



***Major Energy Users Inc.***

**Australian Energy Markets Commission**

**Power of choice –  
Giving consumers options in the  
way they use electricity**

**Comments on the Draft Report**

**Submission by**

**The Major Energy Users Inc**

**October 2012**

**Assistance in preparing this submission by the Major Energy Users Inc (MEU) was provided by Headberry Partners Pty Ltd and Bob Lim & Co Pty Ltd.**

**This project was part funded by the Consumer Advocacy Panel ([www.advocacypanel.com.au](http://www.advocacypanel.com.au)) as part of its grants process for consumer advocacy and research projects for the benefit of consumers of electricity and natural gas.**

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## 1. Introduction

The Major Energy Users Inc (MEU) welcomes the opportunity to provide its views on the AEMC Draft Report addressing Demand Side Responsiveness to the electricity market.

In responses to earlier papers on this issue, the MEU provided the first hand experiences that many of its members had in relation to them developing better outcomes for themselves through responding to the electricity market. Such experience covered a wide range of activities from becoming exposed to the spot market through to providing self generation.

These experiences had three main over-riding themes – firstly that retailers collected a significant proportion of any benefit generated by consumers in responding to the market, secondly, that network pricing did not reflect the benefit provided by demand side responses and thirdly there are significant barriers to implementing embedded generation.

In addition to these, members found that the rules are designed to manage the relatively few large contributions from participants in the electricity market, and these rules and requirements impose a barrier to enabling demand side participation which essentially comprise many but quite small contributions to the market and impose a barrier to entry of demand side participation.

The MEU is pleased to see that many of its concerns are well reflected in the observations and conclusions reached in the draft report. Overall, the MEU considers that the draft report provides outcomes that should increase the ability of the demand side to be a stronger contributor to the operation of the NEM.

### 1.1 General view of the draft report and recommendation

The MEU considers that most of the recommendations included in the draft report will improve the ability of consumers to provide demand side responses to the electricity markets.

The MEU accepts the arguments and commentary provided by the AEMC in the draft report regarding the various aspects identified and sees that these are well developed and provide a sound basis for the recommendations made.

The only areas of disagreement or criticism the MEU might have with the draft report recommendations are in sections 1.2 and 1.5 below and in responses to specific questions.

## 1.2 Distributed generation and network pricing

The one area that the MEU considers needs considerably more attention, relates to the barriers to embedded generation and the network pricing associated with it.

The MEU is concerned that much of the discussion on embedded generation (distributed generation – DG) is focused on how the DNSPs might utilise DG rather than the way a DNSP responds to applications from end users to implement their own self generation. As a result, the draft report does not provide solutions to issues faced by self generating end users

One of the main problems facing self generation by end users is that no generation plant is 100% available and therefore for short periods of time, the self generator will import the maximum site demand. Network charging is based on peak annual demand (except in NSW where it is based on peak monthly demand). This means that even if the site demand is at its maximum for a limited time, the full network demand charge is applied as if it occurred all the time. In practice, a self generator can schedule the down time of its plant to periods when there is low network demand and so the full benefit to the network of the self generation can be provided when it has the most value at times of peak network utilisation.

The draft report discusses at some length the need for time related network pricing and proposes that the network pricing rules be modified to encourage users away from using electricity at times when the networks are most loaded. The MEU sees that this is a good step forward. But such a proposal does not address two key MEU concerns:

Firstly, it does not provide guidance that if a self generating end user structures its generation down time to periods when the network is not heavily loaded, then the network demand charge should be related to the peak site demand when the generation plant is operating. This removes one of the major barriers to embedded generation being implemented. One way of implementing this would be to apply the Victorian AEMO approach that a user's demand will be assessed as that demand which occurs at time when the network demand is at its peak, such as the time 2pm to 6 pm on hot summer days as is proposed by SP Ausnet (draft report box 7.1) as the critical network periods.

Secondly, it does not provide network pricing relief if an end user voluntarily sheds demand when the spot price is high. To a degree, high spot prices and high network demands are often coincident, but not always. If a user reduces demand at high network demand times, there is a benefit to the network that should be recognised.

