



WHOLESALE ELECTRICITY MARKET PROCEDURE CHANGE REPORT: AEPC_2017_08

POWER SYSTEM OPERATION PROCEDURE: NETWORK
MODELLING DATA

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EXECUTIVE SUMMARY

Purpose

The publication of this Procedure Change Report, and the accompanying Market Procedure, completes the Procedure Change Process conducted by AEMO to consider a new Power System Operation Procedure: Network Modelling Data (Procedure) under the Wholesale Electricity Market (WEM) Rules.

Proposed amendments

The new Procedure has been developed in accordance with clause 2.28.3A of the WEM Rules, which requires AEMO (in its System Management capacity) to specify:

- (a) Information that a Network Operator must provide to AEMO for each of its Networks.
- (b) The processes to be followed by a Network Operator to enable AEMO to have access to the information.
- (c) The technical and communication criteria that a Network Operator must meet with respect to AEMO's ability to access the information.
- (d) The processes to be followed by AEMO when accessing the information.

Consultation

As the Market Advisory Committee (MAC) Working Group was not constituted in time for the Procedure Change Proposal, a draft version of the Procedure was presented at the AEMO WEM Procedure Change workshop held on 26 June 2017. Some changes to improve clarity were recommended by stakeholders. Details of this forum are available at: <http://aemo.com.au/Stakeholder-Consultation/Industry-forums-and-working-groups/WA-Forums>.

The MAC did not meet regarding this Procedure Change Proposal, and no public workshops were held.

On 19 July 2017, AEMO published the Procedure Change Proposal (AEPC_2017_08) and issued a notice calling for submissions. The submission period closed on 16 August 2017, with submissions received from Western Power and Synergy. Western Power commented on a number of steps, and suggested the extent of data it provides to AEMO should be limited to AEMO's area of operation, as agreed with the Network Operator. Synergy also commented on the extent of data required and timeframes for implementation, but in the context of minimising costs for Market Participants.

AEMO has clarified in this document that the extent of information required from each Network Operator must be sufficient for AEMO to ensure the South West Interconnected System (SWIS) is operated in accordance with the Technical Envelope for any SWIS Operating State, and that this cannot be limited to operational areas as suggested by Western Power. AEMO has also revised the Procedure in accordance with a number of Western Power's and Synergy's suggestions.

AEMO's decision

AEMO's decision is to accept the Procedure as amended following the consultation period. AEMO considers that the new Procedure is consistent with the Wholesale Market Objectives, the Electricity Industry Act, the WEM Regulations, and the WEM Rules.

Next steps

The new Power System Operation Procedure: Network Modelling Data will commence at 8:00 AM (AWST) on 13 October 2017.



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1. BACKGROUND

1.1 Regulatory requirements

AEMO has published this Procedure Change Report in accordance with the Procedure Change Process specified in clause 2.10 of the WEM Rules.

1.2 Context

On 31 May 2016, the Minister for Energy gazetted amendments to the WEM Rules related to the Power System Operation Procedure: Network Modelling Data as part of the Electricity Market Review.¹

Clause 2.28.3A of the WEM Rules, which commenced on 1 July 2016, requires AEMO to develop a new Power System Operation Procedure (PSOP) specifying:

- (a) The information that a Network Operator must provide to AEMO for each of its Networks.
- (b) The processes to be followed by a Network Operator to enable AEMO to have access to the information.
- (c) The technical and communication criteria that a Network Operator must meet with respect to AEMO's ability to access the information.
- (d) The processes to be followed by AEMO when accessing the information.

The proposed Procedure would be the first version. AEMO proposes to commence the new Procedure on 13 October 2017 as part of the transition of System Management from Western Power to AEMO.

1.3 Procedure Change Process and timetable

On 19 July 2017, AEMO published a Procedure Change Proposal (AEPC_2017_08) for the Power System Operation Procedure: Network Modelling Data and issued a call for submissions, which are available at: http://www.aemo.com.au/Stakeholder-Consultation/Consultations/AEPC_2017_08.

The proposal was progressed using the Procedure Change Process specified in clause 2.10 of the WEM Rules, with submissions required by 16 August 2017.

¹ See Government Gazette No.89 dated 31 May 2016, *Wholesale Electricity Market Amending Rules 2016*.



2. PROPOSED PROCEDURE CHANGE

This section details the changes that AEMO proposed when the call for submissions was published.

2.1 Detail of the proposed procedure change

The new Procedure describes requirements for:

- (a) Information that a Network Operator must provide to AEMO for each of its Networks.
- (b) The processes to be followed by a Network Operator to enable AEMO to have access to the information.
- (c) The technical and communication criteria that a Network Operator must meet with respect to AEMO's ability to access the information.
- (d) The processes to be followed by AEMO when accessing the information.

