



Australian Energy Market Commission

RULE DETERMINATION

NATIONAL ELECTRICITY AMENDMENT (TRANSPARENCY OF NEW PROJECTS) RULE 2019

PROPONENTS

Australian Energy Market Operator
Australian Energy Council
Energy Networks Australia

24 OCTOBER 2019

RULE

INQUIRIES

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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

- 1 This final determination sets out a series of changes to the National Electricity Rules (NER) to improve the transparency of new generation projects in the National Electricity Market (NEM). This final determination also allows the Australian Energy Market Operator (AEMO) to provide certain information to developers to help with building grid scale resources, such as a generating system.
- 2 Transmission Network Service Providers (TNSPs) and AEMO are receiving an unprecedented level of (mainly renewable) generation connection enquiries. This has significant implications for the market and the system. Broad visibility of these connecting parties is limited by confidentiality obligations currently imposed on information received by TNSPs. At the same time changing market dynamics have given rise to new business models for developers that build grid-scale assets. Under current arrangements not all these developers have direct access to relevant system information.
- 3 The Commission's final rule:
 - Facilitates greater access to relevant system information for developers that sell grid-scale assets prior to connection, while recognising that existing NER arrangements already enable certain types of developers to register as intending participants and, as a result, access information available to registered participants. The final rule will also make more information about new generation projects more readily available.
 - Codifies AEMO's generation information page in the NER, which is an information resource that will provide a source of regularly updated data for registered participants and other interested persons on existing and proposed connections of generating plant to the national grid.
 - Requires TNSPs to share key connection information about new generation projects with AEMO. AEMO must then publish this data on the generation information page, increasing the visibility of proposed connections which may facilitate greater coordination between connecting parties.
- 4 The final rule is made in response to rule change requests from the Australia Energy Council (AEC), AEMO, and Energy Networks Australia:
 - The AEC sought to improve information provision in the NEM by codifying AEMO's generation information page in the NER, reforming the intending participant category and clarifying the rules around disclosing confidential information.
 - AEMO sought to allow developers that sell a grid-scale resource prior to connection to register as intending participants, giving these developers access to important system data.
 - Energy Networks Australia sought to allow TNSPs to publish certain project information they have received from connection applicants.
- 5 The Commission considers the final rule, which is a more preferable final rule, will improve the transparency of new projects and assist developers to access the information they need to develop grid-scale resources, regardless of their business model, promoting efficient

investment in electricity services because:

- Improving the transparency of the pipeline of new projects will keep market participants well informed and enable them to make operational and investment decisions based on more accurate information. It also opens the pathway for greater coordination between generators — making it easier for generators to collaborate to address issues such as system strength. Increased transparency will also provide additional information to market participants, which may provide parties with more information to better assist them in forecasting marginal loss factors, as well as where to locate. It may also assist with AEMO's operational and forecasting processes.
- Enabling a broader set of developers to access relevant system information will assist them to more quickly and effectively assess project viability and identify any issues, potentially reducing costs.

6 The final rule promotes a two-way flow of information by allowing AEMO to send system information to different types of developers, while enabling key information about new generation projects to be shared with AEMO, and published on its website.

Context and issues raised

7 Changes to the energy generation mix in the NEM, particularly the increasing penetration of renewable generation such as solar and wind, have caused a significant increase in the number of generation projects seeking to connect to the power system.

8 Most immediately, an additional 5GW of committed¹ new solar and wind generation is expected to connect to the NEM by 2021.²

9 In addition, a further 50GW of proposed projects, mostly renewable generation, are currently in various stages of development.³ This is roughly equivalent to the current generation capacity in the NEM.

10 Resulting from these trends, AEMO and TNSPs are receiving an unprecedented volume of generation enquiries, where multiple proponents are seeking to connect in similar locations, but on different time frames. While there is a significant amount of transparent information about generators once they have connected, there is limited information available to market participants about prospective generators, prior to the connection agreement being signed. Broad visibility of connecting parties is limited by confidentiality obligations imposed on information received by TNSPs. This may be an obstacle to greater collaboration between connecting parties and may impede the achievement of optimal project and network outcomes. Limited transparency of new projects also means that parties are not as well-informed as they could be when making operational and investment decisions.

11 Changing market dynamics have also given rise to new business models for project developers. One of the popular business models that has emerged is for developers to build generating systems and sell them prior to connection to the grid. In some cases a parent

1 Projects are considered "committed" if they satisfy AEMO's commitment criteria. Criteria include: size, contracts for major components, planning and approvals, financial arrangements and commencement dates.

2 AEMO, Integrated System Plan, 2018

3 Based on data in AEMO's generation information page.

company establishes a special purpose vehicle (SPV) which develops assets, with shares in the SPV sold prior to grid connection of the assets. In other cases the developing entity may simply sell off the grid-scale assets prior to connection. Under current arrangements, this latter type of developer is not able to directly access the relevant system information it needs to build its asset.

Overview of the final rule

12

The final rule:

- Permits persons who are building grid-scale assets, and then selling these assets to another entity prior to grid connection ("project developers") to:
 - apply to be deemed as registered participants for the purposes of clause 3.13.3(k)⁴ of the NER to allow such persons to gain access to information (e.g. information to carry out power system simulation studies) from AEMO that will assist them in developing their assets.
 - be subject to the confidentiality obligations under rule 8.6 of the NER in respect of any information they receive under clause 3.13.3. These obligations continue to apply in the event such persons cease to be project developers.
- Expressly requires AEMO to include on a public register project developers that have received information under clause 3.13.3(l).⁵
- Codifies in the NER AEMO's annual review of the registration status of intending participants, which is undertaken to determine whether persons registered as intending participants continue to satisfy the requirements of that registration category.⁶
- Introduces into the NER an obligation on AEMO to maintain an information resource on its website ("the generation information page") that informs registered participants and other interested parties of current and proposed connections of grid scale generation assets in the NEM (being an information resource that AEMO currently maintains voluntarily on its website). The final rule sets out certain requirements regarding the content that needs to be included on the generation information page (including information received from the below routes) and how regularly it needs to be updated.⁷
- Requires TNSPs to share with AEMO (in accordance with the AEMO guidelines referred to below) the following key connection information received from connection enquiries and applications in respect of generating plant:
 - name of proponent of connection and, if received by the TNSP, proponent's ABN or ACN⁸

4 And other consequential provisions under clause 3.13.3 of the NER (i.e. clause 3.13.3(k1), (1), (11) and (p1)).

5 The current rules require AEMO to publish and maintain a register which identifies registered participants to whom it has provided information under clause 3.13.3(l) and the date on which the information was provided.

6 AEMO currently audits all Intending Participants annually to ensure they continue to satisfy the requirements of that registration category. AEMO's submission to the consultation paper, p. 4. AEMO completed their audit for 2019 in August.

7 AEMO currently undertakes an informal generator survey to assist it with its forecasting and planning processes. We understand AEMO will continue undertaking this survey, and the information provided through this rule will supplement this information.

8 An Australian Business Number (ABN) is a unique 11 digit identifier issued to all entities registered in the Australian Business Register. An Australian Company Number (ACN) is a nine digit number allocated by the Australian Securities & Investments Commission (ASIC) when a body becomes registered as a company under Corporations Law. For more detail see: <https://abr.business.gov.au/Help/Glossary>

- type of plant
 - site location
 - maximum power generation of whole plant
 - forecast completion date of the proposed connection
 - technology of generating units.
- Requires connection applicants to update NSPs of any material changes to connection information provided to NSPs as part of a connection enquiry under rule 5.3, where that change occurs after the connection applicant has received a response from the NSP to the connection enquiry. The final rule also requires TNSPs to share this information with AEMO, in accordance with guidelines prepared by AEMO (described below).
 - Requires AEMO to publish and maintain guidelines (the "generation information guidelines") that set out the content of the generation information page; the process for updating the page and the manner, timing and format in which key connection information is to be provided by TNSPs to AEMO for the purposes of the page.

13

The final rule is largely the same as the draft rule except for the following key changes

- Clarifying that the confidentiality obligations under r. 8.6 of the NER that apply to persons who are project developers will continue to apply to those persons even in the event they cease to be developers of grid scale assets.
- Clarifying that project developers that have received system information under cl. 3.13.3(l) would be included on a public register published by AEMO.
- Requiring AEMO to include details in a guideline setting out evidence it requires for an application from a person seeking to be deemed to be a registered participant to get access to information under cl. 3.13.3(k) of the NER.
- Requiring the details of the TNSP from whom AEMO received key connection information and whether it came from a connection enquiry or application.
- Removing the draft rule requirement on AEMO to publish information on the page separately on a regional basis.
- Clarifying that AEMO may include other information on the generation information page in addition to the key connection information received in accordance with the final rule.
- Requiring TNSPs to provide a connection applicant's ABN and ACN if they have received it (the final rule also clarifies that NSPs may request a proponent's ABN or ACN).
- Excluding loads from the information sharing provisions, that is, TNSPs will not be required to share with AEMO key connection information that relates to loads. The final rule will capture information associated with large-scale energy storage systems given that they are currently required to register as both a generator as well as a market customer.⁹

14

These changes have been made in response to stakeholder feedback on the draft

⁹ The Commission notes that the classification of storage systems, hybrid facilities (e.g. where there is a load and generation behind a connection point) and the definition of load in the NER will be considered as part of the Integrating energy storage systems into the NEM rule change process. The implications of any potential definition changes on the information sharing obligations set out in the final rule will be considered as part of that process.

determination.

Implementation

15

In terms of the implementation of the final rule:

- AEMO is required, under the final rule, to publish interim generation information guidelines by 5 December 2019.
- Elements of the final rule that relate to developers that build grid-scale assets, and then sell these assets prior to grid connection being deemed to be registered participants for certain NER clauses, would commence on 19 December 2019.
- AEMO is required, under the final rule, to complete its first annual review of the registration status of intending participants under clause 2.7(b)(2) by 1 October 2020, noting it has already completed its audit for 2019.
- TNSPs are not required, under the final rule, to comply with the requirements that relate to providing key connection information to AEMO under the interim generation information guidelines until 19 December 2019.
- AEMO will be required, under the final rule, to publish the generation information page by 31 January 2020.

16

All implementation dates are summarised in the table below.

Table 1: Rule implementation

DATE	ELEMENT OF THE RULE
5 December 2019	AEMO must publish interim generation information guidelines
19 December 2019	<p>Parties may apply to be a project developer (and, in turn, be deemed to be a registered participant for certain NER clauses) to allow them to access system information from AEMO.</p> <p>AEMO may provide system information to project developers.</p> <p>Confidentiality obligations apply in respect of information received by project developers.</p> <p>TNSPs must comply with requirements relating to key connection information.</p> <p>Key connection information provided as part of a connection enquiry or application (for a generating plant) that is submitted on or after this date must be shared by TNSPs with AEMO.</p>
31 January 2020	AEMO must publish the generation information page with key connection information

DATE	ELEMENT OF THE RULE
31 July 2020	AEMO must publish full generation information guidelines, in accordance with the rules consultation procedures.
1 October 2020	AEMO must complete its first annual review of the registration status of intending participants

17 These staggered time frames allow:

- AEMO to give a broader range of developers relevant system information shortly after the rule is made
- AEMO the time to prepare necessary guidelines ahead of the publication of the generation information page
- TNSPs time to understand their new obligations under the rules and guidelines.

The Commission's broader work program

18 The Commission has adopted a holistic approach in considering issues related to grid connection and is focussed on making short and long term improvements to the framework that are in the long-term interests of consumers.

19 The Commission is considering longer-term reforms to the way generators access and use the transmission network as part of its *Coordination of generation and transmission investment review*.¹⁰ The Commission recognises that the final rule increases visibility of new connections and may enable generators to better coordinate with each other in the short term. The Commission recently published two discussion papers on its preferred access model and ways to facilitate renewable energy zones.

20 Increased transparency of new connections may provide additional information to market participants which may help in assessing projects, including in assessing marginal loss factors. The Commission is considering broader issues around how the transmission loss factor framework can continue to send the most appropriate signals to investors in the face of power system restructuring as part of a consolidated rule change process.¹¹ A draft determination for this project is due by 21 November 2019.

¹⁰ For more detail see the project page: <https://www.aemc.gov.au/market-reviews-advice/coordination-generation-and-transmission-investment-implementation-access-and>

¹¹ For more detail see the project page: <https://www.aemc.gov.au/rule-changes/transmission-loss-factors>

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1 THE RULE CHANGE REQUESTS

1.1 The rule change request

The Australian Energy Market Commission (AEMC or Commission) received three rule change requests relating to the transparency of new projects in the National Electricity Market (NEM):

- On 15 December 2018 the Australian Energy Council (AEC) submitted a rule change request to the Commission seeking to increase the transparency of new projects and improve information provision in the NEM.¹² The request has four key elements:
 - a. Codifying AEMO's generation information page in the National Electricity Rules (NER or Rules).
 - b. Imposing a requirement on intending participants¹³ to notify AEMO of any change to the information they provided during the intending participant registration process (for example, when the nature of their projects change).
 - c. Broad reforms to the intending participant category (for example, requiring new project developers to register as an intending participant), similar to the proposals made by AEMO (discussed below).
 - d. Changes to assist AEMO in disclosing confidential information, where that information has subsequently reached the public domain.
- On 31 December 2018 the Australian Energy Market Operator (AEMO) submitted a rule change request seeking to allow developers building grid-scale generating systems or an industrial development (e.g. a load) to register as intending participants, despite such a person never intending to register as market participant.¹⁴
- On 15 March 2019 Energy Networks Australia submitted a rule change request seeking to explicitly allow transmission network service providers (TNSPs) to publish certain information¹⁵ they have received from connection applicants regarding new and proposed connections.¹⁶

1.2 Background

Brief background on the current arrangements of the intending participant category, generation information page and information provision about new projects is provided below. Further detail is contained in chapters 3 and 4.

12 This rule change request is available on the AEMC website under project code ERC0257. See: <https://www.aemc.gov.au/rule-changes/transparency-new-projects>

13 Intending participants are a class of registered participants. Entities may register as intending participants if they intend to participate in a category of registered participant (e.g. generator) in the future.

14 This rule change request is available on the AEMC website under project code ERC0260. See: <https://www.aemc.gov.au/rule-changes/nem-information-project-developers>

15 This project information would include: proponent name, size, location, estimated completion date, primary technology and broad function.

16 This rule change request is available on the AEMC website under project code ERC0268. See: <https://www.aemc.gov.au/rule-changes/tntp-exemptions-confidentiality-requirements>

1.2.1 **The intending participant category**

Under rule 2.7 of the NER, a person that wishes to act in any registered participant category may apply for registration as an intending participant. The person must satisfy AEMO that it intends to carry out an activity in respect of which it must or may be registered as a registered participant. Persons are not required to register as intending participants.

The NER permits AEMO to provide certain information to registered participants, including intending participants. Under clause 3.13.3(k) of the NER, a registered participant may request certain information from AEMO, including information reasonably required to carry out power system simulation studies and modelling.

AEMO has the power to de-register intending participants if they fail to meet the criteria for registration in rule 2.7.

Intending participants include all types of participants, e.g. intending generators or intending market customer.

1.2.2 **AEMO's generation information page**

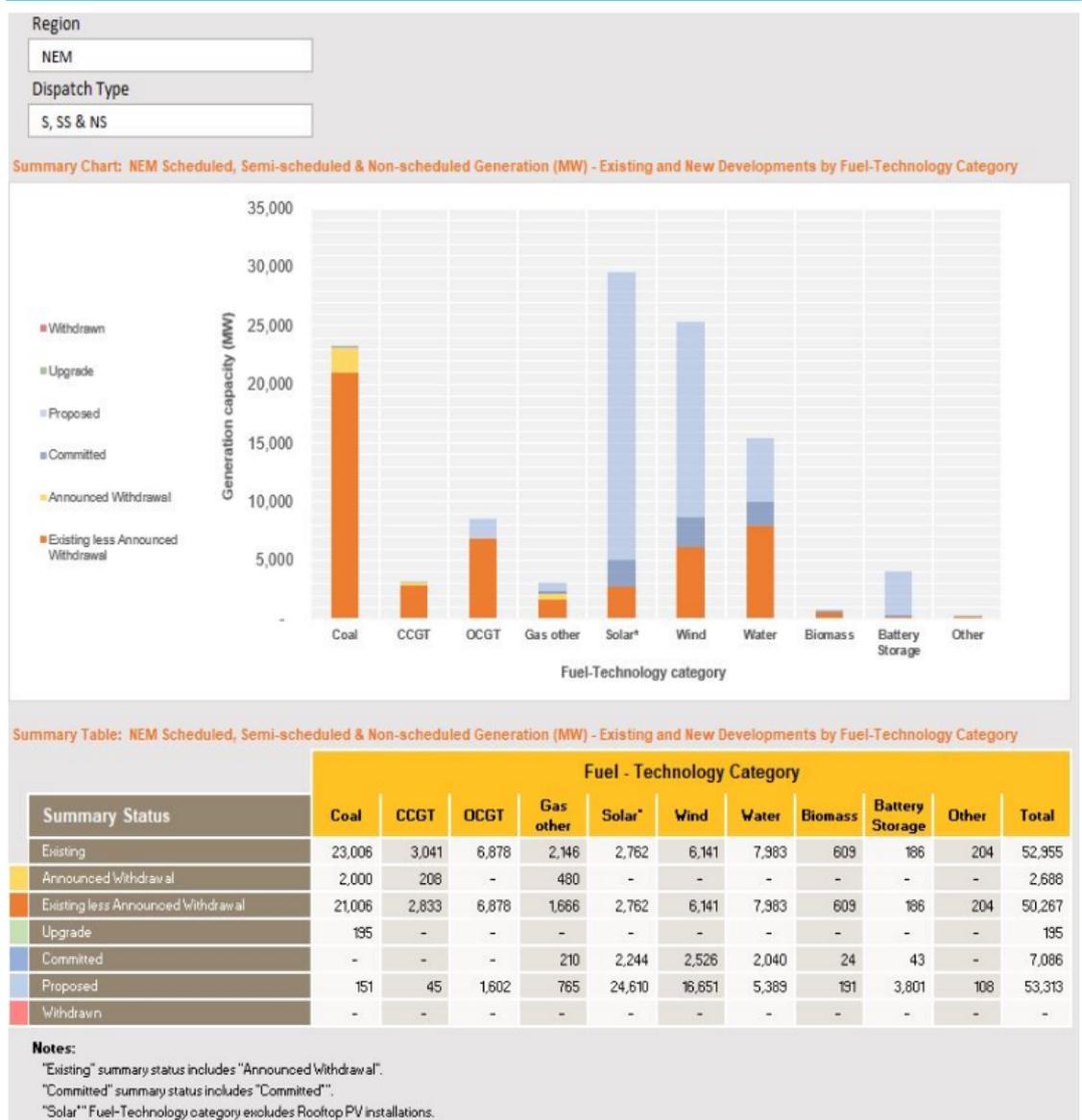
AEMO's generation information page¹⁷ reports information on the capacity of existing, withdrawn, committed¹⁸ and proposed generation projects in the NEM.

