

26 August 2011

Mr. Ben Woodside  
Project Leader  
Australian Energy Market Commission  
Level 5, 201 Elizabeth Street  
Sydney NSW 2000

Dear Mr Woodside

### **Submission on Market Review: Power of Choice - Stage 3 DSP Review**

Exigency welcomes the opportunity to respond to the AEMC's Issues Paper for the Power of Choice Review. In doing so, we have drawn on recent related submissions including:

- Exigency Submission to AEMC on its strategic priorities
- Exigency Submission to Victorian Department of Treasury and Finance on AMI Program.

Our summary observations are as follows:

- The National Electricity Market lacks an overall information strategy. Such a strategy would enable timely information in the appropriate form to be provided to create an informed market, to the benefit of individuals and the efficiency of the market overall.
- DSP could provide the opportunity to realise a step change in the operational performance of the NEM however achieving that opportunity will require the AEMC to lead the industry rather than be informed by it.
- This is particularly relevant to Demand Side Measures, which are currently limited by a perception amongst many commercial and industrial customers that DSM is "all too hard".
- Structurally, we would like to see a trial of a fully two-sided wholesale market, in which DSM can participate directly alongside generation, rather than via existing market participants.

Exigency was established in 2003. It is an independent energy and carbon market advisory firm, serving clients on Energy and Greenhouse Strategy as well as providing advice and project support in the delivery of sustainable and low carbon intensity infrastructure ([www.exigency.com.au](http://www.exigency.com.au)).

Exigency would be pleased to address the Commissioners in person if appropriate, to expand on the matters raised here.

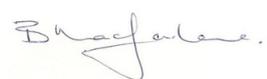
Yours sincerely,



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Director



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Director



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Submission to Australian Energy Market Commission  
**Power of Choice - Stage 3 DSP Review**



**Exigency**

ex•i•gen•cy/'eksijənsē/  
Noun: An urgent need or demand.

26 August 2011

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*Image source: Flickr.com, Victoria Market - Melbourne, by geoftheref*

## Executive Summary

The AEMC's Power of Choice Review into Demand Side Participation (DSP) has the opportunity to provide a step change in the regulatory arrangements that define the National Electricity Market. While the arrangements for the supply side have functioned well since market establishment, Demand Side initiatives have not had a material impact on market operations.

In previous submissions Exigency has provided we have commented that:

- There is the opportunity to build the capability to support and capture the value of flexible demand<sup>1</sup>;
- The potential information benefits afforded by AMI ought to form part of a wider program to increase competition and encourage non-network approaches to supply and demand-driven issues<sup>2</sup>.

In summary our observations on the AEMC's Issues Paper for the Power of Choice are:

- The National Electricity Market lacks an overall information strategy. Such a strategy would enable timely information in the appropriate form to be provided to create an informed market, to the benefit of individuals and the efficiency of the market overall.
- DSP could provide the opportunity to realise a step change in the operational performance of the NEM however achieving that opportunity will require the AEMC to lead the industry rather than be informed by it.
- This is particularly relevant to Demand Side Measures, which are currently limited by a perception amongst many commercial and industrial customers that DSM is "all too hard".
- Structurally, we would like to see a trial of a fully two-sided wholesale market, in which DSM can participate directly alongside generation, rather than via existing market participants.

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<sup>1</sup> Exigency Submission to AEMC, Strategic Priorities for Energy Market Development, May 2011  
<http://www.aemc.gov.au/Media/docs/Exigency%20Management%20-%202013%20May%202011-eb91ca8f-5409-4b7b-9521-67d0619d0679-0.PDF>

<sup>2</sup> Submission to Department of Treasury and Finance, Review of the Advanced Metering Infrastructure Program, June 2011  
[http://www.dtf.vic.gov.au/ca25713e0002ef43/webobj/exigencysubmission/\\$file/exigency%20submission.pdf](http://www.dtf.vic.gov.au/ca25713e0002ef43/webobj/exigencysubmission/$file/exigency%20submission.pdf)

## Response to AEMC Questions

1. *Chapter 3 outlines our approach to identifying “market and regulatory arrangements that enable the participation of both supply and demand side options in achieving an economically efficient demand/supply balance in the electricity market.” Do you agree with our approach?*

Whilst there is nothing wrong in the proposed approach, it does presume:

1. That customers will respond rationally to a price signal but does not contemplate a behavioural response that does not necessarily require a price signal
2. That the necessary information will flow in support of the price signal and response

The approach adopted by the AEMC ought, at least, to contemplate these matters more fully.

