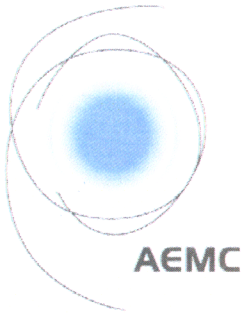

Australian Energy Market Commission

Draft Rule Determination

National Electricity Amendment (Confidentiality Arrangements in Respect of Information Required for Power System Studies) Rule 2008

Rule Proponent
National Generators Forum

25 September 2008

Signed: .....

John Tamblyn
Chairman
For and on behalf of
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AEMC 2008, *Confidentiality Arrangements in Respect of Information Required for Power System Studies*, Draft Rule Determination, 25 September 2008, Sydney

About the AEMC

The Council of Australian Governments, through its Ministerial Council on Energy, established the Australian Energy Market Commission (AEMC) in July 2005 to be the Rule maker for national energy markets. The AEMC is currently responsible for Rules and policy advice covering the National Electricity Market. It is a statutory authority. Our key responsibilities are to consider Rule change proposals, conduct energy market reviews and provide policy advice to the Ministerial Council as requested, or on AEMC initiative.

Contents

Abbreviations

AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
Commission	see AEMC
MCE	Ministerial Council on Energy
NECA	National Electricity Code Administrator
NEL	National Electricity Law
NEM	National Electricity Market
NEMMCO	National Electricity Market Management Company
NSP	Network Service Provider
Rules	National Electricity Rules
TNSP	Transmission Network Service Provider

Summary

On 8 April 2008, the Australian Energy Market Commission (Commission) received a Rule change proposal regarding the modification of confidentiality arrangements from the National Generators Forum (NGF) entitled "Confidentiality Arrangements in respect of Information Required for Power System Studies". This Rule change proposal is an attempt to rectify what the NGF considers are the unintended consequences that have arisen as a result of the Rule change in respect of "Technical Standards for Wind Generation and Other Generator Connections" enacted in March 2007.

The Rule change proposal can be divided into four sections:

- clarifying the information that may be disclosed by NEMMCO to Registered Participants and the software applications that this information be encoded in, such that the confidentiality of commercially sensitive information is maintained;

- clarifying what information may be disclosed by one NSP to another such that they can fulfil their Rule obligations while maintaining the confidentiality of commercially sensitive information;

- requiring a Generator to make available the information necessary to undertake power system studies in the form of a Releasable User Guide to be kept and administered by NEMMCO; and

- requiring NEMMCO to maintain a register of proprietary information that it has disclosed and to whom it has been disclosed.

The Commission published the Rule change proposal in accordance with section 95 of the National Electricity Law (NEL) and submissions closed on 6 June 2008. The Commission received thirteen submissions and one supplementary submission at this stage of consultation.

The Commission is satisfied that the Draft Rule will promote the National Electricity Objective (NEO) and has decided to make a draft Rule under section 99 of the NEL. The Commission considers the Draft Rule will satisfy the NEO as:

- it will ensure that sufficient information can be provided to Registered Participants to undertake power system studies for planning and operational purposes thereby assisting Registered Participants to operate in an efficient and informed manner, and plan for future operation in an efficient and informed manner while protecting commercially sensitive information;

- the facilitation of power system studies is likely to promote the quality, safety, reliability and security of the supply of electricity and the reliability, safety and security of the national electricity system; and

- it will assist in the operation and use of electricity services with respect to quality, safety, reliability and security by ensuring that sufficient information

can be provided to Registered Participants to undertake power system studies for planning and operational purposes.

In coming to this decision, the Commission has considered the Rule Change Proposal, stakeholder submissions and the requirements under the NEL.

This Draft Determination has approved some of the NGF's proposed Rule changes in part and proposes other Rule changes to address stakeholder issues, and reaches the following conclusions:

1. the inclusion of the NGF's proposed additional clauses to 3.13.3(k), which require proprietary information to be encrypted and therefore protect this information from disclosure;

2. NEMMCO's proposed clauses 3.13.3(l1)-(l4) are accepted as inclusion of these clauses would allow NSPs to disseminate relevant information between themselves, while clauses 3.13.3(l3) and (l4) maintain the confidentiality of information provided in clause 3.13.3(l2);

3. the requirement for Registered Participants and NEMMCO and/or NSPs to sign individual confidentiality agreements is not included in the draft Rule;

4. the inclusion of penalties in the Rules in the event that confidential information is inadvertently disclosed is not included in the draft Rule;

5. the term Releasable User Guide is defined and the contents of what must be included in a Releasable User Guide outlined in Chapter 10 definitions;

6. that information disclosed by NEMMCO be made available in more than one format, which will create greater flexibility and prevent obsolescence

7. that the disclosure of information will not extend beyond Registered Participants;

8. that NEMMCO establish, maintain and publish a register outlining the information that it has provided to Registered Participants;

9. transitional arrangements have been included that allow NEMMCO to classify the information that it currently has as equivalent to a Releasable User Guides and augment the Rules to allow NEMMCO to make sure that this information is kept up to date; and

10. that the provision of information will be limited to Registered and Intending Participants, therefore, in order for Connection Applicants to obtain information they must be firstly registered as an Intending Participant

In accordance with section 101 of the NEL, any interested person or body may request that the AEMC hold a hearing in relation to the Draft Rule and Draft Determination. Any request must be received no later than 3 October 2008.

Submissions on the Draft Rule and Draft Determination should be received by 7 November 2008.

Send submissions electronically to submissions@aemc.gov.au
Or mail to:
Australian energy Market Commission
PO Box H166
AUSTRALIA SQUARE NSW 1215

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1 The NGF Rule Proposal

On 8 April 2008, the Commission received a Rule change proposal regarding the modification of confidentiality arrangements from the National Generators Forum (NGF) entitled "Confidentiality Arrangements in respect of Information Required for Power System Studies".

1.1 Context and Background

The current NGF Rule change proposal is an attempt to rectify what the NGF considers are the unintended consequences that have arisen as a result of the Rule change in respect of "Technical Standards for Wind Generation and Other Generator Connections" enacted in March 2007.[1] As a result of the March 2007 Rule change, Generators are presently required to provide NEMMCO with model source code, block diagram descriptions and other detailed information pursuant to S5.2.4 of the Rules; however, in recognition of the need for non-disclosure, the March 2007 Rule change introduced more stringent confidentiality requirements for all information concerning these Generators.

The information presently required under S5.2.4 includes information that is regarded as sensitive intellectual property by some Generators, and specifically by the manufacturers of new and innovative generating systems – wind turbine manufacturers and other renewable energy service providers. Whereas, current thermal and hydro-generating technologies are considered mature technologies, wind generators and other emerging power generation technologies are rapidly evolving and are subject to intense competition in the market. Therefore, the manufacturers of these innovative technologies have an understandable interest in limiting the disclosure of intellectual property or other critical information that could compromise their competitive advantage or impinge on their position within the market.

To protect this information, the March 2007 Rule change introduced to the Rules more stringent confidentiality arrangements. For example, Rule 8.6.2(m) was altered to specifically exclude generator information provided under S5.2.4(a) (data sheets), S5.2.4(b)(5) (model block diagram) and S5.2.4(b)(6) (model source code) from being provided to any Network User as was previously the case.[2] Therefore, the disclosure and sharing of generator information was effectively limited solely to NEMMCO and Network Service Providers under Rules 5.3.8 and 8.6.1.[3]

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[1] For further information see, http://www.aemc.gov.au/electricity.php?r=20060324.143345

[2] The NGF Rule change proposal, 8 April 2008, p.1.

[3] Ibid. at p.2.

Consequences of the March 2007 Rule change that have been identified by NEMMCO include:[4]

- The Rules prohibit the disclosure of dynamic power system models to anyone other than an NSP, even in precompiled form, as this would entail the disclosure of Generator information provided under S5.2.4.; and

- The Rules prohibit the disclosure to anyone other than a NSP of load flow snapshots of the NEM, as are required for the conduct of load flow and short-circuit studies, as load flow cases include information on Generator capabilities, short-circuit impedances and transformer data, which are included in NEMMCO Data Sheets and are therefore within the scope of the Rule S5.2.4(a), hence excluded from disclosure under Rule 8.6.2(m).

1.2 Summary of the NGF Rule Proposal

The National Generators Forums proposed Rule is concerned with the effect of the confidentiality of information provisions in the existing Rules and it provides for:

1. NEMMCO to disclose sufficient information to Registered Participants for planning and operational purposes while protecting the commercial value of information which is only necessary to provide to NEMMCO; and

2. NSPs to disclose to other NSPs sufficient information for the planning and other purposes provided that consent is obtained from the person whom provided the said information.

1.3 Issues to be Addressed by the Proposed Rule

1.3.1 Information Disclosure to Registered Participants

Existing Generators, and parties wishing to connect to the NEM are required to provide to NEMMCO source code and functional block diagrams as described in clauses S5.2.4(b)(5) and (6) of the Rules (Proprietary Information); however, this information is often commercially valuable to the supplier of the generating system.

