



Mr John Pierce, Chairman
Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235
Reference: EPR0022

Dear Mr Pierce,

Re: AEMC review: issues paper – Power of consumer choice

The NGF writes in response to the AEMC review entitled *issues paper – Power of consumer choice*. The NGF appreciates this opportunity to provide feedback on this review.

The NGF submission focuses on section 6 of the review regarding market and regulatory arrangements required to facilitate an efficient demand-supply balance. The NGF understands that the purpose of the current phase of this review is to consider demand side participation (DSP) matters more generally in the NEM given the emergence of smart grid and smart meter technologies.

The NGF provides comment on the need for the current stage of the review and the risks imposed on the market from ill conceived changes to market and regulatory arrangements. The NGF's overall position can be summarised as:

- There are few barriers in the National Electricity Market (NEM) that actively prevent DSP;
- There is no proof of a problem that the current market design, market signals and market frameworks do not provide the appropriate price signals and incentives for the uptake of DSP;
- Customers value their consumption of electricity more than the revenue obtained from a DSP contract and the avoided cost of electricity consumption. This is the key factor in the level of DSP in the NEM;
- Competitive neutrality must be maintained or achieved between supply-side and DSP options so as to not artificially bias DSP options over other supply options in the NEM;
- Information obligations for DSP should be comparable to those of generators. This would increase market transparency and hence increase overall market efficiency;
- There is package of Rule changes from Stage 2 of the DSP review. The Commission should firstly assess how these Rules changes have or may change market behaviour before potentially embarking on more Rule changes to the market and regulatory frameworks; and
- The carbon price should provide the price signal for DSP. It is premature to speculate on changes to market and regulatory frameworks before the details of the carbon tax are worked out. The market needs a stable period after the introduction of the carbon tax to see how this price changes market behaviour.

Do the Rules prevent parties taking actions that would otherwise allow for more efficient levels of DSP?

Firstly the NGF notes that the Final Report from the Stage 2 Review of Demand-Side Participation (DSP) concludes that there were few barriers to entry for DSP and the Rules do not bias against the use of DSP in the NEM.

The NGF believes that there is no proof of a problem that the current market design, market signals and market frameworks do not provide the appropriate price signals and incentives for the uptake of DSP. Hence the NGF position is that Rules do not prevent efficient levels of DSP in the NEM.

For example it is possible under the Rules for DSP to occur off-NEM, without any regulatory governance, merely through commercial arrangements via the customer's Retailer. It is also possible for scheduled loads to submit prices thus compete with scheduled generators without such pricing being revealed. There is also nothing in the Rules that prohibits DNSPs entering commercial arrangements with customers to avoid investing in infrastructure.

It is sometimes mooted that different incentives of DNSPs and Retailers may lead to inefficient levels of DSP. The NGF disagrees with this point, as Retailers have incentive to use controllable load as part of their hedge book and will assess the value of it depending on the "firmness" the load provides. Of course the less controllable (or "firm") the load is the less valuable it is. Should the controllable load be firm then the DNSP and Retailer will both have incentive to exercise their commercial agreement.

In summary, there is nothing in the Rules to prevent the customer benefitting from two commercial arrangements, one equating to the cost of energy and the other being the cost of network infrastructure. The idea that existing regulations, or lack thereof, prevents Parties from participating is a misconception.

The critical question for Regulators to understand before contemplating any regulatory change is to accurately assess the willingness of consumers to change behaviour. The NGF believes consumers value their consumption of electricity more than the revenue obtained from a DSP contract and/or the avoided cost of electricity consumption. This is the key limiting factor in the level of DSP in the NEM.

What is certain is that any market and regulatory change would impose additional regulatory burden on Market Participants and therefore impose additional costs which will be tangible and must be recovered through increases in electricity prices. If consumers don't change their consumption behaviour then there would be no economic benefit in implementing the market or regulatory change. This highlights that there must be a highly probable and quantifiable net positive benefit in a credible cost / benefit analysis of any DSP initiative before making changes to the market and regulatory frameworks. This view is also reinforced by the fact that electricity demand is relatively inelastic and consumers have been observed not change electricity consumption behaviour.

Case Study Demonstrating Lack of Rigour in Cost/Benefit Analysis

In February 2006 the Victorian Government made the decision to mandate the roll-out of Advanced Metering Infrastructure (AMI ie. Smart Meters) to electricity consumers in Victoria. The Victorian Department of Infrastructure (DOI) provided advice leading up to this decision, based on its Advanced Interval Metering Roll-out (AIMRO) 2005 cost-benefit study. This study had found that, under optimal assumptions, the project would yield a marginal net benefit.

