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Australian Energy Market Commission

RULE DETERMINATION

National Electricity Amendment (Improving demand side participation information provided to AEMO by registered participants) Rule 2015

Rule proponent COAG Energy Council

26 March 2015

Inquiries

Australian Energy Market Commission PO Box A2449 Sydney South NSW 1235

E: aemc@aemc.gov.au T: (02) 8296 7800 F: (02) 8296 7899

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AEMC 2015, Improving demand side participation information provided to AEMO by registered participants, Rule Determination, 26 March 2015, Sydney

About the AEMC

The AEMC reports to the Council of Australian Governments (COAG) through the COAG Energy Council. We have two functions. We make and amend the national electricity, gas and energy retail rules and conduct independent reviews for the COAG Energy Council.

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Summary

The Australian Energy Market Commission (Commission or AEMC) has made a final rule that provides a process by which the Australian Energy Market Operator (AEMO) may obtain information on demand side participation (DSP) from registered participants in the National Electricity Market (NEM).

This is in response to a rule change request submitted by the COAG Energy Council to enable AEMO to receive better information on DSP in the NEM than it does currently.

DSP provides consumers with a suite of options to manage their electricity consumption and, in turn, their expenditure.

Currently, the National Electricity Rules (NER or Rules) do not provide for a process by which AEMO can obtain information specifically on DSP from registered participants. While AEMO has conducted voluntary surveys of registered participants on information on DSP in the past, it considers that the quality of the information received from survey respondents has been limited. This may impact on the quality of AEMO's load forecasts, from short term forecasts such as 5 minute pre-dispatch (looking out one hour ahead), to long term forecasts such as the ten year forecasts in the National Electricity Forecasting Report (NEFR).

The final rule may assist AEMO with addressing this potential information deficiency. It establishes a process in the Rules for the provision to AEMO of potentially better quality information on DSP for the purposes of developing or using load forecasts in exercising its functions under the Rules.

The final rule, which is a more preferable rule, has the following features:

- registered participants will be required to provide to AEMO information on DSP, in accordance with DSP information guidelines (Guidelines). AEMO must take into account that information when developing or using load forecasts for the purposes of the exercise of its functions under the Rules;
- AEMO will be required to develop and amend the Guidelines, having regard to registered participants' reasonable costs of efficient compliance with the Guidelines compared to the likely benefits from the use of the information received by AEMO under the final rule in forecasting load for the purposes of the exercise of its functions under the Rules;
- When developing and amending the Guidelines, AEMO will be required to consult with the following persons in accordance with the Rules consultation procedures:
 - registered participants; and

AEMO can require information to be provided to it by a person or persons of a specified class in accordance with AEMO's information gathering powers set out in Division 5, Part 5 of the National Electricity Law (NEL).

- persons who, in AEMO's reasonable opinion, have, or have identified themselves to AEMO as having, an interest in the Guidelines (referred to in this summary as interested stakeholders);²
- AEMO will be required to publish details, no less than annually, on the extent to
 which, in general terms, the information it has received under the final rule has
 informed the development or use of its electricity load forecasts for the purposes
 of the exercise of its functions under the Rules; and
- it defines the scope of information that AEMO may specify must be provided to it by registered participants under the Guidelines.

Under the final rule, the content of the Guidelines (including details of the specific types of DSP information that registered participants must provide and how they must provide the information) must be developed and maintained by AEMO. In developing the Guidelines, AEMO must have regard to the likely benefits of the use of the information provided specifically for forecasting load for the purposes of the exercise of its functions under the Rules.³ The Commission does not consider it appropriate for any additional prescription to be provided in the final rule on the content of the Guidelines, as the information provision requirements under the Guidelines may need to change over time, as DSP evolves. Providing for such details to be included in the Guidelines will allow for certain changes to the information provision requirements to be made (as necessary) through changes to the Guidelines, without requiring a rule change. Having said this, the Guidelines must be developed and amended by AEMO in accordance with the Rules consultation procedures and the requirements of the final rule.

Amongst other things, this will require AEMO to undertake consultation, consider submissions and prepare reports on matter raised as part of the process. The Commission considers that the Rules consultation procedures that AEMO will be required to follow under the final rule will provide a structured and well-established process through which registered participants and interested stakeholders can raise any concerns, and actively engage with AEMO in the development of the Guidelines.

The Commission expects that these parties will actively engage in the consultation process, so that the Guidelines developed are targeted and proportionate to the needs of AEMO in preparing and using load forecasts for the purposes of carrying out its functions under the Rules.

The Commission is satisfied that the final rule will, or is likely to, contribute to the achievement of the National Electricity Objective because:

In making the final rule and consistent with its strategic priorities, the Commission has extended consultation requirements beyond registered participants to other parties.

AEMO must have regard to the likely benefits in comparison to registered participants' reasonable costs of efficient compliance with the Guidelines.

- it will provide a process by which AEMO may obtain specific information on DSP from registered participants to use in load forecasting for the purposes of the exercise of its functions under the Rules;
- by requiring AEMO to take into account the information on DSP that it receives under the final rule when developing or using load forecasts for the purposes of the exercise of its functions under the Rules, this could:
 - lead to potential improvements in the quality of AEMO's load forecasts;
 and
 - in turn, inform a number of AEMO's decisions and processes when exercising its functions under the Rules; and
- the publication of potentially better quality AEMO load forecasts could better inform electricity market stakeholders of possible future outcomes and lead to potentially more efficient operational decisions and, ultimately, potentially more efficient investment decisions.

The final rule will commence on 26 March 2015.

AEMO has previously advised that it would take up to 18 months for it to develop the Guidelines. The Commission also anticipates that registered participants will need some time to implement requisite processes so they can comply with the Guidelines that they have had the opportunity to assist AEMO to develop. Therefore, the final rule provides for the first Guidelines to be developed and published by AEMO by no later than 26 September 2016. It also includes a requirement that the Guidelines must include a minimum period of 3 months between the date of publication and the date when the Guidelines commence. The Commission considers the timeframes set out in the final rule represent a reasonable opportunity for AEMO, registered participants and interested stakeholders to engage on the development of the Guidelines.

This rule change is part of the package of rule changes arising from the Commission's Power of Choice review.⁵

AEMO is not required to comply with the Rules consultation procedures when making minor or administrative amendments to the Guidelines. See clause 3.7D(g) of the final rule.

AEMC 2012, Power of Choice review – giving consumers options in the way they use electricity, Final Report, 30 November 2012, Sydney, p.i. Available at the AEMC's website: http://www.aemc.gov.au

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1 COAG Energy Council's rule change request

1.1 The rule change request

On 29 November 2013, the COAG Energy Council⁶ submitted a rule change request to the Australian Energy Market Commission (Commission or AEMC) regarding the provision to, and utilisation by, the Australian Energy Market Operator (AEMO) of information on demand side participation (DSP) in the National Electricity Market (NEM).

Under the proposed rule⁷, a registered participant⁸ would be required to provide information on DSP to AEMO in accordance with DSP information guidelines prepared by AEMO. In turn, AEMO would be required to take into account such information when developing or using electricity load forecasts for the purposes of the exercise of its functions under the National Electricity Rules (NER or Rules).⁹ The types of load forecasts envisaged range from short term forecasts such as five minute pre-dispatch (looking out one hour ahead) to longer term forecasts such as the ten year forecast in the National Electricity Forecasting Report.

1.2 Rationale for the rule change request

Currently, AEMO collects information on the potential amount of DSP in the NEM from registered participants annually through DSP voluntary surveys. There is no obligation on registered participants to provide information to AEMO regarding contracted or price responsive DSP in the NEM. In AEMO's experience, the response from registered participants to past DSP surveys has been limited. In

Under the NER, a registered participant is a person who is registered by AEMO in any one or more of the categories listed in rules 2.2 to 2.7 of the NER. That is, is registered as a generator (eg, scheduled, semi-scheduled and non-scheduled generators), customer (eg, retailers), network service provider, or a number of other types of registered participant. In addition, as set out in clause 8.2.1(a1) of the NER, for the purposes of some provisions of rule 8.2 only (dispute resolution), AEMO, connection applicants, metering providers and metering data providers who are not otherwise registered participants are also deemed to be registered participants.

In its rule change request (p.2), the COAG Energy Council states: "For example, AEMO should take DSP levels into account as they are relevant to: Projected Assessment of System Adequacy (PASA) reporting requirements; Energy Adequacy Assessment Projection; central dispatch; pre-dispatch schedule; Electricity Statement of Opportunities (ESOO); load forecasting; and annual forecast information for planning purposes."

AEMO can require information to be provided to it by a person or persons of a specified class in accordance with AEMO's information gathering powers set out in Division 5, Part 5 of the National Electricity Law (NEL).

Standing Council on Energy and Resources 2013, (now the COAG Energy Council), Improving DSP information provided to AEMO by registered participants, SCER Rule change request, November 2013, pp.3-4. Available at the AEMC's website: http://www.aemc.gov.au

The COAG Energy Council was formerly called the Standing Council on Energy and Resources.

The rule change request is available on the AEMC's website: www.aemc.gov.au.

The COAG Energy Council is concerned that the quality of AEMO's load forecasts is being impacted by AEMO's limited visibility of the potential amount of DSP that may be utilised in the NEM.¹²

In turn, the quality of decisions made and processes undertaken by AEMO, as well as other energy market stakeholders who may be informed by AEMO's published load forecasts, may be adversely affected. 13 For example, "non-scheduled loads may use the pre-dispatch schedule prepared by AEMO when making an economic assessment of whether they will offer demand response in the wholesale market". 14

This concern arises because:

- Forms of load and generation, which make up DSP, generally do not form part of the NEM central dispatch process that is administered by AEMO under the NER.
 Therefore, it may be difficult for AEMO to anticipate the potential amount of DSP that may be utilised in the NEM.
- DSP serves to reduce the amount of scheduled load for electricity in the NEM,
 either:
 - directly by consumers actively reducing their consumption; or
 - through generation, that is not scheduled ¹⁵, offsetting load.

1.3 Solution proposed in the rule change request

The COAG Energy Council's proposed approach to addressing these issues is to make a rule to establish a framework under which AEMO may obtain better and specific information on DSP in the NEM than it does currently.

The COAG Energy Council proposed that this outcome would be achieved by requiring:

- registered participants to provide to AEMO information on DSP, in accordance with DSP information guidelines;
- AEMO to develop the DSP information guidelines, in accordance with the Rules consultation procedures¹⁶, having regard to registered participants' reasonable

Standing Council on Energy and Resources 2013, (now the COAG Energy Council), Improving DSP information provided to AEMO by registered participants, SCER Rule change request, November 2013, p.4. Available at the AEMC's website: http://www.aemc.gov.au

Standing Council on Energy and Resources 2013, (now the COAG Energy Council), Improving DSP information provided to AEMO by registered participants, SCER Rule change request, November 2013, p.4. Available at the AEMC's website: http://www.aemc.gov.au

Standing Council on Energy and Resources 2013, (now the COAG Energy Council), Improving DSP information provided to AEMO by registered participants, SCER Rule change request, November 2013, p.4. Available at the AEMC's website: http://www.aemc.gov.au

Generation that is not scheduled refers to generation other than generation by scheduled generating units and semi-scheduled generating units.

costs of compliance with the DSP information guidelines compared to the likely benefits of the use of that information by AEMO; and

 AEMO to take into account the DSP information it receives under the proposed rule, when developing or using load forecasts in relation to its functions under the NER.

Furthermore, as noted by the COAG Energy Council in its rule change request, under Part 5, Division 6 of the National Electricity Law (NEL), AEMO has certain obligations with regard to the use and disclosure of "protected information". ¹⁷ In the context of this rule change request, this would include information provided to AEMO by registered participants under the DSP information guidelines to the extent that such information has been provided in confidence.

1.4 Relevant background

This rule change request originates from certain recommendations made to the COAG Energy Council by the Commission in its Power of Choice review (POC review) on DSP in the NEM.¹⁸

Specifically, these recommendations concerned the provision of information on DSP by registered participants to AEMO. If implemented, these recommendations were expected to better enable AEMO to perform its responsibilities with respect to electricity load forecasting and, therefore, potentially enhance the quality of decisions which are informed by those forecasts.

Background information on, and the rationale for, these recommendations is provided below.

1.4.1 What is DSP?

As previously noted in the AEMC's consultation paper and draft rule determination for this rule change request¹⁹, DSP provides consumers with a suite of options to manage their electricity consumption and, in turn, their expenditure.

The Rules consultation procedures are set out in Part F of Chapter 8 of the NER.

See section 3.4.1 of this paper for further discussion on "protected information".