Currently "clause 3.13.3(k) permits Registered Participants to request Proprietary Information from NEMMCO. However, NEMMCO is presently unable to provide the Proprietary Information because of one or both clauses 5.3.8 and 8.6.1 in the Rules relating to confidential information".[5]

For Registered Participants "to undertake power system studies (including load flow and dynamic simulations) for planning and operational purposes, it is necessary to

[4] Econnect submission, p.3.

[5] The NGF Rule proposal, April 8 2008, p.2.

obtain from NEMMCO certain parts of the functional block diagrams (to be defined as a Releasable User Guide) and source code".[6]

The NGF Rule change proposal addresses this issue by "amending the Rules to define a Releasable User Guide, to be provided to NEMMCO and inserting provisions requiring that in certain circumstances, NEMMCO may disclose the Releasable User Guide and source code (together to be termed Releasable Information) to Registered Participants".[7]

Given Releasable Information contains Proprietary Information and is commercially valuable, it is essential that "the Rules restrict the form in which it may be disclosed by NEMMCO to third parties and provide for a list to be maintained of the persons to whom the information has been provided".[8]

The NGF Rule proposal addresses this issue through:[9]

- Setting out the particular forms in which NEMMCO will be required to provide the Releasable Information; and
- Providing that NEMMCO is to maintain a register describing the Releasable Information that it has released and to whom it has been released.

1.3.2 Information Disclosure between NSPs

The current confidentiality provisions also affect the disclosure of information from one NSP to another. Rule 5.3.8(c) provides that "a NSP may provide information obtained under Rule 5.3 to another NSP provided that the information is materially relevant to the second NSP for connection purposes".[10] For planning and other intents, it is considered necessary that NSPs be able to obtain Releasable User Guides provided to adjacent NSPs not only in relation to connection, but also in a broader range of circumstances.

The NGF Rule proposal addresses this issue by amending the Rules to provide that "NSPs may disclose Releasable User Guides to other NSPs provided that the disclosing NSP obtains the written consent of the person who provided the Releasable User Guide to NEMMCO".[11]

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[6] Ibid.
[7] Ibid.
[8] Ibid.
[9] Ibid.
[10] Ibid.
[11] Ibid.

1.4 Consultation of the Rule Change Proposal

On 8 May 2008 the Commission commenced consultation under section 95 of the NEL on the Rule change proposal. The Rule change proposal was open for public consultation for four weeks. Submissions closed on 6 June 2008.

The Commission received thirteen submissions and one supplementary submission on the Rule change proposal at the first round of consultation, which are available on the AEMC website.[12] The Commission received submissions from:

- Digsilent
- Vestas
- McLennan Magasanik Associates
- Econnect Australia
- Eureka Funds Management
- Grid Australia
- Hall Michael
- NEMMCO
- Roaring 40s
- VENCorp
- Worley Parsons
- Epuron
- Siemens

The commission also received a supplementary submission to the Rule proposal from Vestas on 13 June 2008.

The submissions were broadly supportive of the intent of the NGF Rule change proposal. However, most of the submissions sought further clarification and amendments to the Rule change proposal. The various issues that were raised in these submissions are identified and further discussed in Appendix A of this Draft Determination.

The NEL requires the Commission to also have regard to any MCE statements of policy principles in applying the Rule making test. The Commission notes that

[12] These submissions can be found at http://www.aemc.gov.au/electricity.php?r=20080424.113727

currently, there are no relevant MCE statements of policy principles for this proposal.

No public hearing has been held on this Rule change proposal to date.

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2 Methodology for Developing the Draft Determination

The Commission has determined in accordance with section 99 of the National Electricity Law ("NEL") to make the draft Rule.

This determination sets out the Commission's reasons for making the draft Rule. The Commission has taken into account:

1. the Commission's powers under the NEL to make the Rule;
2. the proponent's Rule change proposal and proposed Rule;
3. submissions received; and
4. the Commission's analysis as to the way(s) in which the draft Rule will or is likely to contribute to the achievement of the national electricity market objective so that it satisfies the statutory Rule making test.

2.1 The Commission's Power to make a Rule

The Commission is satisfied that the Draft Rule falls within the subject matters for which the Commission may make Rules, as set out in section 34 of the NEL and in accordance with Schedule 1 to the NEL.

The Draft Rule relates specifically to item 34(1) of the NEL, which states that:

"…the AEMC, in accordance with this Law and the Regulations, may make Rules, to be known, collectively, as the "National Electricity Rules", for or with respect to—

(a) regulating—

…

(ii) the operation of the national electricity system for the purposes of the safety, security and reliability of that system;

(iii) the activities of persons (including Registered participants) participating in the national electricity market or involved in the operation of the national electricity system;"

The Draft Rule also falls under the following items referred to in Schedule 1 to the NEL, namely:

item 1. The registration of persons as Registered participants or otherwise for the purposes of this Law and the Rules, including the deregistration of such persons or suspension of such registrations;

item 3. Prudential requirements to be met by a person—

(a) before being registered as a Registered participant; and

(b) as a Registered participant.

item 35. Confidential information held by Registered participants, the AER, the AEMC, NEMMCO and other persons or bodies 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.

The Commission is satisfied that the proposed Rule is a matter about which the AEMC may make a Rule as the proposal relates to the potential registration of persons as Registered participants; the prudential requirements of persons whom are Registered Participants; and the arrangements for the disclosure of confidential modelling data held by NEMMCO for generating units and other power system equipment to other parties for planning and operational purposes.

2.2 Assessment of the Draft Rule: the Rule making test and the National Electricity Market Objective

2.2.1 General

The Rule making test requires the Commission to be satisfied that a Rule that it proposes to make will contribute to the National Electricity Market Objective (NEO) outlined in Section 7 of the NEL.

The test requires the Commission to consider the implications of the proposed new Rule, for efficient investment in, and efficient operation and use of, electricity services, in respect of:

(a) price, quality, reliability and security of supply of electricity; and

(b) the reliability, safety and security of the NEM,

which impact on the long term interests of end users of electricity.

2.2.2 The NGF Rule Change Proposal

The NGF Rule proposal has considered the impact of its proposal on the National Electricity Market Objective, termed the NEO in the current version of the Rules. In its submission NGF outlines how its Rule change proposal would meet the NEO, and considers that the proposed Rule promotes efficient:[13]

- "…operation of electricity services by ensuring that sufficient information can be provided to Registered Participants to undertake power system studies for

[13] The NGF Rule Change Proposal, 8 April 2008, P.p. 2-3.

planning and operational purposes thereby assisting Registered Participants to operate in an efficient and informed manner, and plan for future operation in an efficient and informed manner"; and

- "…operation and use of electricity services with respect to quality, safety, reliability and security by ensuring that sufficient information can be provided to Registered Participants to undertake power system studies for planning and operational purposes. The facilitation of power system studies is likely to promote the quality, safety, reliability and security of the supply of electricity and the reliability, safety and security of the national electricity system".

The NGF has also considered the expected costs and benefits of its Rule change proposal and the potential impacts of the change on those likely to be affected. The NGF considers that the benefits of its proposed Rule change would be likely to include:[14]

- "increased reliability, security, safety and quality of supply of electricity as a result of Registered Participants having sufficient information to conduct power system studies for planning and operational purposes";

- "more efficient investment in the reliability, security, safety and quality of supply of electricity as a result of Registered Participants having the necessary information to understand what investment is required"; and

- "more efficient investment in generation technology as a result of increased certainty that proprietary information will be protected by the Rules".

While, the NGF considers that the likely costs of its proposed Rule change would likely include "[a] minor increase in administrative costs as a result of the requirement for NEMMCO to maintain a register concerning the information that it has disclosed. This cost may be passed on to Registered Participants by NEMMCO".[15]

In relation to the likely impacts of implementation of the Rule change proposal, NGF considers "that Generators, the AER and NEMMCO" would be affected.[16] The NGF is of the opinion that the likely impact on these parties as a result of implementation of the Rule change proposal include:[17]

(a) Generators

– "…provides for Generators to obtain information that is necessary for them to conduct power system studies for planning and operational purposes."

– "…provides comfort to generators that any proprietary technology developed by them will not be released by NEMMCO to other participants, while still

[14] Ibid. at p.3.
[15] Ibid.
[16] Ibid.
[17] Ibid. at P.p. 3-4.

allowing for each Generator to obtain sufficient information from NEMMCO to conduct power system studies".

(b) NEMMCO

– "…provides certainty for NEMMCO as to the manner in which it may disclose confidential information which it is necessary to disclose to Registered Participants in order that those Registered Participants may undertake power system studies".

– "…provides that a register be maintained by NEMMCO in relation to information disclosed by NEMMCO. The Rule Proposal provides that NEMMCO may pass on the reasonable costs of maintaining this register to Registered Participants".

