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4 June 2009

Dr John Tamblyn
Chairman
Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235

By email: submissions@aemc.gov.au

Dear Dr Tamblyn John,

AEMO response to Draft Report into Stage 2 of the Demand-Side Participation Review

AEMO appreciates the opportunity to respond to this draft report. This response is being submitted by the Australian Energy Market Operator (Transitional) Ltd (**AEMOT**) on behalf of Australian Energy Market Operator Limited (**AEMO**). Any reference in this letter and submission to either AEMO or AEMOT should be taken as a reference to the entity that will exist from 1 July 2009, which will be called the Australian Energy Market Operator. NEMMCO and VENCorp, who previously contributed separately to this review, have encapsulated their contributions to this draft report within this AEMO submission.

Our submission is attached. We have responded to the report in the areas of:

- Reliability Standards
- Network Access and Connection Arrangements
- Wholesale Markets and Financial Forecasting; and
- Reliability and Market Operator Intervention.

For further discussion, please contact Ben Skinner, NEMMCO on (03) 9648 8769.

Yours Sincerely

Matt Zema
Managing Director and Chief Executive Officer
AEMOT Ltd
Enc.

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1. Reliability Standards

1.1 Probabilistic, Hybrid and Deterministic Planning Standards

AEMO primarily agrees with the AEMC's findings that because network and non-network solutions are not perfect substitutes, standards that are not economically derived are likely to discourage the efficient inclusion of DSP[1].

The AEMC re-iterated its findings from last year's Review on Transmission Reliability Standards that planning standards should give consideration to the relative costs of an option and its relative impact on reliability. The AEMC has recommended to the MCE that transmission reliability standards be economically derived using a customer value of reliability or similar measure and be capable of being expressed in a deterministic manner ("hybrid standard"). AEMO would like it clarified that the AEMC's recommendation is not that probabilistic planning should no longer be used by NSPs. AEMO believes that probabilistic approaches are capable of provide the most efficient outcomes over time, particularly in relation to DSP.

2. Distribution Network Planning

2.1 DNSP Planning Process

AEMO agrees with the AEMC's observation that the ability for DSP proponents to be effectively involved in the planning process is limited by the lack of clarity of planning obligations on DNSPs. AEMO also agrees that consistent obligations across jurisdictions will improve the ability of DSP providers to offer competitive services and improve their ability to develop technologies that improve reliability.

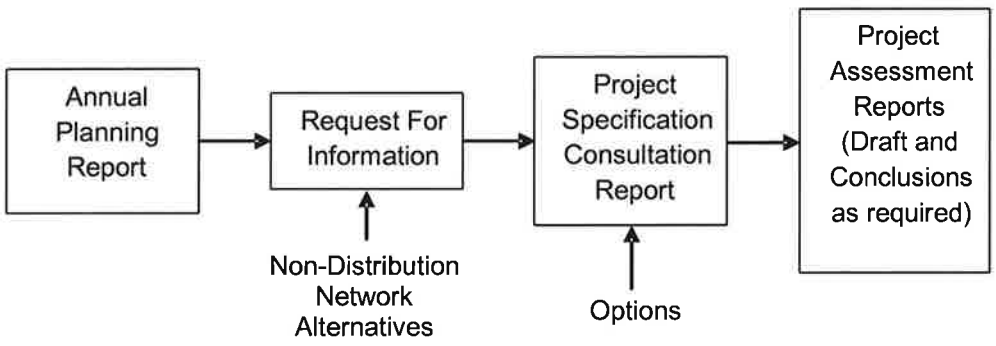
AEMO understands that the AEMC is currently reviewing distribution network planning in the NEM with a national framework to be developed. AEMO agrees with the AEMC's findings within that review and in this DSP review regarding consistency and transparency for DNSPs planning obligations.

2.2 Request For Information

AEMO believes that the most effective manner of capturing and incorporating DSP in planning options is via the Request for Information (**RFI**) mechanism which is currently part of the transmission regulatory investment test consultation process. Although the instigation of this function may be better managed as part of the Framework for National Distribution Planning and Network Expansion Review, AEMO feels that it is important that it be recognised as part of this Review because of the significant role it could play in supporting DSP. The diagram below outlines the consultation and reporting process that an investment project could go through which includes an RFI as part of the Regularity Investment Test for Distribution (**RIT-D**). The role of an RFI could also be expanded such that it aids the identification of all non-distribution network alternatives, not solely non-network alternatives.

[1] AEMC DSP Review Draft Report, pg 32

Diagram 1: Proposed Reporting Process



3. Network Access and Connection Arrangements

3.1 Avoided TUOS

AEMO generally agrees with the AEMC's findings that avoided TUOS does not represent a significant limitation to DSP in the NEM.