AEMC 2012, Power of Choice review – giving consumers options in the way they use electricity, Final Report, 30 November 2012, Sydney. Available at the AEMC's website: http://www.aemc.gov.au

AEMC 2014, Improving Demand Side Participation Information provided to AEMO by Registered Participants, Consultation Paper, 11 September 2014, Sydney, and AEMC 2014, Improving Demand Side Participation Information provided to AEMO by Registered Participants, Draft Rule Determination, 18 December 2014, Sydney. Available at the AEMC's website: http://www.aemc.gov.au

DSP may take a number of forms, including actions such as improved energy efficiency, peak demand shifting, changing consumption patterns and consumers generating their own electricity.

1.4.2 What is DSP's role in promoting efficient markets?

A key finding of the AEMC's POC review was that efficient markets are characterised by effective participation of both the supply and demand sides.²⁰

From an economic perspective, electricity consumption is efficient when the value to the consumer²¹ exceeds the cost of supplying the electricity. If electricity prices do not reflect the cost of supply – which may vary by time and location – there is a risk that consumers may miss an opportunity to consume electricity when the value to the consumer exceeds the cost of supply. This, in turn, has the potential to result in an inefficient level of dispatch of electricity generation and inefficient levels of investment in network and generation assets.

Efficient DSP occurs when the cost of undertaking DSP²² is less than the cost of traditional supply side options to meet demand.²³ This will be the system-wide lowest cost combination of DSP and traditional supply side options to meet demand.

The POC review found that while there was some evidence of DSP uptake in the NEM over recent years, the efficiency of the NEM can be improved by more active participation by the demand side, to the extent that the cost of undertaking DSP is less than the cost of supply side options.²⁴ In the context of a future NEM that may be characterised by rising levels of DSP²⁵, this has the potential to lead to improvements in the efficiency of the NEM.

AEMC 2012, Power of Choice review – giving consumers options in the way they use electricity, Final Report, 30 November 2012, Sydney, p.i. Available at the AEMC's website: http://www.aemc.gov.au

Value to the consumer from electricity consumption is derived through the amenities that electricity provides, such as heat and light.

The cost of undertaking DSP is the change in value of the derived amenities that electricity provides, plus the costs associated with the DSP program.

In this context, traditional supply side options refer to options that vary the supply of electricity to meet demand, as opposed to options that vary both the supply and the demand of electricity in order to balance supply and demand.

AEMC 2012, Power of Choice review – giving consumers options in the way they use electricity, Final Report, 30 November 2012, Sydney, p.i. Available at the AEMC's website: http://www.aemc.gov.au

For example, facilitated by technological and regulatory changes.

⁴ Improving demand side participation information provided to AEMO by registered participants

1.4.3 The importance of good quality forecasting of electricity load

Good quality forecasting of electricity load is an important feature of an efficiently operating NEM.²⁶ For example, NEM load forecasts may be used by:

- AEMO to inform its decisions that relate to the process by which the quantity of electricity generation to dispatch is determined, or its procurement of ancillary services²⁷ or the Reliability and Emergency Reserve Trader (RERT)²⁸; and
- other energy market stakeholders to inform aspects of their decision-making that relates to, for example, generation levels (eg, relevant to market participants), consumption levels (eg, relevant to consumers) and network planning purposes (eg, relevant to network service providers).

As such, AEMO creates and publishes a variety of short to longer term NEM load forecasts.²⁹

1.4.4 Availability of information on DSP in the NEM

Retailers and demand side aggregators may have information on the amount of DSP undertaken by, or on behalf of, parties with which they have contracts (eg, their customers). This information may have been obtained through a variety of commercial arrangements, such as contracts and tariffs. Similarly, network service providers may have information on the amount of DSP that could be sourced by way of contracts with consumers or generators, in order to manage the network.

However, as noted in section 1.2, AEMO appears to have limited visibility of the potential amount of DSP that may be utilised in the NEM, yet DSP can influence the scheduled load of electricity in the NEM.

To address this apparent information deficiency, AEMO currently undertakes an annual survey of some registered participants and other parties in respect of their access to, and potential supply of, DSP.³⁰ Participation in this survey is voluntary, and there are a number of potential factors, such as the costs to respondents of responding

AEMC 2012, Power of Choice review – giving consumers options in the way they use electricity, Final Report, 30 November 2012, Sydney, p.139. Available at the AEMC's website: http://www.aemc.gov.au.

AEMO manages key technical characteristics of the power system, such as frequency and voltage, through ancillary services, which it purchases from market participants. A non-technical explanation of such functions is provided in: AEMO 2010, Guide to Ancillary Services in the National Electricity Market.

Under clause 3.20.2 of the NER, AEMO must take all reasonable actions to ensure reliability of supply and, where practicable, take all reasonable actions to maintain power system security by negotiating and entering into contracts to secure the availability of reserves under reserve contracts (known as the RERT).

For example, from the shortest term to the longest term: central dispatch; 5 minute pre-dispatch; pre-dispatch; short and medium term PASA; and the NEFR.

Examples of previous AEMO DSP information surveys are provided in appendix C.

to the survey, which may limit the quality of information on DSP that is obtained through this method. For example, in 2013, 28 network businesses, retailers and aggregators were surveyed by AEMO. Of these, only 14 either completed the survey or responded to AEMO via discussions. Of these 14 respondents, 10 provided non-zero responses (ie, survey responses which identified some DSP), totalling 214 MW of DSP.³¹

This apparent deficiency in the amount of information available to AEMO has the potential to impact on the quality of AEMO's forecasts of electricity load in the NEM. During the PoC review, the Australian Energy Regulator (AER) provided examples of potential DSP occurring in the NEM, including changes in load in response to pricing events. AEMO has also provided to the Commission examples of more recent pricing events, where DSP potentially occurred in the NEM. The Commission understands, from discussions with AEMO, that the apparent DSP that occurred during these pricing events was not forecast by AEMO to occur due to a lack of information on DSP. As a result, this contributed to load forecasting that was of a lower quality than might have otherwise been.

1.5 The Commission's rule making process to date

On 11 September 2014, the Commission published a notice under section 95 of the NEL advising of its intention to commence the rule making process and the first round of consultation in respect of the COAG Energy Council's rule change request. An AEMC consultation paper, identifying specific issues and questions for consultation, was also published.³³ Submissions closed on 9 October 2014. The Commission received ten submissions from stakeholders on the rule change request as part of the first round of consultation.³⁴

On 18 December 2014, the Commission published a draft rule determination, including a draft rule, for this rule change request.³⁵ Submissions closed on 12 February 2015. The Commission reviewed ten submissions from stakeholders.³⁶

The Commission has summarised the issues raised in submissions as part of its analysis presented in Chapter 3 of this final rule determination, and in a summary of submissions in Appendix A.

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³¹ Information provided by AEMO.

See Attachment 1 to the Australian Energy Regulator's submission to the POC review Directions Paper (8 May 2012, available at the AEMC's website at: www.aemc.gov.au).

AEMC 2014, Improving Demand Side Participation Information provided to AEMO by Registered Participants, Consultation Paper, 11 September 2014, Sydney. Available at the AEMC's website: http://www.aemc.gov.au

³⁴ Submissions can be viewed at the AEMC's website: www.aemc.gov.au

Available at the AEMC's website: http://www.aemc.gov.au

³⁶ Submissions can be viewed at the AEMC's website: www.aemc.gov.au

2 Final rule determination

2.1 Commission's final rule determination

The Commission has determined to not make the proposed rule and, instead, to make a more preferable final rule.³⁷

The National Electricity Amendment (Improving demand side participation information provided to AEMO by registered participants) rule 2015 (final rule) is published with this final rule determination.

The objective of the final rule is to provide a process by which AEMO may obtain better and specific information on DSP from registered participants, for use in developing or using load forecasts for the purposes of the exercise of its functions under the Rules.

The final rule has the following similarities with the proposed rule:

- registered participants will be required to provide to AEMO information on DSP, in accordance with DSP information guidelines (Guidelines). AEMO must take into account that information when developing or using load forecasts for the purposes of the exercise of its functions under the NER; and
- AEMO will be required to develop and amend the Guidelines having regard to registered participants' reasonable costs of efficient compliance with the Guidelines compared to the likely benefits from the use of the information received by AEMO under the final rule in forecasting load for the purposes of the exercise of its functions under the NER; and
- when developing and amending the Guidelines, AEMO will be required to comply with the Rules consultation procedures.

The final rule contains two changes from the draft rule:

- in addition to consulting with registered participants, under the final rule and the Rules consultation procedures, AEMO must also consult with persons who, in AEMO's reasonable opinion, have, or have identified themselves to AEMO as having, an interest in the Guidelines (referred to in this final rule determination as interested stakeholders); and
- the final rule reorders a number of clauses.

The final rule also contains two other key differences to the proposed rule:

Under section 91A of the NEL, the AEMC may make a rule that is different (including materially different) from a market initiated proposed rule (a more preferable rule) if the AEMC is satisfied that having regard to the issue or issues that were raised by the market initiated proposed rule (to which the more preferable rule relates), the more preferable rule will or is likely to better contribute to the achievement of the National Electricity Objective.

- In response to stakeholder submissions, the Commission has included a
 requirement in the final rule that AEMO publishes details, no less than annually,
 on the extent to which, in general terms, the information it has received under the
 final rule has informed the development or use of its load forecasts for the
 purposes of the exercise of its functions under the NER.
- The final rule provides further clarity on the types of information that AEMO may specify must be provided to it by registered participants under the Guidelines.

Under the final rule, the content of the Guidelines (including details of the specific types of DSP information that registered participants must provide and how they must provide the information) must be developed and maintained by AEMO. In developing the Guidelines, AEMO must have regard to the likely benefits of the use of the information provided specifically for forecasting load for the purposes of the exercise of its functions under the Rules.³⁸ The Commission does not consider it appropriate for any additional prescription to be provided in the final rule on the content of the Guidelines, as the information provision requirements under the Guidelines may need to change over time, as DSP evolves. Providing for such details to be included in the Guidelines will allow for certain changes to the information provision requirements to be made (as necessary) through changes to the Guidelines, without requiring a rule change. Having said this, the Guidelines must be developed and amended by AEMO in accordance with the Rules consultation procedures and the requirements of the final rule.

Amongst other things, this will require AEMO to consider valid submissions received from registered participants and interested stakeholders as part of two rounds of consultation. In addition, AEMO will be required to prepare both a draft and final report as part of the consultation on the Guidelines, which must set out (amongst other things) a summary of issues raised in valid submissions (to the extent AEMO reasonably considers them to be material) and AEMO's response to each such issue. The Commission considers that the Rules consultation procedures that AEMO will be required to follow under the final rule will provide a structured and well-established process through which registered participants and interested stakeholders can raise any concerns, and actively engage with AEMO in the development of the Guidelines.

The Commission expects that these parties will actively engage in the consultation process, so that the Guidelines developed are targeted and proportionate to the needs of AEMO in preparing and using load forecasts for the purposes of carrying out its functions under the Rules.

The final rule will commence on 26 March 2015.

AEMO has previously advised that it would take up to 18 months for it to develop the Guidelines.

AEMO must have regard to the likely benefits in comparison to registered participants' reasonable costs of efficient compliance with the Guidelines.

The Commission also anticipates that registered participants will need some time to implement requisite processes so they can comply with the Guidelines that they would have had the opportunity to assist AEMO to develop.

Therefore, the final rule includes a requirement that the Guidelines must include a minimum period of 3 months between the date of publication and the date when the Guidelines commence³⁹, and a transitional provision requires the first Guidelines to be developed and published by AEMO by no later than 26 September 2016. The Commission considers the timeframes set out in the final rule represent a reasonable opportunity for AEMO, registered participants and interested stakeholders to engage on the development of the Guidelines.

The Commission's reasons for making this final rule determination are set out in Chapter 3.

Appendix B sets out further detail regarding the legal requirements for the making of this final rule determination.

2.2 Rule making test

Under the NEL, the Commission may only make a rule if it is satisfied that the rule will, or is likely to, contribute to the achievement of the National Electricity Objective (NEO). 40

The NEO is:41

"to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:

- (a) price, quality, safety, reliability and security of supply of electricity; and
- (b) the reliability, safety and security of the national electricity system."

For this rule change request, the Commission considers that the relevant aspects of the NEO are efficient investment in, and efficient operation and use of, electricity services, with respect to the reliability and security of supply of electricity.⁴²

The Commission is satisfied that the final rule will, or is likely to, contribute to the achievement of the NEO because:

AEMO is not required to comply with the Rules consultation procedures when making minor or administrative amendments to the Guidelines. See clause 3.7D(g) of the final rule.

⁴⁰ See s. 88 of the NEL.

See s. 7 of the NEL.