Currently under the NER, AEMO is not obliged to produce its generation information page.

17 AEMO's generation information page is available at: <https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Planning-and-forecasting/Generation-information>

18 Projects are considered "committed" if they satisfy AEMO's commitment criteria. This criteria includes: size, contracts for major components, planing and approvals, financial arrangements and commencement dates.

Figure 1.1: Summary chart and table provided as part of AEMO's generation information page



Source: AEMO's generation information page

1.2.3

Information provision about new projects

Information provided by intending participants

Under current arrangements, the NER does not require intending participants to notify AEMO if:

- any information provided to AEMO during the registration process changes during project development, for example, a change in maximum capacity¹⁹
- they become aware that confidential information related to their project has reached the public domain.²⁰

However, if connection applicants (which currently includes intending participants that have made an application to connect to a network) become aware of any material change to any information contained in or relevant to an application to connect, they must notify the relevant NSP of the change in writing. This is currently classified as a civil penalty provision.

²¹

Provision of confidential information to and by TNSPs

Under current arrangements, any information received by an NSP as a result of a connection enquiry or application, must be treated as confidential information (subject to the exceptions set out in clause 5.3.8 and rule 8.6 of the NER).

Rule 8.6 of the NER details the confidentiality obligations of registered participants (including NSPs). Clause 8.6.2 of the NER sets out various exceptions which allow registered participants (including NSPs) to disclose, use or reproduce confidential information in limited circumstances.²² These obligations and exceptions are described in full in Chapter 4.

1.3

Rationale for the rule change request

1.3.1

Rationale for the AEMO rule change request

AEMO proposed that rule 2.7 of the NER should be amended to allow persons with the purpose of building a generating system or a large load to register as an Intending Participant (despite not intending to be registered as a Generator or Market Customer).²³ AEMO noted that parties building either generating systems or large loads who intend to sell them prior to their connection to the grid currently do not meet NER requirements for the 'Intending Participant' category.

Building and selling assets prior to connecting them to the grid is becoming an increasingly frequent business model for developers (see Appendix A). A developer may engage with the relevant NSP to establish a connection agreement, but may not plan to own or operate the generating system or register with AEMO as the "Generator" for the asset.²⁴ In this scenario (an "asset sale"), they do not meet the requirements of Intending Participants under the NER.

¹⁹ The AEC noted in its rule change that AEMO currently undertakes media monitoring and regularly reviews the websites of developers to determine if they have released any new or updated information about their projects. AEC rule change request, p. 7.

²⁰ Section 54G(1)(d) of the NEL permits AEMO to disclose protected information if the protected information is already in the public domain.

²¹ Clause 5.3.8(e) of the NER

²² clause 5.3.8 of the NER provides specific exceptions for NSPs in disclosing confidential information obtained as part of a connection enquiry or application.

²³ AEMO, Electricity Rule Change Proposal, Providing NEM Information to Project Developers, December 2018. p. 2

²⁴ AEMO, Electricity Rule Change Proposal, Providing NEM Information to Project Developers, December 2018. p. 6

AEMO suggests that the primary function of the Intending Participant category is to allow proponents to access information deemed confidential under the NER, such as network modelling data and system operating conditions, which proponents require to build a generation asset, or to establish themselves as market customers.²⁵ AEMO notes this information is necessary for proponents to carry out power system simulation studies and modelling.²⁶

Therefore, AEMO states that the NER should be changed to expand the eligibility criteria for Intending Participants to include developers, so that necessary system information can be both disclosed by AEMO and accessed by developers.²⁷

1.3.2

Rationale for the AEC rule change request

The AEC proposed a rule change recommending amendments to how the veracity and frequency of information provided to and by AEMO, particularly on new projects, should be managed. The proposal is underlined by concerns that “gaps” in the NER addressing how information is provided to, and disclosed by AEMO, diminish levels of transparency in the NEM.²⁸ The AEC emphasised that a variety of parties in the NEM rely on accurate project information and that use of this information impacts an array of business and regulatory activities that depend on the reliability of AEMO’s data.²⁹

To address these gaps, the AEC proposed a rule change comprising five parts:

1. Codifying AEMO’s generation information page as NEM standing data.³⁰ The AEC considered this will help to consolidate new project information and ensure AEMO is capable of presenting a comprehensive status of all generating projects.³¹
2. Ensuring Intending Participants notify AEMO if information provided during a proponent’s registration process changes during project development. The AEC noted there is currently no NER obligation outlined that requires Intending Participants to provide AEMO with updates if details initially provided are revised.³² It is suggested that this may lead to instances where AEMO’s data on new projects is out of date and inaccurate, with implications for AEMO’s operational processes and broader market transparency.
3. The AEMC to consider whether reforming the Intending Participant category is required. The AEC noted that projects are increasingly built by developers and are then sold prior to connecting them to the grid. Further, developers may operate a generation asset on behalf of an owner who is a Registered Participant. In these scenarios, a developer does not satisfy the requirements of an Intending Participants under the NER, so is not

25 AEMO, Electricity Rule Change Proposal, Providing NEM Information to Project Developers, December 2018. p. 6

26 AEMO, Electricity Rule Change Proposal, Providing NEM Information to Project Developers, December 2018. p. 1, 6

27 AEMO, Electricity Rule Change Proposal, Providing NEM Information to Project Developers, December 2018. p. 7

28 AEC, Transparency of New Projects Rule Change Request, December 2018, p. i.

29 AEC, Transparency of New Projects Rule Change Request, December 2018, p. i

30 NEM standing data is formally set out in the NER and refers to specific datasets that AEMO, NSPs and registered participants must establish, maintain, update and publish. The NER provisions (cl. 3.13.3) around standing data are specific and clear, and so, NEM standing data plays a critical role in promoting market transparency.

31 AEC, Transparency of New Projects Rule Change Request, December 2018, p. 2

32 AEC, Transparency of New Projects Rule Change Request, December 2018, p. 3

obligated to disclose information to AEMO, and cannot access necessary network data to aid in an asset's construction. With the aim of enhancing project visibility in the NEM and consistent with AEMO's proposal (described above), the AEC asks the Commission to consider whether developers and "special purpose vehicles" should be required to register as Intending Participants, and whether registration should occur at a particular time. To better manage the flow of confidential information, the AEC proposes strengthening provisions around deregistration and requirements on deregistered parties to destroy system data.³³

4. Clarifying that AEMO may publish confidential information that is in, or has entered, the public domain. It is not uncommon for developers to publicly publish media releases or annual reports containing information previously deemed confidential. AEMO may be unaware of the publication of such information, and as such, does not know that it can disclose this information — meaning, the information it shares with the market (e.g. via the generation information page) may not be current. The AEC suggests Intending Participants should be required to notify AEMO as soon as reasonably practicable, or within 10 business days, after they become aware 'protected' or 'confidential' information has entered the public domain.³⁴
5. Seeking to establish transitional arrangements that facilitate the collection of updated information from Intending Participants to AEMO in order to support improved transparency.

1.3.3

Rationale for the Energy Networks Australia rule change request

Energy Networks Australia proposed a rule change that would allow TNSPs to publish information regarding the name, size, location, estimated completion date, primary technology and broad function of a connection enquiry or application.³⁵ Energy Networks Australia suggests that enabling TNSPs to publish basic and non-commercially sensitive information about new and proposed connections will facilitate efficiencies in the connection application process and more optimal network outcomes.³⁶

Energy Networks Australia notes that TNSPs are currently required to keep information obtained as part of the generator connection process confidential. This information, which could assist connecting parties, is dispersed across various sources, is inconsistent in detail, and of varying veracity. Meanwhile, the connection of other generators in the same proximity cannot be coordinated by TNSPs, which could achieve a more efficient solution.³⁷

Energy Networks Australia explains previous AEMC determinations³⁸ in 2009 clarified that TNSPs may disclose information in certain circumstances to Registered Participants to facilitate coordinated applications and enquiries, but not to disclose basic generator information. At the

33 AEC, Transparency of New Projects Rule Change Request, December 2018, p. 3

34 AEC, Transparency of New Projects Rule Change Request, December 2018, p. 3.

35 ENA, TNSP Confidentiality Exclusion Rule change request, March 2018, p. 3.

36 ENA, TNSP Confidentiality Exclusion Rule change request, March 2018, p. 3.

37 ENA, TNSP Confidentiality Exclusion Rule change request, March 2018, p. 11.

38 Rule Determination, National Electricity Amendment (Confidentiality Provisions for Network Connections), Rule 2009, November 2009, p. vi-vii.

time, the AEMC expected it to be likely that connection information would be made public prior to a connection agreement, and that this information would be sufficiently accessible.

However, Energy Networks Australia suggested there is an increasing need for customers and stakeholders to be able to access connection information that is easily understood and is in one location.³⁹ Energy Networks Australia considers this information would inform commercial decisions around connection (such as, where and when to locate) and promote efficient collaboration among connecting parties.⁴⁰ Further, the practical limitations associated with applying exceptions to the current confidentiality framework make their use ineffective. According to Energy Networks Australia, applying the public domain exclusion requires TNSPs to exhaust time and resources undertaking searches of publicly available data sources. The significant increases in generation connection applications, and the need for technical requirements and system planning processes to be shared, make the general confidentiality provision inefficient and impractical in optimising outcomes.⁴¹

Energy Networks Australia subsequently proposed that this rule change would help TNSPs provide ongoing support to customers, while minimising additional costs and delays, without requiring significant changes or expenses for TNSPs or stakeholders.⁴²

1.4

Solution proposed in the rule change request

1.4.1

Proposed solutions by AEMO

AEMO proposed a rule change that expands the eligibility criteria for Intending Participants to include developers of relevant generating systems or large loads. Specifically, AEMO suggested this expansion cover any parties that “intend 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.” This would make sure, according to AEMO, that a person building a generating system or large load can access NEM information required as a registered Intending Participant.

1.4.2

Proposed solutions by AEC

For part one of its proposal, the AEC proposed the generation information page is codified in the NER as formal standing data. AEMO would continue to define various ‘unit status’ categories of projects that reflect their level of development, and provide market participants a comprehensive view of the status of all projects. AEMO would essentially administer a collation service. The AEC’s proposed solution also requires AEMO to update its generation information page more frequently, revising it on monthly intervals, which it considers would provide benefits to market participants.

Part two would require Intending Participants to provide updates to information provided in relation to clause 2.7(a) or 2.7(b) to AEMO as soon as reasonably practicable, and no later than 10 business days. If the participant fails to do so, their registration as an Intending

39 ENA, TNSP Confidentiality Exclusion Rule change request, March 2018, p. 6.

40 ENA, TNSP Confidentiality Exclusion Rule change request, March 2018, p. 17.

41 ENA, TNSP Confidentiality Exclusion Rule change request, March 2018, p. 8.

42 ENA, TNSP Confidentiality Exclusion Rule change request, March 2018, p. 9.

Participant will cease on the date specified by AEMO via written notice. The AEC considered this change will aid the efficiency and accuracy of AEMO's operational and forecasting processes, and provide other market participants greater access to information of significant interest.

On concerns expressed in part three, the AEC requested the AEMC consider reforms to the Intending Participant category. The AEC recommends consideration of the following measures:

- requiring any person or special purpose vehicle proposing to develop a new project to be registered as an Intending Participant⁴³
- establishing a formal time for registration to occur
- requiring the de-registration of Intending Participants who have not taken positive steps to develop their project in a specified period
- requiring deregistered parties to return or destroy any data received while registered.⁴⁴

Regarding part four, noting that Section 54G(1)(d) of the NEL already permits AEMO to disclose protected information if it is in the public domain, the AEC seeks clarification that disclosure of information that is both protected and confidential information is permitted under both s. 54G(1)(d) of NEL and Chapter 8 of NER⁴⁵, and information deemed only confidential (i.e it is not also protected information) can be disclosed by AEMO if it is in the public domain. The AEC proposes that any person who has provided AEMO protected or confidential information in the past must notify AEMO as soon as reasonably practicable, and no later than 10 business days, upon becoming aware the information has entered, or is in, the public domain.⁴⁶

To assist with the implementation of these changes, the AEC proposes transitional arrangements including:

- Entities that are registered as intending participants on the commencement date of the proposed rule must notify AEMO of any changes to information previously provided within one month of the commencement date
- Entities that have provided AEMO with confidential information prior to the commencement date must notify AEMO within one month of the commencement date of the proposed rule if the information has since entered the public domain.

1.4.3

Proposed solutions by Energy Networks Australia

Energy Networks Australia's solution is an amendment to clause 5.3.8, proposing to explicitly allow TNSPs to publish and release the proponent name, size, location, completion date, primary technology and function information regarding a connection enquiry or connection application. This information would be published in a TNSP's Transmission Annual Planning Report (TAPR). Energy Networks Australia outlines that, under the proposal, TNSPs must

⁴³ As proposed by AEMO in its rule change request.

⁴⁴ AEC, Transparency of New Projects Rule Change Request, December 2018, p. 3.

⁴⁵ s. 54 of the NEL permits the NER to set out circumstances in which the protected information may be disclosed

⁴⁶ AEC, Transparency of New Projects Rule Change Request, December 2018, p. 3.

release any new information (as listed above) following the publication of the last TAPR to participants that provide a connection enquiry or an application to connect. This information must then be published on the TNSP's website as soon as reasonably practicable.⁴⁷ Energy Networks Australia states that publication of the above information at the enquiry stage of the connection process would provide market participants in the area sufficient notice to collaborate and explore mutually beneficial connection arrangements.⁴⁸ AEMO and other TNSPs would also then be made aware of potential forthcoming impacts on the network, assisting in efficient network planning.

Given the significant number of connection enquiries and applications currently fielded by TNSPs, Energy Networks Australia proposes that transitional arrangements are also required to ensure potential benefits are realised as soon as possible.⁴⁹ These transitional arrangements state that the exception to the confidentiality obligations should also apply with respect to information that has been obtained by TNSPs before the commencement of the rule but limited to:

- information that has been published by TNSPs in their last TAPR
- any information obtained since publication of the last TAPR only if consent has been obtained.

1.5 The rule making process

On 18 April 2019, the Commission published a notice advising of its commencement of the rule making process and consultation in respect of the rule change request.⁵⁰ A consultation paper identifying specific issues for consultation was also published.

The Commission consolidated these three rule change requests, under s.93 of the NEL, at the commencement of the rule making process. The Commission considered it was desirable to deal with these requests together to best address the overlapping issues and facilitate efficient stakeholder engagement.

Submissions to the consultation paper closed on 23 May 2019. The Commission received 22 submissions as part of the first round of consultation.

Submissions to the draft rule determination, including the more preferable draft rule, closed on 12 September 2019. The Commission received 15 submissions as part of the second round of consultation.

The Commission considered all issues raised by stakeholders in submissions. Issues raised in submissions to both the consultation paper and draft determination are discussed and responded to throughout this final rule determination. Issues that are not addressed in the body of this document are set out and addressed in Appendix A.

⁴⁷ ENA, TNSP Confidentiality Exclusion Rule change request, March 2018, p. 19.

⁴⁸ ENA, TNSP Confidentiality Exclusion Rule change request, March 2018, p. 12.

⁴⁹ ENA, TNSP Confidentiality Exclusion Rule change request, March 2018, p. 15.

⁵⁰ This notice was published under s.95 of the National Electricity Law (NEL).

2 FINAL RULE DETERMINATION

2.1 The Commission's final rule determination

The Commission's final rule determination is to make a more preferable final rule. The more preferable final rule:

- Permits persons who are building grid-scale assets, and then selling these assets to another corporate entity prior to grid connection ("project developers"):
 - to apply to be deemed as registered participants for the purposes of clause 3.13.3(k)⁵¹ of the NER to allow such persons to gain access to information (e.g. information to carry out power system simulation studies) from AEMO that will assist them in developing their assets.
 - be subject to the confidentiality obligations under rule 8.6 of the NER in respect of any information they receive under clause 3.13.3. These obligations continue to apply in the event such persons cease to be project developers.
- Expressly requires AEMO to include on a public register project developers that have received information under clause 3.13.3(l).⁵²
- Codifies in the NER AEMO's annual review of the registration status of intending participants, which is undertaken to determine whether persons registered as intending participants continue to satisfy the requirements of that registration category.⁵³
- Introduces into the NER an obligation on AEMO to maintain an information resource on its website ("the generation information page") that informs registered participants and other interested parties of current and proposed connections of grid scale generation assets in the NEM. This is an information resource that AEMO currently maintains voluntarily on its website. The final rule sets out certain requirements regarding the content that needs to be included on the generation information page (including information received from the below routes) and how regularly it needs to be updated.⁵⁴
- Requires TNSPs to share with AEMO (in accordance with the AEMO guidelines referred to below) the following key connection information received from connection enquiries and applications in respect of generation assets:
 - name of proponent of connection and, if received by the TNSP, proponent's ABN or ACN⁵⁵
 - type of plant
 - site location or preferred site location

51 And other consequential provisions under clause 3.13.3 of the NER (i.e. clause 3.13.3(k1), (1), (11) and (p1)).

52 The current rules require AEMO to publish and maintain a register which identifies registered participants to whom it has provided information under clause 3.13.3(l) and the date on which the information was provided.

53 AEMO currently audits all Intending Participants annually to ensure they continue to satisfy the requirements of that registration category. AEMO's submission to the consultation paper, p. 4.

54 AEMO currently undertakes an informal generator survey to assist it with its forecasting and planning processes. We understand AEMO will continue undertaking this survey, and the information provided through this rule will supplement this information.