The DSP Review's analysis of avoided TUOS has brought up some further questions relating to the role of avoided TUOS in the NEM beyond those that are directly related to DSP. AEMO believes that these issues could be addressed by the AEMC in a future review, including:

- A clarification of the intended purpose of avoided TUOS;
- The effect that avoided TUOS Rules have in practice and an analysis of whether these Rules achieve the intended purpose;
- How avoided TUOS incentivises generators to locate in the distribution network versus the transmission network; and
- An analysis of the costs of implementation of avoided TUOS in comparison to the benefits to those who receive it and the market imperfection that it seeks to correct.

One area that AEMO would like to be addressed by the AEMC within this review is the current overlap between Network Support Agreements (**NSA**) and avoided TUOS. The AEMC's analysis has recognised that there exists a potential overlap for embedded generators to receive avoided TUOS payments as well as payments under a NSA. To provide avoided TUOS *and* an NSA would appear to be double payment for the same market benefit. AEMO would like the Rules relating to avoided TUOS and NSAs to be clarified and if necessary amended.

3.2 Connection Charges and Embedded Generators

AEMO agrees with the AEMC's findings that the current connection charging framework does not represent a material barrier to efficient DSP. However AEMO arrives at this position as it does not see any fundamental differences in generator connection issues and charging when connecting between the transmission or distribution networks.

The AEMC describes the connection charges for distribution connections as "deep" and the charges for transmission connections as "shallow". AEMO recognises this terminology was adopted in response to submissions received; this terminology is no longer used in the Rules and is somewhat confusing in the Draft Report.

Regardless of the terminology, AEMO would not describe connection charges as being "shallow" and "deep" for transmission and distribution networks respectively, because:

- Schedules 5.1 and 5.1a of the Rules is written with regard to NSPs and do not distinguish between TNSPs and DNSPs; and
- While the Rules specify that a NSP must provide connection to a generator at the appropriate access standard, AEMO considers that the cost of providing this service to be a "shallow" charge because connection to a network does not necessarily provide transfer capability. Costs associated with a generator obtaining access to transfer capability are related to the size of the generator connecting and the existing capacity in the network at the time of connection. A generator may choose to fund an augmentation to achieve transfer capability up to its capacity, and these could be referred to as "deep" charges.

The AEMC suggests embedded generators receive 'firm access' on the distribution network since they are not scheduled by NEMMCO. AEMO understands that the requirement of a generator to be scheduled by NEMMCO actually relates to the size of the generator and other factors, not to the voltage level (distribution or transmission). .

In summation, AEMO, like the AEMC, finds the current connection costs (alone) do not represent a barrier to DSP. However, AEMO finds this is because no material difference in incentives between transmission and distribution choices exists due to connection costs.

4. Demand Forecasting

4.1 Lack of DSP information

AEMO notes the report's concerns regarding demand-forecasting error that arises from lack of information regarding unscheduled price-responsive load and generation. We concur with the views presented in:

- Section 6.4, that explains how this error can adversely impact efficient decision making by participants; and
- Section 7.3, that explains how this error can result in incorrect intervention decisions by the market operator.

We concur with the report's characterisation of the problems of the current surveying technique, that:

- An obligation to respond is not sufficiently clear to ensure a high level of compliance; and
- NEMMCO's practice of discounting non-committed DSP can produce conservative results.

We also add that NEMMCO has had difficulty in identifying the appropriate party to survey. The firm in control of the interruption of a particular customer can vary between the retailer, the end-user customer itself, an aggregator, a DNSP, a TNSP or a combination of all of these.

There are opportunities on both sides to improve on current practice. From the market operator's perspective, we need to understand the business practices of the demand-side better, whilst participants need to understand the necessity of providing high-quality DSP information in a form that is useful to demand forecasting.

4.2 Improving DSP information gathering

AEMO welcomes the report's suggestion of addressing these weaknesses via Rule changes to:

- Make an explicit DSP reference in the extent of information the market operator can obtain from Registered Participants; and

- Require the information to be provided in sufficient detail for the market operator to make a probabilistic assessment of its likelihood of operation.

We also concur that a rule change, in itself, is not enough to resolve this issue and new practices and guidelines will be required. If the Rules were unthoughtfully exercised, it could be seen as oppressive by those subject to it.

It is not AEMO's intention to act in this way. New information provision obligations should be subject to a cost/benefit assessment. Some information, such as rapidly changing information in the pre-dispatch timeframe, may be relatively difficult for DSP operators to provide. However information in the medium-term PASA timeframe should be less onerous.

The report suggests that after completion of the rule change, guidelines could be formulated by the Reliability Panel. AEMO is supportive, but suggests an alternative. AEMO could convene a working group with retailers and other demand-side operators to collectively explore:

- What forms of information can be provided at least intrusion on the obligated party; and
- What forms of information are of most value to demand-forecasting.