(c) NSPs

– "…provides certainty for NSPs in relation to the circumstances in which they may provide certain confidential information referred to as a releasable user guide to other NSPs".

2.2.3 The Commission's Test of the National Electricity Market Objective

The NGF Rule proposal identifies the potential problem in the current Rules regarding the inability of participants to obtain all information necessary for them to undertake some power system studies. Under the NGF Rule proposal NEMMCO would be able to release this information with the consent of the provider of the said information. Both the security of commercially sensitive information and the ability for participants to model the NEM power system are important issues and the solution proposed by the NGF in clause 3.13.3(k) appears to address the arrangements necessary to manage these issues. Therefore, the Commission considers that the disclosure of information for undertaking power system studies will support the reliability and security of the NEM and will support the NEO.

Requiring the protection of confidential information will strengthen the confidence of investors in the supply/manufacture of generating components, which is likely to enhance the reliability and security of supply of electricity to the market. Therefore, the Commission considers that the protection of confidential information will support the NEO.

Clarifying what information may be disclosed by one NSP to another such that they can fulfil their obligations under the Rules promotes efficiency and allows NSPs to accurately model the power system. Furthermore, by requiring NSPs to maintain the confidentiality of commercially sensitive information investors will gain certainty that their intellectual property is secure. As a result, quality, reliability and security of supply of electricity services will be achieved. Therefore, the Commission considers clarification of information that can be shared between NSPs and the protection of proprietary information will support the NEO.

Requiring that a Generator make available the information necessary to undertake power system studies in the form of a Releasable User Guide to be kept and administered by NEMMCO will ensure that models of the NEM comprise accurate data of aspects of the power system. Therefore, the Commission considers the formulation and administration of Releasable User Guides will support the NEO.

Requiring NEMMCO to maintain a register of proprietary information that it has disclosed and to whom it has been disclosed will ensure that manufacturers and suppliers of generating systems be aware of the status of their information. This will result in strengthened investor confidence, which will enhance the reliability and security of supply of electricity to the market. Therefore, the Commission considers that the formation and maintenance of a register of confidential information will support the NEO.

Clarifying that the information disclosed by NEMMCO is made available in more than one software format will create greater flexibility for participants undertaking power system studies. Likewise, this will result in enhancing the reliability, safety and security of the NEM. Therefore, the Commission considers the availability of more than one software format promotes the NEO.

Requiring that Connection Applicants must be either Registered or Intending Participants in order to obtain information will limit the pathways through which confidential information can be disclosed. This will result in strengthened investor confidence as proprietary information will be appropriately protected and required information will be available to those parties that need it. Investor confidence will enhance the reliability and security of supply of electricity to the market. Therefore, the Commission considers that the formation and maintenance of a register of confidential information will support the NEO.

2.3 Differences between Proposed Rule and Draft Rule

The Commission has adopted some of the NGF's proposed Rule changes in part and proposes other Rule changes to address stakeholder issues. These include clarifying what information may be disclosed by NEMMCO and how confidential proprietary information will be protected, the degree of information that may be disclosed by one NSP to another and the software formats that this information must be in. The draft Rule also requires that Connection Applicants must be either Registered or Intending Participants to obtain information from NEMMCO.

The Draft Rule specifies that:

- functional block diagrams, source code and other proprietary information will be encrypted to prevent its disclosure, while information required for power system studies that is not considered confidential information will be available;

- NSPs are allowed to disseminate relevant information between themselves while maintaining the confidentiality of proprietary information;

- information can be provided in more than one software package;

- the information must be contained in a Releasable User Guide to aid market participants in undertaking power system studies;

- there are transitional arrangements to explicitly define the status of the information currently held by NEMMCO and to allow for NEMMCO to make sure that this information is kept current and up to date; and

- to obtain information from NEMMCO a participant must be either a Registered or Intending Participant. A Connection Applicant must also be either of these two types of participant.

Subject to the above amendments, the Commission has accepted the NGF's proposed Rule for Confidentiality Arrangements in Respect of Information Required for Power System Studies.

A Appendix A - Commissions Analysis of the Proposed Rule

In this appendix, the Commission addresses a number of issues that have been raised in submissions or that have emerged during its analysis.

In summary, there are seven areas covered in this Draft Determination:

1. Currently existing Generators, and persons wishing to connect to the National Electricity Market (NEM) are required to provide NEMMCO with source code and functional block diagrams (Proprietary Information). The existing Rules permit Registered Participants to request the Proprietary Information from NEMMCO; however, NEMMCO is presently unable to provide this information because of one or both clauses 5.3.8 and 8.6.1 of the Rules;[18]

2. It is necessary for Registered Participants to obtain from NEMMCO certain parts of the functional block diagrams (Releasable User Guide) and source code for planning and operation. Therefore, there is a need to amend the Rules to define a Releasable User Guide and provide guidelines to allow NEMMCO to disclose the Realisable User Guide and source code (together Releasable Information) under certain circumstances;[19]

3. Giving guidelines on the software packages that NEMMCO will be required to provide the Releasable Information in;[20]

4. Given the Releasable Information is commercially valuable, it is necessary that the Rules restrict the form in which it may be disclosed by NEMMCO to third parties;[21]

5. NEMMCO to maintain a register describing the Releasable Information that is has released and to whom it has been released;[22]

6. Transitional arrangements are critical to ensuring that the information provided to Registered Participants is, and remains, complete and accurate, as information missing from the power system model may make the models inaccurate or incomplete;[23] and

7. The proposed Rule has been proposed for information disclosure to Registered Participants. Should a similar process exist for Connection applicants.[24]

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[18] The NGF Rule change proposal, 8 April 2008, Pp. 1-2.

[19] Ibid. at p.2.

[20] Ibid.

[21] Ibid.

[22] Ibid.

[23] NEMMCO submission, Attachment 1, Pp. 4-6.

[24] Ibid. Attachment 1, p.13

In developing the Draft Rule, the Commission has examined a number of issues, including:

- whether the Rule proposal in its current form protects the 'commercially valuable' intellectual property/proprietary information of the suppliers of power systems while still providing Registered Participants , NSPs and NEMMCO with the data required to undertake power system studies to meet the NEM objective;
- whether the contents of a Releasable User Guide should be explicitly defined in the Rules, or whether general guidelines should be adopted;
- whether the source code to conceal proprietary information should be limited to one software programme, or be allowed in several programmes;
- whether the access to information should be limited to Registered Participants or expanded to include intending participants, academics and consultancy companies;
- whether it is necessary for NEMMCO to maintain a register of the Proprietary Information that it has released to Registered Participants;
- whether there should be modifications to the NGF Rule proposal to include guidance to NEMMCO on transitional arrangements for information that has been supplied prior to this Rule change; and
- whether a similar approach to this Rule proposal in relation to the provision of information to Registered Participants should be undertaken for connection applicants.

This section details the Commission's analysis and reasons underlying its Draft Rule in relation to each of the issues identified above.

A.1 Proprietary Information and Data Confidentiality

A.1.1 The NGF Proposal

The NGF Rule proposal notes that this Rule change is as a result of what the NGF considers are the unintended consequences arising as a part of the Rule change in respect of "Technical Standards for Wind Generation and Other Generator Connections" enacted in March 2007.[25] As a result of the March 2007 Rule change, Generators are required to provide NEMMCO with model source code, block diagram descriptions and other detailed information pursuant to S5.2.4 of the Rules; however, in recognition of the need for non-disclosure, the March 2007 Rule change introduced more stringent confidentiality requirements for all information concerning Generators. For example, Rule 8.6.2(m) was altered to specifically exclude generator information provided under S5.2.4(a) (data sheets), S5.2.4(b)(5)

[25] For further information see, http://www.aemc.gov.au/electricity.php?r=20060324.143345

(model block diagram) and S5.2.4(b)(6) (model source code) from being provided to any Network User as was previously the case.[26] Therefore, the disclosure and sharing of generator information was effectively limited solely to NEMMCO and Network Service Providers under Rules 5.3.8 and 8.6.1.[27]

To overcome these unintended consequences the NGF Rule proposal suggests modification of Clause 3.13.3(k) (standing data) of the existing Rules, which permits Registered Participants to request Proprietary Information from NEMMCO.[28] Through this modification, the Rule proposal will provide for "NEMMCO to disclose sufficient information to Registered Participants for planning and operational purposes while protecting the commercial value of information which is only necessary to [be] provide[d] to NEMMCO".[29]

Additionally, the NGF Rule proposal also notes that the "confidentiality provisions in the existing Rules also affect the disclosure of information by one NSP to another. Existing Rule 5.3.8(c) provides that an NSP may [only] provide information obtained under Rule 5.3 to another NSP provided that the information is materially relevant to the second NSP for connection".[30] To subjugate this issue the NGF Rule proposal recommends the addition of Clause 5.3.8(c1).