55 An Australian Business Number (ABN) is a unique 11 digit identifier issued to all entities registered in the Australian Business Register. An Australian Company Number (ACN) is a nine digit number allocated by the Australian Securities & Investments Commission (ASIC) when a body becomes registered as a company under Corporations Law. For more detail see: <https://abr.business.gov.au/Help/Glossary>

- maximum power generation of whole plant
- forecast completion date of the proposed connection
- technology of generating units.
- Requires connection applicants to update TNSPs of any material changes to connection information provided to TNSPs as part of a connection enquiry under rule 5.3, where that change occurs after the connection applicant has received a response from the TNSP to the connection enquiry. The final rule also requires TNSPs to share this information with AEMO, in accordance with guidelines prepared by AEMO (described below).
- Requires AEMO to publish and maintain guidelines (the "generation information guidelines") that set out the content of the generation information page; the process for updating the page and the manner, timing and format in which key connection information is to be provided by TNSPs to AEMO for the purposes of the page.

The final more preferable rule also includes the following transitional rules:

- The interim generation information guidelines must be published by AEMO by 5 December 2019.
- TNSPs are not required to comply with the requirement to provide key connection information to AEMO (and the interim generation information guidelines) until 19 December 2019.
- The interim generation information guidelines may only require TNSPs to provide key connection information received prior to 19 December 2019 where that information:
 - was received by the TNSP after 7 November 2019
 - the relevant connection applicant that disclosed the information to the TNSP consents to its disclosure to AEMO.
- AEMO is not required to establish and publish the generation information page until 31 January 2020.

In this final determination we have not made a rule to address certain elements of the consolidated rule change request because it was unnecessary. It was unnecessary because the Commission is of the view that:

- a developer of grid-scale assets who intends to connect those assets to the NEM, that has a parent company that intends to sell its shareholdings in the developer prior to the connection of those assets, can already be registered as an intending participant under existing arrangements and request information from AEMO under clause 3.13.3(k)⁵⁶
- placing a requirement on intending participants to register by a particular point in the connection process is unnecessary because AEMO's intending participant guidelines already require persons to provide a copy of the connection enquiry (and favourable response from the NSP) in order to become an intending participant
- placing a requirement on intending participants to inform AEMO when confidential information has been disclosed is unnecessary — the existing NER already requires a

⁵⁶ Provided that, where the asset is a generating unit, the entity can reasonably satisfy AEMO that it intends to own, control or operate the generation asset once it is connected to the national electricity system. Clause 2.7(a) of the NER.

connection applicant to inform NSPs of material changes to information contained in a connection application⁵⁷ and the final rule introduces a similar requirement in respect of connection enquiries as well as requiring TNSPs to pass on that updated information to AEMO.

The Commission's reasons for making this final rule are set out in section 2.4 and chapters 3 and 4.

This chapter outlines:

- the rule making test for changes to the NER
- the more preferable rule test
- the assessment framework for considering the rule change request
- the Commission's consideration of the more preferable draft rule against the national electricity objective

Further information on the legal requirements for making this final rule determination is set out in Appendix B.

2.2 Rule making test

2.2.1 Achieving the NEO

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).⁵⁸ This is the decision making framework that the Commission must apply.

The NEO is:⁵⁹

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.

Under the Northern Territory legislation adopting the NEL, the Commission must regard the reference in the NEO to the "national electricity system" as a reference to whichever of the following the Commission considers appropriate in the circumstances having regard to the nature, scope or operation of the proposed rule:⁶⁰

- (a) the national electricity system
- (b) one or more, or all, of the local electricity systems
- (c) all of the electricity systems referred to above.

⁵⁷ See clause 5.3.8(e) of the NER

⁵⁸ Section 88 of the NEL.

⁵⁹ Section 7 of the NEL.

⁶⁰ Section 14A of the National Electricity (Northern Territory) (National Uniform Legislation) Act 2015, inserting section 88(2a) into the NEL as it applies in the Northern Territory.

For this rule change request, the Commission has determined that the reference to the national electricity system in the NEO is (c) above.

Based on an assessment of this rule change the Commission considers that the relevant aspects of the NEO are the efficient investment in, and efficient operation and use of electricity services with respect to the price and reliability of supply of electricity, and reliability of the national electricity system because:

- Timely and straightforward access to accurate information plays a crucial role for parties that:
 - seek to build generation assets and contribute to the reliable supply of electricity
 - operate existing generation assets and make informed business decisions that will affect the price of electricity.
- Increasing AEMO's visibility of new projects promotes more accurate information that could be used for reliability forecasts. This may have an impact on enhancing existing features of the reliability framework such as:
 - the Retailer Reliability Obligation (RRO), as AEMO is required to identify potential reliability gaps in each NEM region under the RRO
 - AEMO's exercise of the reliability and emergency reserve trader (RERT or emergency reserves) — with RERT costs ultimately recovered from consumers.
- Providing more information to help coordinate generation projects and improve the efficiency of the connection process will promote reliable supply at lower costs.

2.2.2 Making a more preferable rule

Under s. 91A of the NEL, the Commission may make a rule that is different (including materially different) to a proposed rule (a more preferable rule) if it is satisfied that, having regard to the issue or issues raised in the rule change request, the more preferable rule will or is likely to better contribute to the achievement of the NEO.

In this instance, the Commission has made a more preferable rule. The reasons are summarised below. More detailed reasons for making this final more preferable rule, including detailed analysis of the issues raised and responses to them, are set out in Chapters 3 and 4.

2.2.3 Rule making in relation to the Northern Territory

The NER, as amended from time to time, apply in the Northern Territory, subject to derogations set out in regulations made under the Northern Territory legislation adopting the NEL.⁶¹ Under those regulations, only certain parts of the NER have been adopted in the Northern Territory.⁶²

61 The regulations under the NT Act are the National Electricity (Northern Territory) (Uniform Legislation) (Modifications) Regulations.

62 The version of the NER that applies in the Northern Territory is available on the AEMC website.

As the Commission has determined to make a more preferable final rule which relates to certain parts of the NER that apply in the Northern Territory, the Commission is required to consider whether to make a uniform or differential rule under the Northern Territory legislation.⁶³

Under the Northern Territory legislation adopting the NEL, the Commission may make a differential rule if, having regard to any relevant MCE statement of policy principles, a different rule will, or is likely to, better contribute to the achievement of the NEO than a uniform rule. A differential rule is a rule that:

- varies in its terms as between:
 - the national electricity system, and
 - one or more, or all, of the local electricity systems, or
- does not have effect with respect to one or more of those systems

but is not a jurisdictional derogation, participant derogation or rule that has effect with respect to an adoptive jurisdiction for the purpose of s. 91(8) of the NEL.

A uniform rule is a rule that does not vary in its terms between the national electricity system and the local electricity systems, and has effect with respect to all of those systems.⁶⁴

The Commission has determined to make a uniform rule as it does not consider a differential rule will, or is likely to, better contribute to the achievement of the NEO than a uniform rule.

2.3 Assessment framework

In assessing whether the proposed rule will, or is likely to, contribute to the achievement of the NEO the Commission has considered the following principles:

- **Efficient investment in, and operation of, electricity services:** Improving the provision of information in the NEM both in terms of timeliness and accuracy can assist in promoting efficiency of investment in, and operation of generation capacity. The Commission considered the degree to which the proposed changes could make available information that could assist market participants to make more efficient investment and operational decisions.
- **Promoting transparency:** The transparency of information is a key feature of the efficient operation of the NEM. Market participants need access to clear and current information to make efficient commercial and operational decisions. The Commission considered whether improvements to transparency outweigh the risks associated with sharing potentially sensitive commercial information about projects. In assessing these risks the Commission considered the extent to which this project information is commercially sensitive, which parties might benefit from its publication and any implications for investment outcomes.

⁶³ While most provisions of the final rule amend parts of the NER that do not apply in the NT (e.g. Chapter 3 of the NER) and certain provisions do apply (but have no practical effect), the introduction of new clause 5.3.8(d1) under the final rule will apply in NT.

⁶⁴ Section 14 of Schedule 1 to the NT Act, inserting the definition of "differential rule" and "uniform Rule" into section 87 of the NEL as it applies in the Northern Territory.

- **Balancing the benefits of increased transparency against the regulatory and administrative costs:** As noted above, increasing transparency will have benefits. For example, the proposed changes may reduce the administrative burden on AEMO associated with monitoring media releases and directly contacting developers. However imposing regular reporting on new project proponents imposes new costs on these proponents. The Commission considered the cost impacts of the proposed changes on AEMO and proponents, and balanced these against the benefits.

2.4 Summary of reasons

The more preferable final rule made by the Commission is attached to and published with this final rule determination. It is described in section 2.1.

Having regard to the issues raised in the rule change request and during consultation, the Commission is satisfied that the more preferable final rule will, or is likely to, better contribute to the achievement of the NEO than the rules proposed by AEMO, the AEC and Energy Networks Australia for the following reasons:

- **Efficient investment in, and operation of, electricity services:**
 - By allowing a broader range of developers direct access to information required to build a grid-scale resources the final rule promotes efficient investment in generation. The final rule enables developers to more quickly and effectively assess project viability, potentially reducing costs. To mitigate the risks associated with sharing this data, these developers are subject to confidentiality provisions. The Commission's approach to allow certain developers to be deemed to be registered participants for the purpose of certain information provisions in the NER recognises the limitations of the Commission's rule making power under the NEL in relation to regulating project developers. See Chapter 3 for further detail on these limitations.
- **Promoting transparency:**
 - By establishing the generation information page in the NER with a quarterly updating cycle at a minimum and requiring AEMO to produce guidelines for the page, the final rule formalises the page as a fundamental and accurate source of plant data for the market.
 - By requiring TNSPs to share key generation connection information with AEMO, and allowing AEMO to publish this information, the final rule improves the transparency of new projects. This will help market participants to be better informed when making operational and investment decisions. This may also facilitate greater collaboration between connecting parties. Increased transparency will also provide additional information to market participants which may provide parties with more information to better assist them in forecasting marginal loss factors, as well as where to locate.
 - By elevating AEMO's review of the registration status of intending participants in the NER, the final rule seeks to protect the integrity of data flows, further promoting transparency.
- **Balancing the benefits of increased transparency against the regulatory and administrative costs:**

- By utilising existing communication channels between intending participants, TNSPs and AEMO to share and update key connection data, the final rule balances the benefits of greater visibility of new projects while appropriately allocating the administrative burden across all parties. It also avoids duplication for connection proponents with one channel for the flow of information, from connection proponent to TNSPs and from TNSPs to AEMO.

3 REFORMS FOR THE INTENDING PARTICIPANT CATEGORY AND DEVELOPERS

This chapter outlines:

- background on the intending participant registration category
- the views of the rule change proponents on the intending participant category
- stakeholder views on the proposed changes to the intending participant category
- analysis of elements of the final rule that apply to intending participants and other project developers.

3.1 Background

This section sets out:

- current arrangements in the NER relating to intending participants
- the nature and number of parties registering as intending participants
- information that is provided to intending participants.

3.1.1 Intending participants under the NER

The Intending Participant category of registration in the NEM allows a person to be registered by AEMO as an intending participant if that person can reasonably satisfy AEMO that it intends to carry out an activity in respect of which it must or may be registered as a registered participant.

Clause 2.7(c) of the NER states that an “Intending Participant is taken to be an Intending Participant only in so far as its activities relate to its intention to commence an activity in respect of which it must or may be registered as a Registered Participant.”

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 intends to carry out an activity in respect of which it must or may be registered as a registered participant. Thus, AEMO must be reasonably satisfied that the applicant intends to carry out the activity in respect of which it is being registered as an intending participant.

In order to provide guidance to intending participants as to what evidence must be provided to satisfy AEMO, AEMO has published guidelines for the registration of intending participants. These are not currently required under the NER but AEMO produces them to assist participants. According to the guidelines, AEMO undertakes a merit-based assessment on a case-by-case basis when registering intending participants. It goes on to set out the information a party must provide to AEMO as evidence of intent to conduct a business as a Generator or Customer, the key criteria presented in these guidelines are summarised in Table 3.1. Under the guidelines, applications will not be recommended to AEMO's internal committee for approval until all of the mandatory evidence (summarised below) has been provided.

AEMO may require an intending participant to demonstrate that they continue to meet the registration criteria for being registered as an intending participant and, if they fail to satisfy AEMO that they meet the criteria, the party may face de-registration.⁶⁵

Table 3.1: Summary of key criteria for intending participants

IF INTENDING TO BE A GENERATOR	IF INTENDING TO BE A CUSTOMER
<ul style="list-style-type: none"> • Land – Evidence that the applicant has a long-term arrangement in place to use the land. • Connection – A copy of the connection enquiry and favourable response from the Network Service Provider (NSP). • Connection – Sign off from AEMO’s connections team that the project has technical merit. • Project plan – Project milestones which demonstrate to AEMO’s satisfaction an intent to progress the project to completion in the near future. These milestones must represent a program of work that is consistent with the planning and development processes for the project. 	<ul style="list-style-type: none"> • Board approved business plan including key milestones. • Evidence of funding/finance. • Evidence of application to obtain a retail license. • A list of policies and procedures in place that demonstrate an ability to comply with the Rules.

Source: AEMO Intending Participant Guidelines - Customer and Generator, available at: https://www.aemo.com.au/-/media/Files/Electricity/NEM/Participant_Information/New-Participants/Intending-Participant-Guidelines---Customer-and-Generator.docx

Registering as an intending participant is optional, and a person may simply just register in the category of registered participant relevant to the ultimate activity it intends to undertake.

3.1.2

The nature and number of parties registering as intending participants

AEMO notes it is receiving an increase in the number of applications and enquiries regarding intending participants in the Generator category. These applicants regularly seek guidance from AEMO on what AEMO requires to be “reasonably satisfied”, which is why AEMO has set out the guidance summarised above.⁶⁶

Currently, there are 140 parties registered as an intending participant in the NEM. Nearly all of these parties are generators, and the majority of them are registered for a single wind or solar farm. The Commission understands that often intending participants remain on the list

⁶⁵ Clause 2.7(b) of the NER

⁶⁶ As noted on AEMO’s intending participant webpage: <https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Participant-information/New-participants/Intending-Participants>

for quite a while before they move to the registered participant category (normally, until they submit a generator application).

The Commission understands that on average it will take around one month for an intending participant application to be assessed.⁶⁷ However, the Commission also understands that some parties' applications never progress.⁶⁸

AEMO has confirmed that once intending participants become registered as a Generator their intending participant registration ceases.⁶⁹

The Commission understands that AEMO undertakes a periodic audit to monitor progress of Intending Participants each year, to make sure that they continue to satisfy the requirements of that registration category.⁷⁰

3.1.3

Information provided to intending participants

Typically, the primary reason for a party to register 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. The NER permit AEMO to provide certain information to registered participants, including intending participants. For example, intending participants can request the following information from AEMO under clause 3.13.3(k) of the NER:

- bid and offer validation data
- information that is reasonably required by the intending participant to carry out power system simulation studies (including load flow and dynamic simulations) for planning and operational purposes
- operation and maintenance procedures and practices for transmission network or distribution network operation, to enable the intending participant to carry out power system modelling under normal, outage and emergency conditions.⁷¹

Under NER clause 3.13.3(l)(3), the information AEMO provides to the registered participant must be treated as confidential information.

This data plays a key role in power system simulation studies that inform the development of a generation asset. New project proponents build models to understand how an asset may operate over time, under different conditions and how it interacts with neighbouring generators and the broader system. Proponents need access to information in order to effectively build these models.

67 The NER imposes some timeframes on the process. For example, AEMO must provide a response with all outstanding information within 5 business days of receiving the application and AEMO must consider the application within 15 business days of receiving the final piece of information from the applicant. (Clauses 2.9.1(b) and 2.9.2(b) of the NER).

68 AEMO submission to the consultation paper, p. 3.

69 AEMO deregisters the intending participant as soon as the facility in respects of which they are registered has been registered as a Generator. This is done as part of the generator application process.

70 As noted in AEMO's submission to the consultation paper, p. 4. This audit helps to remove parties that are not progressing their projects and have forgotten to let AEMO know.

71 Under clause 3.13.3(l) of the NER, AEMO must also provide releasable user guides and model source code (subject to requirements) to intending participants.

On a related note, under the connections process (as opposed to the registration process) the NER also requires parties seeking to connect to the power system to provide AEMO and network service providers (NSPs) with model data so the impact of proposed connections can be determined, for example proponents are required to submit system strength impact assessments. Therefore, the initial provision of data from AEMO to intending participants enables intending participants to develop accurate and detailed models that reflect the operation of their generating asset — and these models are in turn provided to NSPs and AEMO so that impacts of proposed connections on the broader system may be assessed. This is important for system security.

BOX 1: GENERATING SYSTEM MODEL GUIDELINES RULE CHANGE

In response to a rule change from AEMO, on 19 September 2017 the Commission made a rule that clarifies the scope and level of detail of model data that registered participants and connection applicants are required to submit to AEMO and NSPs.

The rule:

- Clarifies and increases the range of circumstances in which parties must provide model data to AEMO and network service providers.
- Requires AEMO to set out, in its power system model guidelines, what model data will be required to be provided by participants and the specific circumstances or conditions under which that model data will be required.
- Sets out principles that AEMO must have regard to when it develops the guidelines and data sheets. The principles AEMO is required to consider are:
 - the costs faced by participants in providing model data
 - the protection of confidential model information
 - the range of modelling information needed by NSPs to fulfil their obligations under the NER or jurisdictional electricity legislation.

Source: For more detail see the project page: <https://www.aemc.gov.au/rule-changes/generating-system-model-guidelines>

3.2 Proponents' view

Both AEMO's and the AEC's rule change requests raised issues with the intending participant category. These are summarised below.

3.2.1 AEMO's views

AEMO recognises that new business models have emerged in relation to the construction of generation.

One such model that has emerged is for developers to build generating systems and sell them prior to connection to the grid. Typically, in AEMO's experience, a developer commences discussion with the relevant 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, AEMO considers that developers have no intention of owning, operating or controlling a grid-connected generating system or registering with AEMO as the generator for that asset. Therefore, AEMO considers that in those 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 NEM information can be sought by Registered Participants (including intending participants). For example, this information includes information of NEM impedances, system operating conditions (including voltages and power generation and consumption). AEMO notes that this information is needed to design and build a generating system or a large load (typically an industrial development). AEMO considers the fact that developers cannot be registered as intending participants, results in these parties not getting access to this information, and so therefore the NER should be changed to allow these parties to gain access to this NEM information. AEMO notes that not being able to access this information means that developers are unable to quickly and effectively identify any issues with proposed asset location and project viability.