Through discussion, a mutually agreeable technical solution may emerge between these conflicting objectives.

This approach was used by NEMMCO in 2006 to resolve a similar issue about the quality of historical reliability information provided by large generators. The "Forced Outage Data Working Group" managed to resolve these concerns to the satisfaction of all parties, and their conclusions drove the guidelines that Generators now follow in providing this data.

Were AEMO to initiate a similar process for DSP information, its output could be:

- AEMO procedures for the provision of DSP information; and
- An AEMO proposed rule change to unambiguously empower such procedures.

Of course, it will be important that such a working group achieves meaningful and constructive engagement with demand-side operators. This is most likely to occur if the operators expect that such an obligation will inevitably emerge and thus their interests are best served through co-operation with AEMO.

AEMO's proposed approach requires no immediate action by the AEMC, but its chance of success would be improved by a clear recommendation of support for the approach supplemented by discussion of the likely market benefits of such a rule change.

5. Registration Changes and possible Rule Changes

5.1 Aggregation of Ancillary Services Loads

AEMO notes and supports the recommendation that the Rules should be altered to permit the aggregation of ancillary services loads. We believe this requires a relatively straightforward rule change and agree it can be progressed in the current framework.

We are aware that potential operators of aggregated ancillary service loads are considering proposing such a rule change of their own initiative. Should this not eventuate in the near-term, AEMO intends to propose the rule change itself.

Such a rule change would overcome the immediate regulatory barrier to such registration in Chapter 2. However technical challenges will undoubtedly arise as these loads have not previously participated in the ancillary services markets. AEMO will need to consider how such loads can technically meet the Market Ancillary Services Specification[2]. As we have very limited understanding what an offered service might look like, we think there is little point attempting to resolve these matters at this stage. We look forward to discussing with providers exactly what loads and technology they propose to employ for market ancillary services.

5.2 Registration of small generating units

AEMO notes that the report has raised the processes to register small-scale embedded generation as an issue[3] for resolution. NEMMCO had raised in submission its intention to promote a rule change to provide more flexibility for the aggregators of small generators to register multiple generators within one "Market Generator" registration.

Since that time NEMMCO has reconsidered its capacity to manage small generators in this manner. Issues have been recognised with respect to:

- Network configurations and responsibilities;
- Metering configurations; and
- NEMMCO's ability to manage a large number of such registrations.

AEMO prefers to undertake further investigation into these issues before progressing with the rule change. A NEM Market Development project: "Small (Embedded) Generation Integration Project" has been scoped and is expected to be approved shortly after the inception of AEMO.

A rule change to facilitate the registration of small generators is a key part of the project's scope and it is hoped this could be proposed in late 2009 or early 2010.

5.3 Ancillary Service Loads and Scheduled Loads must be Market Loads

In NEMMCO's submission of 16 October 2008 our preliminary view was that Chapter 2 of the Rules appeared to prohibit retailers classifying their first-tier[4] customer loads as either ancillary service or scheduled loads. The draft report[5] has noted NEMMCO's intention to resolve this matter through a rule change.

On reflection, AEMO now considers that the Rules do not prohibit local retailers classifying market loads within their load area and thus we do not intend to promote a rule change.

An end-user who wishes to remain supplied by its local retailer but also wishes to provide market ancillary services may do this by having the retailer:

- classify the load as a discrete *market load*; and
- obtain AEMO's approval to classify the market load as an *ancillary services load*.

The same process would apply for a scheduled load.

This first classification will require a compliant energy meter, but customers of a size considering these classifications would be likely to already have such metering installed.

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[2] http://www.nemmco.com.au/powersystemops/160-0163.pdf
[3] AEMC DSP Review Draft Report, pg 71 & 83
[4] Customers that for whom their retailer is the local-retailer.
[5] AEMC DSP Review Draft Report, pg 59

6. Reliability and Market Operator Intervention

AEMO supports the main conclusions of chapter 7 of the report, namely:

- The basic "energy-only" market design is not biased toward supply over demand-side investment;
- The RERT is not intended to be, and should not be seen as a primary investment mechanism for Market Participants, but is useful for eliciting some forms of DSP where, for whatever reason, their proponents have not been able to participate in the market when it is of most value;
- Extending the outlook horizon of the current, intermittent, RERT beyond 9 months is problematic;
- The creation of the "RERT panel" concept, in that it would enable the procurement of reserve from pre-approved providers with a notice period of below 10 weeks, should enhance the ability of DSP providers to participate in the RERT.