A.1.2 Submissions

Only those submissions containing information relevant to the issue under discussion have been included.

A.1.2.1 DIgSILENT

DIgSILENT in its submission suggests that "all data should be made available as was done in the past subject to signing a confidentiality agreement. The problem with data confidentiality has been created by manufacturers that do not want to make their dynamic models available – not even if the intended recipient of the data signs a confidentiality agreement."[31]

A.1.2.2 Grid Australia

Grid Australia in its submission notes that while the Rules are clear on the responsibilities required of NSPs pursuant to Rule 5.2.3(d), the rules are ambiguous in relation to a NSPs' right to share information with another NSP.[32] Further Grid Australia notes that "NSPs have and will continue to receive unencrypted data

[26] The NGF Rule change proposal, 8 April 2008, p.1.
[27] Ibid. at p.2.
[28] Ibid.
[29] Ibid. at p.1.
[30] Ibid. at p.2.
[31] DIgSILENT submission, p.2.
[32] Grid Australia submission, p.2.

(proprietary information) as part of connection applications, as required under the Rules. However, it is noted that the NGF Rule proposal does not propose any change to this provision".[33]

"Grid Australia considers that there is a need for the Rules to specify that NSPs have the authority to share unencrypted data with other NSPs and between NSPs and NEMMCO, for the purpose of fulfilling their Rule obligations."[34] The NGF Rule proposal asserts that only encrypted data should be transferred from one NSP to another, which Grid Australia considers will impede the functionality of NSPs. Grid Australia maintains that without detailed unencrypted data in relation to connection applications, "NSPs cannot determine the impact of such a connection on their networks and other connected parties, and hence upon the obligations they are legally required to meet".[35]

Grid Australia proposes that a new Clause 3.13.3(k3) be added to the Rules, to allow NSPs to fulfil their requirements under the NEL, with a provision to permit NSPs to exchange unencrypted data between themselves.[36] In addition, Grid Australia recommends that when Releasable Information is disclosed that third parties should not require the permission of the originator of the Releasable Information, because "the situation could arise where the Releasable Information seeking party is or could be perceived to be in competition with the originator of the Releasable Information".[37] Therefore, Grid Australia recommends that NEMMCO be responsible for determining whether the Releasable Information is disclosed or not.

In relation to Rule 5.3.8(c1) in the NGF Rule proposal, Grid Australia recommends that this clause be deleted as Grid Australia does not believe that NSPs should be the custodians of, or responsible for the disclosure of Releasable Information. It is recommended that this function should lie exclusively with NEMMCO.

A.1.2.3 Siemens

In relation to confidentially agreements, Siemens suggests that "information should only be provided subject to a confidentiality agreement being in place, in particular between the recipient and the receiver". Ideally Siemens would prefer "confidentiality agreements being entered into between the manufacturers (discloser) and the Registered Participants, NSPs and NEMMCO respectively".[38]

When information is disclosed Siemens agrees with Vestas that the original discloser of a dynamic model is notified of the release of information and there is greater clarity of the numerical parameters in the dynamic model. However, Siemens is of the opinion that notification in itself is not sufficient and a "comprehensive process

[33] Ibid.
[34] Ibid.
[35] Ibid.
[36] Ibid. at p.3.
[37] Ibid.
[38] Siemens submission, p.1.

needs to be inserted [in the Rules] to enable objections by the discloser of the information".[39]

A.1.2.4 Roaring 40s

Roaring 40s in its submission state that "current confidentiality arrangements require further enhancement to give developers and manufacturers full confidence that their intellectual property is adequately protected".[40] Further, Roaring 40s note that currently there are no punitive provisions/sanctions in the Rules in relation to either a NSP or NEMMCO inadvertently breaching confidentiality provisions and releasing sensitive proprietary information. To this end, Roaring 40s suggests that the Commission consider options for amending the Rules to either introduce penalties that are commensurate with the damage caused by the breach of confidentiality provisions, or require that Registered Participants sign contractual confidentiality agreements with NEMMCO or the relevant NSP.[41]

A.1.2.5 Econnect

Econnect in its submission note that the NGF Rule proposal will not address all of the current issues with the provision of data for power system studies and should be augmented with additional information. Econnect states that the "current Rules restrict the provision of static information contained in the Generating System Data Sheets, and therefore prevent the release to Registered Participants of much of the data required for static and dynamic power system studies".[42]

To address this issue, Econnect suggests that Rule 5.3.8 is modified to provide a new category of 'releasable information' in respect of generator connections. This new information would cover load flow data requirements and would be able to be disclosed by NEMMCO or a NSP to a Registered Participant to undertake power system studies for planning and operational purposes. The information the Econnect recommends be included in 'releasable information' and the location where it should be drafted in the Rules is outlined in their submission.

A.1.2.6 VENCorp

VENCorp in its submission notes that a "NSP has clearly defined responsibilities under the Rules that would be undermined by the NGF Rule proposal".[43] Existing Rule 5.2.3(d)(8) states that a NSP "use its reasonable endeavours to ensure that modelling data used for planning, design and operational purposes is complete and accurate…", which VENCorp believes can not be done without complete models of all generators on the network. Furthermore, VENCorp observes that there are other

[39] Ibid. at p.2.

[40] Roaring 40s submission, p.3.

[41] Ibid. at P.p. 3-4.

[42] Econnect submission, p.6.

[43] VENCorp submission, p.1.

obligations that NSPs have under the Rules that would be made more difficult without having available complete generator models.[44]

VENCorp broadly supports the NGF Rule proposal; however, while VENCorp does not advocate the unfettered provision of proprietary information to any Registered Participants whom requests the information, VENCorp suggests that NSPs "be allowed to obtain the complete models and be allowed to share them with other NSPs and NEMMCO to carry out their obligations under the Rules".[45]

A.1.2.7 NEMMCO

NEMMCO notes in its submission that there are a number of significant issues that should be addressed in relation to the extent of information required by NSPs for providing network limit advice to NEMMCO. "The proposed Rule does not recognise that TNSPs need to receive detailed and potentially confidential information, other than when "the information or data is materially relevant to that provider for *connection*". A local NSP (and, in respect of an embedded generating unit, the local TNSP) receives confidential block diagram information. However, under the NGF Rule proposed, a TNSP that is not "local" would only receive information from NEMMCO to the same level of detail as to any other Registered Participant."[46] NEMMCO further notes that the NGF Rule proposal denotes the level of detail that is required for a connection application; however, does not consider the level of information that is required for network limiting advice (including stability related network limits) from TNSPs to NEMMCO. "The relatively unrestricted sharing of information between TNSPs and NEMMCO is essential for operation of the power system in a safe and efficient manner."[47] In particular, TNSPs require access to functional block diagrams for small signal models for oscillatory stability studies that are used for a number of purposes relating to stability and security of the power system. To meet the requirements of TNSPs, NEMMCO suggests the inclusion of a number of clauses under clause 3.13.3(l) of the proposed Rule.[48]

For the provision of information from one NSP to another the NGF Rule proposal suggests the inclusion of clause 5.3.8(c1); however, NEMMCO is of the opinion that this clause is unnecessary and could be removed to allow NSPs to exchange materially relevant information at their discretion. If the clause were to be included then the information that can be shared should be clarified precisely.[49]

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[44] Ibid. at P.p. 1-2.

[45] Ibid. p.2.

[46] NEMMCO submission, Attachment 1, p.2.

[47] Ibid.

[48] Ibid. at p.3.

[49] Ibid. at p.12.

In relation to the signing of confidentiality agreements between parties NEMMCO notes that this issue has been discussed at a number of forums in the past and makes the following comments:[50]

1. …appropriate and expected that a confidentiality agreement be entered into between a Registered Participant or NEMMCO and its consultants or advisers for confidential information;
2. …the current Rules have worked to date and it is not necessary for confidentiality agreements between Registered Participants and NEMMCO; and
3. …[adding] another layer of documentation above the Rules obligations would result in greater costs and could also stifle the delivery of information as parties negotiate the terms of a confidentiality agreement.

A.1.2.8 Vestas (Supplementary)

Vestas in its supplementary submission states that "the provision of information should be limited, such that it does not compromise the intellectual property/[proprietary information] of the provider is essential … the NGF proposal goes a long way towards this objective. Many Generators and wind turbine manufacturers consider model source code to be confidential information, as it contains critical [proprietary information]."[51] To this end, Vestas notes that "should the provision in the current Rules remain unchanged in relation to provision of model source code to NEMMCO, there should be no valid reason for a[n] open source code model to be provided to any other party. Any models provided to any other party (Registered Participants and NSPs) should be in a secured format (object code or encrypted format) in such a way that protects the proprietary information."[52] Vestas also states that the performance of the model whether in source code or in encrypted form provides the same performance.