3.2.2

AEC's views

Given the large number of generation projects currently investigating or pursuing connection to the NEM, the AEC requested that the Commission considers whether reforms to the intending participant category are required.

The AEC notes that the current rules state that a person can be registered by AEMO as an intending participant if that person can reasonably satisfy AEMO that it intends to carry out an activity in respect of which it must or may be registered as a registered participant.

However, similar to AEMO, the AEC notes that with the emergence of new technologies, the business models of new grid-scale developments are changing. Projects are more often built by developers and sold prior to grid connection, and it is not uncommon for the developer to operate the asset on behalf of the financial owner who is the Registered Participant.

The AEC considers that under these arrangements, a developer cannot satisfy the requirements of an intending participant. A consequence of this is that the developer is not obligated under the NER to disclose information to AEMO. Similarly, as also recognised by AEMO, AEMO is restricted in providing developers with necessary information such as network data to support project development unless they have registered as an intending participant.

The AEC goes on to suggest that the Commission considers the following changes to the NER:

- whether it would be appropriate to require any person proposing to develop a new project to register as an intending participant or where the person intends to use a special purpose vehicle (e.g. a company or trust) to develop the new project, for the person to cause the special purpose vehicle to register as an intending participant. Where the special purpose vehicle has not been incorporated or established, the person could be

required to register as an intending participant and then to transfer its registration to the special purpose vehicle, once incorporated/established

- if the requirement for a developer to register is established, whether it would be appropriate for this registration as an Intending Participant to occur at a particular time (such as simultaneously with submitting an application to connect to a network service provider)
- requiring the de-registration of Intending Participants who have not taken any positive steps to develop their project for a specified period
- requiring de-registered persons to return or destroy any data (including derived data) that they received under clause S5.2.4(e1) of the NER while registered as an Intending Participant (and potentially imposing civil penalties if this obligation is not complied with).

3.3 Stakeholder views

Views expressed in submissions to the consultation paper

The majority of stakeholders in principle agreed with the proposal to have developers register as an intending participants.⁷²

However, nearly all submissions also cautioned the AEMC in relation to the proposed broadening of the definition of intending participants to make sure that only parties that are genuinely and actively progressing a connection application should be afforded the intending network participant status.⁷³ More specifically, AGL notes that there is a need to make sure that appropriate regulatory safeguards are in place to:⁷⁴

- maintain general compliance with the National Electricity Law, NER and its associated procedures and guidelines
- protect the datasets that are made available, both near and long term, to make sure the developer has the right intentions (i.e. doesn't misuse data, protects confidentiality, uses the data within the bounds of the regulatory framework while an intending participant)
- limit the amount of data and information provided to the developer by clearly articulating the type of data sets provided, ensuring provision of high level aggregated data only, and setting a maximum term on access to the data and
- maintain suitable accountability in this category of participant to make sure only serious developers seek access, for example, by applying a financial penalty for NER non-compliance or setting an access / registration fee. Deregistration alone will not provide a suitable disincentive to combat the risk of participant gaming because the developer would deregister themselves anyway once their intended activity is completed.

In relation to deregistration of developers, AEMO also commented that its annual audit strikes an appropriate balance between supporting prospective developers of new generation

⁷² Submissions to the consultation paper: Meridian, p. 1; AGL, p. 3; PIAC, p. 2; Vena Energy, p. 3; AEC, p. 2; Clean Energy Council, p. 1; ERM Power, p. 3; ICG, p. 2; Queensland Farmers Federation, p. 3; EUAA, p. 1; Stanwell, p. 2; Walcha Energy, p. 5; Origin Energy, p. 2; Canadian Solar, p. 2.

⁷³ Submissions to the consultation paper: Meridian, p. 1; AGL, p. 3; Vena Energy, p. 3; AEC, p. 2; Clean Energy Council, p. 3; Stanwell, p. 2; Walcha Energy, p. 8; Origin, p. 2.

⁷⁴ AGL, submission to the consultation paper, p. 4.

as much as possible and making sure projects that are no longer being genuinely pursued are deregistered. AEMO considers defining what a 'positive step' is as proposed by AEC may be difficult, and impose additional compliance and assessment checks on the registration process, for which AEMO cannot see additional benefit.⁷⁵ In contrast, Energy Queensland was supportive of a de-registration mechanism, or a renewable registration with certain evidences required to endorse renewal. They also suggested several actions that could be considered to be positive steps, for example, evidence of ongoing negotiation with the connecting NSP including up to date payments for project stages.⁷⁶

Views expressed in submissions to the draft determination

With the exception of AEMO, stakeholders that commented on this aspect were supportive of the Commission's proposed approach to deem Asset Sale developers (defined below) to be registered participants for certain NER clauses to allow them to access key technical information.⁷⁷ Some stakeholders qualified their support with concerns regarding the confidentiality obligations that would apply to deemed Asset Sale developers:

- the compliance framework is such that project developers can easily leave, at which time their obligations, such as maintaining the confidentiality of data will be extinguished.⁷⁸
- the AEMC should assess whether the civil penalties framework is a sufficient deterrent to ensure data remains confidential⁷⁹
- there is a need for an obligation to be introduced for project developers to destroy the data sets prior to leaving the NER.⁸⁰

Some stakeholders requested additional detail on the process for how these deemed parties would obtain access to information, or the more practical aspects of the deeming process, for example AGL sought clarity on the access assessment for deemed parties that would be conducted by AEMO and considered guidance should be provided by the AEMC to the AER on how the deeming framework would be enforced.⁸¹ The Clean Energy Council and AGL recommended the publication of a list of proponents that are deemed to be registered participants, noting this may assist with collaboration between project proponents.⁸²

AEMO preferred the solution proposed in its rule change request, where developers would be able to be registered as intending participants, highlighting the following concerns with the draft rule:⁸³

- the deeming approach will require additional layers of administration and potentially creates greater uncertainty

75 AEMO, submission to the consultation paper, p. 3.

76 Energy Queensland, submission to consultation paper, pp. 6-7.

77 Submissions to the draft determination: EUAA, p. 1; Stanwell, p. 1; ERM Power pp. 2-3; AEC, p. 2; Origin, p. 1; AGL, p. 3; Meridian, p. 1; Clean Energy Council, p. 2;

78 AEC, submission to the draft determination, p. 1.

79 Clean Energy Council, submission to the draft determination, p. 2

80 AGL, submission to the draft determination, pp. 3-4

81 AGL submission to the draft determination, pp. 2-3.

82 Submissions to the draft determination: Clean Energy Council, p. 3; AGL, p. 2.

83 AEMO, submission to the draft determination, p. 2.

- a vetting process will be required to confirm that project developers meet the requirements of the rule definition
- while AEMO may charge a fee to provide confidential information to project developers, this does not extend to the cost of establishing and monitoring whether a person satisfies the criteria to be, or remain, a project developer.

On the topic of AEMO's annual audit of the intending participant category, some stakeholders supported formalising the review in the NER and also extending the audit to capture deemed Asset Sale developers.⁸⁴ AEMO opposed codifying its audit in the NER and noted additional prescription could be detrimental, resulting in compliance being the focus of the activity, rather than achievement of a core purpose.⁸⁵

3.4 The Commission's analysis and conclusions

BOX 2: OVERVIEW OF FINAL RULE

The Commission considers that rule 2.7 of the NER already allows a person to register as an intending participant for the purposes of building a grid-scale asset (e.g. a generation asset or load) in circumstances where:

- that person intends to operate the asset once it is connected to the national grid
- that person's parent company proposes to sell its shares in the person prior to the grid-scale asset being connected to the national grid.

Accordingly, there is no need to amend the NER to allow AEMO to register persons as intending participants in the above circumstances.

However, the Commission does not consider that rule 2.7 allows a person to register as an intending participant (and, in turn, permit them to request information from AEMO under cl. 3.13.3(k) of the NER once they are registered) in circumstances where the person is building a grid-scale asset to be connected to the national grid, but proposes to sell those assets to another entity before the assets are connected to the grid (referred to here as an "Asset Sale").

In such circumstances, the Commission does not consider the person seeking registration has the requisite intention to qualify for registration as an intending participant under cl. 2.7(a) of the NER. To allow such persons to gain access to information from AEMO under cl. 3.13.3(k) to assist in building grid-scale assets (e.g. to gain information to carry out power system simulation studies), the final rule permits persons developing grid scale assets (who are undertaking an Asset Sale) to apply to be deemed to be registered participants for the purposes of paragraph (k) and other consequential provisions under clause 3.13.3.

The final rule sets out that such persons can apply to AEMO to be project developers (and be

⁸⁴ Submission to the draft determination: Meridian, p. 2; AGL, p. 2; Clean Energy Council, p. 3.

⁸⁵ AEMO, submission to the draft determination, p. 2.

deemed as registered participants for certain NER clauses). AEMO may grant an application if it is reasonably satisfied by evidence by the party applying that the person intends to undertake an Asset Sale (as defined below).

The final rule also deems such persons to be subject to the confidentiality obligations under r. 8.6 of the NER in respect of any information they receive under clause 3.13.3. These confidentiality obligations continue to apply in the event that such persons cease to be project developers (as defined under the rule). A register of project developers that have received system information under clause 3.13.3(l) must be published by AEMO.

Given that AEMO's intending participant guidelines already require persons to provide a copy of the connection enquiry (and favourable response from the NSP) in order to become an intending participant, the Commission considers that these persons already need to progress their connection prior to seeking registration and, therefore, placing a requirement on these parties to register by a particular point in the connection process (as suggested in the AEC's rule change proposal such as when a connection application is submitted) is unnecessary.

The final rule codifies in the NER AEMO's annual review of the registration status of intending participants. This is undertaken to determine whether persons registered as intending participants continue to satisfy the requirements of that registration category.

Changes between draft and final rule

The final rule is largely the same as the draft rule except for the following changes:

- Clarifying that the confidentiality obligations under r. 8.6 of the NER that apply to persons who are project developers will continue to apply to those persons even in the event they cease to be project developers (i.e. developers of grid scale assets for the purpose of an Asset Sale).
- Clarifying that project developers that have received system information under cl. 3.13.3(l) would be included on a public register published by AEMO.
- Requiring AEMO to include details in a guideline setting out evidence it requires for an application from a person seeking to be a project developer (and deemed to be a registered participant) to get access to information under cl. 3.13.3(k) of the NER.

In the final rule, the Commission has introduced more prescription around the application process to be a project developer deemed to be a registered participant for the purposes of cl. 3.13.3(k) and reference in the guidelines to the evidence persons applying to be project developers must provide to AEMO. The Commission considers that the majority of developers are still likely to utilise the intending participant category noting the additional rights and obligations attached to this category. The Commission considers it appropriate to provide AEMO the discretion to choose how it reasonably satisfies itself that a person is intending to undertake an Asset Sale rather than prescribe further detail in the NER. The Commission also considers the above clarifications address the majority of stakeholder concerns.

3.4.1 Changes to intending participant category

The consultation paper for this rule change request set out some of the new business models, or 'paths to market', for generation assets emerging in response to risks and opportunities in the market (these are also summarised below). The Commission considers that it is important for the NER to provide a flexible framework that accommodates different business models, where appropriate, to support efficient investment and operation of electricity services. In many cases the different business models reflect the different characteristics of different generation technologies.

The Commission considers that these forms of business models fall into two general categories:

1. **Sale of a company** - This model refers to the scenario where a corporate entity ('Company A') develops grid scale assets (such as generation assets) for the purposes of connecting those assets to the national grid and participating in the NEM, and the parent company of Company A intends to sell its shareholding in Company A to another company prior to Company A connecting the assets to the grid (or otherwise before Company A participates in the NEM). The developing entity in this case is referred to as a "Share Sale developer" in the discussion that follows.
2. **Sale of assets** - This model refers to the scenario where a corporate entity ('Company B') develops generating assets for the purposes of those assets being connected to the national grid, however its intention is for those assets to be sold to another corporate entity before the assets are connected to the national grid. The developing entity in this case is referred to as an "Asset Sale developer" in the discussion that follows.

These are considered in turn below.

Sale of a company

Under this scenario, the corporate entity is building and constructing assets (such as generation assets), with the *company* intending to operate these assets in the wholesale market. In this instance, the company itself at the time it registers as an intending participant intends to operate these assets in the wholesale market; it is just that the shareholders of the company that holds the registration will change.

The Commission considers that under this scenario, the Share Sale developer could register as an intending participant provided it can reasonably satisfy AEMO that it intends to own, control or operate the generation asset once they are connected to the national electricity system (i.e. they hold the requisite intention required to register as an intending participant under clause 2.7(a) of the NER).

If the Share Sale developer can register as an intending participant, then it will satisfy the requirement of being a Registered Participant for the purposes of certain information access provisions under the NER (e.g. clause 3.13.3(k)).

Therefore, the Commission does not consider a change to the NER is required in order to give effect to this outcome. Stakeholders that commented on this aspect agreed with the Commission on this.⁸⁶

Sale of assets

Under this scenario, the corporate entity develops grid scale assets (e.g. generation assets) for the purposes of those assets being connected to the national grid, however, the entity's intention is for those assets to be sold to another corporate entity before the assets are connected to the national grid. That is, the company seeking registration is the entity that intends to undertake an asset sale (rather than the parent company undertaking a share sale that was referred to in the earlier scenario) before the assets are connected to the grid.

In this scenario, the Asset Sale developer would not meet the current criteria for an Intending Participant (notably, they will not hold the requisite intention required to register as an intending participant under clause 2.7(a) of the NER), and so could not be registered as such.

The Commission agrees with AEMO and the AEC that it is important for the safety, security and integrity of the national grid that Asset Sale developers can gain access to information that is required in order to effectively build grid scale facilities.

However, the Commission recognises the importance of appropriate data protections in addressing the risks raised by AGL and other market participants regarding data misuse, confidentiality and usage within the bounds of the regulatory framework.

As a result, the Commission has taken an approach that seeks to:

- promote information flows to Asset Sale developers such that transparency, safety, security and reliability of the grid is promoted; while
- protecting the integrity of the data flows in order to make sure that the integrity of information is maintained.

Therefore, the final rule has introduced an application process to allow Asset Sale developers to request information from AEMO under Clause 3.13.3(k), and for AEMO to provide these persons with the information. More specifically, the final rule allows persons developing grid scale assets (but undertaking a sale of those assets to another corporate entity prior to the connection of the assets to the national grid) to apply to be a project developer and be deemed as a registered participant for the purposes of paragraph (k) and other consequential provisions under clause 3.13.3. The final rule also deems such persons to be subject to the confidentiality obligations under r. 8.6 of the NER in respect of any information they receive under clause 3.13.3.⁸⁷ Such Asset Sale developers are referred to as *project developers* under the final rule.⁸⁸

⁸⁶ Submission to the draft determination: AGL, p. 2; ERM Power, p. 2; Origin, p. 1; Node Energy Services, p. 1.

⁸⁷ Rule 8.6 of the NER sets out the confidentiality obligations of registered participants. Registered participants are obliged to: use all reasonable endeavours to keep confidential information confidential; not disclose confidential information to any person except as permitted by the NER; only use or reproduce confidential information for the purpose for which it was disclosed (or another purpose contemplated by the NER); use all reasonable endeavours to prevent unauthorised access of confidential information; use all reasonable endeavours to ensure any person to whom it discloses confidential information observes the provisions of rule 8.6.

The Commission notes that some stakeholders sought greater detail on the process around deeming parties. In the final rule, the Commission has introduced more prescription around the application process for a project developer deemed to be a registered participant for the purposes of cl. 3.13.3(k). The Commission considers that the majority of developers are still likely to utilise the intending participant category noting the additional rights and obligations attached to this category. The Commission considers it appropriate to allow AEMO the discretion to choose how it reasonably satisfies itself that a person meets the definition of a project developer rather than prescribe further detail in the NER. Under the final rule, an Asset Sale developer may apply to AEMO to be a project developer and, in turn, be deemed as a registered participant for the purposes of clause 3.13.3(k)⁸⁹ and AEMO may grant the application if it is reasonably satisfied by the evidence provided by the applicant that person is an Asset Sale developer. The final rule also requires AEMO to provide guidance in a new guideline (the generation information guidelines) as to the evidence that is required to be submitted to it for such an application.⁹⁰

The Commission notes AEMO's preference for the solution proposed in its rule change request – namely, to expand the types of persons who may become intending participants. However, the Commission considers that it has insufficient rule-making power under the NEL to regulate Asset Sale developers in such a way to allow them to be intending participants under the NER.⁹¹ However, the Commission does consider that it has sufficient rule-making power under sections 54A(2) and 34(1)(b) of the NEL to regulate Asset Sale developers in the manner proposed under the final rule. This is because such a rule relates to regulating how confidential information is disclosed by AEMO (as contemplated under section 54A(2)).⁹² While noting the practical considerations raised by AEMO, the Commission considers the deeming approach under the final rule most clearly and simply achieves the policy intent of AEMO's rule change request in a manner that falls within the scope of the Commission's rule-making powers under the NEL.

The Commission recognises stakeholder concerns around the strength and enforcement of NER confidentiality obligations and how these apply to project developers. To address these concerns the Commission has made amendments to the rule to clarify that the confidentiality obligations will continue to apply to such persons even in the event they cease to be project developers (as defined in the final rule). The Commission considers these provisions represent a strong deterrent to the misuse of data as they are civil penalty provisions.

The Commission notes that the current rules require AEMO to publish and maintain a register which identifies parties to whom it has provided information under clause 3.13.3(l) and the date on which the information was provided.⁹³ A number of stakeholders noted there would

88 See clause 3.13.3AA.

89 And other consequential provisions in cl. 3.13.3 (i.e. clauses 3.13.3(k1), (l), (11) and (p1) and the confidentiality provisions under rule 8.6). See new clause 3.13.3AA.

90 See new clause 3.7F(e)(4)

91 This is because Asset Sale developers are unlikely to be persons "participating in the national electricity market or involved in the operation of the national electricity system" within the meaning of section 34(1)(a)(iii) of the NEL.

