



Australian Energy Market Commission

CONSULTATION PAPER

National Electricity Amendment (Small Generation Aggregator Framework) Rule 2012

Rule Proponent

Australian Energy Market Operator

15 March 2012

**RULE
CHANGE**

Inquiries

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About the AEMC

The Council of Australian Governments, through its Ministerial Council on Energy (MCE), established the Australian Energy Market Commission (AEMC) in July 2005. The AEMC has two principal functions. We make and amend the national electricity and gas rules, and we conduct independent reviews of the energy markets for the MCE.

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1 Introduction

1.1 Rule change request

On 22 December 2011, AEMO (Australian Energy Market Operator) (the proponent) submitted a rule change request to the Australian Energy Market Commission (AEMC or Commission) to create a new category of market participant called a "Small Generation Aggregator". These market participants would be financially responsible for the participation of multiple small generating units in the National Electricity Market (NEM), without having to register each individual unit as a market generating unit. The purpose of this proposed rule change is to encourage small generators to participate in the market by reducing financial barriers to entry.

1.2 Rule change process

The proponent has not asked that this rule change request be expedited or fast-tracked and therefore it will follow the standard rule change process.

Table 1.1 Proposed key dates for this rule change

Milestone	Date
Submissions to this consultation paper due	12 April 2012
AEMC to release draft determination	21 June 2012
Submissions to draft determination due	2 August 2012
AEMC to release final determination	13 September 2012

1.3 Role of consultation paper

This consultation paper has been prepared by the staff of the AEMC to facilitate public consultation on the rule change proposal and does not necessarily represent the views of the AEMC or any individual Commissioner of the AEMC.

This paper:

- sets out a summary of, and background to, the Small Generation Aggregator Framework proposed by AEMO;
- identifies a number of questions and issues to facilitate consultation on this rule change request; and
- outlines the process for making submissions.

2 Issues this rule change seeks to address

2.1 Current arrangements for registering small generators

Anyone that owns, controls or operates a generating system in the NEM must register as a Market Generator with AEMO.¹ However, AEMO has the authority to grant an exemption from registration for generators that meet its criteria.² AEMO's registration guideline set the criteria for exemption as generators that have a nameplate capacity of less than 5 MW, or have a capacity of between 5 MW and 30 MW but able to satisfy AEMO that they will sell less than 20 GWh per year.³ These generators that are currently able to obtain an exemption are defined as "small generating units" in the rule change request.

Small generators currently have two broad options for selling their electricity:

- Register with AEMO as a Market Generator through the same process as larger generators and receive payment through the NEM for all electricity generated. This process requires that each generating unit operated by the generator is registered with AEMO as a market generating unit. These generators are exposed to, and so can react to, the spot price. They are also able to contract through an intermediary who would register with AEMO as the Market Generator.
- Request an exemption from registration and instead sell all electricity generated to either a retailer or a customer at the same connection point through contractual arrangements. These generators will typically receive a fixed price for their energy and so cannot react to the spot price.

Generators that choose to register their generating units incur fees that are intended to allow AEMO to recover the costs of processing the registration. These fees are currently set at \$5,100 for each application, increasing to \$10,000 in 2015/2016.⁴ Applicants also incur costs associated with preparing the relevant documentation required by AEMO as part of this process.

Some small generators are operated by intermediaries that have market control over a number of small generating units throughout the NEM. These companies are currently required to individually register each generating unit with AEMO as a market generating unit, incurring fees each time.

These administrative costs have been identified as a barrier to small generators participating in the NEM, since the costs represent a large proportion of the potential profit margins. Furthermore, AEMO considers that much of the information collected

¹ Section 2.2.1 of the National Electricity Rules (NER).

² Section 2.2.1(c) of the NER.

³ AEMO *NEM Generator Registration Guide*, 2011, Appendix 6. Note that generators of less than 5 MW have a standing exemption, while those between 5 and 30 MW must apply for exemption.

⁴ AEMO, *Small Generation Aggregator Rule Change Request*, 2011, p6.

in the registration process for small generators is unnecessary for the efficient operation of the market.

2.2 Origins of this rule change request

The AEMC has previously noted in the *Review of Energy Market Frameworks in light of Climate Change Policies* that there may be barriers for small generators seeking to participate in the NEM. The AEMC concluded in that review that embedded generators have unused capacity that could be made available to the market.⁵ The AEMC also noted that much of this potential generation could be used as peaking plant to assist in managing the supply/demand balance⁶. As such the AEMC considered that there may be benefits to lowering the barriers to entry faced by small generators.