The Auditor-Generals report¹ on the project was critical of the recommendation to roll out smart meters and the study on which the recommendation was based. The NGF quotes the following paragraphs in the Auditor-Generals report to emphasise this point:

The AIMRO 2005 study did not address the issue of risks in considering the potential costs or expected benefits. The communications technologies being considered in 2006 for a mass roll-out were not mature and accordingly were inherently risky. This led to the likely costs of the project being underestimated. Part 4 of this report discusses technology risks in further detail.

*Given the low benefit-cost ratio found in the AIMRO 2005 study and the high-end estimate of demand response benefits found in the IMRO 2004 study, as well as the results across all scenarios being highly sensitive to input costs and other assumptions, **it is not certain that the net benefits case was as clearly positive as the former DOI advised government prior to their 2006 decision to roll-out the AMI program.***

The former DOI advised government that the AMI roll-out was 'conservatively estimated to generate a net benefit to the community of \$79 million'. It is important to note that this advice was based on the Direct Line Carrier (DLC) technology option, which was later found to be unviable in technology trials. These trials are discussed in detail in Part 4 of this report.

The NGF notes that other interested parties have been critical of the lack of rigour in the cost / benefit analysis to justify the Victorian smart meters roll out. For instance, Philip Williams from Frontier Economics in a paper² to the 2011 ACCC Regulatory Conference stated:

The application of RBR [Results-Based Regulation] requires humility in the face of the facts. It requires that the regulator or policy adviser be sufficiently humble that they be prepared to admit that the policy they were considering has been shown to be unmeritorious.

An example of non-RBR behaviour that resulted from a lack of humility seems to have been the Advanced Metering Infrastructure (AMI) project that was approved by the Government of Victoria in February 2006.

In February 2006, the decision was taken to mandate the roll-out of AMI to all residences and small business in Victoria. This was to be a large project. It was to involve the replacement of meters in 2.4 million homes and small businesses between 2009 and 2013 at an initially projected installation cost of \$800 million. By 2008, the projected costs had increased to \$1.56 billion and, by the time of the report of the Auditor-General in November 2009, an industry estimate was putting the full metering services costs at \$2.25 billion. The costs are to be borne directly by consumers.

Competitive Neutrality between Supply Side and Demand Side Response

The NGF believes that competitive neutrality must be maintained between supply-side and demand side response so as to not artificially bias DSP options over supply options in the NEM. The existing Rules and regulatory frameworks strike the appropriate balance between supply side and demand side response.

¹ Victorian Auditor-General, "Towards a "smart grid" – the roll-out of Advanced Metering Infrastructure, November 2009.

² Comment on paper by John Mayo. Prepared by Philip Williams for the ACCC Regulatory Conference July 2011.

Consistent with the NGF's previous submissions to past DSP reviews, the NGF advocates that information obligations for DSP should be comparable to those of generators. This would increase market transparency and hence increase overall market efficiency.

For example price sensitive loads greater than 30MW should provide comparable information to those of generators. The aggregation of loads in excess of 30MW (such as hot water ripple control) should also provide information. It is the NGF's strong view that unexpected offloading causes significant inefficiencies in dispatch and in some instances contracting (such as short and near term outage cover). Some examples of the inefficient outcomes include but are not limited to:

- a. The unnecessary dispatch of fast start generators to cover high spot prices (only to watch the price fall due to an unforecast demand side response); and
- b. Incorrect pricing of contracts (particularly day ahead outage cover) caused by high predispatch forecasts yet the outcome is lower spot prices due to demand side response that is not factored into the predispatch forecasts.

The NGF also notes that from the Stage 2 DSP review that concluded in 2009, there is currently a package of Rule changes going through the Rule change process. The Commission should firstly assess and understand how these Rules changes have or may change market behaviour before embarking on potentially more Rule changes to the market and regulatory frameworks.

Potential effect of a Carbon Price

The NGF believes that the carbon tax/price when implemented should provide a strong price signal for DSP in the NEM. The initial carbon tax of \$23/tonne is significant and it is anticipated that this may illicit significant changes in electricity consumption. The NGF believes it is premature to speculate on further changes to market and regulatory frameworks before the details of the carbon tax are worked out. The market needs a stable period after the introduction of the carbon tax to see how this carbon tax/price changes market behaviour.

The NGF appreciates the opportunity to provide input to this review. Please contact Kevin Ly on (02) 9278 1862 should you have any enquiries in relation to this submission.

Yours sincerely



Malcolm Roberts
Executive Director

25 August 2011