A.1.3 The Commissions Consideration and Reasoning

A.1.3.1 Protection of Proprietary Information

The NGF's proposed clause 3.13.3 seeks to allow NEMMCO to release information that is reasonably required to carry out power system studies (including load flow and dynamic simulations) for planning and operational purposes. The Rule proposal also allows for the disclosure of Generators confidential information provided confidential design information/proprietary information and source code is hidden in a secured format and/or a Releasable User Guide. Submissions from Vestas, Roaring 40s and Siemens outline the importance of keeping proprietary information secure such that intellectual property rights are maintained. To protect this

[50] Ibid. at p.13.

[51] Vestas supplementary submission, p.3.

[52] Ibid.

information, the NGF Rule proposal suggests the inclusion of 3.13.3(k2) and NEMMCO suggests the inclusion of clause 3.13.3(l1). The Commission accepts that the addition of these clauses will allow for the protection of proprietary information.

The NGF Rule proposal suggests the deletion of subclauses 3.13.3(k)(2)(i), (ii) and (iii); however, NEMMCO is of the opinion that this information is required by Registered Participants for planning and operational purposes and recommends that these subclauses are retained within the Rules. NEMMCO suggests that these subclauses be retained under a new clause 3.13.3(k3) and has amended them to include additional information that it considers is required, but is not currently able to be disclosed by NEMMCO. This information is important for undertaking power system studies and does not contain proprietary information, thus the Commission accepts NEMMCO's suggestion to retain this information within the Rules.

The NGF Rule proposal recommends the deletion of Rule 8.6.2(m), because without its deletion, information that is provided in accordance with clauses S5.2.4(a), (b)(5) and (b)(6) would not be able to be disclosed. The Commission accepts the NGF Rule proposal to delete clause 8.6.2(m) as this would prevent the disclosure of information provided under clauses S5.2.4(a), (b)(5) and (b)(6), which is considered confidential information to connection applicants.

NEMMCO suggests that a Rule be added to classify the information that is provided by NEMMCO in clauses 3.13.3(l) and (l2) as confidential information, as this information is only to be provided to NSPs and TNSPs such that they can fulfil their obligations under the Rules. In the absence of this NEMMCO normally declares any information it provides as confidential information. Therefore, NEMMCO suggests amendments to Rule S5.2.4(f).[53] Given that these clauses pertain to information including functional block diagrams, the Commission accepts that NEMMCO's suggested clauses are added to protect disclosure of this information.

Vestas in its submission states that any models provided to any other party (Registered Participants and NSPs) should be in a secured format (object code or encrypted format) in such a way that protects the proprietary information. For NSPs to fulfil their obligations under the NEL they require the same level of detailed data as that of NEMMCO. The Commission believes it is important for the long-term safety and reliability of the power system that NSPs have access to all information that allows them to fulfil their Rule obligations. NEMMCOs suggested clause 3.13.3(l2) would permit NSPs to obtain all necessary information from NEMMCO, which would include functional block diagrams; however, with the addition of suggested clause 3.13.3(l3) would not contain source code. Furthermore, the addition of clauses 3.13.3(l4) and S5.2.4(f) deem this information to be confidential and require that NSPs can not disclose it.

[53] NEMMCO submission, Attachment 1, P.p. 12-13.

A.1.3.2 Confidentiality Agreements

the signing of confidentiality agreements between a Registered Participant and their consultants or advisors is appropriate and expected. However, on the other hand, the signing of individual confidentiality agreements between the discloser (manufacturer) and recipients (Registered Participants, NSPs and NEMMCO) would add an extra layer of legal documentation above the Rules and is likely to result in additional costs and delays in the delivery of required information. The Commission therefore, has not included provisions for the signing of individual confidentiality agreements in the Draft Rule.

A.1.3.3 Information Transfer between NSPs

The NGF Rule change proposal suggests the inclusion of clause 5.3.8(c1) to facilitate the efficient transfer of information between adjacent NSPs provided the first NSP obtains the written approval from the provider of the said information to disclose it. In contrast, in its submission Grid Australia considers that this clause is unclear on the process for obtaining and releasing information. In particular Grid Australia raises three questions:[54]

1. should a NSP seek the permission to disclose information from the originator of the information directly or through NEMMCO;
2. if sought directly is it the responsibility of the NSP or the originator of the information to inform NEMMCO of the disclosure and if so, it is unclear how; and
3. if sought directly from NEMMCO, whether it is the responsibility of the originator of the information or NEMMCO to advise the NSP that consent has been given to disclose the information.

Given this uncertainty and the expected loss of administrative efficiency Grid Australia recommends that it would be more appropriate and efficient that the party seeking information should do so directly through NEMMCO, and given these reasons suggests that clause 5.3.8(c1) is deleted from the draft Rule.

NEMMCO also notes in its submission that "it is not clear why this clause is necessary unless it is for the avoidance of doubt that a NSP may release the Releasable User Guide to another NSP".[55] NEMMCO suggests that this clause be deleted and allow that local NSP to share materially relevant information with another NSP at its discretion. The Commission rejects the NGF proposed clause 5.3.8(c1), which will allow local NSPs to share materially relevant information with another NSP at their discretion, as is currently the case.

Grid Australia proposes that a new Clause 3.13.3(k3) be added to the Rules, to allow NSPs to fulfil their requirements under the NEL, with a provision to permit NSPs to

[54] Grid Australia submission, p.3.

[55] NEMMCO submission, Attachment 1, p.12.

exchange unencrypted data between themselves.[56] VENCorp is in agreement with Grid Australia that NSPs be allowed to obtain the complete models and share them amongst themselves to fulfil their NEL obligations. In addition, NEMMCO notes in its submission that a local NSP (and, in respect of an embedded generating unit, the local TNSP) receives confidential block diagram information. However, under the NGF Rule proposed, a TNSP that is not "local" would only receive information from NEMMCO to the same level of detail as to any other Registered Participant, which would not enable them to efficiently undertake power system studies. To meet the requirements of TNSPs, NEMMCO suggests the inclusion of clauses 3.13.3(l2), (l3) and (l4) to the NGF Rule proposal. For the safe and secure operation of the power system NSPs require the same level of data as that of NEMMCO, therefore, the Commission accepts the inclusion of NEMMCO's suggested clauses.

A.1.3.4 Introduction of Penalties to the Rules

In relation to the submission by Roaring 40s regarding the suggestion "that the Commission consider options for amending the Rules to introduce penalties that are commensurate with the damage caused by the breach of confidentiality provisions"[57], the Commission notes that Division 2, Section 36 of the NEL prohibits the Commission to make Rules that "create criminal offenses or impose civil penalties for breaches".[58] Therefore, the Commission has not included penalties in the draft Rule.

A.1.4 The Commissions Findings in Relation to this Issue

The Commission accepts the following proposals:

- deletion of clause 8.6.2(m) Exceptions
- agree with amendments by NEMMCO to clarify which information is confidential under Rule S5.2.4(f)
- delete clause 5.3.8(c1) and allow NSPs to share materially important information between themselves
- the Commission has not included provisions for the signing of individual confidentiality agreements in the Draft Rule.
- the Commission has not included penalties in the Rules for the disclosure of proprietary information by market participants.

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[56] Grid Australia submission, p.3.

[57] Roaring 40s submission, p.3.

[58] National Electricity Law, p.54.

A.2 Releasable User Guides

A.2.1 The NGF Proposal

It is often necessary for Registered Participants to obtain from NEMMCO certain parts of the functional block diagrams and source code for the purpose of undertaking power system studies (including load flow and dynamic simulations) for planning and operational purposes.[59] The NGF Rule proposal suggests that the functional block diagrams could be termed a Releasable User Guide. Furthermore, to overcome issues with the provision of proprietary information, amending the Rules to define a Releasable User Guide – which must be provided to NEMMCO – and inserting provisions requiring that in certain circumstances, NEMMCO may disclose the Releasable User Guide and source code (together termed Releasable Information) to Registered Participants. A definition of Releasable User Guides to be given in Chapter 10 Definitions of the Rules was included in the NGFs proposed Draft Rule as follows:[60]

"**Releasable User Guide**: a document associated with a functional block diagram that contains sufficient information to enable a *Registered Participant* to use the encrypted source code to carry out *power system* studies for planning and operational purposes".

A.2.2 Submissions

Only those submissions containing information relevant to the issue under discussion have been included.

A.2.2.1 Vestas

Vestas in its submission suggested an amendment to be made to the definition of a Releasable User Guide proposed by NGF as follows:[61]

"**Releasable User Guide**: a document associated with a functional block diagram that contains (~~sufficient information to enable~~) the numerical values associated with the software model for the purpose of a *Registered Participant* (~~to use~~) using the encrypted source code to carry out *power system* studies for planning and operational purposes".

A.2.2.2 NEMMCO

In relation to the contents of a Releasable User Guide, NEMMCO recommends in its submission that the Rules specify explicitly what should be included in a Releasable User Guide as the NGF Rule proposal states that a Releasable User Guide contain

[59] NGF Rule proposal, p.2.

[60] Ibid, at Attachment A, p.7.