Under section 88(2) of the NEL, for the purposes of section 88(1) of the NEL, the AEMC may give such weight to any aspect of the NEO as it considers appropriate in all the circumstances, having regard to any relevant Ministerial Council on Energy Statement of Policy Principles.

- there is an apparent deficiency in the amount of information available to AEMO that has the potential to impact on the quality of AEMO's forecasts of electricity load in the NEM, as discussed in section 1.4.4;
- the final rule will provide a process by which AEMO may obtain better and specific information on DSP from registered participants;
- requiring AEMO to take into account the information on DSP that it receives under the final rule when developing or using load forecasts for the purposes of the exercise of its functions under the Rules could:
 - lead to potential improvements in the quality of AEMO's load forecasts;
 and
 - in turn, inform a number of AEMO's decisions and processes when exercising its functions under the Rules; and
- the publication of potentially better quality AEMO load forecasts could better inform electricity market stakeholders of possible future outcomes and lead to potentially more efficient operational decisions and, ultimately, potentially more efficient investment decisions.

2.3 More preferable rule

Under section 91A of the NEL, the AEMC may make a rule that is different (including materially different) from a market initiated rule if the AEMC is satisfied that, having regard to the issues that were raised by the market initiated rule, the more preferable rule will, or is likely to, better contribute to the achievement of the NEO.

Having regard to the rule change request and the issues raised by stakeholders in their submissions, the Commission is satisfied that the final rule, which is a more preferable rule, will, or is likely to, better contribute to the achievement of the NEO, compared to the proposed rule, because:

- AEMO will be required to consult with interested stakeholders, in addition to registered participants, under the Rules consultation procedures, when developing and amending the Guidelines. Integrated policy outcomes are more likely when all affected parties are consulted and decisions are taken in a transparent manner.
- It includes a requirement that AEMO publishes details, no less than annually, on the extent to which, in general terms, the information it has received under the final rule has informed its development and use of load forecasts for the purposes of the exercise of its functions under the NER.⁴³ This provision may provide registered participants with a better understanding of how information on DSP provided to AEMO under the Guidelines may improve load forecasts.

Clause 3.7D(d) of the final rule.

• It will provide greater certainty to registered participants regarding the types of information that may be obtained by AEMO under the Guidelines⁴⁴ and, in turn, the business and compliance processes that registered participants may need to establish to comply with the Guidelines.⁴⁵

2.4 Assessment approach

In assessing the rule change request against the NEO, the Commission has had regard to the following matters:

- Potential to better inform decisions and processes the potential of a rule change to better inform AEMO's electricity load forecasting and, in turn, the potential for better informed AEMO load forecasts to inform aspects of other energy market stakeholders' decisions-making;
- Potential regulatory and administrative burden the potential regulatory and/or administrative burden on AEMO and registered participants that may arise if a rule change is made;
- Degree of flexibility in determining the terms of the Guidelines the degree to which a rule change, having regard to AEMO's proposed role in preparing and maintaining the Guidelines, provides flexibility, such that the terms of the Guidelines can accommodate the changing levels and nature of DSP in the NEM;
- Balancing the need for DSP information transparency and confidentiality the degree to which a rule change is likely to achieve an appropriate balance between the needs of:
 - registered participants in respect of suitable information handling requirements for the protection of confidential information on DSP that they provide to AEMO;
 - AEMO in respect of access to the type of information on DSP that would be useful for the purpose of developing or using load forecasts in relation to the exercise of its functions under the NER; and
 - other energy market stakeholders, including consumers in respect of having access to published NEM load forecasts, which have been informed by information on DSP provided to AEMO by registered participants, for the purposes of informing their decision-making processes; and
- *Accuracy of information to be provided to AEMO* the appropriate level of accuracy in the information on DSP to be provided by registered participants, and how

⁴⁴ AEMO must develop the Guidelines in accordance with the Rules consultation procedures.

For example, the definition of demand side participation information set out in the proposed rule has been amended to provide greater clarity on the scope of information that may be obtained by AEMO under the Guidelines.

AEMO would assess, and take into account, this level of information accuracy in its load forecasts.

The rule change has been assessed against the relevant counterfactual of not making the change to the NER. That is, against the current situation whereby AEMO may request, and registered participants may provide, information specifically on DSP on a voluntary basis.

2.5 Strategic priority

The final rule advances the Commission's "consumer" and "market" strategic priorities. He final rule could provide consumers, and other energy market stakeholders, with potentially better quality published information (eg, AEMO load forecasts) to help inform their consumption and investment decisions.

The consumer priority is further supported by providing an opportunity for interested stakeholders to be consulted on the development and amendment of the Guidelines.

The AEMC's strategic priorities can be viewed on the AEMC's website, at: http://www.aemc.gov.au/Major-Pages/Strategic-priorities

3 Commission's conclusions and assessment

The Chapter sets out the Commission's assessment of the rule change request, including the Commission's conclusions, the context and stakeholder views and the Commission's analysis.

3.1 Potential to better inform decisions and processes

3.1.1 Commission's conclusion

The Commission considers that the final rule provides an appropriate process by which AEMO may obtain information on DSP from registered participants in the NEM. The final rule also requires AEMO to take into account this information when developing or using load forecasts for the purposes of the exercise of its functions under the NER.⁴⁷ Improved information on DSP has the potential to better inform the decisions and processes of AEMO and, in turn, other energy market stakeholders.

3.1.2 Context and stakeholder views

Potential benefits of improved information on DSP include the opportunity to better inform AEMO's load forecasting and, in turn, via published AEMO load forecasts, potentially better inform aspects of other energy market stakeholders' decision-making.

A number of stakeholders, including AusNet⁴⁸, EnerNoc⁴⁹, AEMO⁵⁰, Energex⁵¹, Ergon Energy (Ergon)⁵² and the Alternative Technology Association (ATA)⁵³, agreed that this benefit is likely to, or has the potential to, arise from the improved provision of DSP information to AEMO. AEMO also noted that the extent of this benefit is likely to grow over time as DSP's prevalence in the NEM increases.

AGL was supportive of the draft rule, but noted that there may be limits as to how helpful registered participants' DSP information will be in informing AEMO's forecasts. 54

While a number of other stakeholders were supportive of the intent of the proposed rule, they also considered that:

Clause 3.7D(c) of the final rule.

⁴⁸ AusNet, Consultation Paper submission

⁴⁹ EnerNoc, Consultation Paper submission; EnerNoc, Draft Rule Determination submission

AEMO, Consultation Paper submission; AEMO, Draft Rule Determination submission

⁵¹ Energex, Consultation Paper submission

⁵² Ergon, Draft Rule Determination submission

⁵³ ATA, Draft Rule Determination submission

⁵⁴ AGL, Draft Rule Determination submission

- the magnitude of DSP in the market is currently insufficient to materially impact AEMO's load forecasts (United Energy and Multinet Gas (UE))⁵⁵; and
- the data that can be provided by registered participants may not be useful to AEMO in materially improving its load forecasts (Stanwell⁵⁶, EnergyAustralia⁵⁷).

EnergyAustralia noted that there was limited evidence of the materiality of the benefits of the proposed rule.⁵⁸

Stanwell⁵⁹, UE⁶⁰ and GDF SUEZ Australian Energy (GDF)⁶¹ warned of the potential for the proposed rule to result in lower quality load forecasts or distortions to the market, as a result of undue reliance by AEMO on unavoidably inaccurate information on DSP provided by registered participants.

EnergyAustralia⁶² and Stanwell⁶³ encouraged the Commission to explore non-regulatory options, as opposed to making a rule, such as AEMO:

- analysing large customer usage directly to identify and predict price responsive demand; and
- improving its voluntary surveys, for example, by surveying large customers directly, or by surveying unscheduled and exempt generators.

AGL also considered that such non-regulatory options should be explored, but considered that this should be done in conjunction with the regulatory requirements provided by the draft rule. 64

AGL was supportive of the time period afforded to AEMO under the draft rule to consult with stakeholders to develop and amend the Guidelines.⁶⁵ In contrast, a number of stakeholders recommended delaying the introduction of the proposed rule, if made. For example:

• The Energy Retailers Association of Australia (ERAA)⁶⁶ submitted that the Commission should defer making a final rule determination on this rule change

UE, Consultation Paper submission

⁵⁶ Stanwell, Consultation Paper submission

⁵⁷ Energy Australia, Consultation Paper submission

⁵⁸ Energy Australia, Consultation Paper submission

⁵⁹ Stanwell, Consultation Paper submission

⁶⁰ UE, Consultation Paper submission

⁶¹ GDF, Consultation Paper submission

⁶² Energy Australia, Consultation Paper submission

⁶³ Stanwell, Draft Rule Determination submission

⁶⁴ AGL, Draft Rule Determination submission

⁶⁵ AGL, Draft Rule Determination submission

⁶⁶ ERAA, Consultation Paper submission

request until after AEMO's Guidelines had been developed, so that the costs and benefits of the rule change request could be better understood before the making of the final rule determination;

- The Energy Networks Association (ENA)⁶⁷ and Energex⁶⁸ considered that a delay may appropriately prioritise and sequence related issues currently being considered by the Commission or policy-makers, such as the demand management and embedded generation connection incentive scheme (DMEGCIS) rule change request⁶⁹;
- ENA also considered that a delay may allow the Commission to better understand the effectiveness of the Distribution Annual Planning Report (DAPR)⁷⁰ in identifying and encouraging DSP⁷¹; and
- UE considered that the current levels of DSP in the NEM may not warrant the rule change.⁷²

3.1.3 Commission's analysis

During the PoC review, the AER provided examples of potential DSP occurring in the NEM, including changes in load in response to pricing events.⁷³ AEMO has also provided to the Commission examples of more recent pricing events, where DSP potentially occurred in the NEM. The Commission understands, from discussions with AEMO, that the apparent DSP that occurred during these pricing events was not forecast by AEMO to occur due to a lack of information on DSP. As a result, this contributed to load forecasting that was of a lower quality than might have otherwise been.

In terms of the potential for a rule to lead to better informed decisions and processes, the Commission considers that a rule should be made because:

- it appears that registered participants currently have certain information on DSP that AEMO does not currently have access to;
- providing this information on DSP to AEMO on a routine basis may improve AEMO's visibility of DSP in the NEM and, in turn, lead to potential

⁶⁷ ENA, Consultation Paper submission

⁶⁸ Energex, Consultation Paper submission

This open rule change request, reference ERC0177, can be viewed on the AEMC's website, at: http://www.aemc.gov.au/

Under clause 5.13.2 of the NER, a distribution network service provider must annually publish the Distribution Annual Planning Report, setting out the results of the distribution annual planning review.

⁷¹ ENA, Consultation Paper submission

⁷² UE, Consultation Paper submission

See Attachment 1 to the Australian Energy Regulator's submission to the POC review Directions Paper (8 May 2012, available at the AEMC's website at: www.aemc.gov.au).

improvements in the quality of AEMO's load forecasts (noting that the final rule requires AEMO to take into account the information it is provided under the Guidelines when developing or using load forecasts for the purposes of exercising its functions under the Rules);

- better informed and published AEMO load forecasts have the potential to contribute to better decisions by AEMO and other energy market stakeholders; and
- better informed decisions have the potential to improve the efficiency of the NEM

The Commission considers that continuing to develop non-regulatory approaches, as proposed by EnergyAustralia and Stanwell (eg, by further developing AEMO's DSP information voluntary surveys), is not likely to result in significant improvements to the current arrangements. That is, AEMO's visibility of the potential amount of DSP that could be utilised in the NEM is not likely to be sufficiently improved without the introduction of a requirement in the Rules for registered participants to provide DSP information to AEMO.

3.2 Potential regulatory and administrative burden

3.2.1 Commission's conclusion

The final rule will require AEMO to:

- consult with registered participants and interested stakeholders on the
 development and any amendment of the Guidelines in accordance with the Rules
 consultation procedures⁷⁴, which will provide these parties with an opportunity
 to actively engage with AEMO and raise any concerns, for example, in relation to
 the costs of efficient compliance with Guidelines;⁷⁵ and
- when developing the Guidelines (in accordance with the Rules consultation procedures), have regard to registered participants' reasonable costs of efficient compliance, compared to the likely benefits from the use of information received by AEMO in forecasting load.⁷⁶

The Commission considers that:

• the Rules consultation procedures that AEMO will be required to follow under the final rule will provide a structured and well-established process through which registered participants and interested stakeholders can raise any concerns,

See section 3.2.3 for a description of the Rule consultation procedures. AEMO is not required to comply with the Rules consultation procedures when making minor or administrative amendments to the Guidelines. See clause 3.7D(g) of the final rule.

⁷⁵ Clause 3.7D(f)(2) of the final rule.

