

31 December 2018

Mr John Pierce
Chair
Australian Energy Market Commission

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Brisbane QLD 4122
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By online submission

Dear Mr Pierce

Requests for Rules – NEM Information to Project Developers

The Australian Energy Market Operator (AEMO) requests the Australian Energy Market Commission (AEMC) consider amending Rule 2.7 of the National Electricity Rules (NER) to allow a person to register as an Intending Participant for the purposes of building a facility (e.g. generating system or large load).

The Rule Change Proposal, attached, would allow developers to have access to the NEM information required to build a generating system or an industrial development (a large load). This topic has been consulted on with stakeholders as a part of AEMO's Emerging Generation and Energy Storage (EGES) initiative, which seeks to identify opportunities to enhance the national electricity market (NEM) arrangements for grid-scale energy storage and other resources. The majority of stakeholder feedback in written submissions and in the two stakeholder sessions held in November 2018 indicated positive support for AEMO's proposal.

AEMO requests the AEMC give consideration to making the proposed rule. Any queries concerning this rule change proposal should be directed to Taryn Maroney on 02 8884 5609 or taryn.maroney@aemo.com.au.

Yours sincerely



Peter Geers
Chief Strategy and Markets Officer

Attachment: NEM Information to Project Developers Rule Change Proposal

ELECTRICITY RULE CHANGE PROPOSAL

PROVIDING NEM INFORMATION TO PROJECT DEVELOPERS

December 2018





CONTENTS

1.	SUMMARY	2
2.	RELEVANT BACKGROUND	3
2.1	Current framework	3
2.2	Stakeholder engagement	3
2.3	AEC rule change proposal on Intending Participants	5
3.	STATEMENT OF ISSUE	6
3.1	Issues with the current Rules	6
4.	HOW THE PROPOSAL WILL ADDRESS THE ISSUE	7
4.1	How the proposal will address the issue	7
5.	PROPOSED RULE	8
5.1	Description of the proposed Rule	8
6.	HOW THE PROPOSED RULE CONTRIBUTES TO THE NATIONAL ELECTRICITY OBJECTIVE (NEO)	9
7.	EXPECTED BENEFITS AND COSTS OF THE PROPOSED RULE	10
A.1	Summary of submissions to the Emerging Generation and Energy Storage Stakeholder Paper	11



1. SUMMARY

This rule change proposal is to amend clause 2.7 of the National Electricity Rules (NER) to include a provision that allows a person to register as an Intending Participant for the purposes of building a grid-scale resource (e.g. generating system). This would allow them to have access to the information required to build a generating system or an industrial development (a load).

Under the NER, proponents wishing to build a generating system or industrial development and sell them prior to connection to the grid do not meet the NER eligibility requirement for registration as an Intending Participant. This limits their ability to access National Electricity Market (NEM) information needed to design and build a generating system, e.g. network modelling data or industrial development.



2. RELEVANT BACKGROUND

2.1 Current framework

Under the National Electricity Law (NEL), AEMO has a statutory obligation to protect confidential information from unauthorised use or disclosure. AEMO can only disclose such information in limited circumstances, including where:

- AEMO is required or permitted to provide it under a law or the NER¹.
- The disclosee is one of the agencies listed in the NEL (ACCC, AER, AEMC etc).
- AEMO has the written consent from the person the information relates to.
- Disclosure is necessary for the safety, security or the proper operation of the market.

The NER permit AEMO to provide certain information to Registered Participants, including Intending Participants. Under NER Rule 2.7, a person wishing to register as an Intending Participant must satisfy AEMO that it is eligible to participate in this category.

Typically, the primary reason for proponents registering as an Intending Participant is to access information needed to build a generating system (e.g. network data) or to set up systems and processes prior to registering as a Market Customer (usually, retailer)².

Under NER clause 3.13.3(k), a Registered Participant may request information from AEMO, including information reasonably required to carry out power system simulation studies and modelling. Depending on the circumstances, examples of information AEMO provides under NER clause 3.13.3(l) could include:

- Bid and offer validation data
- Power System Simulator for Engineering (PSSE) snapshots.
- Releasable User Guides (RUGS).
- Hourly line flows.

Under NER clause 3.13.3(l)(3), the information AEMO provides to the Registered Participant must be treated as confidential information. All Registered Participants are required to comply with clause 8.6.1 of the NER in respect of confidential information.