The MEU considers that network supply tariffs should reflect usage at the time when there is the most stress on the network. It is well recognised that maximum demand on networks coincides with the wide spread use of refrigerative air conditioners on hot days. This means that there needs to be an impost on those users when their normal demand increases significantly when the networks are least able to manage the increase in demand. Conversely there needs to be an incentive (by lower network charges) for those consumers who maintain or reduce their demand when the network demand is otherwise increasing. This aspect is not addressed well in the section on network pricing.

The MEU considers that the draft report needs to provide greater direction to the AER regarding network pricing to encourage embedded generation and discourage increasing demand on those few hot days. In particular, the involvement of the AER in arbitrating disputes between networks and end users involving embedded generation needs to be mandated.

### **1.3 Prioritisation**

The draft report provides a range of changes that should be implemented in order to improve the ability of consumers to better interface with the electricity market. Although the MEU generally supports the proposals, it sees that some of them are more readily implemented and are likely to have a bigger impact than others.

With this in mind, the MEU suggests that the draft report should provide advice on the prioritisation of the proposals so that those with the biggest impact and which are more readily implemented are identified for immediate action, with others being scheduled for later implementation. For example, the implementation of the demand response mechanism and the role of aggregators should be made a priority element of the recommendations in the draft report.

### **1.4 Implementation timetable**

The MEU notes that in relation to network pricing, the draft report recommends that large users should be immediately provided with time varying network tariffs and that smaller users be phased in over time, with medium users (band 2) being able to opt out of time varied network pricing and small users (band 3) having the right to opt in.

The principle of time varying tariffs is to provide signals to change usage patterns, with those electing to use at peak times paying a premium reflective of the costs in providing the service they use. The MEU has a concern with the "opt out" (band 2) and "opt in" (band 3) provisions as these will militate against the very outcomes the time varying tariffs are designed to achieve.

It is widely recognised that the larger the user, the more likely that the usage pattern is of a flatter demand, and that peakier usage patterns are more likely to occur with smaller users<sup>1</sup>. The recommendation therefore to mandate large users to be subject to time variable network pricing is not likely to result in significant change to current usage patterns, reducing the impact of time varying tariffs.

In contrast, the opt in/out provisions for smaller users will mean that those users who would be impacted by the time varying tariffs will be able to avoid the cost premiums that should result from their usage patterns. This will then reduce the impact of the time varying tariffs as changing the usage patterns of smaller users which have peakier demands, would have a much greater impact and therefore provide an improved outcome from such time variable network tariffs.

The approach outlined in the draft report is therefore likely to result in perverse outcomes. Those consumers that see the impact of time variable tariffs will increase their costs, will opt for flat tariff network charges and so not pay the full cost impact of their decisions to use the network with high demands for short periods of time. These are the very consumers that the concept of time varying tariffs will provide price signals to vary their usage pattern.

### **1.5 Pricing principles**

The draft report posits that retailers have greater experience and expertise with respect to the types of tariffs that will suit consumers. This might be so but equally retailers merely pass through network costs and have no vested interest in how these costs are derived. This is obvious from the paucity of retailer involvement in revenue reset reviews and the issues they focus on in such reviews. To therefore assume enhanced (even mandated) dialogue between retailers and NSPs will provide a better outcome is unlikely. In practice, truly cost reflective network pricing is more likely to achieve the goal of getting better DSP involvement.

The draft report does seek to ensure that network pricing is as cost reflective as possible as this provides the most appropriate signals for consumer responsiveness. The MEU agrees that this is the case, and highlights that the use of the networks is related primarily to the coincident demand each consumer makes of the network. The draft report rightly points out

“An alternative to setting critical peak pricing is to set a charge based on a consumer’s demand during the peak periods over the year. This could be based on a kW, rather than kWh, measurement, during those peaks.” (AEMC page 107)

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<sup>1</sup> The large number of residential refrigerative air conditioners that are turned on, on hot days, is recognised as the prime cause of network overload and high system demand

Using the demand of all consumers at times of peak utilisation of the network provides a clear signal of the usage (and value) each consumer makes of the network and therefore sets their equitable share of the cost of the network. This is the approach used by networks for large users of the networks and this approach provides a clear and equitable cost allocative mechanism. The only reason that such an approach does not apply to small consumers is that most small consumers do not have demand meters.