2. *How should the benefits of DSP be measured? Can they be accurately quantified?*

There are adequate provisions in existing arrangements for measurement and quantification of DSP benefits.

3. *What are appropriate discount rates to apply to DSP investments for the various parties across the supply chain?*

Rather than focus on discount rates, DSP should be regarded, as with generation, as a potential long-term hedging instrument. The market will determine appropriate discount rates, given a sufficiently transparent market structure and regulatory approach.

4. *Are there other issues which we should consider in our assessment process and criteria?*

Refer to our response to Question 1.

5. *What are considered the drivers behind why consumers may choose to change their electricity consumption patterns? Please provide examples or evidence where appropriate.*

The element that is missing in the AEMC's analysis is voluntary demand side behaviour "for the common good". This has a demonstrable impact on customer demand and is in evidence in Fukushima as well as in Australia (target 155 and South Australia summer peak reduction programme).

6. *Chapter 4 lists some plausible DSP options that are currently used or could be used by consumers. Are there any other plausible DSP options currently used by consumers that have not been identified? Please provide description of measures and examples, where available.*

No comment.

7. *Are there any DSP options that are currently available to consumers, but are not commonly used? If so, what are they, and why are they not commonly used (i.e. what are the barriers to their uptake)? Please provide examples and evidence if available.*

No comment.

8. *Are there other DSP options that are not currently available to consumers, but could be available if currently available technologies, processes or information were employed (or employed more effectively) in the electricity (or a related) market?*

No comment.

9. *What are considered the relevant market conditions to facilitate and promote consumer take up of cost effective DSP?*

- a) Know-how i.e. informed customers
- b) Information e.g. on network utilization, customer real-time consumption
- c) Dynamic network pricing
- d) Transparent energy price rewards.

10. *Are there any specific market conditions which may need to be in place to enable third parties to facilitate consumer decision making and capture the value of flexible demand? Please provide examples and evidence as appropriate.*

The priority issue is to place the consumer at the centre of the information strategy and to encourage market and regulatory processes that enable information to be provided to the consumer or its agent for the benefit of the customer.

11. *What market conditions (technologies, processes, tariff structures, information etc.) are needed, that are not currently employed in the electricity market, to make other DSP options available to consumers?*

A National Electricity Market information strategy is required to ensure that:

- a. Consumers are informed
- b. LNSPs and Retailers are incentivised or required to inform the market
- c. Third parties can act for customers to provide information and/or information related services for the customer's benefit.

12. *Do you consider retail tariffs currently reflect the costs to a retailer of supplying consumers with electricity?*

No. however the relevant question is whether the structures of tariffs support DSP or whether they lead to cost imposts without customers having the capacity to respond. On this point, there is no systematic regulatory approach to assessment and review.

13. *Are any changes needed to retail price regulation to facilitate and promote take up of DSP?*

A cost benefit analysis and review of structural tariff changes (e.g. peak and off-peak pricing) is required to inform the Regulator whether the change is justified by consumer response rather than a theoretical exercise which acts like a consumption levy.

14. *Do the charges to retailers for use of transmission networks reflect the value of that use?*

Transmission network charges to retailers do reflect the value of their use, however retailers are unable to apportion those costs to customers on anything other than a simplistic postage stamp basis.

15. *Do the charges to retailers for use of distribution networks reflect the value of that use?*

Refer response to Question 14 above.

16. *Do all consumer groups, including vulnerable consumers benefit from having cost reflective prices in place? If not, are any special provisions required to protect certain classes of consumers?*

Many vulnerable customers are cross-subsidised by other customers as the fixed charge/ energy charge is incorrectly balanced in favour of energy.