⁷⁶ Clause 3.7D(f)(1) of the final rule.

and actively engage with AEMO in the development and amendment of the Guidelines; and

• given its role and functions in the market, AEMO is well placed to assess those concerns, and consider such feedback, when developing and amending the Guidelines.

3.2.2 Context and stakeholder views

The COAG Energy Council, in its rule change request, considered that both AEMO and registered participants may face some additional regulatory and/or administrative costs as a result of the proposed rule.⁷⁷ For example, such costs may include any administrative and/or compliance-related costs in relation to collating, submitting, receiving, analysing and assessing the quality of information on DSP that has been provided by registered participants to AEMO.

The COAG Energy Council contended that these costs should be small because:

- for AEMO, the activities required by the proposed rule could be undertaken as part of its existing administrative functions, such as NEM load forecasting; and
- many registered participants are likely to already possess the relevant information on DSP that they would be required to provide to AEMO under the proposed rule, and use it for their own purposes, such as in risk management (eg, hedging decisions).

AusNet⁷⁸, Energex⁷⁹ and Ergon⁸⁰ noted that it is difficult to assess the extent of the costs (and benefits) of the proposed rule at this stage, as such an assessment is highly dependent on the content of the Guidelines. Similarly, ENA^{81} considered that, in order to assess the proposed rule, a more thorough understanding of its costs (and benefits) is required.

EnergyAustralia⁸² considered that the low response rates to AEMO's voluntary DSP information surveys was indicative of the onerous nature of the surveys and, hence, the likely onerous nature of the Guidelines.

Several stakeholders⁸³ also noted a number of factors that they considered AEMO should take into account (or should be required to take into account, by way of further

⁵⁷⁷ Standing Council on Energy and Resources 2013, (now the COAG Energy Council), Improving DSP information provided to AEMO by registered participants, SCER Rule change request, November 2013, p.7. Available at the AEMC's website: http://www.aemc.gov.au

AusNet, Consultation Paper submission

⁷⁹ Energex, Consultation Paper submission

⁸⁰ Ergon, Draft Rule Determination submission

⁸¹ ENA, Consultation Paper submission and ENA, Draft Rule Determination submission

⁸² Energy Australia, Consultation Paper submission

prescription in the rule) when developing the Guidelines, in order to limit the regulatory costs. These factors include:

- initial costs and ongoing costs (eg, labour and data warehousing);
- the timelines for the provision of information (eg, shorter timelines are likely to drive higher costs, as are timelines which impinge on other regulatory reporting requirements);
- the frequency of data provision (eg, more frequent data provision is likely to be at greater cost to registered participants and AEMO);
- how readily available the information on DSP is to registered participants (eg, more readily available data is likely to be at lower cost);
- the appropriate level of detail required (eg, the total cost of providing information on multiple small scale DSP sites is likely to be relatively high compared to providing information for a single DSP site);
- whether the data is already provided or publicly available (eg, to avoid unnecessary duplication of cost);
- the format in which data is to be provided to AEMO (eg, some types of formats are likely to be at less cost than others; consistent formatting between registered participants, and over time, is likely to be at lower cost than otherwise);
- the required level of data analysis, validation or correction, on the part of registered participants and AEMO;
- the required level of accuracy in the information that is provided to AEMO;
- the provision of aggregated versus dis-aggregated data to AEMO (eg, validation and provision of dis-aggregated data is likely to be at higher cost);
- the provision of historic data (eg, historic data may not be available at all, at low cost or in a suitable format); and
- the type of registered participant that is required to provide the data to AEMO (eg, the regulatory cost associated with certain data provision requirements may vary between types of registered participants).

3.2.3 Commission's analysis

In preparing the final rule, the Commission has considered the potential for unnecessarily onerous regulatory obligations being imposed on registered participants through the Guidelines, and on AEMO under the final rule.

AusNet, ENA, Energex, EnergyAustralia, EnerNoc, ERAA and UE, Consultation Paper submissions; UE, Energex, NSW Distribution Network Service Providers, ENA, AEMO, Draft Rule Determination submissions.

The Commission considers that the process for developing and amending the Guidelines is likely to limit the potential for unnecessary obligations being placed on registered participants, if registered participants engage actively in the consultation process.

The final rule will require AEMO to consult with registered participants and interested stakeholders in accordance with the Rules consultation procedures.⁸⁴ Amongst other things, the Rules consultation procedures will require AEMO to:

- invite registered participants and interested stakeholders to make written submissions concerning the Guidelines;
- if valid submissions contain requests for meetings on the Guidelines and AEMO concludes, after considering the submissions, that it is desirable or necessary to hold such meetings, then AEMO must use its best endeavours to hold meetings with the relevant registered participants and interested stakeholders;
- publish a draft report, which includes its conclusions and determinations, its reasons for those conclusions, its procedure in considering the matter, summaries of each issue that it reasonably considers material that was contained in valid written submissions or in meetings, and AEMO's response to each such issue;
- invite written submissions on the draft report from all registered participants and interested stakeholders, and consider all valid submission on the draft report; and
- publish a final report, with requirements similar to that of the draft report.

The Rules consultation procedures that AEMO will be required to follow under the final rule will provide a structured and well-established process through which registered participants and interested stakeholders can raise any concerns, and actively engage with AEMO in the development and amendment of the Guidelines. The Commission expects that registered participants and interested stakeholders will take the opportunity to participate actively in this consultation process so that their views can be appropriately considered and addressed by AEMO in the development and amendment of the Guidelines.

As part of developing and amending the Guidelines, in accordance with the Rules consultation procedures, AEMO will be required to prepare both a draft and final report, which must set out (amongst other things) a summary of issues raised in valid submissions (to the extent AEMO reasonably considers them to be material) and AEMO's response to each such issue. For example, should a registered participant or interested stakeholder make a valid submission during the consultation process relating to the costs of compliance with the Guidelines, AEMO must consider such submission and, to the extent AEMO reasonably considers the issue to be material, summarise and respond to the submission in the draft or final report (as the case may be).

⁸⁴ The Rules consultation procedures are set out in Part F of Chapter 8 of the NER.

As discussed in section 2.3, under the final rule, AEMO will be required to consult with interested stakeholders, in addition to registered participants, when developing and amending the Guidelines.

In addition to the obligations on AEMO through the Rules consultation procedures, AEMO will be required, under the final rule, to have regard the reasonable costs of efficient compliance with the Guidelines.⁸⁵ For example, AEMO will be required to have regard to those issues identified by stakeholders and listed in section 3.2.2, to the extent that those issues contribute to the reasonable cost of efficient compliance.⁸⁶

3.3 Degree of flexibility in determining the terms of the Guidelines

3.3.1 Commission's conclusion

The Commission considers it is appropriate for the final rule to provide AEMO with some flexibility in developing and maintaining the terms of the Guidelines, in consultation with registered participants and interested stakeholders. Flexibility in the framework under which the Guidelines are developed and amended will allow the Guidelines to evolve over time as DSP evolves, and to take into account the bespoke nature of some DSP arrangements in the market.

At the same time, the final rule provides certain parameters with respect to AEMO's development and amendment of the Guidelines, for example, with regard to the nature and scope of the types of information that may be required to be provided to AEMO by registered participants under the Guidelines.

Furthermore, the final rule will require AEMO to publish details, no less than annually, on the extent to which, in general terms, DSP information it has received under the final rule has informed its development or use of load forecasts for the purposes of the exercise of its functions under the NER.⁸⁷ The Commission considers this is appropriate and anticipates it to be a reasonably low cost obligation on AEMO, while providing information to registered participants on the extent to which the information they have provided to AEMO under the Guidelines is informing AEMO's load forecasts.

The final rule includes a requirement that the Guidelines must include a minimum period of 3 months between the date of publication and the date when the Guidelines commence.⁸⁸In addition, a transitional provision requires the first Guidelines to be

These costs must be compared to the likely benefits from the use of the information received by AEMO under the final rule in forecasting load for the purposes of the exercise of its functions

For this reason, the Commission does not consider it necessary for the final rule to require AEMO to have regard to any specific individual factors which influence regulatory compliance costs, such as those listed in section 3.2.2.

Clause 3.7D(d) of the final rule.

Clause 3.7D(h) of the final rule.

developed and published by AEMO by no later than 26 September 2016.⁸⁹These timelines allow an appropriate opportunity for registered participants and interested stakeholders to actively engage with AEMO in the development of the Guidelines, and for registered participants to prepare for the commencement of the Guidelines before they come into effect.

3.3.2 Context and stakeholder views

In their responses to the consultation paper, stakeholders were generally supportive of giving AEMO some flexibility with respect to developing the form of the Guidelines in consultation with registered participants, because:

- it would more easily accommodate the bespoke possible types of DSP in the NEM (GDF⁹⁰);
- it would allow for the terms of the Guidelines to more easily evolve as DSP in the NEM evolves (AEMO⁹¹, GDF⁹²); and
- AEMO should determine the terms of the Guidelines through consultation with registered participants (AusNet⁹³).

Some stakeholders also suggested that some limitations and clarifications are necessary with respect to the degree of flexibility that may be exercised by AEMO in determining the terms of the Guidelines, such as:

- the definitions of "DSP" and "DSP information" in the proposed rule should be clarified, or alternatively, the proposed rule should require AEMO to provide such clarification in the Guidelines, so that information on all types of DSP can be received by AEMO (AusNet⁹⁴, EnerNoc⁹⁵, AEMO⁹⁶, Energex⁹⁷); and
- the proposed rule should require AEMO to state, in the Guidelines, what the information it will receive will be used for (AusNet⁹⁸), or, to publish what the information it received was used for (ERAA⁹⁹).

Several stakeholders also made technical suggestions as to the specific data that AEMO should receive, and who should provide that specific data to AEMO.

⁸⁹ Clause 11.79.1 of the final rule.

⁹⁰ GDF, Consultation Paper submission

⁹¹ AEMO, Consultation Paper submission

⁹² GDF, Consultation Paper submission

⁹³ AusNet, Consultation Paper submission

⁹⁴ AusNet, Consultation Paper submission

⁹⁵ EnerNoc, Consultation Paper submission

⁹⁶ AEMO, Consultation Paper submission 97 Energy Consultation Paper submission

⁹⁷ Energex, Consultation Paper submission

⁹⁸ AusNet, Consultation Paper submission

⁹⁹ ERAA, Consultation Paper submission

The ERAA¹⁰⁰, EnerNoc¹⁰¹, Energex¹⁰², Stanwell¹⁰³ and GDF¹⁰⁴ noted that parties which are not registered participants in the NEM, such as demand side aggregators, may also be useful or better sources of information on DSP.

In its draft determination, the Commission noted that it considered there is merit in the rule affording AEMO certain flexibility with respect to determining the nature and form of information that may be required to be provided under the Guidelines, and in the timing of the commencement of the Guidelines, but that such flexibility should be appropriately limited.

There were a diversity of opinions from stakeholders with regard to the level of flexibility afforded to AEMO under the draft rule with respect to developing and maintaining the Guidelines, particularly with regard to both:

- the content of the Guidelines; and
- the timing for the commencement of the Guidelines.

Stakeholder views with regard to each of these two matters are discussed below.

Flexibility in determining the content of the Guidelines

A number of stakeholders considered that the draft rule provided the appropriate degree of flexibility in terms of AEMO's development of the form of the Guidelines (AGL¹⁰⁵, AEMO¹⁰⁶, NSW Distribution Network Service Providers¹⁰⁷). AEMO argued that its reporting obligations under the draft rule would be too onerous, and should instead be determined during the process of developing the Guidelines (in accordance with the Rules consultation procedures) and set out in the Guidelines.

A number of stakeholders (Energex¹⁰⁸, Ergon¹⁰⁹, UE¹¹⁰ and the ENA¹¹¹), submitted that the level of flexibility afforded to AEMO was inappropriate, in that it could result in an unjustifiably high regulatory burden in comparison to the benefits derived from the information provided under the Guidelines. They made a number of suggestions as to how the draft rule could be amended to address their concerns, including:

¹⁰⁰ ERAA, Consultation Paper submission

¹⁰¹ EnerNoc, Consultation Paper submission

¹⁰² Energex, Consultation Paper submission

¹⁰³ Stanwell, Consultation Paper submission

¹⁰⁴ GDF, Consultation Paper submission

¹⁰⁵ AGL, Draft Rule Determination submission

¹⁰⁶ AEMO, Draft Rule Determination submission

¹⁰⁷ NSW Distribution Network Service Providers, Draft Rule Determination submission

¹⁰⁸ Energex, Draft Rule Determination submission

¹⁰⁹ Ergon, Draft Rule Determination submission

¹¹⁰ UE, Draft Rule Determination submission

¹¹¹ ENA, Draft Rule Determination submission

- introducing a materiality threshold, to ensure that only sufficiently beneficial information is collected; and
- refining the definition of DSP information, so that certain information is excluded, such as information related to:
 - individual solar photovoltaic connections;
 - individual national meter identifiers (NMIs); and
 - time varying network tariffs.