An example of how such a demand pricing mechanism would influence demand side participation at the small consumer end of the market, is the decision on the technology a consumer might use for its air conditioning. When assessing the relative costs of air conditioning, the network cost of a refrigerative air conditioner is not included in any assessment, yet the high demand such an a/c unit imposes on the network is significant. Alternatively, the lower demand on the network by a consumer who selects an evaporative a/c unit is not recognised at all, even though the demand will be much lower. Unless true cost signals are provided to small consumers, they will not make the most appropriate decision for their needs.

The introduction of cost reflective pricing based on the way the network costs are driven is an essential step for ensuring the best DSP in the electricity market.

## **1.6 Structure of this response**

In addition to the points made above, the MEU has responded to those questions posed in the draft report where it considers it can add value to the AEMC deliberations.

## 2. Responses to specific AEMC questions

The MEU has not responded to every question at this time. This does not mean that the MEU does not have a view regarding the question but that its view is reflected in the commentary in sections 1 and 2

| Chapter | # | AEMC question  | MEU response   |
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| 2       | 1 | <b>What should be the minimum standard form and structure of energy and metering data supplied to consumers (or their agents)? Should these arrangements differentiate between consumer sectors (ie industrial/commercial and residential)</b> | <p>Whilst the MEU members all receive half hourly data regarding their energy use and provide this to potential retail providers, it has been noted that the smaller the volume of electricity, the less emphasis is placed by retailers on half hourly data used by the smaller sites of MEU members.</p> <p>This seems to indicate that the retailers are less reliant on actual half hourly data for small sites and tend to use more average usage the smaller each site usage is. The import of this is that the smaller a site, the less a retailer is able (or keen) to sculpt specific pricing for the user and more likely to use typical data to develop tariffs for the supply of the commodity. This would make sense when the time and cost of analysing every site regardless of size and providing a specific offer is considered. This implies that the smaller the power user the less the need for detailed half hourly pricing when seeking supply contracts.</p> <p>Equally, network pricing should be based more on demand and the time that the demand is incurred as it is coincident demand that determines the size of a network.</p> <p>The provision of detailed usage data and timing should be available to every user as this identifies the amount of peak demand and its frequency, and if a user is to change its practices to provide demand side support, then it must be able to readily access this data.</p> |



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|          |          |   | For the provision of retail price offers, perhaps less detail might be possible but only if the user considers that this will provide a better pricing from a retailer.   |
|          | <b>2</b> | <b>When do you think it is appropriate for a retailer (or responsible party) to charge a fee for supplying energy and metering data to consumers or their agents?</b>   | Never.<br>The data is owned by the user and must be made available to it as and when it requires it. The users should be able to easily assign access to the data to its nominee as well  |
|          | <b>3</b> | <b>Do you agree that general market information should be published on consumer segment load profiles to inform the development of DSP products and services to consumers?</b>  | In principle, yes.<br>However care must be taken in aggregating data.<br>The use of aggregated or general data is better aimed at smaller users. Large users of electricity will develop their own unique ways of providing DSP so there will be less value in providing typical data the larger the usage at each site   |
|          | <b>4</b> | <b>Is AEMO the appropriate body to publish such information, or should each DNSP be required to provide such information particularly where data will be at the feeder level where accumulation meters are installed?</b> | As a general comment, Yes.<br>AEMO already has the responsibility to provide extensive data and including this additional data will make its reports more widely useful.<br>DNSPs should provide reports of data for each feeder where there are many users connected (and usage by individuals cannot be identified), as this provides information to those users connected to each feeder as to what might be needed in terms of DSP and their ability to provide a solution to challenges associated with that feeder. |
| <b>3</b> | <b>5</b> | <b>What specific criteria could be used to determine whether elements of the NECF (ie marketing code) apply to third parties</b>  |   |