2.2 Stakeholder engagement

As a part of AEMO's Emerging Generation and Energy Storage (EGES) initiative³, AEMO asked stakeholders whether project developers should be provided with the necessary NEM information to design and construct grid-connected facilities:

- December 2017 and March 2018 – EGES stakeholder workshop sessions. This issue was discussed at both sessions and relevant materials were placed on AEMO's website.
- November 2018 – the EGES Stakeholder Paper was published, which identified the issue, options, and AEMO's proposed approach.

The majority of stakeholder feedback in written submissions and in the two stakeholder sessions held in November 2018 indicated positive support for AEMO's proposal that the NER framework should allow AEMO to provide NEM information to project developers. Of the 20 public submissions received as part

¹ Refer to the National Electricity (South Australia) Act 1996 (20 September 2018), Division 6, Subdivision 2

² Refer to NER clauses 3.13.3(k)(2) and (l).

³ For more information, see: <https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Initiatives/Emerging-Generation-and-Energy-Storage-in-the-NEM---Grid-Scale>



of this consultation, only AGL did not support AEMO’s proposal. A further 3 stakeholders indicated concern about confidentiality requirements. Table 1 sets out the objections or reservations expressed in relation to the proposal and AEMO’s response. A.1 includes a summary of written feedback, and meeting notes from the November stakeholder sessions are on AEMO’s website.

Table 1 EGES Stakeholder Paper feedback on providing NEM information to project developers

Consultation Feedback	Stakeholders	AEMO’s Response
A developer is not an Intending Participant, the developer could have a relationship with a purchaser who could register as an Intending Participant and access information on a developer’s behalf	AGL	AEMO’s proposed rule would expand the Intending Participant criteria to allow a developer to register. AGL’s suggestion for the purchaser (as Intending Participant) to obtain and share confidential information with a developer raises three potential issues: <ul style="list-style-type: none"> • Possible new compliance issues in respect of the participant’s NER confidentiality obligation. • Potential barrier to development by requiring a purchaser to be lined up before obtaining the information necessary to assess power system impacts or requirements. • Less desirable for the person using the information to obtain it via an intermediary rather than directly from AEMO.
<ul style="list-style-type: none"> • The information provided to developers should be bound by NEM confidentiality provisions. AGL provided the following example: <ul style="list-style-type: none"> – A developer may still retain and act on the NEM information obtained from AEMO, without any corresponding safeguards to protect the use or transfer of that information. This presents risks that developers may build additional generating systems that could compromise system security, or breach confidentiality requirements, in the absence of regulatory oversight. • A review is necessary to determine how market registration processes can eliminate these risks associated with confidentiality 	AGL, CEC, Origin, TasNetworks	Under AEMO’s proposed rule developers would be Intending Participants, and therefore captured by the NER’s existing confidentiality requirements. Under existing rules and processes, any Intending Participant or Registered Participant could retain and act on NEM information obtained from AEMO. On registration (as well as during the earlier negotiation of performance standards), AEMO makes an assessment as to whether a generating system could compromise system security. AEMO acknowledges that once the information is provided to an Intending Participant, AEMO cannot control the use or disclosure of that data. That control relies on compliance with NER confidentiality obligations. The proposed rule does not increase the risk or consequence of confidentiality breaches. AEMO considers this a separate issue and understands it may be addressed by a separate CEC rule change proposal. AEMO therefore does not consider a review of registration processes is warranted in the context of this proposal.



Consultation Feedback	Stakeholders	AEMO's Response
AEMO should provide more detail on how it will assess requests for information and what information it would provide. It should also consider how it can legally ensure information it provides to developers is not misused.	CEC	<p>Where a request for information is received under NER clause 3.13.3(k)(2), AEMO confirms the requestor is a Registered Participant. Depending on the request, examples of information AEMO provides under NER clause 3.13.3(l) could include:</p> <ul style="list-style-type: none"> • PSSE snapshots. • Releasable User Guides. • Hourly line flows. <p>Where relevant, this information is currently provided to Registered Participants (including Intending Participants).</p> <p>Under NER clause 3.13.3(l)(3), the information AEMO provides to the Registered Participant must be treated as confidential information (in accordance with clause 8.6.1). This is a legal obligation of the Registered Participant.</p>

2.3 AEC rule change proposal on Intending Participants

AEMO is aware that the Australian Energy Council (AEC) is considering a rule change proposal with respect to obligations on Intending Participants. AEMO's proposal does not seek to address the same issues as the AEC:

- AEMO rule change proposal – seeks to change the eligibility requirement for Intending Participants.
- AEC rule change proposal – seeks to require Intending Participants to provide information on future projects.

