes that these issues are currently under review in the AEMC *Economic Regulation of Network service Providers* and independent panel *Limited Merits Review* processes.



2 Note that ENA is not commenting here upon the detail of the Victorian pricing model, but rather its mode of introduction.

4. INCENTIVE SCHEME FOR DISTRIBUTION BUSINESSES

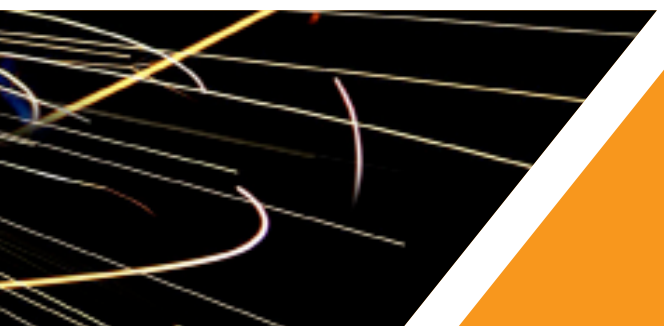
In earlier consultation within the *Power of Choice* review, ENA advised the AEMC of our concern with the limitations of the DSP incentive scheme. Section 1 of this paper cited examples of DSP activities undertaken by network businesses. However, in many cases these are based on long standing initiatives to manage peak loads (such as off peak hot water services). Many of the newer activities are relatively small in scale and limited to pilots or testing of options.

To encourage broad-based DSP, network businesses need to receive a return on these activities at least equivalent to investing in traditional network infrastructure. The regulatory obligations only achieve the minimum acceptable DSP response from network companies whereas a positive incentive should support a greater DSP response, closer to what is economically efficient for the whole electricity supply chain.

ENA commissioned a report from PricewaterhouseCoopers (PwC) to identify *Incentives for network driven DSP.* The PwC report identifies limitations in the regulatory structure and identifies some changes that should be made to enhance delivery of DSP services. A copy of the report is attached to this submission.

The AEMC draft includes significant consideration of an expanded incentive scheme for DBs, noting that the details should be worked out between Australian Energy Regulator (AER) and the distribution businesses. ENA welcomes this initiative and looks forward to working with AER on this matter.

> " ENA advised the AEMC of our concern with the limitations of the DSP incentive scheme. "



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