92 Item 35 of Schedule 1 of the NEL in combination with section 34(1)(b) also provides such rule-making power.

93 This register is available at: <https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Data/Network-Data/Policy-on-provision-of-network-data>

be merit in maintaining a list of deemed project developers - under the final rule, project developers that have received system information from AEMO must also be included on this register.⁹⁴

The Commission does not consider that it is appropriate for other rights and obligations that currently apply to Intending Participants to apply to Asset Sale developers. This is because these developers never intend to carry out an activity in respect of which they must be registered as a Registered Participant (notably, a Generator or Market Customer). This includes:

- Clause 5.16.5 and 5.17.5 allows intending participants to lodge a dispute in relation to the application of the regulatory investment test for transmission, and the regulatory investment test for distribution respectively.
- Clause 8.2.1(a)(4) sets out principles that apply to disputes, including where disputes relate to the proposed access arrangements or connection agreements of an Intending Participant or a Connection Applicant, for connection and access to a distribution network or declared transmission system.

3.4.2

Requirement to register as an intending participant at a particular time

The AEC is concerned that some developers are moving too fast at the moment, and not registering as intending participants and so AEMO is unaware that they are there and cannot receive information from them. The Commission has heard anecdotally that this has occurred on a couple of occasions; however, it is not clear how often or material this concern is.

The Commission considers that AEMO should already have visibility of these parties, provided they are interacting with the NER processes i.e. the registration and connection process. For example, under AEMO's guidelines for intending participants in the NEM, generators have to have a copy of the connection enquiry and favourable response from the NSP before registering as an intending participant.⁹⁵ So, if a party is to register, then AEMO should be aware of it.

The issue may be that parties are lodging connection enquiries with the NSP, but the information from this is not being passed through to AEMO. The Commission considers that this lack of information transparency will be addressed through some of our proposed changes, discussed in Chapter 4.

Given the requirements of AEMO's intending participant guidelines (noted above) the Commission considers that developers already need to progress their connection prior to seeking registration and, therefore, placing a requirement on these parties to register by a particular point in the connection process is unnecessary. To the extent that parties are progressing their connection application without registering, then the changes discussed in Chapter 4 should help to address these concerns.

⁹⁴ For the avoidance of any doubt this is clarified with a minor amendment to the final rule, cl. 3.13.3.

⁹⁵ AEMO has confirmed that intending participant registration is never processed without a positive connection enquiry. AEMO has noted that a person may skip intending participant registration and proceed directly to registering as generator in cases where they are already an intending participant or have access to the data they need.

3.4.3 Deregistration of intending participants

The AEC suggests that AEMO's power to de-register intending participants could be utilised better, in turn reducing risk of participants misusing data, by de-registering intending participants who have not taken any 'positive steps' to develop their project over a set period of time. There was no detail as to what these positive steps may be. The Commission assumes that for developers it would include not sufficiently progressing the development e.g. purchasing land but not having installed solar panels.

Most stakeholders did not directly engage with the appropriateness of the deregistration process for intending participants in their current form.

The deregistration of Share Sale developers is already covered by the existing rules and AEMO currently has the power under clause 2.7(b) of the NER to deregister an intending participant if they do not satisfy AEMO that they continue to meet the criteria for an intending participant.

The Commission notes that AGL and the Clean Energy Council have expressed concerns that for some developers deregistration is unlikely to be a suitable disincentive. However, given that the Commission does not consider that these project developers (as defined under the final rule) should become intending participants, the Commission therefore does not consider that deregistration is applicable. Such persons will never be registered, and so cannot be deregistered. Given that the changes above only enable these parties to request access to information, and these clauses are already subject to civil penalty provisions the Commission does not consider any further changes are required. As noted above these confidentiality obligations will continue to apply to project developers once they cease to be deemed. Given the enduring nature of these obligations the Commission considers it unnecessary to impose further obligations on project developers to destroy data.⁹⁶

As discussed above, the Commission understands that in practice AEMO undertakes an annual audit of intending participants each year to check the status of their developers. The final rule therefore elevates the annual audit into the NER by amending clause 2.7 to refer to the annual audit. The Commission will not formally extend the audit in the NER to include deemed parties. AEMO may periodically review the list of deemed parties to determine if they still satisfy the definition of project developer (for the purpose of continuing to request data under clause 3.13.3).

These changes will complement the changes made above in relation to the provision of information to developers.

⁹⁶ As suggested by AEC in its rule change request (p. 3) and AGL in its submission to the draft determination (p. 3).

4 INFORMATION PROVISION TO MARKET PARTICIPANTS

This chapter outlines:

- background and existing arrangements relating to information provision to market participants in the NEM
- the views of the rule change proponents on information provision about new projects
- stakeholder views on information provision about new projects
- analysis and rationale of the information provision about new projects elements of the final rule.

4.1 Background of information provision about new projects in the NEM

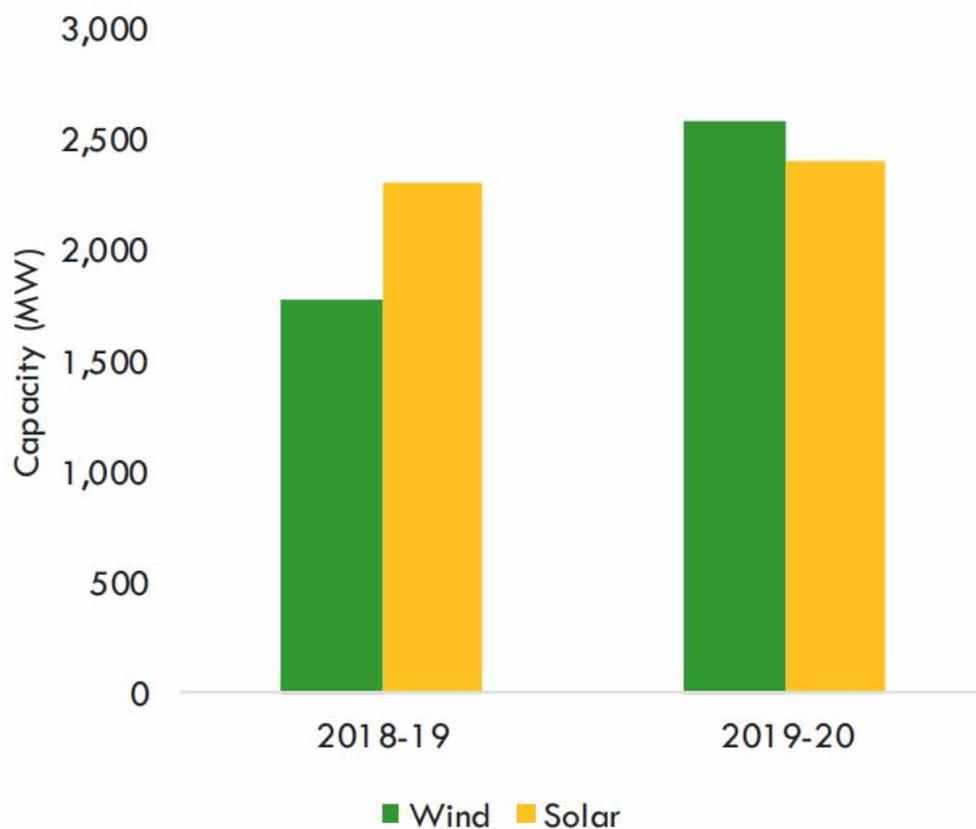
4.1.1 Information provision and changing NEM generation trends

Changes to the energy generation mix in the NEM, particularly the increasing penetration of renewable generation such as solar and wind, has caused a significant uptake in the number of generation projects seeking to connect to the power system.

Most immediately, an additional 5GW of committed⁹⁷ new solar and wind generation is expected to connect to the NEM by 2021 (See Figure 4.1).

⁹⁷ Projects are considered "committed" if they satisfy AEMO's commitment criteria. This criteria includes: size, contracts for major components, planing and approvals, financial arrangements and commencement dates.

Figure 4.1: Committed solar and wind capacity 2018-19 and 2019-20



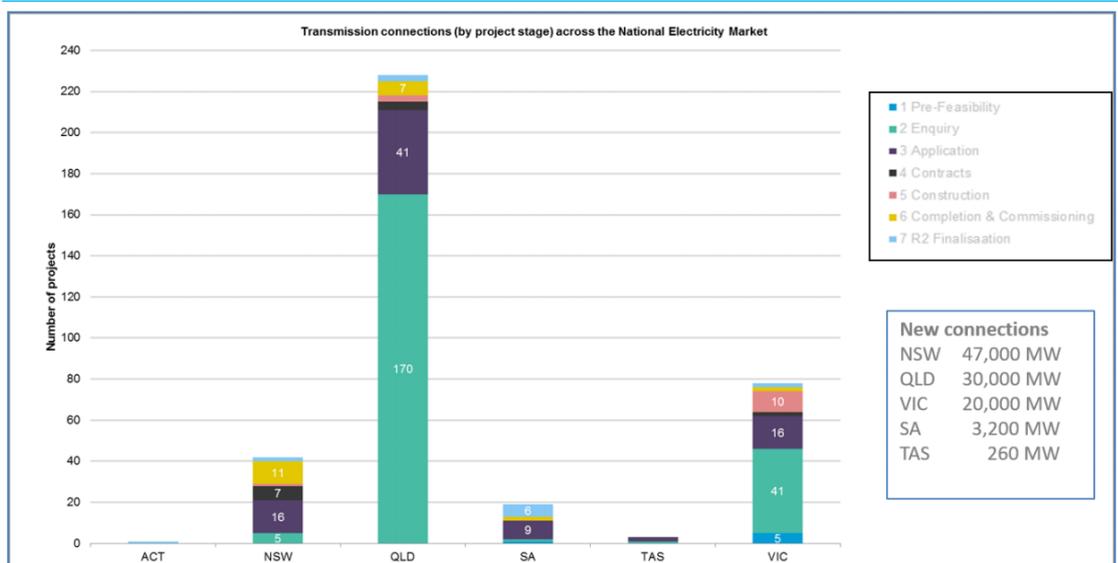
Source: Integrated System Plan, AEMO, 2018

In addition, a further 50GW of proposed projects, mostly renewable generation, are currently in various stages of development.⁹⁸ This is roughly equivalent to the current capacity in the NEM.

Resulting from these trends, AEMO and TNSPs are receiving an unprecedented volume of generation enquiries, where multiple proponents are seeking to connect in similar locations, but on different time frames. This makes the assessment of technical requirements, connection, and network and system planning processes more complex and prone to delay (See Figure 4.2).

⁹⁸ Based on data in AEMO's generation information page.

Figure 4.2: Transmission connections across the NEM



Source: 'Is bigger really better? The outlook for utility-batteries in Australia,' AEMO presentation, Australian Clean Energy Summit, 1 August 2018.

Basic information about generators connected to the system has typically been provided to the market through two main methods:

- AEMO at request of the industry through the publishing of the generation information page
- In registers for large generator connections published by TNSPs as per clause 5.18A.2 of the NER.

Both of these information sources focus on generators *after* they have connected and so are operational.

AEMO's generation information page

AEMO's generation information page reports information on the capacity of existing, withdrawn, committed and proposed generation projects in the NEM. This data is categorised according to region, technology and classification (or dispatch type, e.g. scheduled, semi-scheduled or non-scheduled). AEMO collects generation information from industry participants, via a web-based online system, and AEMO "is committed to publishing updates of information collected every six months or as required".⁹⁹ The intent of this page is to promote the continuous disclosure of information between editions of the ESOO which is published annually. The page has generation data dating back to July 2012. Currently, under the NER, AEMO is not obliged to produce its generation information page.

⁹⁹ AEMO Generation Information Page, found at: <https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Planning-and-forecasting/Generation-information>

The Commission understands AEMO currently undertakes an informal generator survey to assist it with its forecasting and planning processes.¹⁰⁰ This survey is also used to populate the generation information page.

TNSPs' register for large generation connections

Under clause 5.18A.2 of the NER, TNSPs are required to establish, maintain and publish on their websites a register of information of large generator connections. Generating units that have a nameplate rating of 30MW or greater¹⁰¹ which are owned, operated or controlled by a generator and are connected to a TNSP's network must be included on the register.

The information set out in the register includes:

- location of the connection point for the generating unit
- person who is registered by AEMO as a generator
- technology of the generating units
- aggregate nameplate rating capacity of all generating units comprised in the connection
- date of cessation of a person's registration with AEMO as a generator
- impact assessment of that large generator connection, prepared in accordance with clause 5.18A.3 of the NER.

TNSPs are required to update the information set out in their connection registers each year by the date they are required to publish their Transmission Annual Planning Report (TAPR).

The TNSPs must not publish confidential information as part of the connections register.¹⁰²

Other sources

In addition to the above sources there are a numerous other sources of information about generation investment and operations in the NEM. These include: all of the information provision processes where generators have to provide information to AEMO through the Electricity Statement of Opportunities (ESOO), projected assessment of system adequacy (PASA) and pre-dispatch processes. In addition, third parties may publish or collate information about generators.

However, there is limited information about prospective or new generators (i.e. prior to connection). The processes referred to above predominantly focus on providing information *post* connection.¹⁰³

The changing generation trends in the NEM (discussed above) have, in the view of rule change proponents and stakeholders, made information about prospective or new generation critically important for the successful optimisation of new projects and networks. These trends have had direct consequences for the way connecting parties, market participants and

¹⁰⁰ AEMO, Supplementary submission to the draft determination, pp. 1-2.

¹⁰¹ Units that are part of a group of generating units connected at a common connection point with a combined nameplate rating of 30 MW or greater must also be included on the register.

¹⁰² Subject to satisfying any relevant exemptions contained in clause 8.6.2 of the NER (and described in section 4.1.3 below).

¹⁰³ The Commission notes that under 3.13.3A(a)(2-3) the ESOO provides some information on committed and proposed generating units.

AEMO collaborate to collect, collate and disclose basic connection information when it is required. The typical methods for provision of basic connection information are being challenged by:

- the construction time for renewable energy projects being far shorter than the construction times of conventional thermal generators
- the volume of generation connection enquiries that are unable to access information when it is required, or experiencing delays in access to information. This is exposing connecting parties to increased uncertainty, costs and project delays
- existing confidentiality obligations under clause 5.3.8 of the NER that do not allow TNSPs to provide basic connection information to connecting parties when needed without the satisfying exceptions in clause 8.6.2 of the NER.

4.1.2

Provision of confidential information to and by TNSPs

One reason that information on new projects is not available to all connecting parties is that TNSPs are required under the NER to protect information relating to new connections, treating it as confidential until a connection agreement is signed.

In accordance with the NER, any information received by an NSP as a result of a connection enquiry or application must be treated as confidential information (subject to certain limited exceptions). Confidentiality requirements imposed on TNSPs limit their ability to share key connection information with prospective generators, contributing to connecting parties having limited visibility of other generators seeking to connect in the same area, as discussed above.

Rule 8.6 of the NER sets out the confidentiality obligations of registered participants (including NSPs). Registered participants are obliged to:

- use all reasonable endeavours to keep confidential information confidential
- not disclose confidential information to any person except as permitted by the NER
- only use or reproduce confidential information for the purpose for which it was disclosed (or another purpose contemplated by the NER)
- use all reasonable endeavours to prevent unauthorised access of confidential information
- use all reasonable endeavours to ensure any person to whom it discloses confidential information observes the provisions of rule 8.6.

Clause 8.6.2 of the NER sets out various exceptions which allow registered participants (including NSPs) to disclose, use or reproduce confidential information in limited circumstances. Limited circumstances include:

- where the relevant information is generally publicly available (public domain exception)
- where consent of the person who provided information has been obtained (consent exception).

In addition to the exceptions above, clause 5.3.8 of the NER provides specific exceptions for NSPs in disclosing confidential information obtained as part of a connection enquiry or application. These additional exceptions include:

- sharing between NSPs and AEMO for purposes relating to the provision of advice for ancillary services and assessment of power system performance, negotiated access standards and system strength connection works
- disclosing information to another NSP if the information or data is materially relevant to that provider for connection. Both exceptions require the disclosing party to firstly advise the connection applicant (unless the information can be disclosed under rule 8.6).

The above means that if a generator consented to the TNSP sharing the information with the other party, then the TNSP could. However, we understand that this rarely happens in practice.

4.2 Proponents' views

Both the AEC and Energy Networks Australia proposed changes to how basic connection information is disclosed by, and provided to AEMO and TNSPs. Both requests advocated for basic connection information to be both more accessible and its publishing periods to be held accountable to the NER, but differed in the mechanisms that were proposed to achieve this.

4.2.1 The AEC rule change request

The AEC proposed amendments to "gaps" in the NER which it considered diminish levels of transparency in the NEM. The AEC's rule change proposed a number of reforms to increase the transparency of information about new projects.

Codifying the generation information page

The AEC considers codifying AEMO's generation information page will help to consolidate new project information and make sure AEMO has a comprehensive status of all generating projects. AEMO would continue to define various 'unit status' categories of projects that reflect their level of development, and provide market participants a comprehensive view of the status of all projects. The AEC proposes AEMO be required to update the page monthly, which would:

- provide AEMO with increased visibility of new project progress
- enable access to more up to date information to incorporate into existing forecast and operational processes
- inform more efficient planning decisions among project proponents who gain visibility of other proposed projects in their area.

Changes to project development

The AEC intends to make sure intending participants notify AEMO if information provided during a proponent's registration process changes during project development. The AEC considers that the lack of a NER obligation requiring intending participants to notify AEMO when changes are made may lead to instances where AEMO's data on new projects is out of date and inaccurate, with implications for AEMO's operational processes and broader market transparency.

The AEC suggests that intending participants should provide updates to information provided in relation to clause 2.7(a) or 2.7(b) to AEMO as soon as reasonably practicable, and no later than 10 business days, or risk de-registration.

Confidential information and the public domain

The AEC wishes to clarify that AEMO may publish confidential information that is in, or has entered, the public domain. The AEC considers that it is not uncommon for developers to publicly publish media releases or annual reports containing information the proponent had previously advised AEMO of being confidential.

The AEC suggests intending participants should be required to notify AEMO as soon as reasonably practicable, or within 10 business days, after they become aware 'protected' or 'confidential' information has entered the public domain, so to not expose the market through the generation information page to out-of-date information.