6.1 Intervention Compensation

The report has noted[6] that non-scheduled entities that receive an instruction from NEMMCO under clause 4.8.9 are ineligible for compensation, despite the instruction appearing similar in form and objective to that of a compensable direction to a scheduled participant. This circumstance has not arisen in the NEM to date presumably because NEMMCO has not been aware of available options that can be called upon.

The creation of the RERT panel however may provide AEMO knowledge of non-scheduled demand-side options and therefore they could be subject to an instruction. It would be of concern if the risk of receiving a non-compensable instruction undermined the attraction of participating in the panel.

Recent applications of the Administered Price Cap (**APC**) as a result of reaching the Cumulative Price Threshold have highlighted that some non-scheduled entities may not be operating at a time when it is of most value to the market because the APC is too low to justify their activation, nor are they eligible for compensation under clause 3.14.6 of the Rules. Resolving the inability to compensate for 4.8.9 instructions may also resolve this failure by providing a mechanism where these options can still be exercised during the APC without loss to the operator.

The draft report[7] suggests that this "gap" can be closed by creating a new category of non-scheduled participant capable of being directed and compensated. The draft report has not explained why this is the preferred way to address the "gap". It would represent a substantial initiative and its implications in terms of costs and benefits (including other benefits to DSP providers) would need to be thoroughly investigated. There may also be other options.

AEMO supports an investigation into addressing this matter[8] however it is unclear from the draft report whether this will be a part of the Reliability Panel's work stream. Accountability for resolving this matter should be clarified in the final report.

6.2 RERT Double Dipping

The AEMC states:

[6] AEMC DSP Review Draft Report, pgs xi, 73, 74
[7] AEMC DSP Review Draft Report , pg 75
[8] AEMC DSP Review Draft Report, pg xi

> "We recognise, however, there is also a risk that NEMMCO may, or may not, exercise the RERT but that the energy-only market is always available as a potential source of revenue"[9]

AEMO is concerned that this statement may be interpreted to mean that DSP can alternatively participate in the RERT and energy market. That is not our understanding, as Rules clauses 3.20.8(a)(3) and 3.20.3(h) & (j) require NEMMCO to satisfy itself that the RERT provider will not be participating in the market by any other arrangement. It is our understanding that RERT is intended to take on providers who were, for whatever reason, *not* going to participate in the energy-only market.

7. Other issues

7.1 Additional Requirements of Market Loads

The draft report notes:

> "In order to be a scheduled load or ancillary service load the customer needs to be registered as a market load. This means they would be required to adhere to additional obligations such as prudential requirements."[10]

Apart from the potentially higher energy metering quality requirement referred to in section 5.3 above, we are unsure what additional obligations arise from becoming a market load. If a customer was to become a discrete market load but remain supplied by its local retailer, then the retailer's prudential obligations should remain unchanged. See also NEMMCO's 18 October 2008 submission, sections 1.2.2.1 and 2.2.

As noted by NEMMCO's earlier submission[11] it appears that the erroneous impression of higher prudential burdens of customers who are classified as scheduled or ancillary services loads arises because some DSP aggregators wish to sell demand-response services such as market ancillary services without becoming the customer's retailer. However these classifications can only be initiated by the supplying retailer, e.g. clause 2.3.5 (a) "...the Market Customer must apply to NEMMCO for approval to classify the market load as an ancillary services load."

This possibly contrasts with the regime for selling DSP as a network support service, where aggregators appear to have packaged services from end-user customers to NSPs without the involvement of the customers' retailers.

AEMO does not intend to promote a rule change to enable re-classifications of market loads at the request of parties that are not the Market Customer. Such a change would represent a major change to the Rules' current expectation of a single Market Participant taking responsibility for all of a end user's interaction with the market operator.

7.2 Scheduled Load Volume exposed to dispatch instructions

The report notes:

> "Customers need to register all of their scheduled load and the entire load would need to respond to a dispatch instruction."[12]

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[9] AEMC DSP Review Draft Report, footnote 100 pg 74
[10] AEMC DSP Review Draft Report, pg 60
[11] NEMMCO submission to stage 2 issues paper, Pg 10 & 11
[12] AEMC DSP Review Draft Report , pg 60

A scheduled load bid can be structured such that the part of the load that cannot respond to a dispatch instruction is priced at the market price cap. Market bids and offers at the price cap are dispatched only in extreme circumstances.

The minimum MW loading level of a Fast-Start-Inflexibility-Profile can be used to reflect these limitations even in extreme circumstances.

In addition, the AER is currently developing a "Rebidding and Technical Parameters Guideline"[13] which discuss circumstances in which a scheduled participant may use bidding parameters to avoid being dispatched into a technical minimum range.

See also NEMMCO's 18 October 2008 submission section 1.2.2.

[13] http://www.aer.gov.au/content/index.phtml/itemId/727855