 ${
m UE^{112}}$ and ENA¹¹³ considered that the draft rule requirement for AEMO to "have regard to" costs and benefits to be insufficient, and instead, the rule should be strengthened to require AEMO to ensure that the likely benefits of information provision outweigh the costs.

 $\rm UE^{114}$ and $\rm ENA^{115}$ also suggested that the rule should require AEMO, as part of the annual publication obligation set out in the draft rule, to report on what information has not been used by AEMO (as well as what information has been used), to further increase the accountability of AEMO with regard to its development of the Guidelines.

Flexibility in determining the timing of the Guidelines' commencement

The draft rule included a requirement that the Guidelines must include a minimum period of 3 months between publication and the date when the Guidelines commence.

In response, AEMO¹¹⁶ considered that any minimum period between the Guidelines' publication and commencement is unnecessary, as AEMO would implement a reasonable notification period consistent with the compliance challenges created by the new or amended Guidelines (as the case may be).

In contrast, several stakeholders considered that, given the unknown but potentially substantial nature of the compliance requirements (which would become clearer as part of the Guidelines' development process), a more appropriate amount of time between the Guidelines' publication and commencement would be 9 months (Energex¹¹⁷, Ergon¹¹⁸, UE¹¹⁹ and the ENA¹²⁰).

¹¹² UE, Draft Rule Determination submission

¹¹³ ENA, Draft Rule Determination submission

¹¹⁴ UE, Draft Rule Determination submission

¹¹⁵ ENA, Draft Rule Determination submission

¹¹⁶ AEMO, Draft Rule Determination submission

¹¹⁷ Energex, Draft Rule Determination submission

Ergon, Draft Rule Determination submission

¹¹⁹ UE, Draft Rule Determination submission

¹²⁰ ENA, Draft Rule Determination submission

3.3.3 Commission's analysis

Merit in flexibility

The Commission considers that there is merit in the final rule providing some flexibility to AEMO with respect to the nature and form of information that may be required to be provided under the Guidelines. This is because:

- AEMO, in consultation with registered participants and interested stakeholders, is well placed to develop the appropriate terms of the Guidelines. The collective knowledge of AEMO, registered participants and interested stakeholders of the issues that may be relevant include:
 - the likely costs and benefits of the provision of information on DSP;
 - the appropriate accuracy requirements in respect of the information required to be provided by registered participants under the Guidelines, and the impact of such requirements on costs and benefits; and
 - information confidentiality considerations.
- The nature and extent of DSP may change in the future, driven by regulatory change and market led developments (such as technological change). Guidelines developed and amended by AEMO, in consultation with registered participants and interested stakeholders, allow for a greater degree of flexibility for the evolution of the Guidelines to account for these potential changes, in comparison to requiring a rule change to effect a change in the specific nature and form of information that may be obtained under the Guidelines.
- DSP arrangements between registered participants and third parties, such as
 customers or demand side aggregators, can be highly bespoke. Guidelines
 developed and amended by AEMO, in consultation with registered participants
 and interested stakeholders, may be able to more appropriately account for
 bespoke DSP arrangements, in comparison to requiring a rule change to
 incorporate new DSP arrangements between registered participants and third
 parties.

The Commission considers that the final rule should not include additional prescription in respect of technical matters, such as the specific data that AEMO should receive or the specific types of registered participants who will be required to provide that specific data. Rather, it is more appropriate for such requirements to be included in the Guidelines, which the final rule requires AEMO to develop and amend in accordance with the Rules consultation procedures.

Requirements to limit the scope of the Guidelines

Despite the above, the Commission considers that there are a number of requirements within the final rule which appropriately limit the scope of the information on DSP that may be required to be provided under the Guidelines, and from whom.

First, in developing the Guidelines in accordance with the Rules consultation procedures, AEMO must have regard to registered participants' reasonable costs of efficient compliance with the Guidelines. AEMO must have regard to these costs in comparison to the likely benefits of the use of the information provided specifically for forecasting load for the purposes of the exercise of its functions under the Rules (as discussed in sections 3.1 and 3.2).

The requirement for AEMO to "have regard to" the costs and benefits¹²¹ is consistent in approach with other rules in the NER¹²² under which AEMO exercises a level of discretion. The Commission considers this approach to be appropriate in this context given the qualitative and quantitative aspects of the benefits and costs being considered. Furthermore, under section 49(3) of the NEL, AEMO must have regard to the NEO when carrying out its statutory functions.

Secondly, and as noted above, AEMO will be required to consult with registered participants and interested stakeholders when developing and amending the Guidelines, in accordance with the Rules consultation procedures. These procedures provide a structured and well-established process through which registered participants and interested stakeholders can raise any concerns, and provide an opportunity for these parties to actively engage with AEMO with respect to the development and amendment of the Guidelines. The more actively that these parties engage with AEMO in the consultation process, the more likely that AEMO can investigate and address their concerns.

Thirdly, only information that falls within the scope of the definition of 'demand side participation information' in the final rule may be required to be provided by registered participants under the Guidelines. This definition captures information on 'contracted demand side participation' ¹²³, in addition to information relating to the curtailment of non-scheduled load ¹²⁴ and provision of 'unscheduled generation' ¹²⁵ in response to the demand for, or price of, electricity. The new term, 'unscheduled generation', captures the provision of generation from non-scheduled generating systems ¹²⁶, as well as generation from generating systems which are exempt from registration under Chapter 2 of the NER. ¹²⁷ Information that falls within the scope of the definition of DSP information in the final rule is likely to be useful for AEMO in developing or using its load forecasts. This may include information on, but not limited to:

Rather than be required to only include information on DSP in the Guidelines where the benefits, or likely benefits, derived from such information exceed the reasonable costs of efficient compliance.

eg, rule 3.7C(f) relating to AEMO's administration of the Energy Adequacy Assessment Projection.

Defined under the final rule.

Defined under the NER as a "market load which is not a scheduled load".

Defined under the final rule.

¹²⁶ As defined in Chapter 10 of the NER.

The term 'unscheduled generation', as opposed to 'non-scheduled generation' (as used in the proposed rule), has been used to avoid the implication that DSP information only relates to non-scheduled generating systems (which are defined in the NER).

- the circumstances under which non-scheduled load may be curtailed or unscheduled generation may be provided;
- the location at which non-scheduled load may be curtailed or unscheduled generation may be provided;
- the quantity of non-scheduled load that may be curtailed or unscheduled generation that may be provided; and
- historic or current information relating to DSP.

The definition of 'demand side participation information' is designed to accommodate possible emerging types of DSP and changing technology. For this reason, the level of granularity of information that may be required to be provided by registered participants is not specified under the final rule, for example. However, AEMO's determination of the information required to be provided under the Guidelines is subject to certain other limitations under the final rule, as discussed in this section.

Fourthly, compared to the proposed rule, the final rule introduces a requirement that AEMO publishes details, no less than annually, on the extent to which, in general terms, the information it has received under the final rule has informed its development and use of load forecasts for the purposes of the exercise of its functions under the NER.

The Commission considers that this additional requirement appropriately balances the need for AEMO to publish details on the extent to which information received under the final rule has informed its development or use of load forecasts, with the potential administrative and compliance costs of having to produce such a publication. The Commission anticipates this to be a reasonably low cost obligation on AEMO, which affords AEMO a sufficient degree of flexibility with respect to determining the specific form of the publication, which it must consult upon through the Rules consultation procedures.

Requiring AEMO to publish details of information not used¹²⁸ could be an excessively onerous obligation imposed on AEMO, given that it may require AEMO to report specifically on a large number of individual data series or data points that were not used, and why. Such a reporting requirement could also give rise to confidentiality issues, as a requirement to state what information was not used may conflict with maintaining the confidentiality of such information.

Finally, the final rule only requires registered participants, as opposed to a broader group of parties, to provide information on DSP to AEMO. There may be parties other than registered participants, such as demand side aggregators, that may also be a useful source of information on DSP. Such parties are, however, generally party to a contract with a registered participant which contains the relevant terms of the DSP arrangement. Accordingly, a registered participant may be in a position to utilise processes, to the extent that it had developed such processes for the purposes of

¹²⁸ As suggested by the ENA and UE in their Draft Rule Determination submissions.

complying with the final rule, in order to provide the relevant information on DSP to AEMO.

Limitations on the timing of the Guidelines' commencement

The final rule contains a requirement for a minimum period of 3 months between the Guidelines' publication and commencement. This means that AEMO may specify a period of longer than 3 months, as determined following consultation with registered participants and interested stakeholders through the Rules consultation procedures, and with regard to registered participants' reasonable costs of efficient compliance with the Guidelines compared to the likely benefits from the use of the information provided for the purposes of the exercise of AEMO's functions under the Rules. This will be the case for the first Guidelines, or any subsequent amendments thereafter, allowing the time period to be set having regard to matters raised by registered participants and interested stakeholders during the development or amendment of the Guidelines.

Furthermore, registered participants and interested stakeholders will have an opportunity to actively engage with AEMO throughout the Guidelines' development or amendment. Registered participants' likely compliance obligations under the Guidelines, and preparations to meet these obligations, can be informed by their active engagement with AEMO in the consultation processes that AEMO must follow when developing or amending the Guidelines.

The specification of a 3 month minimum period in the final rule gives registered participants a degree of certainty. They will have, regardless of the nature of the change to the Guidelines¹³⁰, a minimum 3 months' time period in which to inform the appropriate stakeholders within their respective businesses of the compliance obligations under the published Guidelines, and prepare for them, prior to the commencement of the Guidelines.

3.4 Balancing the need for DSP information transparency and confidentiality

3.4.1 Commission's conclusion

The protected information provisions, as set out in Part 5, Division 6 of the NEL, require AEMO to take all reasonable measures to protect protected information ¹³¹ from unauthorised use or disclosure. In the context of this rule change request, such information will include information provided to AEMO by registered participants

AEMO is not required to comply with the Rules consultation procedures when making minor or administrative amendments to the Guidelines. See clause 3.7D(g) of the final rule.

¹³⁰ Ibid.

Protected information is defined under section 54 of the NEL as information that is: given to AEMO in confidence; or, given to AEMO in connection with the performance of its statutory functions and classified under the NER or Regulations (being regulations made under Part 4 of the *National Electricity (South Australia) Act* 1996 (South Australia)) as confidential information.

under the Guidelines to the extent the information has been provided to AEMO in confidence.

The Commission considers the protected information provisions in the $\rm NEL^{132}$ to impose clear obligations on AEMO in relation to the use and disclosure of protected information and that such provisions are sufficient for the purposes of the information that may be received by AEMO under the final rule. Accordingly, the final rule does not impose additional obligations on AEMO in respect of not disclosing information received under the Guidelines.

3.4.2 Context and stakeholder views

The potential benefits of the proposed rule change include AEMO and energy market stakeholders using better informed AEMO load forecasts to inform their decisions. As such, the potential benefits are predicated on:

- the quality of information that AEMO may receive from registered participants under the proposed rule. This has the potential to influence the extent of improvement in the quality of AEMO's load forecasts; and
- the level of detail of AEMO's published load forecasts. This may influence the
 extent to which other parties may be better informed by AEMO's load forecasts,
 and may also provide an opportunity to stakeholders to actively engage with
 AEMO on possible ways to improve the quality of AEMO's forecasts, AEMO's
 forecasting methodology, or required methods of data provision.

The level of detail in respect of the information on DSP that is provided to AEMO, and in respect of the reporting of load forecasts by AEMO, also raises potential issues with respect to the use or disclosure of confidential information.

As noted by the COAG Energy Council in its rule change request, under Part 5, Division 6 of the NEL, AEMO has certain obligations with regard to the use and disclosure of protected information. For the purposes of the NEL, 'protected information' is information given to AEMO in confidence or given to AEMO in connection with the performance of its statutory functions and classified under the NER or the regulations ¹³³ as confidential information.

In their submissions, UE¹³⁴ and AusNet¹³⁵ recognised the benefits of AEMO receiving information on DSP, and the benefits of AEMO disclosing that information publicly (notwithstanding confidentiality concerns).

Regulations made under Part 4 of the *National Electricity (South Australia) Act* 1996 (South Australia)).