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|            |          | <b>providing DSP energy services to consumers? That is, beyond Australian Consumer Law?</b>  |  |
|            | <b>6</b> | <b>What requirements should be in place for these third parties? For example, what should be the form of authorisations/accreditations?</b>  |  |
| <b>3.3</b> | <b>7</b> | <b>Do you agree that existing rules and guidelines should be amended to clearly outline the circumstances when distribution businesses are able to directly contract with residential and small consumers to deliver DSP network management services/programs?</b> | <p>Yes</p> <p>The MEU considers that DNSPs can provide benefits to consumers by the careful implementation of DSP that would not be achieved through other means. For example, cycling of refrigerative air conditioners to smooth the load on the network is best carried out by the network. Such load smoothing has the benefit of deferring network investment and the benefits of doing this can be shared across all network users through lower tariffs.</p> <p>However, where a DNSP does interface directly with consumers for DSP purposes, the arrangement needs to be made quite transparent and subject to oversight by the AER.</p> <p>In a similar way, embedded generation should be able to contract directly with other consumers (especially when the embedded generator is related to the consumer) by allowing the embedded generator to “wheel” its output through a small section of the shared network (for a small fee) rather than imposing the need to bypass the network if direct supply is sought.</p> |
| <b>4.3</b> | <b>7</b> | <b>Should the minimum functionality specification for meters be limited to only those functions required to record interval</b>  | <p>There must be sufficient functionality of meters so that the meters can provide adequate information to consumers that allow them to make informed choices about their use of electricity. Meters which only</p>  |

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|                 | <p><b>consumption and have remote communication? Alternatively, should the minimum functionality include some, or all, of the additional functions specified in the SMI Minimum Functionality Specification?</b></p>   | <p>provide assistance to networks and retailers as to usage at specific times do not provide adequate information.</p>   |
| <p><b>8</b></p> | <p><b>Does the separation of the provision of metering services from retail energy contracts remove the need for meter churn when a consumer changes retailer? Does this cause any unforeseen difficulties or create any material risk? Are there any alternative approaches to reducing the need for meter churn?</b></p> | <p>On balance, the MEU does not consider that the benefits of making meter roll out a separate commercial activity outweigh the risks inherent.</p> <p>In particular, the AEMC concept imposes considerable risk to consumers who are likely to be less aware of the metering potential than the commercial providers. As has been seen in the retailing of electricity, many consumers have been made worse off by inappropriate retailing practices which are provided as a separate commercial activity.</p> <p>There is a concern that opening up metering provision to be at the election of consumers could result in two meters being installed – one which provides the additional information that a consumer considers (or is advised by the commercial provider) is needed, and another to meet the requirements of billing by networks and retailers. While the principle behind the AEMC concept might imply that there will be benefits to consumers, there is not sufficient evidence to support that opening up metering more widely will provide a greater benefit than requiring networks to provide this service.</p> <p>What is also concerning is that unscrupulous commercial meter providers could impose unnecessary costs on unwary or unknowledgeable consumers.</p> <p>Requiring all metering to meet certain standards that allow active</p> |

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|          |           |  | involvement of consumers in managing their electricity use and to meet the needs of retailers and networks is likely to provide the optimum solution for all concerned.  |
|          | <b>9</b>  | <b>Are there sufficient potential metering services providers to facilitate a contestable roll out of AMI? Does the proposed model mitigate all the material risks of a contestable roll out? If not, should a monopoly roll out be adopted?</b> | <p>This issue was addressed in considerable detail by the ESCV when interval meter roll out was mandated. The ESCV concluded that the most efficient approach was for the roll out to be mandated to networks and this minimised the risks inherent in allowing commercial metering roll out.</p> <p>As noted above, there is little evidence that allowing commercial roll out of interval metering will provide a benefit that obviates the inherent risks of this approach.</p> <p>By specifying the minimum requirements for the meters, the needs of consumers, retailers and networks can all be provided.</p> |
|          | <b>10</b> | <b>What should the exit fee when a consumer upgrades its meter from one provided by the local distribution business? Is the proposed fixed 30% of the cost of a replaced meter appropriate?</b>  | Mandating meter roll out to networks obviates this need  |
|          | <b>11</b> | <b>Does the option of a government mandating an AMI roll out within its jurisdiction act as a strong disincentive to a commercial roll out? Should the ability for these governments to mandate an AMI roll out be removed from the NEL?</b>     | <p>Yes, mandating will disincentivise commercial roll out, but the benefits of commercial rollout are unlikely to outweigh the risks to consumers.</p> <p>No, the right of governments to mandate roll out should be retained in the NEL for reasons included in responses to earlier questions.</p>   |
| <b>5</b> | <b>12</b> | <b>Participation in the wholesale market:<br/>(a) Do stakeholders agree that the</b>   | (a) The MEU considers that the ability of consumers to have a “side agreement” with AEMO (directly or via an aggregator) to reduce   |