AEMO considers that the proposed expansion of the Intending Participant category to include relevant project developers is unlikely to materially impact the AEC proposal as AEMO understands it.



3. STATEMENT OF ISSUE

3.1 Issues with the current Rules

Under NER rule 2.7, to become an Intending Participant, a person must apply to AEMO and AEMO must be reasonably satisfied that the person "...intends to carry out an activity in respect of which it must or may be registered as a Registered Participant."

One of the business models that has emerged is for developers to build generating systems and sell them prior to connection to the grid. Typically, a developer commences discussion with the relevant Network Service Provider (NSP) as a connection applicant to establish a connection agreement. This commences with a pre-feasibility assessment and can go through to the finalisation of the connection agreement prior to sale of a facility. In this circumstance, developers have no intention of owning, operating or controlling a grid-connected generating system or registering with AEMO as the Generator for that asset. In these situations, the developer will not meet the NER eligibility requirement for registration as an Intending Participant.

If a developer cannot be registered as an Intending Participant, they cannot directly access NEM information provided under NER clause 3.13.3(k). This information is needed to design and build a generating system or a large load (typically an industrial development). An example of information that a developer may need includes PSSE snapshots contain information of NEM impedances, system operating conditions (including voltages and power generation and consumption, dynamic performance data of generators provided in the RUGs. This NEM information is provided to Registered Participants in confidence under the NER. Therefore, the NER should be changed to allow these parties to gain access to NEM information.

Of the 20 public submissions AEMO received in response to the EGES Stakeholder Paper, three submissions indicated confidentiality objections or reservations with providing NEM information to project developers. AEMO's response to these concerns are set out in Table 1.



4. HOW THE PROPOSAL WILL ADDRESS THE ISSUE

4.1 How the proposal will address the issue

The proposed solution will address the issue by ensuring that a person who requires NEM information to build a generating system (or other major plant to be connected to the grid) is able to access the necessary information by being eligible to be registered as an Intending Participant. The proposed rule change achieves this outcome by expanding the eligibility criteria for Intending Participants to include developers of relevant facilities.

AEMO considered the following alternate option to address the issue in Table 2. This option was not pursued for the reasons set out in the costs and risks section of Table 2.

Table 2 Alternate option to provide NEM information to project developers

Alternate Option	Costs and Risks	Benefit
Delete NER rule 2.7 and replace with a requirement on AEMO to provide information to persons wishing to have access after being satisfied the information is used for the purpose of connecting plant to the national grid or accessing AEMO market systems, and provide that the recipient is bound by the NER confidentiality requirements (Rule 8.6.1) as if it were a Registered Participant.	<ul style="list-style-type: none"> • Cost of NER change seeking to remove rule 2.7 and amending clauses dealing with information provided to Registered Participants (including Intending Participants), refer to NER clauses 3.13.3(k)(2) and (l). • Replacing existing known process for Intending Participants with a new process to provide access to network data and AEMO's PreProd system. • Potential reduced transparency of future market developments since AEMO is required to publish a list of all Registered Participants. 	Might provide a more flexible and accessible approach to sharing information with interested stakeholders.



5. PROPOSED RULE

5.1 Description of the proposed Rule

Amend NER rule 2.7 to allow a person to register as an Intending Participant for the purpose of building grid-scale resources, such as a generating system or an industrial development (a load).

DRAFT RULE

This draft is based on version 116 of the NER.

2.7 Intention to Commence Activities or Functions

- (a) Any person ~~intending to act in any Registered Participant category~~ may, on application for registration by that person in accordance with rule 2.9, be registered by AEMO as an *Intending Participant* if that person can reasonably satisfy AEMO that it:
- (1) intends to carry out an activity in respect of which it must or may be registered as a *Registered Participant* or
 - (2) intends to develop plant to be connected to a transmission or distribution system in respect of which another person must or may be registered as a *Registered Participant*.
- (b) AEMO may from time to time require a person registered by AEMO as an *Intending Participant* to satisfy AEMO that it continues to meet the criteria for registration in rule 2.7(a). If the *Intending Participant* is unable to satisfy AEMO that it continues to meet those criteria then it will cease to be registered as an *Intending Participant* on the date specified by AEMO by written notice to the *Intending Participant* concerned.
- (c) An *Intending Participant* is taken to be an *Intending Participant* only in so far as its activities relate to its intention referred to in paragraph (a) ~~to commence an activity in respect of which it must or may be registered as a *Registered Participant*.~~
- (d) As a *Registered Participant*, an *Intending Participant* may exercise such rights and is bound by such obligations under the *Rules* as are specified by AEMO (on the basis of whether the *Intending Participant* intends to become, or to develop plant in respect of which another person may become, a *Customer*, *Generator*, *Network Service Provider* or *Special Participant*) and approved by the AEMC.