¹³² Ibid

¹³⁴ UE, Consultation Paper submission

¹³⁵ AusNet, Consultation Paper submission

AusNet¹³⁶, ERAA¹³⁷ and GDF¹³⁸ considered that the protected information provisions under the NEL may be insufficient to adequately address concerns regarding AEMO's use of the information that it would receive under the proposed rule. In contrast, Energex¹³⁹ considered that the protected information provisions under the NEL are sufficient.

 ${\rm ERAA^{140}}$ and ${\rm AusNet^{141}}$ noted that confidentiality issues may be mitigated by information being published at a sufficiently aggregate level and de-identified, to ensure that confidential information could not be 'back-solved' from published information.

Similarly, AGL¹⁴² noted the importance of ensuring that confidential information cannot be deduced from published information. EnergyAustralia¹⁴³ noted that information provided to AEMO should be considered confidential, and should only be used by AEMO in aggregate form and in a way that maintains third party anonymity. Further, Stanwell¹⁴⁴ considered that, as AEMO does not require specific contract information in order to undertake its forecasts, this type of information should be excluded from any information provision requirements.

GDF¹⁴⁵, EnergyAustralia¹⁴⁶ and Stanwell¹⁴⁷ noted that confidentiality provisions in existing contracts between registered participants and third parties (such as consumers) may prohibit the registered participant from supplying AEMO with such information. Stanwell noted further that if registered participants were required to provide such information to AEMO under this rule change, or if contracts were to be amended to reflect the rule change, this could diminish the value of the contract to the third party as confidentiality could not be assured.

3.4.3 Commission's analysis

The NEL sets out a comprehensive framework under which AEMO has certain obligations in respect of the use and disclosure of protected information. ¹⁴⁸

¹³⁶ AusNet, Consultation Paper submission

¹³⁷ ERAA, Consultation Paper submission

GDF, Consultation Paper submission

Energex, Consultation Paper submission

¹⁴⁰ ERAA, Consultation Paper submission

¹⁴¹ AusNet, Consultation Paper submission

¹⁴² AGL, Draft Rule Determination submission

¹⁴³ Energy Australia, Consultation Paper submission

¹⁴⁴ Stanwell, Consultation Paper submission

¹⁴⁵ GDF, Consultation Paper submission

¹⁴⁶ Energy Australia, Consultation Paper submission

¹⁴⁷ Stanwell, Consultation Paper submission

Section 54 of the NEL. Further details on protected information are provided in section 3.4.1 of this final rule determination.

If information on DSP provided to AEMO under the final rule is protected information (namely, it is provided by a registered participant to AEMO in confidence, in accordance with section 54 of the NEL), AEMO will be required to protect such information from unauthorised use or disclosure. 149 This includes information contained in contracts between registered participants and third parties that has been provided to AEMO under the Guidelines in confidence. 150

Despite the operation of the NEL's protected information provisions, under the final rule, AEMO may still be able to publish load forecasts in a form that is useful to energy market stakeholders, and utilise the information it receives under the Guidelines to improve its own decisions.

3.5 Accuracy of information to be provided to AEMO

3.5.1 **Commission's conclusion**

Under the final rule, AEMO will be required to specify, in the Guidelines, its methodology for assessing the accuracy of information provided to it under the Guidelines, and any information it will require to assess the accuracy of the information.

The Commission considers that the consultation process that the final rule will require AEMO to undertake, when developing or amending the Guidelines, will provide an opportunity for registered participants and interested stakeholders to actively engage with AEMO on the methodology used by AEMO for assessing the accuracy of information provided by registered participants under the final rule.

3.5.2 Context and stakeholder views

DSP can be, by its nature, unpredictable. This may impact on the potential benefits that may result from the proposed rule because:

inaccurate DSP information may limit the potential for better quality load forecasting by AEMO; and

¹⁴⁹ Unauthorised use and unauthorised disclosure of protected information by AEMO are defined in sections 54(2) and (3) of the NEL, respectively. Under sections 54A to 54H of the NEL, AEMO is authorised to disclose protected information in certain prescribed circumstances, which include (amongst other circumstance): with the prior written consent from the person from whom the information was obtained; as required or permitted by a law of the Commonwealth, a State or Territory and to certain specified bodies, including the AER and jurisdictional regulators.

¹⁵⁰ The Commission understands that it is common commercial practice for confidentiality provisions in commercial contracts to provide for an ability to disclose confidential information where such disclosure is required by law. The Commission also notes that in circumstances where such disclosures are not permitted in the relevant contract, registered participants will have a minimum of 3 months between the publication of the Guidelines and the commencement of the Guidelines in which to change their commercial arrangements to allow for disclosure of confidential information in accordance with the final rule. Further, the Commission notes that AEMO has advised that it would require up to 18 months to develop the Guidelines.

• it may be difficult to determine whether any variation between forecasted and actual DSP, after the fact, was the result of a failure by the registered participant to provide accurate information, or the result of normal and inevitable variations in DSP which may not always be predictable.

Information accuracy obligations on registered participants may impact on the costs of complying with the Guidelines and the benefits that result from the provision of information. In general, the inclusion of more stringent information accuracy requirements in Guidelines may be of greater benefit because more accurate data may be used to better inform decision-making processes; however, this may contribute to greater regulatory compliance costs (eg, through data cleansing/validation before provision to AEMO).

In its submission, AusNet considered that it is incumbent on AEMO to be transparent about how it will overcome data quality issues. ¹⁵¹

UE considered that compliance with any information accuracy requirements in the Guidelines should be based on whether the best available data at the time was provided to AEMO by the registered participant. UE also suggested an obligation, in addition to those set out in the draft rule, be imposed on AEMO requiring it to include in the Guidelines its method for ensuring the accuracy of its demand forecasts (as opposed to the accuracy of information provided to it). This was proposed to address UE's concern that AEMO may double-count DSP, were it to be provided with information about the same NMI from two different registered participants. 153

Stanwell raised concerns regarding increased compliance risk to registered participants, given the possible difficulties in assessing compliance with the proposed rule. 154

3.5.3 Commission's analysis

As noted above, the final rule will require AEMO to specify in the Guidelines its methodology for assessing the accuracy of information on DSP provided to it under the final rule, and any information required to assess the accuracy of the information. The Commission does not consider it appropriate to require that AEMO state its forecasting methodologies in the Guidelines, as the final rule is concerned with facilitating AEMO's access to better information on DSP, rather than the forecasting methodologies used by AEMO in undertaking its forecasting functions.

As part of AEMO's considerations when undertaking the Rules consultation procedures for the development and amendment of its Guidelines, it may include consideration of any potential data quality issues. While a higher degree of information accuracy may be more beneficial (eg, as it may result in better quality load forecasts),

¹⁵¹ AusNet, Consultation Paper submission

¹⁵² UE, Consultation Paper submission

¹⁵³ UE, Draft Rule Determination submission

¹⁵⁴ Stanwell, Consultation Paper submission

this may come at the expense of greater compliance costs (eg, as a result of data auditing or validation on the part of the registered participant). The Rules consultation procedures will assist with the development and amendment by AEMO, in consultation with registered participants and interested stakeholders, of an appropriate approach in the Guidelines for assessing information accuracy.

Furthermore, the final rule will require that AEMO, in developing and amending the Guidelines, has regard to the likely benefits from the use of information received by AEMO in forecasting load for the purposes of the exercise of its functions under the Rules. This could include having regard to whether the likely benefits are lower than would otherwise be the case, as a result of lesser quality load forecasts due to limitations in its demand forecasting methodologies.

AEMO must have regard to the likely benefits in comparison to registered participants' reasonable costs of efficient compliance with the Guidelines.

Abbreviations

AEMO Australian Energy Market Operator

AER Australian Energy Regulator

ATA Alternative Technology Association

Commission or AEMC Australian Energy Market Commission

DAPR Distribution Annual Planning Report

DMEGCIS demand management and embedded generation

connection incentive scheme

DSP demand side participation

ENA Energy Networks Association

ERAA Energy Retailers Association of Australia

ESOO Electricity Statement of Opportunities

GDF SUEZ Australian Energy

MCE Ministerial Council on Energy

NEFR National Electricity Forecasting Report

NEL National Electricity Law

NEM National Electricity Market

NEO national electricity objective

NER or Rules National Electricity Rules

NMIs national meter identifiers

PASA Projected Assessment of System Adequacy

POC review Power of Choice review

RERT Reliability and Emergency Reserve Trader

UE United Energy and Multinet Gas

A Summary of issues raised in submissions

A.1 First round of consultation

Stakeholder	Issue	AEMC Response
Overall position on rule ch	ange	
Australian Energy Market Operator (AEMO), AusNet, Energex, EnerNoc, Energy Retailers Association of Australia (ERAA), GDF SUEZ Australian Energy (GDF)	Stakeholder either supports, or provides in principle or conditional support for, the rule change request, given the importance of demand forecasts to the efficiency of the market.	Noted.
Stanwell	Supports the intention of the rule change request, but considers that the specific rule proposed: • is poorly targeted, as it makes registered participants responsible for the provision of data relating to the activities of non-registered participants; • exacerbates the existing discrepancy of regulatory requirements between registered and non-registered participants; and • imposes additional obligations with little apparent benefit.	See sections 3.2 and 3.3.

Stakeholder	Issue	AEMC Response	
Energy Networks Association (ENA)	Supports the <i>intention</i> of the rule change request, but considers that the assessment of costs versus benefits needs more attention.	See section 3.2.	
EnergyAustralia	In principle, the proposed benefits of the rule change could arise, but these are unlikely to be material, and not proportionate to the increase in cost. Non-regulatory options should be explored.	The Commission considers that, while the benefits from the provision of information on DSP to AEMO have the potential to increase in the future, they are likely to be present currently. See section 3.1.	
Timing of rule change			
ERAA	The Commission's rule change process and AEMO's Guideline development process should run concurrently, to allow a better understanding of the content of the Guidelines to feed into the Commission's assessment.	See section 2.1 and 3.1.	
ENA, Energex, UE	Rule change timing should be reconsidered to better coordinate with related reform issues, and/or to allow for more DSP to enter market.	See section 2.1 and 3.1.	
Potential to better inform of	Potential to better inform decisions and processes		
AEMO, AusNet, Energex, EnerNoc, GDF	Proposed rule could, or is likely to, result in the benefits foreseen by the rule change proponent.	Noted.	
AEMO, EnerNoc	The benefits of better information on DSP are likely to grow, as DSP in the market grows.	Noted.	
AusNet	The benefits of annual data collection exercise	See section 3.3.	

Stakeholder	Issue	AEMC Response	
	may diminish over time.		
EnerNoc, GDF	Despite the possible benefits of the proposed rule, it is important to recognise the limitations of modelling DSP in load forecasts. Such modelling is challenging.	See sections 3.2 and 3.3.	
GDF, Stanwell, UE	Potential for the rule to result in poorer forecasts or distortions in the market, due to unreliable or inaccurate information provided to AEMO	Noted. See sections 3.2 and 3.3.	
UE	Potential for better informed decisions currently limited by low levels of DSP in the market.	Noted. The final rule gives rise to a new process whereby AEMO may obtain information on DSP. As a consequence, AEMO may be better prepared should DSP become more substantial in the future.	
EnergyAustralia, Stanwell	Data that can be provided by registered participants: may not be able to be provided in practice; may not be useful to AEMO as it is unreliable or difficult to analyse; or may require too great a degree of judgement by AEMO to result in better quality forecasts.	See section 3.2.	
ERAA	Guidelines should only seek to obtain data that is essential to help AEMO's forecasting.	See sections 3.2 and 3.3.	
Potential regulatory and a	Potential regulatory and administrative burden		
AusNet, ENA, Energex, EnergyAustralia, EnerNoc,	AEMO should, or should be required to, take into account the following cost factors (in comparison with the benefits) when developing the	See section 3.2.	

Stakeholder	Issue	AEMC Response
ERAA, UE	information provision requirements contained in the Guidelines: ongoing and initial costs; the timelines for the information provision; the frequency of data collection; the availability of data to the registered participants; the appropriate level of detail required; whether the data is already collected or publicly available; the format of the data collected; the required level of data analysis, validation or correction; the collection of aggregated versus dis-aggregated data; competing regulatory burdens on registered participants; the types of registered participant from whom the data is to be collected from.	
EnergyAustralia	The low response rate to AEMO's current voluntary DSP survey reflect the onerous nature of the survey, the time and cost to access and manipulate the data, and the commercially sensitive nature of the data. These may be overcome by refining the information requested.	Noted. See section 3.1.
AusNet, Energex	Difficult to assess the size of the costs (and benefits) of the proposed rule change at this stage, as they are highly dependent on the content of the Guidelines. A more thorough understanding of the costs (and benefits) of the rule is required prior to the rule being made.	Noted. The Commission considers that, while the benefits from the provision of information on DSP to AEMO have the potential to increase in the future, they are likely to be present currently. Also see section 3.2.
Stanwell	AEMO's current systems may not be able to incorporate DSP data.	See section 3.3.