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|           | <p><b>proposed demand response mechanism is likely to result in efficient consumption decisions by end-users? If not, are there any changes you recommend to the mechanism to facilitate this?</b></p> <p><b>(b) On balance, is a new sub-category of market generator required for consumers providing a demand that enables aggregation? What types of issues should be considered when developing the registration process?</b></p>   | <p>demand at time of high spot price provides a significant incentive to consumers to respond to high spot prices compared to the current arrangements. The basic concept as detailed in the draft report appears workable and reflects a number of the concepts behind the soon to be eliminated Reserve Trader (which the MEU considers should be retained) and the provision of Contingency Gas in the gas Short Term Trading Markets.</p> <p>(b) Demand side reductions provided directly arranged with AEMO or by aggregators of load should be seen as a special category of provider to the market and be registered as such. This is similar to the concepts used for Contingency Gas in the gas STTM.</p> <p>There needs to be implemented a mechanism in the rules for the resolution of disputes between consumers, AEMO, retailers and aggregators.</p> |
| <p>13</p> | <p><b>Consumer baseline consumption:</b></p> <p><b>(a) What factors should be taken into consideration when developing a baseline consumption method?</b></p> <p><b>(b) Have we identified the correct three key principles for developing a baseline consumption method (data refresh, accuracy, metering)?</b></p> <p><b>(c) Are there any substantial changes to metering and settlement arrangements required for this mechanism to be implemented? Can these issues be resolved through AEMO’s consultation</b></p> | <p>The “baseline” consumption concept has been debated at length in the development of the supply of Contingency Gas when needed by the gas STTM. The MEU considers that many of the issues raised in the draft report have been considered in the gas STTM and solutions derived for the gas STTM.</p> <p>The MEU recommends that the gas STTM (Contingency Gas) approaches be used as the basis for the “Contingency Electricity” supply arrangements. AEMO was heavily involved in addressing the Contingency Gas methodology and could readily do this again for “Contingency Electricity”.</p>   |

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|  |  | <p><b>process and procedures or are broader amendments to the rules required?</b></p> |
|  | <p><b>14</b> Incorporating demand response into central dispatch:<br/> <b>(a) Do you agree that similar arrangements for generation should apply to demand resources in terms of thresholds for registering as scheduled or non-scheduled basis?</b><br/> <b>(b) What are the ways in which the regulatory arrangements can be adapted to facilitate the participation of scheduled and non-scheduled load in AEMO’s central dispatch process? Are there any specific changes to reporting, telemetry and communication requirements?</b><br/> <b>(c) Should both market and non-market loads above a certain size be required to provide information to AEMO regarding their controllable (and therefore interruptible) load blocks?</b><br/> <b>(d) Should there be a trigger in the monitoring and reporting framework that requires consumers to provide greater detail regarding their demand resource to AEMO or affected DNSPs?</b></p> | <p>See response to Q13</p>  |