[61] Vestas submission, p.1.

"sufficient information", which could be too vague for the person preparing the Guide.[62]

NEMMCO suggested a definition and contents that could be included in a Releasable User Guide, including possible drafting of the Rule in its submission as follows:[63]

"**Releasable User Guide**: a document associated with a functional block diagram and source code provided under clause S5.2.4(b) (combined, forming the "**model**") that contains sufficient information to enable a *Registered Participant* to use the encrypted source code provided under clause 3.13.3(l) to carry out *power system* studies for planning and operational purposes. The information must include, but is not limited to:

(i) the **model** parameters and their values;

(ii) information about how the **model** parameter values vary with the operating state or output level of the *plant* or with the operating state or output level of any associated *plant*;

(iii) instructions relevant to the use and operation of the encrypted source code provided under clause 3.13.3(l);

(iv) [optional] a description, including relevant functional block diagrams (which may be in simplified form), of the *generating unit*, *generating system* or related *plant*, as appropriate, to enable a person trained in carrying out *power system* simulation studies to understand the *plant* technology and performance;

(v) Settings of *protection systems* that are relevant to load flow or dynamic simulation studies;

(vi) Information provided in accordance with Schedule 5.5 that is not part of the **model** or the **model** parameters, which are required to allow modelling of the *generating unit*, *generating system* or related *plant* in *power system* load flow or dynamic simulation studies;

(vii) *Connection point* details including parameters and values, location, *network augmentations* or modifications and other relevant *connection* information; and

(viii) If the *generating unit* or *generating system*, as appropriate, is not yet *connected*, the expected *connection* and commissioning dates."

NEMMCO also notes that depending on transitional arrangements "there may be a Releasable User Guide for each generating system or generating unit in the NEM", which could potentially decrease market efficiency. [64] To overcome this, NEMMCO suggests the inclusion of an additional paragraph under proposed clause 3.13.3, which would allow NEMMCO to provide information relating to "requests for

[62] NEMMCO submission, Attachment 1, p.6.

[63] Ibid. at P.p. 6-8.

[64] Ibid. at p.8.

information required for load flow and dynamic stability studies; model parameters and parameter values; and information derived from the listed sources [within the additional paragraph]".[65]

Finally NEMMCO suggests that the "requirement not to alter the Releasable User Guide is only reasonable if the information provided in each Releasable User Guide is complete and correct".[66] Therefore, the Rules should "require a Generator to amend a Releasable User Guide when it is incomplete, inaccurate or out of date", and NEMMCO suggests that as this information also pertains to information contained in S5.2.4(b) of the Rules that it is reasonable that these requirements be combined with that of Releasable User Guides through augmentation of clause S5.2.4(d).[67]

A.2.2.3 Grid Australia

Grid Australia notes in its submission that while the NGF Rule proposal gives a definition of Releasable Information to be contained in a Releasable User Guide, this in itself is not enough. "Given that every generator currently not supplying unencrypted data to market participants will be required to provide Releasable Information for the provision of power flow analysis, in the interests of efficiency, this process should only be undertaken once."[68] Grid Australia is of the opinion that the information to be included in a Releasable User Guide should be decided by market participants, such that all participants needs are met, and a minimum set of requirements are developed.

Grid Australia also suggests that the Rules be amended to include a date by which existing Generators are required to provide Releasable Information to undertake power flow analysis. Here or in transitional arrangements

A.2.2.4 Worley Parsons

The NGF Rule proposal provides for a Releasable User Guide to provide the information that is itemised in subparagraph S5.2.4(b)(5) of the Rules; however, in its submission Worley Parsons suggests that this information should be augmented with "the complete voltage ratio and impedance information pertaining to any generator transformers – as this information is also interpreted to fall within the definition of confidential information".[69] Without the provision of this information Worley Parsons indicates that it is not possible to perform accurate power system studies necessary for the planning and negotiation of generator and load connections.

Worley Parsons also notes that "many power system studies require the release of dynamic information pertaining to Generators and Generator transformers that are

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[65] Ibid. at p.9.

[66] Ibid.

[67] Ibid. at p.10.

[68] Grid Australia submission, p.4.

[69] Worley Parsons submission, p.2.

in parts of the network remote to the immediate section of the network being modelled. To ensure that the objectives of the Rule proposal are met, it is also important that the release of information relating to such remote assets of the system is allowed under the provisions of any changes to the Rules".[70]

A.2.2.5 Epuron

The Epuron submission is in agreement with that of the Worley Parsons submission and states that there has been "ongoing frustration due to the inability to access the fundamental network data required to complete network studies in relation to connection applications".[71]

A.2.2.6 Roaring 40s

The NGF Rule proposal under Rules 3.13.3(k1) and 5.3.8(c1) requires NEMMCO to provide Registered Participants and NSPs with a Releasable User Guide; however, Roaring 40s does not believe that the Rule proposal adequately defines what a Releasable User Guide is and what its contents should be.

Roaring 40s proposes that "a Releasable User Guide be a document provided by the participant registering the plant [for] which the model represents and explicitly identified as such by the participant".[72] The Releasable User Guide should include the following items:

(a) Sufficient information for a user to operate the encrypted or compiled version of the model in power system studies;

(b) Not include functional block diagrams;

(c) Be provided by the Registered Participant during the construction process; and

(d) For avoidance of doubt, no information provided to NEMMCO prior to the date of this Rule change can be deemed to be a Releasable User Guide unless NEMMCO is requested to do so by a participant who supplied the said information.[73]

A.2.2.7 Econnect

Econnect in its submission provides an extensive discussion of the information that is required to adequately undertake power system studies. In addition, the existing Rules restrict the provision of static information contained in Generating System Data Sheets, therefore preventing Registered Participants from obtaining the data required for both static and dynamic power system studies. To overcome this issue,

[70] Ibid.

[71] Epuron submission, p.1.

[72] Roaring 40s submission, p.4.

[73] Ibid.

Econnect suggests that modifications are made to Rule 5.3.8 to provide for a new category of Releasable Data in relation to Generator connections. This new category would cover the required load flow data and would be able to be disclosed by an NSP or NEMMCO to a Registered Participant in order to carry out power system studies for planning and operational purposes and would include the following information.[74]

"**Releasable data**; in connection with a generating unit or generating system, the following items of information provided subject to Rule S5.2.4:

(a) Generator and transformer MVA rating;

(b) Maximum and minimum sent out real power capability;

(c) Maximum and minimum sent out reactive power capability;

(d) Voltage setpoint and controlled busbar for load flow solution purposes;

(e) Nominal short-circuit impedance for positive, negative and zero-sequence;

(f) Transformer vector group and off-nominal tap ratio;

(g) Transformer positive, negative and zero-sequence impedance; and

(h) Transformer tapping range and voltage control limits."[75]

Furthermore, Econnect suggests the inclusion of a new Rule 5.3.8(b1) pertaining to Releasable data and to whom it may be disclosed and provides possible drafting for this Rule.

A.2.2.8 Vestas (supplementary)

In relation to Releasable User Guides, Vestas in its submission defines what it believes these Guides to mean (1) to act as a guide to the model such that any user who receives the model is able to operate it and integrate the model into a grid study easily and efficiently, and (2) to provide information about the model and the Generators plant that will assist a user in undertaking certain system studies (similar to the Releasable Data outlined in Econnect's submission).[76]

Vestas recommends that the term Releasable User Guide be clearly defined in the Rules and recognise that the information will be used for limited purposes such as dynamic and load flow studies. With the understanding that this data is not confidential in any way there is more certainty for all concerned, as what is required to be provided and under what terms is clearly expressed.

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[74] Econnect submission, P.p. 4-6.

[75] Ibid. at p.8.

[76] Vestas supplementary submission, p.4.

A.2.3 The Commissions Consideration and Reasoning

A.2.3.1 Definition of Releasable User Guides

The Commission agrees with the opinions outlined in the submissions above that to prevent unnecessary confusion that a Releasable User Guide be clearly defined in the Rules. Furthermore, the Commission agrees with NEMMCO's amendments to the NGF's Rule drafting in relation to the addition of the relevant clauses outlining where the information making up the Releasable User Guides is to be sourced in the Rules. It is also the opinion of the Commission that the drafting proposed by Vestas adds clarity to the definition and has been included in the draft Rule. Therefore, with further amendments from the Commission the draft Rule in relation to the definition of a Releasable User Guide has been drafted as follows:

"**Releasable User Guide**: a document associated with a functional block diagram and source code provided under clause S5.2.4(b) (combined, forming the "**model**") that contains the numerical values associated with the **model** to enable a *Registered Participant* to use the encrypted source code provided under clause 3.13.3(l) to carry out *power system* studies for planning and operational purposes."

A.2.3.2 Contents to be included in a Releasable User Guide

Roaring 40s and Vestas in their submissions both state that a 'Releasable User Guide should contain sufficient information to act as a guide for a user to operate the encrypted or compiled version of the model and integrate the model into power system studies easily and efficiently'. The Commission agrees that this should be the function of a Releasable User Guide.