Stakeholder	Issue	AEMC Response	
Degree of flexibility in dete	Degree of flexibility in determining the terms of the Guidelines		
AEMO, AusNet, GDF	Flexibility for AEMO in developing Guidelines supported.	See section 3.3.	
AEMO, AusNet, Energex, EnerNoc	Taxonomy or definition of DSP and DSP information should be clarified, either by the AEMC in the rule, or by AEMO in the Guidelines. Rule should cover all non-schedule generation, not just embedded generation.	See section 3.3.	
AEMO, AusNet, EnerNoc, EnergyAustralia, Stanwell	Stakeholders made technical suggestions as to the specific data which AEMO should collect (or should be required under the rule to collect), from whom, and the appropriate forecasting methodology which AEMO should employ (or should be required through the rule to employ).	See sections 3.2 and 3.3.	
Energex, EnerNoc, ERAA, GDF, Stanwell	Third party providers, such as demand side aggregators, may be a source of information on DSP. The rule may be unable to apply to third party providers because they are not registered participants.	See section 3.3.	
ERAA	AEMO should be required to disclose annually how it has utilised the DSP data.	See section 3.3.	
AusNet	AEMO should be required to state, in the Guidelines, what the information it will collect will be used for.	See section 3.3.	

Stakeholder	Issue	AEMC Response	
Balancing the need for DS	Balancing the need for DSP information transparency and confidentiality		
AusNet, UE	Notwithstanding the confidentiality concerns, there are benefits of transparency in: the information AEMO can collect; and the disclosure of this information by AEMO.	Noted.	
Energex	The NEL confidentiality provisions should be sufficient.	Noted.	
AusNet, ERAA, GDF	The NEL confidentiality provisions may not be sufficient to protect registered participants and third parties from confidential information disclosure.	See section 3.4.	
AusNet, EnergyAustralia, ERAA	Confidentiality issues may be mitigated by AEMO only collecting, or only publishing, data at a sufficiently dis-aggregated level.	Noted. See section 3.4. The level of detail of information on DSP that AEMO receives is a matter for AEMO to determine through the Guideline development process, in consultation with registered participants and interested stakeholders, in accordance with the Rules consultation procedures.	
EnergyAustralia, GDF, Stanwell	Bilateral contracts may prohibit the disclosure of confidential information to AEMO as required by the rule. Were information required to be provided that would otherwise be protected by these contracts, this may diminish the value of DSP to third parties (such as customers).	See section 3.4.	

Stakeholder	Issue	AEMC Response
AEMO	AEMO routinely manages confidential information.	Noted.
ERAA	Should AEMO wish to publish confidential information, there should be an appropriate consent mechanism.	See section 3.4.
Accuracy of information to	be provided to AEMO	
AusNet	It is incumbent on AEMO to be transparent about how it will overcome data quality issues.	See section 3.5.
Stanwell	Possibility of increased compliance risk to registered participants, given the possible difficulties in assessing compliance with the proposed rule.	See section 3.5.
UE	Compliance with the information accuracy provisions in the Guidelines should be based on whether the best available data at the time was provided to AEMO by the registered participant.	Noted. See section 3.5.
EnergyAustralia	The challenges of accuracy relate to the lack of conformity in DSP across the market. AEMO should not rely on the forecasts or internal views of market participants, but should instead create its own independent forecasts.	See sections 3.2 and 3.3.
Energex	Accuracy of information should be taken into account by AEMO when developing forecasts.	See section 3.3.

Stakeholder	Issue	AEMC Response
Guidelines development		
AEMO, Energex, EnergyAustralia	AEMO should consult extensively on the Guidelines.	The final rule requires AEMO to develop the Guidelines in accordance with the Rules consultation procedures. See section 3.2.
AEMO	Consider an 18 month transitional period for Guideline development is appropriate.	See section 2.1.
AEMO	Periodic review of Guidelines envisaged due to evolving nature of the DSP market.	Noted.
AusNet, Energex, EnerNoc, UE	Care must be taken to avoid the double counting of the same information provided from multiple sources.	Noted. See sections 3.2 and 3.3.
Other		
Energex, GDF	The rule should establish principles to guide how AEMO should use information on DSP.	See section 3.3.
AusNet, Energex	Energex and AusNet currently provide information on DSP to other parties and publish information on DSP on their websites.	Noted.
Energex	Energex routinely collects a number of types of specified information on DSP.	Noted.
Energex	Registered participants should be obliged to provide information on DSP to AEMO.	Clause 3.7D(b) of the final rule requires registered participants to provide DSP information in accordance with the Guidelines.
EnerNoc	In the long term, DSP should be fully integrated into the wholesale market.	Noted.

A.2 Second round of consultation

Stakeholder	Issue	AEMC response	
Overall position on rule change			
AEMO, AGL, ATA, Enernoc, NSW Distribution Network Service Providers	Broadly supportive of draft rule.	Noted.	
Ergon	Supportive of draft rule, but with concerns regarding the cost impact on registered participants.	See section 3.2.	
UE	Supports the intention of the rule change request, but considers additional prescription is required in the rule with regard to AEMO's flexibility in developing the Guidelines.	See section 3.3.	
Stanwell	Supports the intention of the rule change request, but considers that the specific rule proposed is poorly targeted.	See section 3.1.	
Timing of rule change			
AGL	Supportive of time period afforded to AEMO to consult with stakeholders.	See section 2.1.	
Potential to better inform decisions and processes			
AEMO, AGL	Rule could result in the benefits foreseen by the rule change proponent.	See section 3.1.	

Stakeholder	Issue	AEMC response	
AGL	May be limits to how helpful registered participants' DSP information will be in informing forecasts.	See sections 3.1 and 3.2.	
UE	It is important that spuriously accurate DSP information is not required to be provided, when there are other limitations to load forecasting accuracy.	See sections 3.1 and 3.2.	
Potential regulatory and administrative burden			
AGL	Given that the benefits of DSP information received by AEMO may be limited, costs should be contained.	See section 3.2.	
Stanwell	Draft rule is likely to result in significant compliance costs, disproportionate to the possible benefits.	See section 3.2.	
Stanwell	Non-regulatory options should be explored.	See section 3.1.	
Ergon	Concern that cost to registered participants will not be known until the Guidelines have been developed.	See section 3.2.	
Degree of flexibility in determining the terms of the Guidelines			
AGL	Supportive of the flexibility afforded to AEMO to consult with stakeholders to develop and amend the Guidelines in accordance with the Rules consultation procedures.	See section 3.3.	
AEMO	Not supportive of requirement for AEMO to publish details, no less than annually, on the extent to which, in general terms, DSP information has	See section 3.3.	

Stakeholder	Issue	AEMC response
	informed AEMO's development or use of load forecasts. Any reporting requirement would instead be more appropriately developed in the Guidelines.	
AEMO	Definitions of "unscheduled generation" and "contracted demand side participation" are useful inclusions in the Rules, and are consistent with AEMO's understanding.	See section 3.3.
NSW Distribution Network Service Providers	Supportive of the measures in draft rule which limit AEMO's flexibility in developing the Guidelines. They strike an appropriate balance between addressing stakeholder concerns and allowing sufficient flexibility for the Guidelines to evolve over time. Agree with the Commission's rationale that it is more fitting for many specific factors to be considered in the development of the Guidelines, as opposed to stated in the rule.	See section 3.3.
ENA, Energex, Ergon, UE	Degree of flexibility provided to AEMO is too broad – further limitations on AEMO's flexibility in developing the Guidelines are required to ensure cost implications are limited.	See section 3.3.
ENA, Energex, Ergon, UE	Definitions provided in the draft rule are too broad, and may or will result in unwanted items being captured in the information provision requirements, such as: • disaggregated information on all photovoltaic connections;	See section 3.3.
	disaggregated information on individual NMI	

Stakeholder	Issue	AEMC response
	 connections; unavailable or immaterial historic information; information that is already available to AEMO; and information that is dependent on customer behaviour. The definitions should be amended accordingly, to avoid unwarranted costs for registered participants. 	
ENA, Energex, Ergon, UE	Materiality thresholds should be specified so that information is only provided where there is a material impact in improving load forecasts or where information provision is essential (eg, information on only large commercial/industrial curtailment/non-scheduled generation).	See section 3.3.
ENA, Energex, Ergon, UE	Rule should specify frequency of data provision requirement to reduce cost implications for registered participants (eg, annually, in line with AEMO's load forecasting obligations).	See sections 3.2 and 3.3. AEMO has a variety of load forecast reporting obligations, with a variety of timelines. For example, AEMO's 5 minute pre-dispatch load forecasts are published every 5 minutes. Annual information provision may, therefore, not necessarily be appropriate. The suitable frequency of data provision should therefore be determined by AEMO in the Guidelines, in consultation with registered participants and interested stakeholders.
ENA, UE	AEMO should be required, as part of its annual publication obligations, to report on what information has not been used (as well as what	See section 3.3.

Stakeholder	Issue	AEMC response			
	information has been used), to place further accountability on the information that AEMO requires to be provided by registered participants.				
ENA, UE	The draft rule requirement for AEMO to "have regard to" costs and benefits is insufficient, and instead, the rule should be strengthened to require AEMO to ensure that the likely benefits of information provision outweigh the costs.	See section 3.3.			
AEMO	Mandatory 3 month delay between publication and commencement of Guidelines is unnecessary. AEMO would implement a reasonable notification period consistent with the compliance challenge created by the (new or amended) Guidelines.	See section 3.3.			
ENA, Energex, Ergon, UE	Given current uncertainty in compliance requirements, the proposed 3 month timeframe between the publication and commencement of the Guidelines is too short. A minimum 9 months is suggested as an alternative. Two drafts should be provided of the Guidelines.	See sections 3.2 and 3.3. The Rules consultation procedures provides a set of minimum (though structured and well-established) requirements for consultation on the Guidelines. Further consideration of any additional consultation processes could be examined by AEMO, registered participants and interested stakeholders when developing the Guidelines.			
Balancing the need for DSP information transparency and confidentiality					
AGL	Confidentiality of DSP information should remain paramount. Confidential information should not be able to be deduced from published information.	See section 3.4.			
Accuracy of information to be provided to AEMO					

Stakeholder	Issue	AEMC response
UE	AEMO should be required to state in the Guidelines its method for ensuring the accuracy of its demand forecasts, in light of concerns that AEMO, were it to be provided information about the same NMI from two different registered participants, may double-count the DSP.	See section 3.5. There are existing requirements in the Rules with regard to AEMO developing procedures and processes in connection with its forecasting functions and making details of such procedures and processes available to registered participants (eg, clauses 3.7.2(g) with regard to medium term PASA; 3.7.3(j) with regard to short term PASA; 3.8.20(i) with regard to the pre-dispatch process; and 3.13.3(u) with regard to forecasts made in the statement of opportunities).
Guidelines development		
AGL	Guidelines should clearly set out categories of DSP.	See section 3.3.
AEMO	Various factors that AEMO will consult upon as part of the Rules consultation procedures include: • definitions and categories of DSP; • information available to different registered participants; • costs of providing information; • how AEMO would assess and use information (including the likely benefits from information provision); and • the process for updating the Guidelines.	See section 3.3.

Stakeholder	Issue	AEMC response
NSW Distribution Network Service Providers	 In addition to those factors listed in section 3.2.2 of the draft rule determination, AEMO should also consider and consult on the following during the Guidelines' development: the need (or otherwise) to provide historic information; the use of materiality thresholds on information provided; the need (or otherwise) to provide information on controlled load; the frequency of information provision; whether AEMO should be required to consult with networks prior to publishing load forecasts; and whether AEMO should share information collected. 	See section 3.3.
Other		
AGL	Non-regulatory options should be explored in conjunction with the regulatory requirements provided by the draft rule.	The final rule does not prohibit AEMO continuing to explore non-regulatory options.
AEMO	Definition of "unscheduled generation" should be italicised in the rule.	Under the drafting conventions of the NER, local definitions within the Rules (that is, definitions which apply only to the specific rule in question, and not to the Rules more generally) are not

Stakeholder	Issue	AEMC response
		italicised.
Energex, UE	AEMO should be required to consult with registered participants prior to the publication of load forecasts. This will improve data interpretation, and allow for data to be de-identified (for confidentiality purposes). Network Service Providers should be provided with access to DSP information collated by AEMO relevant to their area. This will improve reconciliation of distribution network service providers' forecasts with AEMO's, and will facilitate the development of non-network solutions.	Requiring AEMO to consult with distributors prior to publication of demand forecasts could be an extremely onerous obligation. For example, AEMO's 5 minute pre-dispatch load forecasts are published every 5 minutes. Furthermore, the requirement could result in a more protracted process for obtaining information and undermine the ability of AEMO to obtain useful information for forecasting when the forms of DSP are evolving relatively quickly. See section 3.4 with regard to information confidentiality. Informal consultation between AEMO, registered participants and interested stakeholders is not prohibited by the final rule. Further consideration of the nature of any additional consultation requirements could be examined by AEMO, registered participants and interested stakeholders when developing the Guidelines.
ENA, Energex	Further consultation between AEMC and other parties is required for this rule change, prior to the final rule's publication.	The Commission undertook consultation in accordance with its obligations under the NEL. Where it was determined that matters raised by stakeholders were of such nature that merited further engagement on the issue, the Commission communicated with the stakeholders on the issues.