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| 5.6 | 15 | <b>How should AEMO’s powers be expanded to improve demand forecasting? Should retailers and other market participants be obliged to provide information regarding DSP capabilities? Will non-obligatory requirements achieve the desired accuracy in reporting requirements?</b> | In addition to the technical aspects of the AEMO role, there needs to be a mechanism for enforcement for the provision of information needed by AEMO, especially by Market Participants. In this regard, perhaps the AER has a role for ensuring information is provided, monitors that the process is being appropriately followed and that disputes relating to this issue can be resolved. |
| 5.6 | 16 | <b>In what ways can AEMO improve its survey questions regarding DSP capabilities? How often should AEMO be required to update its expectations on DSP capabilities in the NEM?</b>   | AEMO has already undertaken similar tasks in relation to Contingency Gas and the MEU suggests that AEMO be tasked with addressing these issues.   |
| 5.6 | 17 | <b>Would a pre-dispatch that includes active and price-responsive DSP improve decision making processes for C&amp;I users and aggregators? If not, do you have any other suggestions for improving the ability for AEMO to accurately forecast demand?</b>                       | The greater the confidence there is in the accuracy of a forecast, the better the outcomes for all concerned. Therefore any change which increases the confidence in a forecast should be implemented.  |
| 5.7 | 15 | <b>Do you agree that a new category of market participant should be established for the provision of non-energy services?</b>  | Whilst most consumers will continue to use fully bundled pricing as this is the most convenient for most consumers, there is no reason that there should not be disaggregation of non-energy services. By disaggregating, this removes a barrier to any party seeking to provide these non-energy services. On this basis, the change is supported.   |
| 5.7 | 16 | <b>What types of issues should be considered when developing the registration process, such as eligibility, obligations and</b>  | Imposing the same requirements that apply to large providers of non-energy services to smaller providers, will impose a barrier to entry for smaller providers. Therefore there needs to be a methodology that  |

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|            |           | liabilities?  | minimises any barriers for small providers, perhaps replicating those that apply to small providers of energy services.  |
| <b>5.7</b> | <b>17</b> | <b>What metering arrangements need to change to implement this mechanism?</b>   |  |
| <b>6</b>   | <b>18</b> | <b>Do stakeholders agree with our approach for phasing in cost-reflective pricing? If not, how can the policy be improved to transition to cost-reflective pricing?</b>                                   | See comments in section 1.4 above  |
|            | <b>19</b> | <b>Have we identified the main issues with transitioning to cost reflective pricing? If not, what other issues need to be considered?</b>   | See comments in section 1.4 above  |
|            | <b>20</b> | <b>How should consumption thresholds be determined?</b>   |  |
|            | <b>21</b> | <b>We seek stakeholder comments on appropriate pricing principles for distribution businesses and the appropriate time period for stakeholder consultation on distribution network pricing proposals.</b> | See comments in section 1.5 above  |
| <b>7</b>   | <b>22</b> | <b>Would it be beneficial to include reference to the suggested mechanisms and provide more guidance and an overall objective in the Rules governing the demand management incentive scheme?</b>          | One of the reasons why network solutions are preferred by DNSPs over demand side solutions, is that the profit a DNSP earns is embedded in the WACC*RAB calculation, with opex only being included as a cost without profit to the NSP. The deferral of capex already provides the NSP with some benefit which is not shared with consumers, especially capex that is deferred within a regulatory period. |



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|  |           |  | <p>If a DNSP could earn a similar profit on a non-network solution provided as DSP as it does from a network solution, then the DNSP become indifferent as it has equal financial incentive for both solutions. A network solution imposes greater and longer term costs to consumers so the benefits of deferral of capex are significant for consumers and alternative ways of avoiding network solutions need to be encouraged.</p> |
|  | <b>23</b> | <p><b>Should separate provisions for an innovation allowance be included into the rules? Given that the costs of the allowance would be borne by electricity consumers, is it more appropriate for such innovation to be funded through government programs?</b></p> |  |
|  | <b>24</b> | <p><b>Should the provisions for a demand management incentive scheme be included in the regulatory framework for transmission businesses?</b></p>  | <p>There is no reason why TNSPs should be differentiated from DNSPs in the regard</p>  |
|  | <b>25</b> | <p><b>What amendments are required to the current distribution pricing principles as set out in clause 6.18.4 of the national electricity rules?</b></p>   |  |