Roaring 40s and Vestas also note that 'Releasable User Guides should provide information about the Generators plant that will assist a user to undertake certain system studies; however, should not include information pertaining to functional block diagrams' as this contains proprietary information. NEMMCO's submission notes that information pertaining to functional block diagrams need not be included in a Releasable User Guide. While the functional block diagram provides useful information on performance and potential interactions, in particular, those generating systems nearby, it also contains confidential design information, so it is suggested that the diagrams could be provided in 'simplified form', although this may reduce the value of information. To maintain confidentiality of design information the Commission will not mandate the release of functional block diagrams in Releasable User Guides.

The NGF Rule proposal suggests the inclusion of clause 3.13.3(k1) in relation to NEMMCOs obligation to disclose a Releasable User Guide. NEMMCO in its submission notes that the words 'unaltered form' in clause 3.13.3(k1) could lead to the information contained in Releasable User Guides becoming incorrect or out of date and suggests the inclusion of clause 5.2.4(d) so that the information is always correct and complete. The Commission agrees that Releasable User Guides should be periodically updated such that the information is up to data and complete and

accepts NEMMCO's suggested clauses S5.2.4(d)(1), (2) and (3), which will allow for NEMMCO to maintain the accuracy of this data.

Under Schedule 5.5 of the Rules, Worley Parsons notes that currently, complete voltage ratio and impedance information pertaining to any generator transformers fall within the definition of confidential information. In addition, the existing Rules restrict the provision of static information contained in Generating System Data Sheets (S5.5.7(a)(1) and (2)), therefore preventing Registered Participants from obtaining the data required for both static and dynamic power system studies.[77] To overcome this issue, Econnect suggests that modifications are made to Rule 5.3.8 to provide for a new category of Releasable Data in relation to Generator connections. NEMMCO also notes that clause S5.2.4(f) made information provided under S5.2.4(a) confidential, and this includes any information provided under Schedule 5.5. Some essential information (such as generating unit transformer data) cannot currently be disclosed by NEMMCO and should be included in the Releasable User Guide – to overcome this issue NEMMCO suggests the inclusion of item (vi) under their definition of Releasable User Guides.

> "S5.5.7(a) *NEMMCO* must, subject to paragraph (b), develop and *publish* by 1 March 2008, in accordance with the *Rules consultation procedures:*
>
> (1) a *Generating System Design Data Sheet* describing, for relevant technologies, the *generating system* design parameters of *generating units* and *generating systems* including *plant* configurations, impedances, time constants, non-linearities, ratings and capabilities, to be provided under clauses S5.2.4 and this schedule 5.5;
>
> (2) a *Generating System Setting Data Sheet* describing, for relevant *generation* and *control system* technologies, the *protection system* and *control system* settings of *generating units* and *generating systems* including configurations, gains, time constants, delays, deadbands, non-linearities and limits, to be provided under clauses S5.2.4 and this schedule 5.5."

Grid Australia is of the opinion that the information to be included in a Releasable User Guide should be decided by market participants, such that all participants needs are met, and a minimum set of requirements are developed.

In relation to the contents of a Releasable User Guide, the suggested drafting by NEMMCO states that "the information must include, but is not limited to", followed by a list of information to be included; however, item (iv) is optional which is contradictory. Whether a Generator includes information about their plant in the form of functional block diagrams is a commercial decision to be made by that company. For the above reasons, the Commission agrees with NEMMCOs suggested contents for Releasable User Guides with the omission of item (iv).

[77] National Electricity Rules, Version 21, S5.5.7, p.461.

A.2.4 The Commissions Findings in Relation to this Issue

- Agree with the NGF Rule proposal as to the inclusion of subparagraph (b)(7) in Rule S5.2.4 Provision of Information in relation to the provision of a Releasable User Guide to NEMMCO and NSPs with amendments from NEMMCO.

- Agree with the NGF Rule proposal as to the deletion of "and" from Rule S5.2.4(b)(5)(iii) and the inclusion of "and" in Rule S5.2.4(b)(6) to provide continuity in the Rules.

- Agree with the NGF Rule proposal as to the inclusion of a definition for a Releasable User Guide in Chapter 10 Definitions with amendments from Vestas and NEMMCO.

- Agree with NEMMCO's suggested amendment of clause S5.2.4(d)and insertion of S5.2.4(d)(1), (2) and (3), to allow NEMMCO to keep the information contained in Releasable User Guides current and up to date.

- Agree with NEMMCOs suggested contents of a Releasable User Guide to be placed in Chapter 10 Definitions with the exception of item (iv).

A.3 Software Products for Release of Model Data

A.3.1 The NGF Proposal

In the draft Rule provided by the NGF, clause 3.13.3(k2)(1) and (2) state the forms in which data can be disclosed by NEMMCO. [78]

A.3.2 Submissions

Only those submissions containing information relevant to the issue under discussion have been included.

A.3.2.1 DIgSILENT

The terminology used in the Rule proposal in relation to "object code" would in DIgSILENT's view limit data encryption to one software product only and unless the data is made available in all software formats in use in the NEM, the release of encrypted data will not work. There are currently a number of software packages used throughout the NEM and DIgSILENT is concerned that the NGF Rule proposal will "limit the market to use one software tool only and thereby eliminate all competing products from the NEM".[79]

[78] NGF Rule proposal, Attachment A, p.2.

[79] DIgSILENT submission, P.p. 1-2.

A.3.2.2 Worley Parsons

Worley Parsons notes in its submission that the Rule proposal requires the release of some data in an encrypted format, which Worley Parson's considers will effectively lock the power system planning environment into one version of one software package that could progressively become obsolete. Furthermore, this could prevent engineering checks to be carried out on the encrypted and Worley Parson's believe a better approach would be to allow industry to decide the best engineering tools to use.[80]

A.3.2.3 NEMMCO

Suggests that the word "one" in clause 3.13.3(k2)(2) is too restrictive and that a greater level of flexibility would be more appropriate, recommending that the "one" be amended to "a", which would allow NEMMCO to provide information in several formats.[81]

A.3.3 The Commissions Consideration and Reasoning

It is the opinion of the Commission that the terms 'compiled information', 'encrypted information' or 'a secured format' used in the NGF Rule proposal are consistent with terms used to conceal sensitive proprietary information/intellectual property in a model and does not limit the model to one software product or preclude the use of other models that are used throughout the NEM as has been suggested in both Worley Parson's and DIgSILENT's submissions. The NGF Rule proposal suggests the addition of clause 3.13.3(k2) in relation to the 'forms' in which NEMMCO may disclose information provided under clause S5.2.4(b)(6).

NEMMCO notes in its submission that for the provision of source code in an encrypted form, it is suggested that the words "or another form" be added to clause 3.13.3(k2).[82] In addition, the Commission is in agreement with NEMMCO that use of the word "one" in clause 3.13.3(k2)(2) could create confusion and unjustifiably imply that data be compiled in one software format only and should be replaced with the word "a".

A.3.4 The Commissions Findings in Relation to this Issue

- The Commission accepts NEMMCO's proposed amendment to the NGF's proposed clause 3.13.3(k2)(2).

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[80] Worley Parsons submission, p.2.

[81] NEMMCO submission, Attachment 1, p.11.

[82] Ibid. at p.10.

A.4 Expanding Information Access Beyond Registered Participants

A.4.1 The NGF Proposal

The NGF Rule proposal pertains to the disclosure of information from NEMMCO to NSPs and/or Registered Participants, or from a NSP to an adjacent NSP for planning and operational purposes.

A.4.2 Submissions

Only those submissions containing information relevant to the issue under discussion have been included.

A.4.2.1 McLennan Magasanik Associates, Worley Parsons, Hill Michael, Econnect, Epuron and DIgSILENT

DIgSILENT in its submission proposes "that all data be made available as was done in the past subject to signing a confidentiality agreement".[83] McLennan Magasanik and Epuron propose "that the parties eligible to obtain data necessary to perform power system studies should be widened to include *bona fide* consultants offering power system analysis services" [84], while Hill Michael proposes that the available data to these parties be expanded to include "all network assets, generators and load models".[85] Worley Parsons in its submission proposes that the Rules "should provide for NEMMCO to disclose sufficient information to not only Registered Participants, but also to Intending Participants and the engineering consultants (or agents) formally engaged by Registered Participants and Intending Participants".[86]

Econnect in its submission goes further to suggest the "creation of a special category of NEM participant for the registration of *bona fide* consultants and academic researchers to obtain and retain data in confidence for power system studies"[87] and suggests that "Rule 2.6 and Rule 8.6.2(m) are amended to allow consultants and academics to be registered by NEMMCO as a new category of Special Participant and obtain Releasable Information ".[88]

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[83] DIgSILENT submission, p.2.