4.2.2

Energy Networks Australia rule change request

Energy Networks Australia proposes changing clause 5.3.8 in the NER such that Transmission Network Service Providers (TNSPs) could publish information, either in their Transmission Annual Planning Reports (TAPRs) or on the websites, regarding the name, size, location, estimated completion date, primary technology and broad function of a connection enquiry or application. Energy Networks Australia suggests that enabling TNSPs to publish basic and non-commercially sensitive information about new and proposed connections will facilitate efficiencies in the connection application process and more optimal network outcomes.

Energy Networks Australia identified a number of barriers that it considers restricts connecting parties from reaching efficient network outcomes, including:

- information obtained as part of the generator connection process, which could assist connecting parties, must remain confidential
- the information is also dispersed across various sources, is inconsistent in detail, and of varying veracity
- an increasing need for customers and stakeholders to be able to access connection information that is easily understood and is in one location.

Energy Networks Australia suggests that the NEM will benefit as this change supports:

- more efficient assessment of renewable energy zones
- help investors make more informed decisions in adding physical generation assets to the NEM
- result in better services and lowers costs for proponents and customers
- assist consultants to assess technically competent applications
- provide greater transparency for AEMO to inform forecasts and processes
- assist TNSPs in their connection application, network planning and system security functions.

4.3 Stakeholder views expressed in submissions to the consultation paper

This section outlines stakeholder views expressed in submissions to the consultation paper on:

1. The generation information page
2. Updating AEMO on changes to project and public domain status
3. The publication of basic connection information.

4.3.1 AEMO's generation information page

There was support by most stakeholders that the generation information page should be codified in the NER.¹⁰⁴ All stakeholders considered the generation information page to be a valuable resource, and codifying the page would have a number of benefits, including:

- reducing the likelihood of finding information that is outdated or inaccurate (Stanwell)
- providing greater certainty and stability of information both to the market and to AEMO (PIAC)
- reducing variability in the publishing of the page, which is likely to be a consequence of the fact it is not a requirement in the NER (AEMO).

There were varying views on how frequently the generation information page should be published: some stakeholders supported AEMO publishing the page on a quarterly basis; while others noted it should be updated on a monthly basis.¹⁰⁵ AEMO noted it could achieve a quarterly publication frequency for the page without the need for major new internal systems and processes, while a monthly publication requirement would demand a transition period.¹⁰⁶

4.3.2 Updating AEMO on changes to project and public domain status

On requiring Intending Participants to advise AEMO of changes to project status

The majority of stakeholders¹⁰⁷ supported requiring intending participants to provide AEMO with updates to information because:

- Some connections change significantly over the course of the connection process as further studies and changes to project financing occur (Essential Energy)
- Up to date information is critical to allow all market participants to assess the status of the pipeline of generation projects and their likelihood to proceed (Infrastructure Capital Group)

¹⁰⁴ Submissions to the consultation paper Meridian, p. 2; PIAC, p. 3; AEC, p. 1-2; AEMO, p. 2; Essential Energy, p. 2; Stanwell, p. 1; Origin, p. 1; Energy Users Association of Australia, p. 2; Walcha Energy, p. 9.

¹⁰⁵ Stakeholders that supported publishing the page on a quarterly basis include: Energy Queensland, Infrastructure Capital Group, Energy Users Association of Australia, Walcha Energy and AEMO. Stakeholders that supported publishing the page on a monthly basis include: Canadian Solar, ERM Power, Stanwell, Meridian, Origin and AEC.

¹⁰⁶ AEMO submission to the consultation paper, p. 3.

¹⁰⁷ Submissions to the consultation paper: Vena Energy, p. 3; Stanwell, p. 1; Energy Queensland, p. 6; Essential Energy, p. 3; Energy Users Association of Australia, p. 1; ERM Power, p. 2-3; and AEMO, p. 3.

Some stakeholders¹⁰⁸ expressed concerns with the AEC's strict proposal for intending participants to provide updated information, noting that minor project details frequently change during the early development phase and so requiring notification of changes during this phase could be inefficient.

On requiring Intending Participants to advise AEMO of changes to public domain status

Fewer stakeholders directly addressed this aspect of the proposal, with most in support of allowing AEMO to disclose confidential information that has reached the public domain.¹⁰⁹ Stakeholders considered the proposal would improve the accuracy and, therefore, usefulness of information provided by AEMO to the market.¹¹⁰

Walcha Energy considered that the information used in AEMO's generation information page was not confidential but cautioned that information that is published is not necessarily authoritative, especially information stated by commentators.¹¹¹

4.3.3

The publication of basic connection information

Most stakeholders¹¹² expressed general support for TNSPs to publish connection information to increase transparency and noted that it would facilitate enhanced coordination between prospective generators and TNSPs, and enable more efficient commercial, operational and planning decisions. However, some stakeholders qualified this support with concerns over confidentiality, administrative costs, and duplication risks.

Stakeholders expressed differing views over the confidentiality of basic connection information. Energy Queensland and Walcha Energy both stated basic connection information was not commercially sensitive.¹¹³ On the other hand, some stakeholders raised concerns relating to confidentiality that:¹¹⁴

- All information about existing, new and potential load connections is highly commercially sensitive, and should only be shared with express consent (Aurizon).
- Basic connection information could be considered by many developers to be commercially sensitive early in the project development process (Canadian Solar).
- Information obtained from connection enquiries should be aggregated by region when published (Clean Energy Council).

108 Submissions to the consultation paper: AGL p. 5; Clean Energy Council p. 2; Walcha Energy p. 6; Canadian Solar p. 4.

109 Submissions to the consultation paper, AEMO, p. 3; Stanwell, p. 1; ERM Power, p. 2-3.

110 Submissions to the consultation paper: AEMO p. 3; Stanwell p. 1

111 Walcha Energy submission to the consultation paper, p. 6

112 Submissions to the consultation paper: Vena Energy, p. 2-3; Meridian, p. 2; Powerlink, p. 3; ERM Power, p. 2-3; Infrastructure Capital Group, p. 3; ESCO Pacific, p. 1; Queensland Farmers Federation, p. 3-4; Energy Users Association of Australia, p. 1-2; Stanwell, p. 1; AEC, p. 2; Energy Queensland, p. 9; Powerlink, p. 2-3 and Walcha Energy, p. 9.

113 Submissions to the consultation paper: Energy Queensland p. 9; Walcha Energy p. 8

114 Submissions to the consultation paper: Aurizon p. 2; Canadian Solar p. 5; Clean Energy Council p. 4

4.4 Stakeholder views expressed in submissions to the draft determination

This section outlines stakeholder views expressed in submissions to the draft determination on:

1. The generation information page
2. The publication of basic connection information.

4.4.1 AEMO's generation information page

Stakeholders were very supportive of codifying AEMO's generation information page in the NER.¹¹⁵ Stakeholders noted that formalising the page in the NER will turn it into a key market reference source and that it will also assist in modelling future power system configurations and facilitate greater coordination between generators.

Some stakeholders considered that the generation information page should be published on a monthly basis (rather than each quarter) noting this would mitigate delays and make the page more valuable to developers given the rapid changes to the power system.¹¹⁶

Stanwell noted that AEMO should not be compelled to publish the information on the page separately for each region.¹¹⁷

4.4.2 The publication of basic connection information

Timing

Stakeholders expressed diverging views on whether connection information should be shared from the connection enquiry stage:

- PIAC and ERM Power considered this to be an appropriate stage to allow visibility of the pipeline of projects and improve understanding of the impact of proposed projects on network capability.¹¹⁸
- The AEC, Origin, AGL and Clean Energy Council considered this stage to be too early and noted:¹¹⁹
 - Speculative data is presented which may be misleading and deter investment in a particular location.
 - Commercially sensitive information may be published.
 - If reported, enquiries should be flagged or aggregated and removed from public record if they have not progressed to an application after a set amount of time.
 - Connection enquiry costs across TNSPs should be standardised such that all enquiries are lodged with similar intent.

115 Submissions to the draft determination: Node Energy Service, p. 2; AEC, p. 1; Origin, p. 1; Meridian, p. 2; ERM Power, p. 3; PIAC, p. 2; Energy Networks Australia, p. 2; Energy Users Association of Australia, p. 2; AGL, p. 4.

116 Submissions to the draft determination: ERM Power, p. 3; Clean Energy Council, p. 2; Node Energy Services, pp. 1-2.

117 Stanwell, submission to the draft determination, p. 2.

118 Submissions to the draft determination: PIAC, p. 2; ERM Power, p. 3.

119 Submissions to the draft determination: AEC, p. 1; Origin, p. 1; AGL, p. 4; Clean Energy Council, p. 5.

DNSPs

A number of stakeholders supported the publication of key connection information relating to projects connecting to distribution networks noting this would help realise the full benefits of transparency.¹²⁰ AEMO suggested a threshold (MW capacity) could be set below which projects connecting to distribution networks need not be reported.¹²¹

Energy Networks Australia cautioned that if information sharing obligations were extended to DNSPs, a significant amount of work would need to be undertaken before proceeding to address a range of issues, including but not limited to the benefits and costs being highly dependent on the type of network (e.g. rural versus urban).¹²²

Loads

Some stakeholders considered that information sharing obligations should not extend to loads as was proposed under the draft rule:

- Major Energy Users considered this would be extremely injurious to firms – firms operate in highly competitive markets and the publication of connection information might erode competitive advantage – e.g. knowledge of peak demand of a proposed load makes it possible to deduce the size and capacity of a new facility¹²³
- AEMO noted information about loads is highly commercial sensitive making this information harder to collect and publish in a useful fashion. AEMO also noted from the perspective of resourcing, this obligation would be a significant undertaking without a clear benefit.¹²⁴

Additional comments

In addition to the key connection information outlined in the draft rule AEMO considered it should be able to request the following data from any connection applicant to assist with planning and forecasting purposes: Developer ABN/ACN, relevant NSP organisation name, project commitment criteria, scheduled capacities, energy storage capacity, secondary fuel capability, full commercial use date.¹²⁵ AEMO noted that this reflects information that is currently published on its generation information page, and so not to have this information would reflect a "loss".

AEMO in its supplementary submission noted that it conducts a voluntary generator survey that contains approximately 90 information items.¹²⁶ AEMO also noted that the "provision of key connection information under the new rule will not be sufficient for AEMO to fulfil our planning and forecasting functions under the NER" and it will therefore continue to conduct its generator survey.¹²⁷

120 Submissions to the draft determination: AEMO, p. 5; Ergon Energy and Energex, pp.1-2; AEC, p. 2; Queensland Farmers Federation, p. 2; Node Energy Services, p. 2.

121 AEMO, submission to the draft determination, p. 5.

122 Energy Networks Australia, submission to the draft determination, p. 8

123 Major Energy Users, submission to the draft determination, pp. 1-2.

124 AEMO, submission to the draft determination, p. 5.

125 AEMO, submission to the draft determination, pp. 6-8.

126 AEMO, supplementary submission to the draft determination, p. 1

127 AEMO, supplementary submission to the draft determination, p. 2

On the other hand, Ergon Energy and Energex, and Energy Networks Australia recommended clearer prescription that the information that networks are to share with AEMO is limited to key connection information outlined in the draft rule – noting additional data was not justified.¹²⁸

A few stakeholders noted the proposed obligation on connection applicants to provide updates to TNSPs when there was a material change to key connection information and suggested it would be useful for the Commission to define the term “material” in this context.¹²⁹

In regards to the generation information guidelines (described below) AEMO suggested that a new clause could be introduced in the NER that states that AEMO may clarify the key connection information with examples in the guidelines.¹³⁰

4.5 Commission's analysis and conclusions

BOX 3: OVERVIEW OF FINAL RULE

The final rule:

- Introduces into the NER an obligation on AEMO to maintain an information resource on its website ("the generation information page") that informs registered participants and other interested parties of the extent and nature of generating plant connected or proposed to be connected, in the NEM. This is an information resource that AEMO currently maintains voluntarily on its website.
- Sets out certain requirements regarding the content that needs to be included on the generation information page (including information received from the below routes) and that the content of the page must be updated at least quarterly.
- Requires TNSPs to share with AEMO (in accordance with the AEMO guidelines referred to below) the following key connection information, relating to grid scale generation assets, received from connection enquiries and applications:
 - name, ABN and ACN of proponent of connection
 - type of plant (for each generating unit)
 - site location or preferred site location
 - maximum power generation of whole plant
 - forecast completion date of the proposed connection
 - technology of relevant generating unit.

¹²⁸ Ergon Energy and Energex, submission to the draft determination, p. 2, Energy Networks Australia, submission to the draft determination, p. 8.

¹²⁹ Submissions to the draft determination: AGL, p. 5; AEC, p. 2; Stanwell, p. 2.

¹³⁰ AEMO, supplementary submission to the draft determination, p. 3

- Requires connection applicants to update NSPs of any material changes to connection information provided to NSPs as part of a connection enquiry under rule 5.3, where that change occurs after the connection applicant has received a response from the NSP to the connection enquiry. The final rule also requires TNSPs to share this information with AEMO, in accordance with guidelines prepared by AEMO (described below).
- Requires AEMO to publish and maintain guidelines (the "generation information guidelines") that set out the content of the generation information page; the process for updating the page and the manner, timing and format in which key connection information is to be provided by TNSPs to AEMO for the purposes of the page. The guidelines must also set out evidence AEMO requires for an application from a person seeking to be a project developer and deemed to be a registered participant to get access to information under cl. 3.13.3(k) of the NER.

Placing a requirement on intending participants to inform AEMO when confidential information has been disclosed is unnecessary — the existing NER already requires a connection applicant to inform NSPs of material changes to information contained in a connection application (clause 5.3.8(e) of the NER) and the final rule introduces a similar requirement in respect of connection enquiries as well as requiring TNSPs to pass on that updated information to AEMO.

Changes between draft and final rule

The final rule is largely the same as the draft rule except for the following key changes:

- Requiring the details of the TNSP from which AEMO received key connection information and whether it came from a connection enquiry or application.
- Removing the draft rule requirement on AEMO to publish information on the page separately on a regional basis.
- Clarifying that AEMO may include information on the generation information page in addition to the key connection information received in accordance with the final rule.
- Requiring TNSPs to provide a connection applicant's ABN and ACN if they have received it (the final rule also clarifies that NSPs may request a proponent's ABN or ACN).
- Excluding loads from the information sharing provisions, that is, TNSPs will not be required to share with AEMO key connection information that relates to loads.

4.5.1

Elevating the generation information page

The final rule codifies the generation information page in the NER, which will enhance the availability of information on new projects coming in to the system, prior to their connection. This would enable more information to be available to the market, which can be accessed by connecting parties and factored into a new generator's investment and connection decisions. The final rule requires AEMO to publish key connection information on the page, which includes:

- name, ABN, ACN of proponent of connection

- type of plant (e.g. gas turbine generating unit)
- site location (or preferred site location)
- maximum power generation of whole plant
- forecast completion date of the proposed connection
- technology of proposed generating unit (e.g. synchronous generating unit, induction generator, photovoltaic array, etc).

The final rule requires the source of the key connection information for each proposed connection of generating plant to be listed on the page (i.e. which TNSP provided the information and whether this information was obtained via a connection enquiry or application).

The final rule also requires TNSPs to share a connection applicant's ABN and ACN if they have received it as part of a connection enquiry or application. This may assist with proponent identification. The final rule does not mandate that TNSPs collect ABN or ACN data, rather it clarifies that TNSPs may request an ABN or ACN from a connection applicant.¹³¹ Further, the Commission notes that ABN and ACN data is currently publicly available.

The Commission notes that AEMO in its submission to the draft determination, considered that the content of the key connection information to be shared by TNSPs is insufficient for the purposes of AEMO's planning and forecasting and represents less information than AEMO currently provides on the page.¹³² AEMO considered it should be able to request additional information from connection applicants beyond the key connection information and beyond information currently received as part of connection enquiry and application process.

As part of this focussed rule change, the Commission has determined not to extend AEMO's information gathering powers and expand the data fields that must be provided as part of connection enquiry or application. Ergon Energy and Energex and Energy Networks Australia noted the collection of additional data was not justified and consultation had not been carried out on this aspect.¹³³ To the extent AEMO is able to gather other valid information on proposed connections from public sources it is encouraged to present this on the page if it considers it would be useful for the market. Further, to require this information to be collected would require changes to TNSPs processes and forms, leading to increased costs, that it is not clear would be offset by increased benefits of providing this information. The Commission notes AEMO's intention to continue to collect information via its generation information survey.¹³⁴ The Commission understands that AEMO undertakes this survey informally to supplement its forecasting and planning processes. The focus of the final rule is on providing more information to registered participants and other interested parties of the extent and nature of generating plant connected or proposed to be connected, in the NEM.

¹³¹ This is consistent with cl. 5.3.2(a) of the NER which is non-exhaustive in listing the information that may be specified in a connection enquiry (i.e. type, magnitude and timing) and is also consistent with 5.3.2(b) which affords a TNSP discretion as to what information it may request from a connection applicant.

¹³² AEMO submission to the draft determination, p. 3.

¹³³ Submission to the draft determination: Energy Networks Australia, p. 8; Ergon Energy and Energex, p. 2.

¹³⁴ AEMO, supplementary submission to the draft determination, p. 2

Any other information gathering exercise that AEMO conducts beyond that is within AEMO's powers and so will be unaffected by the final rule.

The final rule requires AEMO to update the page on at least a quarterly basis. In elevating the page into the NER, the final rule also formalises the way information on existing generators is provided as part of the page.

The objective of the final rule is to establish the AEMO generation information page as a 'one-stop shop' from which all current and prospective market participants can access the basic connection information they require to make more accurate planning and investment decisions, and in turn, to help all connecting parties reach optimal project outcomes.

The final rule also requires AEMO to publish and maintain guidelines in relation to the generation information page.

The Commission also removed the draft rule requirement on AEMO to publish information on the page separately on a regional basis in order to create more flexibility for AEMO as to how data is displayed.¹³⁵

The major components of this policy position are outlined in more detail below.

The quarterly publishing period

The Commission considered the merits of the generation information page being updated on both a monthly and a quarterly basis. Different stakeholders expressed support for both positions, and their shared reasoning for a regular publishing period focused on:

- the shortening construction periods for renewable energy projects
- the need to effectively track the increasing number of connecting parties
- the preference for an informational resource in the NEM that can be trusted and held accountable
- a general preference for the most up-to-date information.