6. HOW THE PROPOSED RULE CONTRIBUTES TO THE NATIONAL ELECTRICITY OBJECTIVE (NEO)

The objective of the National Electricity 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.

AEMO considers the proposed rule would promote investment in electricity services for the long term interest of consumers, since it would facilitate direct access by project proponents to the NEM information needed to design and build generation and large loads, regardless of their business model. Access to this information would assist developers to more quickly and effectively identify any issues with the proposed location and assess project viability. This is likely to lower or remove barriers to entry and reduces the potential for wasted costs by facilitating earlier project issue identification.



7. EXPECTED BENEFITS AND COSTS OF THE PROPOSED RULE

The expected benefit of the proposed rule is to allow developers who are registered by AEMO as an Intending Participant direct access to the NEM information needed to build generating systems, accommodating emerging business models without additional delay or complexity.

This amendment would confer Registered Participant status and the associated NER confidentiality obligations on a developer receiving network information with minimal amendments, and will not affect other parties seeking to register as an Intending Participant, e.g. a new retailer seeking early access to set up systems.

In response to the EGES Stakeholder Paper, some stakeholders raised concern about ensuring confidentiality of information and ensuring the information provided to developers is not misused. AEMO's response to these concerns are set out in Table 1, section 2.2.

The proposed rule would necessitate minor application form and guideline updates that AEMO would need to undertake to incorporate these changes. These business as usual activities are estimated to cost less than \$10,000.

A.1 Summary of submissions to the Emerging Generation and Energy Storage Stakeholder Paper

ID	Question	AGL	AEC	CEC	Edify	Energy Queensland	GE	Hydrostar	Meridian Energy	Origin	S and C	TasNetworks	Tesla	TransGrid
1	Should a person intending to develop or build a generating system or ESS (and not subsequently register as a Generator) be allowed to register as an Intending Participant?	<p>No ...A developer is therefore fundamentally not an Intending Participant. Instead, the developer should locate a suitable purchaser in advance of building a generating plant. This purchaser could register as the Intending Participant and access the NEM information on the developers behalf.</p> <p>... the NER and NERL may no longer have legal force on the developer, once the generating system had been built and sold to a third party. Specifically, the developer may still retain and act on the NEM information obtained from AEMO, without any corresponding safeguards to protect the use or transfer of that information. This presents risks that developers may build additional generating systems that could compromise system security, or breach confidentiality requirements, in the absence of regulatory oversight. A further review is necessary to determine how</p>	A developer should be allowed to register as an Intending Participant to access the necessary information to build	<p>The CEC considers the proposal to extend the Intending Participant category to developers could have merit but requires further work before a final decision is made. AEMO registration requirements are considerable and at the project development stage there is a natural lack of detail and certainty around issues such as finance and land acquisition. Extending the Intending Participant category recognises the inherent uncertainty in the development process and would assist developers to work towards a connection application and determine project viability more easily and efficiently. The concern with this proposal, however, is around breach of privacy. AEMO should provide more detail on how it will assess requests for information and what information it will provide to these participants. It should also consider how it can legally ensure</p>	Yes. Edify Energy sees this as a pragmatic change to the current arrangements.	Energy Queensland agrees that a person intending to develop or build a generating system or ESS (and not subsequently register as a Generator) should be allowed to register as an Intending Participant.	Yes, as it would enable them to access information from AEMO that is required to accurately assess the business case for the ESS they are intending to develop. In order not to add complexities of registration to developers, perhaps going with option 1 in table 12 will make it easier to access information with the proper confidentiality agreements. Giving this ability to developers will open the market for more alternatives that could provide benefits to the whole system.	Hydrostar feels that the NER should allow AEMO to provide people with access to the information they need to develop or build grid-scale ESS resources if they satisfy AEMO that this is their intent.	MEA Group accepts this approach, subject to AEMO's review of the circumstances and subsequent consent for registration of the person as an Intending Participant.	Origin supports AEMO's proposal to amend NER Rule 2.7 to allow developers access to AEMO information if it is used for the purpose of connecting plant to the national grid and the participant is bound by confidentiality	Seems reasonable	TasNetworks agrees with AEMO that the NER should allow provision of information for developers to allow them to build grid-scale resources (such as a generating system, ESS or hybrid system) if they satisfy AEMO this is their intent. Regardless of which option might be chosen to facilitate this, it is imperative that NER confidentiality requirements, including Rule 8.6.1, should apply as if the developer were a Registered Participant.	We note that generator performance standards will be progressed in separate rule change proposal by end-2018. We support AEMO aligning with the AEMC review and recommendations	TransGrid supports AEMO's views on allowing project developers to have access to the information they need to develop a grid-scale resource if they satisfy AEMO that this is their intent.