Following that review, a working group composed of industry and market bodies was created under the auspices of AEMO. This group published a report detailing eleven principles to reduce barriers to the market participation of small generators.⁷

One of these principles was that small generators should be able to aggregate to improve access to the market. AEMO has since developed this principle into a proposed rule to allow the registration of Small Generation Aggregators as a new type of market participant.

2.3 Scope

The scope of this rule change process is to evaluate whether aggregating small generators through a new category of market participant is the best way of reducing unnecessary administrative costs on AEMO and small generators. This includes consideration of whether, in the context of creating a new registration process, there may be some amendments to the proposed rule to better promote the NEO. The rule change is not intended to remove all potential barriers to small generators entering the NEM. Other options for change are being investigated as part of the AEMC's Power of Choice review.⁸

⁵ Australian Energy Market Commission, *Review of Energy Market Frameworks in light of Climate Change Policies*, AEMC 2009 Sydney p75.

⁶ *ibid* p75.

⁷ AEMO, *Small Generator Framework Design*, 2010.

⁸ Available at <http://www.aemc.gov.au/market-reviews/open/power-of-choice-update-page.html>.

3 Details of the rule change request

AEMO proposes to add a "Small Generation Aggregator" as a new type of market participant. These Small Generation Aggregators would have to register once with AEMO. After this is done, they may participate in the NEM with small generating units via the Market Settlements and Transfer Solution Systems (MSATS) similar to how loads are presently administered.

The specific changes that AEMO requests are to:

- Create a new type of Market Participant called a "Small Generation Aggregator".
- Define a Small Generation Aggregator as anyone who has market responsibility for a generator that is exempt from registering as a market participant or who demonstrates to AEMO that they plan to operate a generator which meets this requirement.
- Allow a Small Generation Aggregator to have market responsibility for multiple separate "small generating units" throughout the NEM without the need to separately register each generator.
- Require Small Generation Aggregators to buy and sell all electricity that flows through their registered connection points to the market. This requirement mirrors existing rules for Market Generators. AEMO proposes that these clauses be civil penalty provisions under the National Electricity Law (NEL).
- Require that any connection point created meets the requirements of the jurisdiction of which it is located.
- Introduce transitional arrangements to allow AEMO to begin changes to their processes prior to the AEMC's final determination so as to allow the rule to begin operation as rapidly as possible.
- Exempt Small Generation Aggregators from the Carbon Dioxide Equivalent Intensity Index (CDEII).
- Add Small Generation Aggregators to lists of market participants.
- Add the terms "Small Generation Aggregator" and "small generating unit" as defined terms in Chapter 10 of the rules.

In summary, the proponent provides the following rationale for the Rule change request:

- AEMO is obliged to undertake administrative tasks whenever a generator applies to register as a market participant. The costs of this process are the same regardless of the capacity of the generator and are passed onto the applicant. In the case of small generators this fee is large relative to potential revenue and thus may represent a barrier to entry.

- The creation of the Small Generation Aggregator framework would remove this impediment to the participation of small generators in the NEM. AEMO estimates fifty small generators may enter into the market in the first three years if this rule was implemented.⁹
- Introducing Small Generation Aggregators would provide small generators with additional supply options. This could allow such plant to operate at times of high prices, potentially reducing both the price and duration of market peaks. This, in turn, may result in consumers paying a lower average price. Similarly, it may result in more competitive contract prices for electricity sold to the local retailer.
- Providing an additional revenue stream for small generating units may lead to lower prices for any customers of that generator at the same connection point.
- Using AEMO's existing systems and administrative processes should allow Small Generation Aggregators to enter the market at lower cost.
- A reduction in peaks and locating small generators close to demand centres may lead to a reduction in the need for spending on network infrastructure, potentially leading to lower customer charges in the long run.

The proponent's rule change request includes a proposed rule.

⁹ AEMO, *Small Generation Aggregator Rule Change Request*, 2011, p11.

4 Assessment framework

The Commission's assessment of this rule change request must consider whether the proposed rule promotes the National Electricity Objective (NEO) as set out under section 7 of the NEL. The NEO states that:

“The objective of this Law is 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.”

In the context of this rule change the Commission shall examine whether the new framework will lead to:

- lower administrative costs for AEMO (and therefore market participants) as well as small generators; and
- more efficient use of and investment in small generators.

We shall also consider:

- the potential use of small generators as peaking plant to reduce peak price and potentially demand; and
- a possible reduction in the need for network infrastructure and hence network charges for customers.