In supporting the quarterly publishing period, the Commission recognises AEMO's comment in its submission to the consultation paper that it could achieve a quarterly publication frequency without the need for major changes to internal systems or new processes.¹³⁶ The Commission notes stakeholders' submissions to the consultation paper and draft determination and considers that publishing the page on a quarterly basis (rather than a monthly basis) strikes a good balance between providing up-to-date information to the market and the administrative costs of updating the page. Given the pace of market change, the final rule provides AEMO with the flexibility to publish the page more frequently than each quarter if this is appropriate in the future and achievable, since the final rule prescribes the information be updated "no less than" every quarter.

The merit of the 'one-stop shop'

¹³⁵ Stanwell, submission to draft determination, p. 2.

¹³⁶ AEMO submission to the consultation paper, p. 2.

Stakeholders expressed unanimous support for the value of the generation information page, describing it as either "an extremely valuable resource,"¹³⁷ as "essential during the present market transformation," or as providing benefit in a way that is "immediate and tangible for all parties seeking to connect to the network, particularly in areas of congestion".¹³⁸ Given the market's familiarity with the generation information page, it is appropriate that it remains the first point of contact for basic connection information, and that any changes to the accessibility and transparency of basic connection data increase the flow of data to the page.

The Commission considers it preferable for the generation information page to remain the 'one-stop shop' for the market, rather than risk the possibility of information duplication, inconsistencies in the way information is presented and breaches of confidentiality by allowing TNSPs to publish connection data as well, as proposed in Energy Networks Australia's rule change request.

However, as soon as this information is made public by being published on AEMO's page, the TNSPs would be able to share that public information with other connecting parties. Therefore, if the TNSP (or, indeed, some other connecting party) considers that telling one connecting party about the other will allow them to coordinate their connection proposals and improve the efficiency of the connection application process, then the TNSPs can facilitate this.

Generation information guidelines

The final rule requires AEMO to publish and maintain generation information guidelines in accordance with the Rules consultation procedures. The final rule requires these guidelines to include:

- details of the type of information AEMO will include on the generation information page and the source of that information
- the manner, format and timing of key connection information to be provided by TNSPs to AEMO under the arrangements referred to below.
- the intervals for updating the generation information page (in the event AEMO updates it more regularly than quarterly)
- evidence AEMO requires for an application from a person seeking to be a project developer and deemed to be a registered participant to get access to information under cl. 3.13.3(k) of the NER.

Some stakeholders supported AEMO developing guidelines that detail the content of the generation information page.¹³⁹ The Commission considers that the production of guidelines would improve market participants' understanding, and allow them to have input on the form of the page.

The Commission has clarified the draft rule requirement for the guidelines to set out the scope and type of information to be presented on the page. Stakeholders considered this

137 AEC submission to the consultation paper, p. 1.

138 Meridian submission to the consultation paper, p. 2.

139 Submissions to the consultation paper: Walcha Energy, p. 7; PIAC p. 3

requirement caused confusion noting that the information TNSPs would be required to share with AEMO on proposed generation connections is limited to the six fields of key connection information.¹⁴⁰ In the final rule, the Commission has amended this provision - the intent of this requirement is for AEMO to describe the type of information set out in clause 3.7F(b) and (c) of the final rule it will include on the page and how it will be presented on the page and in what format key connection information is sent from the TNSP to AEMO (e.g. excel spreadsheet). The Commission confirms that this provision is not intended to require TNSPs to share additional information with AEMO beyond key connection information and the source of that information (i.e. whether the key connection information came from a connection enquiry, application or under clause 5.3.8(d1) or (e)). The Commission notes that the final rule already affords AEMO the discretion to provide relevant examples for each key connection information data field via the guidelines. As such, the Commission does not consider it necessary to prescribe this in the NER as requested by AEMO.¹⁴¹ The Commission reiterates that the examples are to be specific to the six key connection information data fields, and not refer to additional information.

In terms of implementation, the final rule requires AEMO to publish interim guidelines, without formal consultation by 5 December 2019. The final rule also requires AEMO to publish full guidelines subject to the rules consultation procedures by 31 July 2020. Chapter 5 discusses the implementation of the rule in detail.

The final rule requires TNSPs to provide key connection information to AEMO in accordance these guidelines.

4.5.2

Informational flows between connection applicants, TNSPs and AEMO

The final rule introduces new clause 3.7F(g) of the NER to require TNSPs to share with AEMO key connection information, relating to generating plant, that they receive from connection applicants (including intending participants). The final rule requires TNSPs to share with AEMO:

- name of proponent of connection and, if received by the TNSP, proponent's ABN and ACN¹⁴²
- type of plant (e.g. gas turbine generating unit) for each generating unit
- site location (or preferred site location)
- maximum power generation of whole plant
- forecast completion date of the proposed connection
- technology of proposed generating unit (e.g. synchronous generating unit, induction generator, photovoltaic array, etc).

140 Ergon Energy and Energex, submission to the draft determination, p. 2, Energy Networks Australia, submission to the draft determination, p. 8.

141 AEMO, Supplementary submission to the draft determination, p. 3.

142 An Australian Business Number (ABN) is a unique 11 digit identifier issued to all entities registered in the Australian Business Register. An Australian Company Number (ACN) is a nine digit number allocated by the Australian Securities & Investments Commission (ASIC) when a body becomes registered as a company under Corporations Law. For more detail see: <https://abr.business.gov.au/Help/Glossary>

The Commission notes that under existing arrangements, any person wishing to connect to the system must make a connection enquiry that advises their NSP of the information listed above.¹⁴³ Therefore, the final rule is consistent with this existing arrangement.

The Commission recognises that TNSPs are well-placed to facilitate the flow of key connection information between connection applicants (including intending participants) and AEMO. TNSPs already communicate project updates and changes frequently with connection applicants as a part of the connection process.

The flow of key connection information from connection applicants (including intending participants) towards TNSPs and AEMO which the final rule requires is described below:

- key connection information received by TNSPs in connection enquiries and applications from connection applicants (including intending participants) is disclosed to AEMO for publishing on the generation information page
- after a connection applicant (including an intending participant) has received a response from their TNSP regarding their enquiry, they must promptly update their NSP if there have been any material changes to connection information related to their project (discussed in 4.4.3)
- TNSPs must update AEMO on any updates to a connection applicant's key connection information, as per the information provided to TNSPs
- AEMO collates the updates to all connection applicants' key connection information and publishes any changes on the generation information page by the end of each quarterly period (at the latest).

The Commission considers this particular flow of basic connection information from connection applicants (including intending participants) towards TNSPs and AEMO to be the most appropriate method to assist connection applicants to optimise connection outcomes, and for collating information that is dispersed across various sources, inconsistent in detail and potentially out of date. The Commission notes increased information opens the pathway for greater coordination between generators.

The Commission considers the final rule is beneficial because:

- it is consistent with a logical, one-directional flow of information between connection applicants (including intending participants), TNSPs and AEMO which minimises the risk of information duplication or informational misalignment
- appropriately mitigates the risk of the publication of connection information that is commercially sensitive
- it builds on existing, frequently used communication channels between connection applicants (including intending participants) and TNSPs
- it does not require an additional communication channel for connection applicants (including intending participants) to maintain with AEMO on top of their dialogue with TNSPs, which may incur additional costs on smaller connection applicants.

¹⁴³ Schedule 5.4 of the NER

Further, the Commission considers that the additional requirement on TNSPs to disclose to AEMO material changes to key connection information that they are aware of would not be a significant burden given existing arrangements.

The Commission confirms that the final rule does not increase AEMO's information gathering powers beyond receiving key connection information.

The Commission notes that in submissions to the draft determination, stakeholders expressed divergent views as to whether data from connection enquiries should be shared by TNSPs with AEMO. Some stakeholders warned that publishing data from connection enquiry stage would mean speculative data is presented which may be misleading or result in commercially sensitive information being shared.¹⁴⁴

The Commission has determined that data from connection enquiries is to be shared with AEMO. The Commission notes that the final rule will require AEMO to identify whether key connection information presented on the generation information page was received via a connection enquiry or application. This may assist stakeholders in interpreting the data and how they may best use it. Further, it is likely information on projects at the connection enquiry stage is currently shared on the generation information page.

The Commission also notes the suggestions regarding aggregating information, but considers that the opportunities for coordination between proposed generators would be missed if projects have progressed to the connection application stage before they are reported – at this point it might be tougher and more costly to modify projects. The aggregation of key connection information obtained from connection enquiries may also limit the potential for coordination.

4.5.3 Updates to connection information

The final rule requires:

- connection applicants (including intending participants) to promptly update a NSP of any material changes to connection information that occur following the NSP's response to the connection applicant's connection enquiry
- TNSPs to then share this information with AEMO.

The Commission considers the final rule will assist in keeping current the information presented on the generation information page. While a few stakeholders requested that the Commission define the term material change the Commission notes there is already an established term used throughout the rules.¹⁴⁵ The Commission notes AEMO's new guidelines (discussed above) could provide additional guidance on when applicants should update TNSPs under clause 5.3.8(d1) and (e)(this could include detail on the threshold for changes to key connection information).¹⁴⁶

¹⁴⁴ Submissions to the draft determination: AEC, p. 1; Origin, p. 1; AGL, p. 4; Clean Energy Council, p. 5.

¹⁴⁵ For instance, cl. 5.3.8 of the NER requires that "if a Connection Applicant or Network Service Provider becomes aware of any *material change* to any information contained in or relevant to an application to connect, it must promptly notify the other party in writing of that change." An example of a material change could be a 10 per cent change in the expected maximum power generation (MW).

¹⁴⁶ As noted by some stakeholders different thresholds would likely be required for each component of the key connection

The Commission also notes that as part of the existing connection application process updated connection information will be provided to NSPs. This information will then be passed onto AEMO and be used to keep the generation information page up to date.¹⁴⁷ The Commission expects that the guidelines will set out the manner and frequency with which this information is passed on to AEMO.

The Commission recognises the importance of keeping the generation information page as accurate as possible, and this will be supported by the update process outlined above.

Disclosure of confidential information that has reached the public domain

With respect to AEC's proposal to require intending participants to notify AEMO of any public disclosures of confidential information, the Commission notes that the final rule allows AEMO to publish key connection information¹⁴⁸ (which, as a result of being published, will be public and cease to be confidential information). The final rule also sets out, through guidelines, a process for updating this information as well. As a result, the Commission does not consider it necessary to impose any new obligations on connection applicants (including intending participants).

4.5.4

Scope of information provision about new projects

Load

The draft rule required key connection information relating to prospective loads to be shared with AEMO. Recognising stakeholder concerns that firms operate in their own highly competitive markets and that the publication of this information may reveal the future plans of firms to their competitors the Commission has determined to exclude loads from the information sharing provisions.¹⁴⁹

The final rule will capture information associated with large-scale energy storage systems given that they are currently required to register as generators (as well as market customers). The Commission notes that the classification of storage systems, hybrid facilities (e.g. where there is a load and generation behind a connection point) and the definition of load in the NER will be considered as part of the *Integrating energy storage systems into the NEM* rule change process.¹⁵⁰ The implications of any potential definition changes on the information sharing obligations set out in the final rule will be considered as part of that process.

DNSPs

A number of stakeholders recommended that the Commission considers including DNSPs as well as TNSPs in the information sharing process, citing that DNSPs have experienced an

information.

147 The Commission also notes that under existing arrangements if a connection applicant or TNSP becomes aware of any material change to any information submitted in a connection application, it must promptly notify the other party in writing of that change. Clause 5.3.8 of the NER.

148 As defined above

149 For example, knowledge of peak demand of a proposed load makes it possible to deduce the size and capacity of a new facility. Major Energy Users, submission to the draft determination, p. 2.

150 For more detail see the project page: <https://www.aemc.gov.au/rule-changes/integrating-energy-storage-systems-nem>

equivalent level of generation enquiries, particularly in Queensland, and the need to maintain competitive neutrality between transmission and distribution networks. AEMO suggested that a MW threshold could be set, and that DNSPs could be required to share the connection information of proposed generators with an expected capacity greater than this threshold.

The Commission considers the information provision requirements imposed on TNSPs should not be extended to DNSPs. The Commission acknowledges that large generators are seeking to connect to some distribution networks. However, the Commission recognises that the current NER provisions that govern generation connections are entirely different for distribution networks relative to transmission networks.

The Commission also recognises it would be difficult to determine the appropriate level of a threshold (as proposed by AEMO) given the transition currently underway, and the need to have such a threshold fit for purpose for the future. It notes the administrative burden of reporting connection data would be very significant if many smaller embedded generators are included. This was echoed by Energy Networks Australia in its submission to the draft determination, "a significant amount of work would need to be undertaken before proceeding to address a range of issues, including but not limited to the benefits and costs being highly dependent on the type of network (e.g. rural versus urban)".¹⁵¹ Such issues would be best considered through broader reforms to the distribution framework.

The Commission notes that if a DNSP sought to disclose information about a proposed connection in a particularly critical area of the network, it could request consent from the connecting party to share connection data, under the exceptions set out in clause 8.6.2 of the NER. Therefore, the existing NER already facilitate some information sharing if it was deemed to be useful.

¹⁵¹ Energy Networks Australia, submission to the draft determination, p. 8

5 IMPLEMENTATION

This chapter discusses:

- proponents' and stakeholders' views on implementation arrangements
- the Commission's analysis and conclusions on implementation arrangements.

5.1 Proponents' views on implementation arrangements

AEMO did not provide any comments on transitional arrangements in its rule change proposal. In its submission to the consultation paper AEMO noted it could achieve a quarterly publication frequency for the generation information page, without the need for major new internal systems and processes.¹⁵²

In its rule change proposal, the AEC proposed that:¹⁵³

- Any person who is registered as an intending participant on the commencement date of the proposed rule must notify AEMO of any change to the information provided to AEMO during the registration process within one month of the commencement date.
- Any person who has provided AEMO with confidential information prior to the commencement date must notify AEMO within one month of the commencement date of the proposed rule if the information has entered the public domain since it was provided to AEMO.

In its rule change proposal Energy Networks Australia proposed that TNSPs be allowed to publish information regarding proponent name, size, location, forecast completion date, primary technology and function of a network connection application of enquiry that:

- has been received by a TNSP on or before the commencement date
- has been published in a TAPR
- consent to publish the information has been obtained by the TNSP from the person that provided the information.¹⁵⁴

With the exception of AEMO's comment above, transitional arrangements were not discussed by any stakeholders in submissions to the consultation paper.

AEMO's supplementary submission

AEMO provided a supplementary submission in response to the draft determination that proposed a number of changes to implementation time frames. AEMO submitted:¹⁵⁵

- It will publish interim generation information guidelines in December 2019 (with no consultation)
- The earliest possible publication date for key connection information is the end of January 2020 and this will be as an unreconciled data set - separate from information collected as

¹⁵² AEMO submission to the consultation paper, p. 2.

¹⁵³ AEC rule change proposal, p. 2-3

¹⁵⁴ Energy Networks Australia proposal, p. 20.

¹⁵⁵ AEMO, supplementary submission to the draft determination, pp. 2-4

part of AEMO's generator information survey. AEMO noted the difficulties in reconciling the two data sets.

- From April 2020, it is AEMO's intention that the key connection information will be fully reconciled with the existing generation information page data set.

5.2 Stakeholders' views on implementation arrangements

In submissions to the draft determination, stakeholders expressed divergent views on the implementation timeline of the rule:

- some stakeholders considered the proposed rule implementation unnecessarily delayed the benefits associated with the new information provisions arrangements and recommended the development of interim guidelines on the generation information page¹⁵⁶
- other stakeholders considered the staggered timeframe was appropriate.¹⁵⁷

Some stakeholders stated that having no visibility of connection enquiries and applications that have already been lodged or will have been lodged prior to the commencement of the final rule means a complete picture of the market is not being provided in reality.¹⁵⁸ The Clean Energy Council considered that some form of data aggregation may be appropriate.¹⁵⁹ Energy Networks Australia proposed the disclosure of key connection information prior to commencement of final rule if that information has been disclosed in the TNSP's last TAPR or with the connection applicant's consent.¹⁶⁰

5.3 Commission's analysis and conclusions

In terms of the implementation of the final rule:

- **Reforms to the intending participant arrangements and information provision to project developers:**
 - Changes to application of clause 3.13.3, and rule 8.6 of the NER under the final rule that relate to deeming project developers (that build grid-scale assets, and then sell these assets prior to grid connection) as registered participants for the purposes of information provision, are proposed to commence on 19 December 2019.¹⁶¹
 - Changes to clause 2.7(b) of the NER under the final rule to introduce a requirement that AEMO reviews the registration status of intending participants are proposed to commence on 19 December 2019.
 - The first review of registration status is required to be done by 1 October 2020.
- **Information provision for new projects:**

¹⁵⁶ Submissions to the draft determination: Energy Networks Australia, p. 2; Queensland Farmers' Federation, p. 2; Energy Users Association of Australia, p. 2.

¹⁵⁷ Submissions to the draft determination: Stanwell, p. 1; Node Energy Services, p. 2.

¹⁵⁸ Submissions to the draft determination: Queensland Farmers' Federation, p. 2; Meridian, p. 2; Energy Networks Australia, p. 6; Energy Users Association of Australia, p. 2; Clean Energy Council, pp. 6-7

¹⁵⁹ Clean Energy Council, submission to the draft determination, p. 6

¹⁶⁰ Energy Networks Australia, submission to the draft determination, p. 6.

¹⁶¹ Including the related Chapter 10 definitions of project developer and amended definition of registered participant

- New rule 3.7F under the final rule (which introduces the generation information page and generation information guidelines requirements) and changes to clause 5.3.8 (which introduces the requirement to provide NSP's with updated information) commence on 1 December 2019.
- Under clause 11.117.3 of the final rule, AEMO is required to publish interim generation information guidelines by 5 December 2019.¹⁶²
- In addition, AEMO does not need to comply with the obligation to publish a generation information page until 31 January 2020.
- Under clause 11.117.3 and 11.117.4 of the final rule, TNSPs' obligations to share key connection information with AEMO and comply with the generation information guidelines become effective on 19 December 2019.
- Under clause 11.117.3, AEMO must publish full generation information guidelines, subject to the rules consultation procedures, by 31 July 2020.

The main change to implementation arrangements since the draft rule has been to require AEMO to produce interim guidelines thereby bringing forward the date when TNSPs are required to share connection information with AEMO and the date AEMO is to publish its generator information page under the new rules.