[84] McLennan Magasanik Associates submission, p.1. and Epuron submission, p.1.

[85] Hill Michael submission, p.2.

[86] Worley Parsons submission, p.1.

[87] Econnect submission, p.6.

[88] Ibid. at p.8.

A.4.2.2 Eureka Funds Management

Eureka suggests in its submission "that the parties eligible to obtain data necessary to perform power system studies should be widened to include Intending Participants".[89]

A.4.2.3 VENCorp

VENCorp supports that NGF Rule proposal, but only if it were restricted to Registered Participants exclusive of NEMMCO and NSPs.[90]

A.4.2.4 Siemens, Vestas (supplementary)

These submissions are categorically opposed to any Rule change that would permit the supply to and retention of power system static and dynamic data by a broader range of recipients than the presently proposed Registered Participants.[91] Vestas goes further to add that it does not support "the unfettered provision of [proprietary information] to Registered Participants who require it for studies such as load flow, static and dynamic system studies".[92]

A.4.3 The Commissions Consideration and Reasoning

- The amendments to the Rules that have been outlined in issue A.1 Proprietary Information and Data Confidentiality will make it easier for Registered Participants to obtain information

- 2A.2.7(a) of the Rules states that "an intending applicant [participant] (other than NEMMCO) or an alternative proponent may request information from NEMMCO in order to prepare a technically competent application", therefore, the Commission is of the opinion that Intending Participants are able to obtain information from NEMMCO to assist with connection applications.

- Consultants work with Registered Participants and/or Intending Participants directly and therefore should be able to obtain the required information from their clients.

- For the above reasons, there is no need to increase the parties that are eligible to obtain information.

[89] Eureka submission, p.1.

[90] VENCorp submission, p.2.

[91] Siemens submission, p.2.

[92] Vesatas supplementary submission, p.3.

A.4.4 The Commissions Findings in Relation to this Issue

The Commission is of the opinion that there is no necessity to increase third parties that have access to information from NEMMCO and it should be limited to the current Registered and Intending Participants only.

A.5 NEMMCO Maintains Register of Proprietary Information

A.5.1 The NGF Proposal

The NGF Rule proposal states that "as Releasable Information is commercially valuable, it is necessary that the Rules restrict the form in which it may be disclosed by NEMMCO to third parties and provide for a list to be maintained of the persons to whom the information has been provided". The Rule proposal recommends that NEMMCO be responsible for maintaining a register describing the Releasable Information that it has released and to whom it has been released.[93]

A.5.2 Submissions

Only those submissions containing information relevant to the issue under discussion have been included.

A.5.2.1 VENCorp and Grid Australia

VENCorp's experience indicates that most connection applicants find it more time and cost effective to provide complete models (not just user guides) directly to the host NSP. VENCorp has also found that applications can be more quickly and effectively processed when adjacent NSPs are able to freely share information amongst themselves. Thus having NEMMCO as the sole repository of Releasable Information may work against these goals.[94]

Grid Australia in its submission notes that it "does not consider that there a need for a Releasable Information register … however, in the event that the Commission determines that a register is required, Grid Australia agrees with the NGF that NEMMCO is the appropriate party to establish and maintain such a register".[95]

NEMMCO made no comment on this issue in its submission and only suggested minor amendments to the NGF Rule proposal.

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[93] NGF Rule proposal, p.2.

[94] VENCorp submission, p.2.

[95] Grid Australia submission, P.p. 4-5.

A.5.3 The Commissions Findings in Relation to this Issue

The Commission accepts the NGF Rule proposal that NEMMCO establish, maintain and publish a register outlining the information that it has provided to Registered Participants.

The Commission accepts the following proposals:

- The inclusion of 3.13.3(p1) to the Rules with amendments by NEMMCO from its submission.

A.6 Including Provision for Transitional Arrangements

A.6.1 Raised by NEMMCO

Raised by NEMMCO in its submission as a possible issue.

A.6.2 Submissions

Only those submissions containing information relevant to the issue under discussion have been included.

A.6.2.1 Grid Australia

Grid Australia notes in its submission that "the NGF Rule proposal does not address the issue of developing Releasable Information for existing Generators. Without such a requirement, key data will not be available to other market participants for the purposes of undertaking power system studies relevant to a connection application."[96]

A.6.2.2 Roaring 40s and Siemens

Roaring 40s is of the opinion that "no information provided to NEMMCO prior to the date of this Rule change can be deemed as a "Releasable User Guide" unless NEMMCO is requested to do so by the participant who supplied the said information."[97]

Conversely, in relation to the information that NEMMCO currently holds for generating units and generating systems in the NEM, Siemens proposes that "new provisions be inserted [in the Rules] to ensure that [prior] information may only be released in accordance with these new Rules upon receiving the consent of the

[96] Grid Australia submission, p.4.

[97] Roaring 40s submission, p.4.

original discloser of the information and a confidentiality agreement being put in place".[98]

A.6.2.3 NEMMCO

NEMMCO raises three main points in its submission about transitional arrangements:

1. What is the status of information currently held by NEMMCO?
2. Who is the provider of information for existing model information?
3. How does NEMMCO obtain Releasable User Guides for existing models?

Much of the information that NEMMCO currently holds was obtained before existing clause S5.2.4(b)(6) was made and therefore is not pursuant to this Rule obligation. A large quantity of the existing data that NEMMCO holds has been developed by TNSPs, in cooperation with Generators and are the intellectual property of the TNSPs – that is that Generators have not always been the providers of model information. NEMMCO does not think it necessary for Generators to develop Releasable User Guides for existing plant, provided that transitional arrangements allow NEMMCO to release information of the types contained in Releasable User Guides that it holds for existing plant and plant under development.

NEMMCO recommends that transitional arrangements recognise that the model information that NEMMCO currently holds as being the equivalent of Releasable User Guides and gives possible drafting of the Rules for proposed clause 3.13.3(k2) to ascertain the provider of the source code information received by NEMMCO.[99]

A.6.3 The Commissions Consideration and Reasoning

Transitional arrangements are needed to ensure that the information provided to Registered Participants is, and remains, complete and accurate, as information that is missing from the power system model may make that model inaccurate or unworkable. As previously mentioned in A.2 Releasable User Guides, the Commission is of the opinion that NEMMCOs suggested clauses S5.2.4(d)(1), (2) and (3) will allow NEMMCO to make sure that all information provided to it is current and up to date.

The Commission agrees with NEMMCOs suggested additional clauses to the draft Rule that recognise that the information already held by NEMMCO be equivalent to that of a Releasable User Guide. The Commission believes that the addition of these clauses will allow NEMMCO the discretion to provide information of the type to be included in Releasable User Guides without placing an obligation on Generators to create Releasable User Guides for current generating units. The Commission also

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[98] Siemens submission, p.1.

[99] NEMMCO submission, Attachment 1, P.p. 4-5

considers that these Releasable User Guides can not be retrospective and only apply for Generators connecting to the NEM from the commencement of this draft Rule. The transition period for NEMMCO to update its system must be completed within 12 months.

A.6.4 The Commissions Findings in Relation to this Issue

The Commission accepts the NEMMCO proposal to include transitional arrangements in the Draft Rule.

the Commission accepts the following:

- The inclusion of Transitional arrangement clause 11.22 in the Rules.

A.7 Rule Proposal Augmented to Include Connection Applicants

A.7.1 NEMMCO

Raised by NEMMCO in its submission, NEMMCO states that the information provision requirements in the NGF Rule proposal have been proposed for information disclosure to Registered Participants; however, connection applicants need not be Registered Participants. NEMMCO suggests that a similar process to the NGF proposal be established to determine the requirements for provision of information to connection applicants described in Rule S5.2.4(e)(5)(i). NEMMCO recommends that the NGF Rule proposal and the issue of connection applicants be kept separate as NEMMCO is not involved directly in connection enquiries.

A.7.2 The Commissions Consideration and Reasoning

The Commission considers there is a risk of confidential information being disclosed under the Rules' current arrangements for the provision of information by NSPs to Connection Applicants as set out in clause S5.2.4(e). The Commission considers that risk would be addressed by introducing a new requirement into the Rules that a Connection Applicant, seeking information under the current clause S5.2.4(e), must be registered as an "Intending Participant" in accordance with rule 2.7.

A.7.3 The Commissions Findings in Relation to this Issue

To implement this decision the Commission has made the following draft amendments in the Rules:

- Clause S5.2.4(e) is substituted with a new draft requirement that a Connection Applicant, seeking information under the current clause S5.2.4(e), must be registered as an "Intending Participant" in accordance with rule 2.7;

- As a consequence of the latter amendment, the content of clause S5.2.4(e) is now the new draft clause S5.2.4(e1);

- A consequential amendment to the definition of "Connection Applicant" has been made in Chapter 10's Glossary; and

- Minor consequential amendments to cross references to clause S5.2.4(e) have been made in clauses S5.2.8(a)(2)(i) and S5.2.8(b)(2).