B Legal requirements under the NEL

This appendix sets out the relevant legal requirements under the National Electricity Law (NEL) for the AEMC in making this final rule determination.

B.1 Final rule determination

In accordance with section 102 of the NEL, the Commission has made this final rule determination in relation to the rule proposed by the COAG Energy Council.

B.2 Power to make the rule

The Commission is satisfied that the final rule falls within the subject matter about which the Commission may make Rules. The final rule falls within section 34 of the NEL. Specifically, it relates to:

- the operation of the national electricity market (section 34(1)(a)(i)); and
- the activities of persons (including registered participants) participating in the national electricity market or involved in the operation of the national electricity system (section 34(1)(a)(iii)).

B.3 More preferable rule

Under section 91A of the NEL, the AEMC may make a rule that is different (including materially different) from a market initiated proposed rule (a more preferable rule) if the AEMC is satisfied that, having regard to the issue or issues that were raised by the market initiated proposed rule (to which the more preferable rule relates), the more preferable rule will, or is likely to, better contribute to the achievement of the National Electricity Objective (NEO).

Having regard to the issues raised by stakeholders, the Commission is satisfied that the final rule will, or is likely to, better contribute to the NEO, than the proposed rule.

B.4 Commission's considerations

In assessing the rule change request, the Commission considered:

- the Commission's powers under the NEL to make the rule;
- the rule change request;
- submissions received during first and second round consultation; and
- the Commission's analysis as to the ways in which the proposed rule and final rule will, or is likely to, contribute to the National Electricity Objective (NEO).

There is no relevant Ministerial Council on Energy (MCE) Statement of Policy Principles that apply to this rule change request. ¹⁵⁶

B.5 AEMO's declared network functions

Under section 91(8) of the NEL, the Commission may only make a rule that has effect with respect to an adoptive jurisdiction if it is satisfied that the rule is compatible with the proper performance of the AEMO's declared network functions. The final rule is compatible with AEMO's declared network functions and may enhance the proper performance of the functions.

B.6 Civil penalties

The final rule does not amend any clauses that are currently classified as civil penalty provisions under the NEL or National Electricity (South Australia) Regulations. The Commission does not propose to recommend to the COAG Energy Council that any clause of the final rule be classified as civil penalty provisions.

Under section 33 of the NEL, the AEMC must have regard to any relevant MCE statement of policy principles in making a Rule. The MCE is referenced in the AEMC's governing legislation and is a legally enduring body comprising the Federal, State and Territory Ministers responsible for energy. On 1 July 2011, the MCE was amalgamated with the Ministerial Council on Mineral and Petroleum Resources. The amalgamated Council is now called the COAG Energy Council.

С	Historic AEMO DSP voluntary surveys				



AEMO Demand-Side Participation Survey

AEMO is conducting a demand-side participation (DSP) survey to provide information for the 2011 Electricity Statement of Opportunities (ESOO).

Information gathered from this survey will be used to understand both:

- 1. historical levels of load reduction that applied to recorded measures of regional summer and winter maximum demand; and
- 2. future levels of load reduction that should be used to discount future regional demand levels for the purpose of calculating the supply-demand balance.

The results of this survey will be published in the ESOO in aggregate. Confidential information identifying individual respondents or their customers that may be collected by AEMO while undertaking this survey will not be published.

Instructions

Please read the definition below and then answer the questions that follow.

Definition

DSP includes actual or potential load reduction due to and only due to any of the following:

- load that is able to be significantly reduced¹ in response to short-term wholesale price increases:
- load that is able to be significantly reduced in response to short-term adverse network loading conditions;
- increased output from a small generator that provides a significant load offset and that is responding to short-term wholesale price increases;
- increased output from a small generator that provides a significant load offset and that is responding to short-term adverse network loading conditions; or
- an organised aggregated demand-side response (including load reduction and output increases from small generating systems) to short-term increases in wholesale prices or adverse network loading conditions.

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¹ Please note that 'load that is able to be significantly reduced' describes a situation where pricing or other contractual agreements are in place that provide an incentive (but may not guarantee) consumer response on a half-hourly basis.



Questions

1.	
Tell	us your name, the organisation you represent and your contact details:
	Name:
	Organisation:
_	Telephone:
_	Email:
2.	
prici disp	ng the above <i>definition</i> , would you say definitely that your organisation was a party to a ng arrangement or other contractual agreement that led to (or could have led to) the atch of any DSP during the hours of 7:00 am to 7:00 pm during the period from May 0 to date.
Yes	
No	If no go to Question 5 □
2	
3. Who	was or would have been responsible for dispatching the DSP identified in Question 2?
You	r organisation
Som	neone else

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/	

If you are able to do so, please list all National Metering Identifiers (NMIs) for each respective metering point in the table below, for all the DSP (or possible DSP) identified in Question 2. The first column of the table is for DSP dispatched by your own organisation. The second column is for DSP possibly dispatched by someone else (for example, customers with some direct exposure to market prices).

NMIs – own dispatched	NMIs –dispatched by someone else
If you are unable to provide the NMIs, please both: (1) own-dispatched DSP (in MW); and (2 applied in aggregate in each National Electrici Question 2.	2) any other identifiable DSP (in MW) that ity Market region, over the period indicated in
please provide an explanation, either in the sp	
5.	
Looking to the future and using the above <i>def</i> organisation will be a party to a pricing arrang could lead to the dispatch of any DSP during the from May 2011 up to and including March 201	ement or other contractual agreement that the hours of 7:00 am to 7:00 pm at any time
Yes	
No ☐ If no go to Question 8 ☐	

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6.

For all future DSP considered in your response to Question 5, what would you estimate to be the *maximum* potential quantity (in MW) for which your organisation or its customers are responsible and which could occur during the hours of 7:00 am and 7:00 pm during:

a) cold days in winter 2012;

New South Wales	Victoria	Queensland	South Australia	Tasmania

and

b) hot days in summer 2011-12

New South Wales Victoria		Queensland	South Australia	Tasmania

If your answer is nil for both winter and summer for all regions go to Question 8.

7.

Using your best judgement, allocate the DSP in MW stated in Question 6 to the following categories:

- a) very likely to occur at time of regional summer maximum demand;
- b) even chance of occurring at time of regional summer maximum demand;
- c) extremely unlikely to occur at time of regional summer maximum demand;
- d) very likely to occur at time of regional winter maximum demand;
- e) even chance of occurring at time of regional winter maximum demand; or
- f) extremely unlikely to occur at time of regional winter maximum demand.

Place your allocated DSP in the following tables.

SUMMER	New South Wales	Victoria	Queensland	South Australia	Tasmania
a) very likely					
b) even chance					
c) extremely unlikely					

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WINTER	New South Wales	Victoria	Queensland	South Australia	Tasmania
d) very likely					
e) even chance					
f) extremely unlikely					

8.		
	ng forward, in your opinion what are the main P in the next 10 years?	n factors that will drive potential increases
a)	commercial arrangements?	
b)	weather conditions?	
c)	regulation?	
d)	generation or network capacity limitations?	
e)	smart metering?	
f)	time of use/critical peak pricing?	
g)	other – please state?	
h)	don't know	

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9.

Finish

Return completed survey to AEMO by close of business **Thursday 5 May 2011**, marked for the attention of Richard Hickling, by one of the following means.

Post:

Australian Energy Market Operator Limited Level 22, 6-10 O'Connell Street SYDNEY NSW 2000

Email: planning@aemo.com.au

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AEMO DSP SURVEY 2013

AEMO requests energy retailers and service providers to complete this survey on the load-responsive capabilities of their customers that are either self-arranged or pursuant to bilateral agreements between the electricity retailer and its customers or as a response to adverse loading conditions for networks.

Load responsive capability means having either an incentive or an obligation to either reduce load or turn on or increase on-site generation.

The DSP survey provides a working definition of DSP in terms of actual or potential load reduction. We would like to know about any DSP your organisation may dispatch and any significant load reduction from normal levels your customers may initiate themselves due to underlying pricing contracts, network support agreements or other contractual arrangements with your organisation.

We recognise that your organisation might be aware of the potential for load reduction on the part of its customers without any direct knowledge of the behaviour of these types of customers. In order to identify these customers and to reduce your data extraction workload, AEMO prefers to receive survey responses in the form of National Metering identifier (NMI) lists which may identify metering points where demand side response is possibly occurring. While AEMO already has access to all NMI data, this approach allows us to analyse a restricted subset and excludes the possibility of double-counting megawatt figures supplied from different organisations.

How to fill in the following worksheet:

- A Name of the organisation responding providing information to the DSP survey
- Name of the contact person responsible for completing the DSP survey
- C Telephone of the contact person representing the organisation
- **D** Email of the contact person representing the organisation
- Provide NMI of customers that has shown price-sensitivity or NMIs under load reduction incentive agreements during the last 3 years
- F Provide NEM region associated to the NMI
- G Identify customer name associated to the NMI
- Provide the amount of load reduced/generation increase from that NMI in MWh
- Provide the date and time of ocurrence of the load reduction/generation increase
- J Provide NEM region associated to the NMI
- K Provide the NMI that you think could experience a potential load reduction/generation increase in the future
- Provide the load in MWh that is able to be significantly reduced in response to short-term wholesale price increases, short-term adverse network loading conditions, load reduction incentive agreement, etc. associated to the NMI
- M Provide the critical-peak price at which customers are encouraged to curtail load during periods when the NEM market price exceeds some threshhold value
- N Provide notes/comments you may have on the level of DSP that will actually apply at, or close to, times of regional summer and winter maximum demand over the next 10 years

Network service providers are only required to fill in the Historical-Networks and Forecast-Networks tab.

- O Network service providers to provide the expected load reduction and generation in MWh that is controlled by the network to manage loading during peak demand
- Network service providers to provide the expected load reduction and generation in MWh in response to critical peak pricing network tariffs (MWh)
- Q Network service providers to provide the actual period of load reduction invoked during peak demand or due to critical peak pricing in network tariffs

a. If you are unable to provide the NMIs, please separately provide half-hour load traces for: (1) own-dispatched DSP (in MW); and (2) any other identifiable DSP (in MW) that applied in aggregate in each National Electricity Market region

b. If a customer reduces load multiple times in the past 3 years please use a separate row for each event/ocurrence

- AEMO's study is limited to NMIs and no other customer identification will be used
- AEMO will treat all Market Customer data, including energy data associated with their individual customers, as confidential. Aggregated results will be published but no results will be made public that are traceable to any single retailer or end-use customer
- Non-price incentives to reduce load at or near peak may include any verifiable demand management scheme (please indicate the nature of any such scheme)
- Do not identify customers that have a continuous load transfer from peak to off-peak periods, such as those with off-peak hot water connections
- Please respond once for all electricity retail subsidiaries under similar ownership, for all NEM regions
- Ensure the list of NMIs shown is complete for the purpose of this survey and add any that are missing

- **A** [ORGANISATION]
- **B** [NAME]
- **C** [TELEPHONE]
- **D** [EMAIL]

HISTORICAL LOAD REDUCTION

E	F	G	Н	I	N
NMI (Price sensitive/Load reduction agreement)	NEM region	Customer name	Load reduction and standby generation (MWh)	Date and time of load reduction response	NOTES

DSP FORECAST

J	K	L	M	N
Region	NMI	Maximum potential load reduction and stanby generation (MW)	Critical-peak pricing (\$/MWh)	NOTES

HISTORICAL LOAD REDUCTION

0	Р	E	Q	N
Observed load reduction and generation increase directly controlled by Network (MWh)		NMI (Price sensitive/Load reduction agreement)	Actual period of load reduction invoked	NOTES

DSP FORECAST

DOI TORLUAGI	Р	E	N
0	P	E	N
Load reduction and standby generation controlled by Network expected to be used during peak demand periods (MWh)	Load reduction and standby generation expected to respond to critical peak network pricing (MWh)	NMI	NOTES