17. *To what extent do consumers understand the how they can reduce their electricity bill? What information do consumers need in order to increase their understanding of how they can reduce and manage their electricity consumption and hence bills?*

Information is available e.g. Sustainability Victoria website and benchmark usage calculator. The critical question is whether this information is presented to customers in a user-friendly and timely way to support demand side decisions.

However the presentment of mass market customer bills with bundled tariffs disguises price rises in any one element. For instance customers have generally blamed retailers for recent tariff rises while the real driver has been in distribution tariffs.

18. *What issues are associated with provision of existing information in the market? Are there arrangements that could improve delivery of such information? If so, how and by whom?*

The essential problem is that it is held by incumbents, who are not necessarily motivated to provide the information to customers in an ergonomic form. Regulatory intervention is required to improve the accessibility of information that informs the customer and enables optimum decisions to be made by customers, or by a party with aligned interests, on their behalf

As Exigency stated in our submission to the Victorian AMI Program Review, the Victorian Government had promised that consumers would be able to ‘better manage their energy use and understand greenhouse emissions’<sup>3</sup> as a result of the program. This promise has not yet been delivered in spite of a regulatory framework and customer funded technology being installed that supports its delivery.

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Source: AMI Stakeholder Forum, Richard Bolt, Secretary, DPI, 7 December 200

19. *Could better information be provided to consumers regarding the actual consumption of individual appliances and pieces of equipment? If so, what information could be provided and in what form?*

See 17 above. The information is available, but not necessarily in a way that supports optimal decision making. The role of the regulator(s) should be to support provision and accessibility of information, whilst avoiding an overly prescriptive approach on what information, and to what purpose.

20. *Are retailer and distributor business models supportive of DSP?*

Whilst there are exceptions involving specific retailers and LNSPs, in general terms, DSP is against the interests of retailers and LNSPs as a whole – which means that reliance by regulators on these parties to facilitate DSP is problematic.

21. *What incentives are likely to encourage research and development of other parties to promote efficient DSP?*

A clear statement of how DSP can be expected to work in the future. The market can then respond to this ‘vision’ by targeted research.

We have also suggested piloting wholesale DSP in Tasmania, which would inform policy makers and the market overall. Such an initiative would be facilitated by the National Broadband Network’s investment and local low emissions generation.

22. *Are there any regulatory, cultural or organisational barriers that affect take up of DSP opportunities?*

The primary barrier to the establishment of DSP is the real time provision of meter data to customers. It should be noted that this real time meter data is owned by customers and where the metering technology exists (e.g. Victoria AMI metered sites) customers can rely on the NEM Rules framework to provide them with access to this data.

Whilst this is a market issue, the inertia around the current market structure means that the remedy is regulatory in nature, at least initially

*23. What form of commercial contracts/clauses are required for facilitating and promoting efficient DSP?*

Where an option clause exists for provision of DSP, there needs to be clarity as to which party has the right to initiate the response. There is current industry disagreement as to whom is best placed to request (or direct) customers to change their demand.

*24. Are there specific issues associated with investment in infrastructure needed for consumers to take up DSP opportunities?*

Distributed generation is considered to be a form of DSP (while arguably supply side) as depending on the metering configuration, utilities may not be able to determine if reduced demand is caused by a genuine reduction in customer demand or by satisfaction of that demand by 'internal' generation.

However, repeated studies have shown that there are significant obstacles to synchronised connection of distributed generation facilities.

Consistent, transparent and simpler connection procedures and charges would facilitate a significant increase in this form of DSP.

*25. Do you consider that the issue of split or misaligned incentives has prevented efficient investment in DSP from taking place?*

Yes. Simply, there is a misalignment of interests between participants and customers, compounded by the challenge of "carving up" a small pie of DSP benefits.

*26. What are potential measures for addressing any issues associated with split or misaligned incentives?*

Aside from (real time) information, allowing the customer to sell its DSP to parties other than its incumbent retailer - including the wholesale market - would help.

*27. Are there specific issues concerning ease of access to capital for consumers and other parties?*

No. If the market were more transparent and better informed, the market would provide the necessary capital.