ID	Question	AGL	AEC	CEC	Edify	Energy Queensland	GE	Hydrostar	Meridian Energy	Origin	S and C	TasNetworks	Tesla	TransGrid
		market registration processes can eliminate these risks if developers are enabled to become Intending Participants.		information it provides to developers is not misused.										
2	What is the market benefit associated with allowing a person intending to develop or build a generating system (and subsequently register as a Generator) to be an Intending Participant?	No comment.	It would deliver a greater number of generation capacity than would otherwise be the case.	-	Allowing developers (who hold the knowledge and risk of bringing projects to market) to access the information they require to perform this function is a more efficient use of capital and capability. It more seamlessly allows projects to access a lower cost of capital for the purposes of financing, which should lead to lower system cost outcomes.	This model could potentially result in faster generation coming in to the market. However, the provision of the necessary information is required to effectively plan, design and connect a new generating system.	As highlighted by AEMO, there are a number of developers who have no intention in owning the grid-connected generating system. Therefore, allowing a person intending to develop or build a generating system (and not subsequently register as a Generator) to be an Intending Participant will enable these developers to access the necessary information required to assess the business case for the ESS they are intending on developing. This will result in increased investment in ESS in the NEM which will help drive costs down.	Considering the projection of portfolio resources, including solar (28GW), wind (10.5 GW) and storage (17 GW and 90 GWh), complemented by 500 MW of flexible gas plant identified under AEMO's Neutral ISP planning scenario, ensuring project developers can access NEM information will enable the solicitation of a wide range of solutions and maximise competition and therefore market benefit.	MEA Group believes that increasing access to NEM data in these circumstances will result in a more diverse power system that is resilient to system events and resource supply limitations.	No comment.	No comment.	As above.	"Some existing solar or wind sites that have a common coupling on the HV side of substations must also have their NMI on the high-voltage connection side, but then may look to connect an ESS on the medium voltage side. This creates secondary issues for projects that are retro-fitting storage, including potentially having to re-negotiate generator performance standards for the	No comment.



ID	Question	AGL	AEC	CEC	Edify	Energy Queensland	GE	Hydrostar	Meridian Energy	Origin	S and C	TasNetworks	Tesla	TransGrid
3	Referring to section 3.2.3, are there other options to provide a person intending to develop or build a generating system (and subsequently register as a Generator) with the necessary NEM data?	No comment.	The options are appropriate, no further options identified	No comment.	No comment.	Energy Queensland believes that the proposed option is sufficient.	No comment.	No comment.	No comment.	No comment.	No comment.	As above.	entire existing site. It would be useful for AEMO to clarify how the application of performance standards would be treated under a hybrid model that includes retro-fitting storage. One solution would be to relax the requirement for NMIs to be on the HV side of renewable asset's substations to begin with.	No comment.
4	Are there other costs, risks and benefits associated with the options presented? If so, please indicate what these are.	Refer to question 1 above	No comment identified. The key issue is how confidential information will be handled - which is adequately addressed by both options	No comment.	No comment.	For projects currently in progress, issues have emerged where the first 'developer' proponent has agreed to certain risks, which are not realised until much later in the project stage, and the subsequent purchaser of the project experiences financial loss and/or delay. It is recommended that risks are addressed earlier in the project to avoid this in the future.	Safeguards should be in place to ensure that the developer is actually intending on developing the proposed ESS and not just trying to access information from AEMO to use for other advantages such as learning about a competing project to give it an unfair advantage.	No comment.	No comment.	No comment.	No comment.	As above.	No comment.	No comment.