The final rule allows AEMO more time to develop processes for receiving and assessing applications from prospective project developers, with provisions that relate to project developers accessing information commencing one month later than in the draft rule.¹⁶³ The implementation time frames in the final rule are consistent with the time frames proposed by AEMO in its supplementary submission.

The Commission's rationale for the above implementation dates is discussed next.

5.3.1

Reforms to intending participant arrangements and information provision to project developers

The Commission considers that the amendments under the final rule, which allow Asset Sale developers¹⁶⁴ to be deemed as registered participants for certain NER clauses, should commence on 19 December 2019. This allows Asset Sale developers to have prompt access to important data and makes sure that the NER does not favour one type of developer over another.¹⁶⁵ This also allows AEMO sufficient time to develop processes for receiving and assessing applications from persons seeking to have access to the information. This is consistent with discussions the Commission has had with AEMO since the publication of the draft determination.

¹⁶² There is no consultation process for the interim generator information guidelines.

¹⁶³ As requested by AEMO.

¹⁶⁴ I.e. developers that build grid-scale assets, and then sell these assets prior to grid connection.

¹⁶⁵ As per Chapter 3, the Commission considers the current rules already allow a Share Sale developer to register as an intending participant.

Under the final rule AEMO must conduct its first review of the registration status of intending participants by 1 October 2020.¹⁶⁶ AEMO has noted it completed its 2019 review in August.¹⁶⁷

5.3.2 Information provision for new projects

Rule 3.7F of the final rule requires AEMO to produce its generation information page on a quarterly basis, rather than a monthly basis. As such, as noted by AEMO in its submission to the consultation paper, a lengthy transition period will not be required as AEMO will not need to implement major new internal systems. As a result, the final rule requires the generation information page required to be in place by 31 January 2020, as discussed next.

Rule 3.7F of the final rule also requires AEMO to publish generation information guidelines that set out: the intervals for updating the generation information page; and the manner, timing, and format in which key connection information is to be provided by TNSPs to AEMO. The transitional arrangements in the final rule require AEMO to publish interim guidelines with no consultation process. The Commission determined to remove the consultation round prescribed in the draft rule in response to stakeholder feedback suggesting the implementation of the rule should be accelerated.¹⁶⁸

The Commission also notes that a number of stakeholder have already provided comments regarding the generation information page as part of this rule change request, that can inform AEMO's thinking.

The final rule requires AEMO to publish the interim generation information guidelines by 5 December 2019. As the guidelines provide detail on the manner, timing, and format in which key connection information is to be provided by TNSPs to AEMO, implementation time frames have been staggered to allow time (a minimum of two weeks) for TNSPs to understand their obligations under the new guidelines and amended rules. TNSPs will be required to comply with the interim guidelines and 3.7F(g) of the final rule from 19 December 2019.

The Commission does not support Energy Networks Australia's proposal for information provision obligations to extend to connection enquiries or applications received prior to the commencement date of the rule, noting that these connecting parties provided key connection information with the expectation it would be treated as confidential.¹⁶⁹ Energy Networks Australia's proposal also raises legal questions around the accrued rights of connecting parties. As such, the generation information guidelines may only require TNSPs to provide key connection information received prior to 19 December 2019 where that information:

- was received by the TNSP after 7 November 2019
- the relevant connection applicant that disclosed the information to the TNSP consents to its disclosure to AEMO.

¹⁶⁶ AEMO suggested that 1 October would be an appropriate due date for the annual audit, requiring it to be completed in the first quarter of each financial year. AEMO, submission to the draft determination, p. 3.

¹⁶⁷ AEMO submission to the draft determination, p. 3.

¹⁶⁸ Submissions to the draft determination: Energy Networks Australia, p. 2; Queensland Farmers' Federation, p. 2; Energy Users Association of Australia, p. 2.

¹⁶⁹ Energy Networks Australia's proposal also received stakeholder support in submissions to the draft determination.

In its submission to the draft determination Energy Networks Australia considered that an appropriate transitional arrangement would be to allow information provision obligations to extend to valid connection enquiries/applications received prior to the commencement date of the rule but limited to information published in TNSPs' last TAPRs.¹⁷⁰ Energy Networks Australia asserted these arrangements would limit the administrative burden on TNSPs and also limit how retrospective the information sharing would be to address potential confidentiality concerns.¹⁷¹ The Commission notes that as this information has already been made available publicly in TNSPs' TAPRs, it could be presented by AEMO on the generation information page.

As noted, the final rule requires AEMO to publish the generation information page by 31 January 2020. As per AEMO's supplementary submission, the Commission understands that by this date AEMO will be unable to reconcile or integrate key connection information with data collected via its generator information survey.¹⁷² As such, the Commission understands AEMO will publish key connection information as a separate data set on the generation information page. The final rule allows for such flexibility.¹⁷³

Regarding the proposals outlined by the AEC above:

- In its new generation information guidelines, AEMO will set out the timing for TNSPs to provide AEMO with key connection information.
- The final rule does not impose a requirement on intending participants to inform AEMO when confidential information has been disclosed.¹⁷⁴

170 ENA, submission to the draft determination, p. 6.

171 ENA, submission to the draft determination, p. 6.

172 AEMO, supplementary submission to the draft determination, p. 2

173 AEMO, supplementary submission to the draft determination, p. 2

174 This is discussed in more detail in chapter 4.

ABBREVIATIONS

AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AEC	Australian Energy Council
AER	Australian Energy Regulator
Commission	See AEMC
DNSP	Distribution Network Service Provider
ESOO	Electricity Statement of Opportunities
ISP	Integrated System Plan
MCE	Ministerial Council on Energy
NEL	National Electricity Law
NEM	National Electricity Market
NEO	National Electricity Objective
NER	National Electricity Rules
TAPR	Transmission Annual Planning Report
TNSP	Transmission Network Service Provider

A SUMMARY OF OTHER ISSUES RAISED IN SUBMISSIONS

This appendix sets out the issues raised in the first and second round of consultation on this rule change request and the AEMC's response to each issue. If an issue raised in a submission has been discussed in the main body of this document, it has not been included in this table.

Table A.1: Summary of other issues raised in submissions to consultation paper

STAKEHOLDER	ISSUE	AEMC RESPONSE
PIAC, p. 2.	While we support developers being given the option to register under this category, we do not support them being required to do so as proposed in the AEC's rule change. While registering as an Intending Participant would allow the developer to access, for instance, system information data from AEMO, it could also impose burdensome obligations and responsibilities on the developer.	The existing NER allows a person to register as an intending participant - but does not require them to do so. The final rule does not change those arrangements.
Powerlink, p. 2.	While Powerlink recognises that this rule change is not directly aimed at resolving some of the current challenges in the market regarding system strength, it considers that the AEMC and other market bodies must turn their minds to considering broader system strength issues. In particular, whether minimum levels of system strength should form part of a prescribed service and how to access	As noted by Powerlink, system strength issues are outside of the scope of this rule change. In its Investigation into system strength in the NEM, the AEMC is considering the experience to date with the current framework for managing system strength, and whether any refinements are warranted to that framework to support system security in the most efficient manner possible.

STAKEHOLDER	ISSUE	AEMC RESPONSE
	potential latent system strength capacity in the system with a view to minimising the level of investment required and whole of system costs.	
AEC, p. 2.	Much of the data needed by developers is available from third party data services, and it may be appropriate that these services be favoured for the provision of information, given they are more likely to ensure confidentiality is maintained (otherwise they would lose their licence to use the information).	<p>Given that:</p> <ul style="list-style-type: none"> the Commission considers that AEMO is able to currently register Share Sale developers as intending participants which means they may be deregistered by AEMO and means they are subject to confidentiality provisions in the NER (which are civil penalty provisions); and the final rule deems Asset Sale developers to be subject to the confidentiality obligations under rule 8.6 of the NER in respect of any information they receive under clause 3.13.3; <p>there would be no benefit to favouring third party data services for the provision of information.</p>
AEC, p. 2.	Such a procedure may require developers to pay a non-refundable registration fee upfront, which would compensate AEMO for its wasted administrative costs should the project not proceed. This would not need to be part of the Rules; instead it could be incorporated into AEMO's next fee schedule.	This is outside the scope of this rule change.
Energy Queensland, p. 5.	Energy Queensland broadly supports the proposed assessment framework. We	The AEMC has been mindful of broader reforms, both proposed and underway, in making the final rule, including the

STAKEHOLDER	ISSUE	AEMC RESPONSE
	suggest the AEMC is mindful of concurrent rule changes such as the coordination of transmission and generation investment, 5 minute settlement and the marginal loss factor (MLF) changes which may impact on this rule change.	work mentioned by Energy Queensland
Energy Queensland, p. 9.	A proposed change to the MLF framework should also address some of the concerns about the forward-looking nature of the current MLF framework.	The AEMC has published a consultation paper on two proposed rule changes to the transmission loss factors framework in the NEM.
Clean Energy Council, p. 2.	It may also be worthwhile establishing a threshold level to report information changes. This may limit the need for constant updating of immaterial changes to the detail of a project.	AEMO may provide this information if they consider it to be useful.
Clean Energy Council, p. 3.	The AEMC should clarify the threshold for the intending participant class. Currently the threshold is 30MW as it is linked to the eventual registration. This links to the pending rule change request on generator registration thresholds, which suggests reducing the threshold from 30MW to 5MW.	The AEMC has not assessed the threshold for the intending participant class as part of this rule change The Commission has received a rule change request in relation to generator registration thresholds from the AEC. A consultation paper will be published shortly.
Infrastructure Capital Group, p. 1.	In addition to information being disclosed by developers to Networks Service Providers (NSPs), AEMO, and where	The AEMC has published a consultation paper on two proposed rule changes to the transmission loss factors framework in the NEM.

STAKEHOLDER	ISSUE	AEMC RESPONSE
	<p>publicly disclosed, to other developers, we emphasise the importance of AEMO sharing any information in relation to assumptions and methodology used to calculate forward-looking Marginal Loss Factors (MLF), including consumption related assumptions, in a transparent and timely manner.</p>	
<p>Infrastructure Capital Group, p. 3.</p>	<p>We agree the proposed role of the NSPs in coordinating generation connections an facilitating information transfer... we believe it would be important to also publish:</p> <ul style="list-style-type: none"> • ownership of the project • reliance on third-party funding. 	<p>The final rule requires TNSPs to share with AEMO basic connection information provided as part of a connection enquiry, that is widely considered to not be commercially sensitive. The Commission is not convinced that these additional data fields are not commercially sensitive or that they would help generators to better coordinate with each other.</p>
<p>Queensland Farmers Federation, p. 3.</p>	<p>Large-scale solar facilities are currently assessed by local government under regional planning schemes, and do not trigger an assessment under the Regional Planning Interests Act 2014 (Qld), even if they are in an area of regional interest, such as a Priority Agricultural Area (PAA) or a Strategic Cropping Area (SCA), because they are not resource or regulated activities. Large-scale solar facilities are also not assessed under the Environmental</p>	<p>The final rule will provide greater transparency of large-scale solar facilities.</p>

STAKEHOLDER	ISSUE	AEMC RESPONSE
	<p>Protection Act 1994 (Qld).</p> <p>To date, over 10,000ha of Good Quality Agricultural Land (GQAL) in Queensland has been developed for large-scale solar facilities.</p>	
<p>Walcha Energy, p. 6.</p>	<p>The least cost of energy from renewable energy sources is decreasing rapidly. In this context the open access grid framework of the NEM means that subsequent connections can be more competitive than first movers and the NEM operates under a regime where generators have no right to be dispatched in the wholesale market. Subsequent connections and large generator plant retirements readily lead to reductions of MLF at a generator connection point, reducing returns on investments. These risks mean that first movers can face significant disadvantages rather than advantages.</p>	<p>The Coordination of generation and transmission investment review is considering reforms to the transmission network that may address some of the risks described. The Commission recently published two discussion papers on its preferred access model and ways to facilitate renewable energy zones.</p>

Table A.2: Summary of other issues raised in submissions to draft determination

STAKEHOLDER	ISSUE	AEMC RESPONSE
PIAC, p. 2.	The provision of information alone is unlikely to drive greater coordination of connections between generators. Instead, we consider broader reforms such as those being pursued through the Coordination of Generation and Transmission Investment process are needed to align the incentives for individual connecting generators with the system-wide optimal outcomes and capture the economies of scale and scope.	The Commission recognises that the final rule increases visibility of new connections and may enable generators to better coordinate with each other in the short term. As noted by PIAC, The Commission is considering longer-term reforms to the way generators access and use the transmission network as part of its Coordination of generation and transmission investment review. The Commission recently published two discussion papers on its preferred access model and ways to facilitate renewable energy zones.
Clean Energy Council, p. 5.	The CEC also suggests that AEMO be required to incorporate the information collected as a result of this rule change on their NEM region generation information maps. These are already a valuable resource for industry that would be further strengthened with a connection information overlay. It would also be beneficial for AEMO or TNSPs to provide some analysis alongside the publication updates.	The final rule does not place restrictions on how AEMO chooses to present this data - noting that it must be published on the generation information page.
Clean Energy Council, p. 7.	Finally, we ask the AEMC to clarify the treatment of existing connection enquiries and those made up until 20 February 2020. In particular, we would like to understand	The AEMC confirms that any connection enquiries that progress to connection applications following the commencement of the rule are captured under the new framework. That is, TNSPs will be required to share data

STAKEHOLDER	ISSUE	AEMC RESPONSE
	<p>whether these would fall under the requirements of the old rule or new rule if they progress to application. While it may be the AEMC's intent that they fall under the requirements of the new rule, and the CEC agrees that this would be appropriate, this should be explicitly stated to avoid any doubt. Relatedly, once the final rule is made, TNSPs should be required to write to all connection enquires and applications explaining how the changed requirements apply to that particular project.</p>	<p>received from the connection application with AEMO. The Commission has not specified how TNSPs should inform prospective generators of new arrangements.</p>
<p>Energy Networks Australia, p. 4.</p>	<p>The obligation to provide [key connection information] in the TAPR and updates on the TNSPs websites in the Australian Energy Regulator's (AER) TAPR Guideline should be removed.</p>	<p>Any changes to the requirements imposed on TNSPs via the TAPR guidelines would need to be made by the AER.</p>
<p>Energy Networks Australia, p. 5.</p>	<p>Subject to the TNSPs obligations being limited to the key connection information, Energy Networks Australia supports the proposed 2 weeks to prepare information provision to AEMO.</p>	<p>The AEMC notes this feedback and has allowed TNSPs two weeks to familiarise themselves with AEMO's interim guidelines.</p>
<p>Stanwell, p. 2.</p>	<p>Examination of previous editions of the Generation Information Page shows marked changes in the expected capacity of some projects between public</p>	<p>The final rule requires connection applicants to update TNSPs of any material changes to key connection information (including maximum power generation or capacity) provided to TNSPs as part of a connection enquiry, where that change</p>

STAKEHOLDER	ISSUE	AEMC RESPONSE
	announcement and commissioning, typically lower. Overstatement of potential projects' capacity may be utilised to dissuade other projects from locating nearby, especially given there is no penalty for overstating the expected size of a project.	occurs after the applicant has received a response from the TNSP to the connection enquiry. TNSPs must then share this information with AEMO.
Queensland Farmers Federation, p. 2.	Recently new TAPR requirements requiring TNSPs to publish aggregated information about new connections in the TAPR should be removed. This would align with the objectives of the Generator Information Page operating as a 'one stop shop'.	Any changes to the requirements imposed on TNSPs via the TAPR guidelines would need to be made by the AER.
AGL, p. 2	We believe further practical guidance to the Australian Energy Regulator is necessary to ensure this likely growing registration category is appropriately managed within the NER.	From the perspective of compliance with confidentiality obligations, the Commission envisages the AER would adopt a similar approach for deemed project developers as it would for intending participants.
AGL, p. 5.	This information should be limited to the following: Site location – referenced to the proposed transmission connection point/node or transmission line, instead of proposed GPS coordinates.	The final rule does not specify the granularity of location data as this is not specified in existing Schedule 5.4. TNSPs have the discretion to share location data with AEMO at a resolution that they consider appropriate.

B LEGAL REQUIREMENTS UNDER THE NEL

This appendix sets out the relevant legal requirements under the NEL for the AEMC to make this final rule determination.

B.1 Final rule determination

In accordance with s. 102 of the NEL the Commission has made this final rule determination in relation to the consolidated rule change request.

The Commission's reasons for making this final rule determination and more preferable final rule are set out in section 2.4.

A copy of the more preferable final rule is attached to and published with this final rule determination. Its key features are described in section 2.1.

B.2 Power to make the rule

The Commission is satisfied that the more preferable final rule falls within the subject matter about which the Commission may make rules. The more preferable final rule falls within s. 34 and Schedule 1 of the NEL as it relates to:

- the activities of persons (including Registered participants) participating in the national electricity market or involved in the operation of the national electricity system; and
- confidential information held by Registered participants, AEMO and other persons conferred a function, or exercising a power or right, or on whom an obligation is imposed, under the Rules, and the manner and circumstances in which that information may be disclosed.

B.3 Commission's considerations

In assessing the rule change request the Commission considered:

- its powers under the NEL to make the rule
- the consolidated rule change request
- submissions received during first round consultation
- the Commission's analysis as to the ways in which the proposed rule will or is likely to, contribute to the NEO.

There is no relevant Ministerial Council on Energy (MCE) statement of policy principles for this rule change request.¹⁷⁵

The Commission may only make a rule that has effect with respect to an adoptive jurisdiction if satisfied that the proposed rule is compatible with the proper performance of AEMO's

¹⁷⁵ Under s. 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.

declared system functions.¹⁷⁶ The more preferable final rule is compatible with AEMO's declared system functions because the final rule is consistent with those functions.

B.4 Civil penalties

The Commission cannot create new civil penalty provisions. However, it may recommend to the COAG Energy Council that new or existing provisions of the NEL be classified as civil penalty provisions.

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 of the proposed amendments made by the final rule be classified as civil penalty provisions.

B.5 Conduct provisions

The Commission cannot create new conduct provisions. However, it may recommend to the COAG Energy Council that new or existing provisions of the NEL be classified as conduct provisions.

The final rule does not amend any rules that are currently classified as conduct provisions under the NEL or National Electricity (South Australia) Regulations. The Commission does not propose to recommend to the COAG Energy Council that any of the proposed amendments made by the final rule be classified as conduct provisions.

¹⁷⁶ Section 91(8) of the NEL.