28. *What are the significant energy market challenges in optimising the value of technology and system capability to facilitate an efficient level of DSP?*

Placing information at the disposal of the customer to make informed economically efficient decisions.

29. *Do current technology, metering and control devices support DSP? If not, why not, and what are considered some of the issues?*

The technology is in place, but the access to information is not. If addressed this would enable the market (not merely incumbents) to innovate with user friendly applications.

30. *How can issues relating to weak and/or split incentives be addressed to ensure that the benefits of smart grid technologies are aligned and felt across the electricity supply chain, including by consumers?*

- a) Requiring regulated utilities to inform customers
- b) Enabling customers to access information (e.g. on own use, value of load, network utilisation) to assist in decision making
- c) Providing for suitable Connection arrangements that support smart grid evolution

31. *How can pricing signals/tariff arrangements be made complementary with smart grid technologies to facilitate efficient DSP in the NEM?*

There needs to be regulatory provision to renegotiate and or restructure existing connection and tariff arrangements as and when these technologies become available

32. *In maximising the value of technologies, such as smart grids for DSP, what are the issues relating to consumer protection and privacy?*

Information and protections would be assisted by placing the customer at the centre of the 'information web' and giving the customer the means to access, interrogate and update data, as well as appointing agents to access data on its behalf

33. *To what extent do parties have appropriate incentives to put in place the systems, technologies, information flows etc. that facilitate efficient DSP?*

Until DSP is made simpler for customers and supported by real time information, it will simply fall into the ‘too hard’ basket for all but the most price sensitive and informed customers. Market participants have little incentive to improve the take up of DSP as revenues are tied to the delivery energy rather than to reducing its consumption.

34. *Are there aspects of the NEL or the Rules which prevent parties taking actions that would otherwise allow for more efficient levels of DSP?*

In general terms, the NEL tends to focus on participants and not on customers. This plays out in a number of areas (Chapter 5 for example) – and would be identified and addressed as part of an information strategy.

35. *Are there market failures which mean regulation is needed in some areas to ensure appropriate market conditions are in place?*

Yes. In short, the market structure is not conducive to DSP because of split incentives, which requires regulatory intervention to address these shortcomings.

36. *What energy efficiency policies and schemes should be considered as part of this Review, i.e. as impacting on, or seeking to integrate with the NEM?*

It is potentially against the National Electricity Objective (NEO) to focus on ‘energy efficiency’ per se. By contrast, focusing on information to enable economically rational decisions based on, holistic, whole of life analysis is consistent – even required – by the NEO.

37. *To what extent can energy efficiency policies and schemes be adopted as options for enhancing the efficiency of DSP in the NEM? What are the strengths and limitations of energy efficiency policies as a DSP option compared to other options?*

Broadly, investment in energy efficiency has a relatively long-term ‘pay back’ and therefore the regulatory arrangements need to accommodate whole of life economic analysis.

Care needs to be applied so as not to incentivise uneconomic energy efficiency but rather to acknowledge that the costs and benefits fall across organisational boundaries.

*38. To what extent do existing retailer obligation schemes facilitate efficient choices by consumers in their electricity use? Are there aspects of those schemes that facilitate efficient consumption choices more than others? If so, please explain.*

It should be recognized that in broad terms, the business models of market participants is aligned towards growth in consumption. To that extent, casting the retailer in the role of supporting efficient choices creates the potential for a conflict of interest. This would be remedied by more effective retail competition, or alternatively, by supporting more innovative delivery models, through facilitating better access to information.

## Conclusion

In providing this submission Exigency's purpose is to provide the AEMC with insight to DSP from an informed market participant and customer perspective.

DSP could provide the opportunity to realise a step change in the operational performance of the NEM however achieving that opportunity will require the AEMC to lead the industry rather than be informed by it.

We note that DSP relies on customers being provided access to real time data that they already own so they can make informed decisions and demand choices at any time. Currently this access is not being facilitated by market participants in spite of a rules framework that facilitates it.

We have also suggested piloting wholesale DSP in Tasmania, which would inform policy makers and the market overall. Such an initiative would be facilitated by the National Broadband Network's investment and local low emissions generation.

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