Any cost reduction must be balanced against security, reliability and safety issues, including the potential reduction of predictive capacity for both AEMO and Network Service Providers (NSPs). However, small generators may potentially be able to support network reliability.

The AEMC seeks stakeholder views on whether the proposed rule will or is likely to contribute to the achievement of the NEO. The AEMC also seeks views on whether there is a more preferable rule that, having regard to the issues raised by the proponent, will or is likely to better contribute to the achievement of the NEO.

5 Issues for consultation

Taking into consideration the assessment framework we have identified a number of issues for consultation that are relevant to this rule change request.

The questions outlined below are provided for guidance. Stakeholders are encouraged to comment on these issues as well as any other aspect of the rule change request or this paper including the proposed assessment framework.

5.1 Reducing entry barriers for small generators to the NEM

AEMO has submitted this rule change request because it considers that there is a barrier to small generators participating in the NEM resulting from registration costs associated with registering each individual generating unit. AEMO considers that introducing a new market participant that can aggregate multiple small generating units without having to register each one will reduce barriers and so encourage greater participation in the NEM.

1. Does the existing registration process create barriers to small generators entering the NEM?
2. Will introducing a Small Generation Aggregator promote greater participation in the NEM by small generators? Is this consistent with the NEO?
3. Do entities currently exist, or will they enter the market, to fill the role of Small Generation Aggregator?
4. Is there an alternative way to reduce administrative costs to small generators that would better encourage NEM entry by small generators?

AEMO has proposed that Small Generation Aggregators be exempt from reporting requirements under the CDEII. The reasons for this are twofold. First, the expected carbon dioxide emissions of these generators are expected to be relatively low, meaning the Small Generation Aggregators would not have a material impact on carbon emissions. Second, Small Generation Aggregators are not expected to participate in the contract market. Since one of the main drivers for the creation of the CDEII was to assist in assigning contractual responsibility for carbon emissions, there appears to be limited benefit in requiring Small Generation Aggregators to report. Exempting Small Generation Aggregators from CDEII reporting requirements will further reduce administrative costs associated with NEM participation.

5. Under the proposed framework, is it appropriate for Small Generation Aggregators to be exempt from reporting requirements under the CDEII?

5.2 Positive impacts on the NEM

AEMO has stated that the rule change will have a number of benefits for consumers and other market participants:

- Owners of small generating units will have an alternative source of revenue.
- Entities that currently operate as aggregators will have a more viable business model.
- Consumers should face lower prices through use of small generators as peaking plant, helping to manage the supply/demand balance and potentially reducing the need for network infrastructure investment, as discussed in section 3.

The AEMC also notes that this rule change may lead to an increase in investment in new small generators, in addition to an increased participation in the NEM. This is because the rule should provide an additional revenue stream with less initial costs than the status quo.

6. Will this rule change lead to positive benefits to NEM participants?
7. Are there any additional benefits that the rule change is likely to facilitate?

5.3 Potential Costs

The AEMC is also seeking stakeholder feedback on potential areas where the rule change may impose costs on NEM participants.

The proponent identified the main financial costs as those incurred by AEMO in implementing the framework, estimated at \$600,000.

AEMO has raised two additional concerns:

- the consequences for NSPs if there is a substantial increase in the number of small generators seeking to connect to the network; and
- a slight reduction in the predictive capacity of AEMO which could lead to localised security issues.

AEMO notes that if a power system security issue did arise, they have the power to issue a direction¹⁰ to a registered participant to act in a way so as to re-establish a secure, satisfactory or reliable operating state:

8. To what extent are the potential issues identified by the proponent likely to impose significant costs on market participants?

¹⁰ See NER clause 4.8.9.

9. Are there any other costs that are likely to result from implementing this rule change?

5.4 Civil Penalty Provisions

The rule change request proposes that two new clauses of the NEL be prescribed as civil penalty provisions under the NEL. The first of these clauses would require Small Generation Aggregators to sell all the electricity sent through a connection point to AEMO.¹¹ The second clause would require Small Generation Aggregators to buy any electricity through a connection point from AEMO.¹² The purpose of these clauses is to replicate existing clauses that impose the same obligations on other generators operating in the NEM.¹³ The existing clauses are currently prescribed as civil penalty provisions under the Regulations.

The Commission does not have power to prescribe clauses of the NEL as civil penalty provisions.¹⁴ However, the AEMC may recommend to the Ministerial Council on Energy (MCE) that a clause of the NEL is prescribed as such.