2.2 Proposed drafting

AEMO published a draft of the proposed Procedure for consultation. The Procedure as drafted is available at: http://www.aemo.com.au/Stakeholder-Consultation/Consultations/AEPC_2017_08.



3. CONSULTATION PROCESS

3.1 Market Advisory Committee or Working Group

As the Market Advisory Committee (MAC) Working Group was not constituted in time for the Procedure Change Proposal, a draft version of the Procedure was presented at the AEMO WEM Procedure Change workshop held on 26 June 2017.

Minor changes to improve clarity were recommended by stakeholders.

Details of this forum are available at: <http://aemo.com.au/Stakeholder-Consultation/Industry-forums-and-working-groups/WA-Forums>.

In accordance with clause 2.10.9 of the WEM Rules, AEMO notified the MAC once the Procedure Change Proposal was published, and noted that the Rule Change Panel would convene a meeting of the MAC, should two or more members request it.

The Rule Change Panel did not convene a meeting of the MAC in regard to this Procedure Change Proposal.

3.2 Public workshop

No public workshops were held in relation to this Procedure Change Proposal.

3.3 Submissions received during consultation period

On 19 July 2017, AEMO published the Procedure Change Proposal (AEPC_2017_08) and issued a notice calling for submissions. The submission period closed on 16 August 2017, with two submissions received from Western Power and Synergy, providing specific comments on the Procedure.

AEMO has responded to matters identified, and accepted a number of suggestions from both Western Power and Synergy to improve clarity.

Copies of submissions received during the submission period are available at: http://www.aemo.com.au/Stakeholder-Consultation/Consultations/AEPC_2017_08.

3.3.1 Specific comments

Limitation of data

Western Power commented on step 2.1, suggesting that SCADA points connected downstream of zone substation power transformers are not necessary for AEMO to carry out power system security responsibilities.

AEMO's response

AEMO notes that the information provided by each Network Operator must be sufficient for AEMO to ensure the South West Interconnected System (SWIS) is operated in accordance with the Technical Envelope for any SWIS Operating State.

As circumstances may arise where AEMO requires operational information downstream of zone substation power transformers, to ensure Power System Security, AEMO will define the necessary SCADA points operated by each Network Operator. As the information is provided via SCADA systems, this does not impose extra cost, and is in line with requirements for Network Operators elsewhere in Australia. As such, AEMO has not amended the Procedure.



Provision of information

Western Power commented on steps 2.2.1(a), 2.2.1(b), 2.2.1(c), 2.2.1(e) and 2.2.1(f).

In accordance with the Services Agreement with AEMO, Western Power provides data through access to Western Power's EMS and GIS tools. Western Power indicated that, once the agreement terminates, this information will only be able to be provided periodically. In addition, Western Power sought further clarification on the requirements and timeframe for implementation.

AEMO's response

AEMO acknowledges that, without appropriate IT systems, Western Power will only be able to provide periodic data transfers of network topology for its GIS. Further, in the absence of Western Power's EMS model data, AEMO will utilise Western Power's Power System Model and any other data required from other relevant Western Power systems.

In the meantime, AEMO has amended the Procedure to clarify that information mechanisms for provision of data after expiry of the Services Agreement are detailed in the IMS Interface Market Procedure (IMS Procedure), including timeframes where not already specified in the WEM Rules.

As stated in the IMS Procedure, both AEMO and Western Power must act in good faith to agree a reasonable timeframe. Should an agreement not be reached, AEMO will determine a timeframe which must be reasonable.

AEMO notes that the Procedure may require amendment once the Services Agreement terminates.

Availability of information

Western Power commented on step 2.2.1(d), indicating various transitional matters for data provision:

- 100% of the continuous rating is used for Transmission Circuit Limits and Overload Ratings and is provided via the SCADA limit 2 in the EMS.
- Western Power may provide quasi limits, or overload limits, for temporary use in real time which will not override the SCADA Limit 2.

AEMO's response

AEMO has amended the Procedure to include Western Power's clarifications.

Definitions

Synergy commented on Table 1, steps 2.2.1(a), 2.2.1(b), 2.2.1(c), and 2.2.1(e), requesting clarity on the definitions of:

- Security constraints, and whether this includes network capacity constraints.
- "Up to date", "at all times", and "as soon as practical".
- Accuracy, including how this will be determined.
- "Other models" in step 2.2.1(c)(iii)(C), and whether this includes AEMO models.

AEMO's response

AEMO has amended the Procedure to clarify these definitions, except for step 2.2.1(c)(iii)(C) which is limited to information provided by the Network Operator.

Reasonableness

Synergy commented on step 2.2, proposing a need for a reasonableness test in relation to AEMO's broad information-gathering powers.

**AEMO's response**

AEMO understands Synergy's concern, and notes that all information requests must meet an overarching reasonability requirement under clause 2.36A of the WEM Rules for the IMS Procedure, which also applies to this Procedure. As such, AEMO has not amended the Procedure.