Consequently, if the Commission makes a rule as proposed by AEMO, there may be a delay between the commencement of the rule and any decision of the South Australian Governor to prescribe the clauses referred to above as the civil penalty provisions. During this period the Small Generation Aggregators would be required to buy or sell all electricity through the pool (as a failure to do so would be a breach of the NEL enforceable by the Australian Energy Regulator) but would not be subject to any civil penalty if they failed to do so.

10. Are there any perceived risks to the rule commencing operation prior to the clauses referred to above being prescribed as civil penalty provisions and if so, how significant and likely are such risks?

5.5 Transitional Issues

AEMO would need to make a number of amendments to their procedures if Small Generation Aggregators were introduced. Therefore the rule change proposal includes a number of transitional arrangements to allow AEMO to change their procedures and systems prior to the commencement of the rule, if implemented. These include amendments to:

- *CDEII procedures*. AEMO's proposed treatment of small generators in respect of the CDEII is discussed in section 5.1 above. The transitional arrangements relate

¹¹ Proposed rule 2.2A(g).

¹² Proposed rule 2.2A(h).

¹³ NEL Sections 2.2.4(c) and 2.2.4(d).

¹⁴ Under sections 11 of the National Electricity (South Australia) Act 1996, the SA Governor (on unanimous recommendation of the Ministers of the participating jurisdictions) may make Regulations as contemplated by the NEL. Under section 58 of the NEL, the Regulations may prescribe clauses of the NEL as civil penalty provisions.

to exempting AEMO from the requirement to comply with the consultation procedures associated with amending the CDEII for the purpose of implementing this rule change.

- *MSATS procedures.* AEMO proposes that Small Generation Aggregators register their small generating units through the existing MSATS system. Transitional provisions are included in the rule change request to allow AEMO to amend the MSATS procedures prior to commencement of the rule change.
- *Participant fees.* AEMO proposes that the structure of participant fees for Small Generation Aggregators would be implemented in a number of stages based around facilitating immediate implementation of the framework once the rule is made, the release of new software in mid-2013 and the expiry of the existing participant fee structure in 2016.¹⁵ Until the existing participant fee structure expires, AEMO proposes to treat Small Generation Aggregators in the same way as Market Customers. The proposed transitional arrangements facilitate this approach.

The proposed transitional rule also includes a broad provision which, if the rule is made, would allow decisions and actions taken by AEMO prior to the commencement of the rule to be recognised as having satisfied the requirements under the new rule.

Finally, AEMO proposes a transitional provision to treat Small Generation Aggregators in the same way as Market Customers for the purpose of ancillary service transactions.

11. Are the transitional arrangements proposed by AEMO appropriate?

¹⁵ AEMO has the power under clause 2.11 of the NER to develop, review and publish the structure of participant fees, in consultation with interested parties.

6 Lodging Submissions

The Commission has published a notice under section 95 of the NEL for this Rule change proposal inviting written submission. Submissions are to be lodged online or by mail by 12 April 2012 in accordance with the following requirements.

Where practicable, submissions should be prepared in accordance with the Commission's guidelines for making written submissions on rule change proposals.¹⁶ The Commission publishes all submissions on its website subject to a claim of confidentiality.

All enquiries on this project should be addressed to Alex Fattal on (02) 8296 7800.

6.1 Lodging a submission electronically

Electronic submissions must be lodged online via the Commission's website, www.aemc.gov.au, using the "lodge a submission" function and selecting the project reference code "ERC0141". The submission must be on letterhead (if submitted on behalf of an organisation), signed and dated.

Upon receipt of the electronic submission, the Commission will issue a confirmation email. If this confirmation email is not received within 3 business days, it is the submitter's responsibility to ensure the submission has been delivered successfully.

6.2 Lodging a submission by mail

The submission must be on letterhead (if submitted on behalf of an organisation), signed and dated. The submission should be sent by mail to:

Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Or by Fax to (02) 8296 7899.

The envelope must be clearly marked with the project reference code: ERC0141.

Except in circumstances where the submission has been received electronically, upon receipt of the hardcopy submission the Commission will issue a confirmation letter.

If this confirmation letter is not received within 3 business days, it is the submitter's responsibility to ensure successful delivery of the submission has occurred.

¹⁶ This guideline is available on the Commission's website.

Abbreviations

AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
CDEII	Carbon Dioxide Equivalent Intensity Index
Commission	See AEMC
MCE	Ministerial Council on Energy
MSATS	Market Settlements and Transfer Solution Systems
NEL	National Electricity Law
NEM	National Electricity Market
NEO	National Electricity Objective
NER	National Electricity Rules
NSPs	Network Service Providers