Specification

Synergy commented on steps 2.2.1(c)(iii)(D), 2.2.1(d)(iii)(A)(10), and 2.2.1(e)(iii)(B), indicating a need for further specification.

Synergy also queried whether step 2.2.1(f) contains sufficient detail of the technical and communications criteria required by clause 2.28.3A(c) of the WEM Rules.

AEMO's response

AEMO advises that the IMS Procedure covers the form, format, manner, and (where applicable) the timing of all the information listed in this Procedure, including the technical and communications criteria under clause 2.28.3A(c). The IMS Procedure includes a process to manage data transfers in the situation where the provision of information in either direction, to enable each organisation to meet its obligations, is not adequately covered.

In addition, AEMO notes that the requirements of clause 2.28.3A(c) of the WEM Rules are covered by step 2.2.1 of the Procedure (not just step 2.2.1(f)), which details the data, access requirements, and process for each item of information. As such, AEMO has not amended the Procedure.

Consistency with the Technical Rules

Synergy commented on step 2.2.1(d)(i)(B), indicating a potential inconsistency with the Technical Rules.

AEMO's response

AEMO notes that it is required to operate the SWIS within the Technical Envelope. The information required to assess SWIS performance against the Technical Envelope is covered by many Power System Operation Procedures, including this Procedure. As such, AEMO has not amended the Procedure.

Information release

Synergy sought AEMO's position on what information (such as security constraint data) would be released to Market Participants.

AEMO's response

In regards to release of information such as security constraint data to Market Participants, at this stage AEMO has not determined whether any information covered in this Procedure should be summarised and provided to Market Participants.

In light of AEMO assuming System Management functions, and as part of a larger review, AEMO will consider all information provided to Market Participants at a later stage.

In the interim, AEMO has classified the information referred to in clause 2.28.3A as Rule Participant Network Restricted. The Procedure has been amended accordingly.



General

Synergy made various additional comments, including:

- The Procedure refers to AEMO instead of System Management.
- The Procedure should explicitly state AEMO's obligations to keep data secure, private and not disclose to third parties unless otherwise provided for under the WEM Rules and Procedures.

AEMO's response

AEMO provides the following clarifications:

- AEMO acts in its capacity as System Management and, unless a specific reference to System Management is required, all references to AEMO include this capacity.
- The confidentiality provisions under clause 10.2 of the WEM Rules apply to all information provided to AEMO by Rule Participants. All information provided under this PSOP will be designated as Rule Participant Network Restricted. Accordingly, specific provisions in Procedures are not required, but a step identifying the class of confidentiality has been included in the Procedure for clarity.



4. AEMO'S ASSESSMENT

4.1 Further changes to the Procedure

In accordance with the submissions, AEMO has made the following revisions to the Procedure:

- a) Clarified that the information required to be provided by Network Operators must be sufficient for AEMO to ensure the SWIS is operated within the Technical Envelope for each SWIS Operating State. AEMO also notes that the WEM Rules and the IMS Procedure require that data requests must be reasonable.
- b) AEMO has also revised the Procedure to improve clarity, in line with a number of comments received from Western Power and Synergy.

A tracked-changes version indicating these amendments is available at:

http://www.aemo.com.au/Stakeholder-Consultation/Consultations/AEPC_2017_08.

4.2 Consistency with Electricity Industry Act, WEM Regulations, and WEM Rules

The proposed Procedure has been reviewed as a whole by AEMO to ensure compliance with the relevant provisions in the:

- Electricity Industry Act.
- WEM Regulations.
- WEM Rules.

4.3 Consistency with Wholesale Market Objectives

The steps outlined in this Procedure specify:

- (a) Information that a Network Operator must provide to AEMO for each of its Networks.
- (b) The processes to be followed by a Network Operator to enable AEMO to have access to the information.
- (c) The technical and communication criteria that a Network Operator must meet with respect to AEMO's ability to access the information.
- (d) The processes to be followed by AEMO when accessing the information.

AEMO considers that the steps are drafted in a way that is consistent with the objectives of the WEM Rules. As a result, AEMO considers that the new Procedure, as a whole, is consistent with the Wholesale Market Objectives.

4.4 Implementation of the Procedure

The Procedure was developed in accordance with clause 2.28.3A of the WEM Rules.

This Procedure does not require system changes by AEMO and Western Power.²

This Procedure will not require Rule Participants to implement any procedural or system amendments before the Procedure can commence. Consequently, AEMO considers that commencement at 8:00 AM (AWST) on 13 October 2017 will allow Rule Participants sufficient time from the date of publication of this Procedure Change Report to ensure compliance.

² However, system changes to AEMO's EMS and the associated ICCP link between Western Power and AEMO, as well as amendments to the Procedure, may be required on termination of the Services Agreement between Western Power and AEMO.



4.5 AEMO's decision and commencement

AEMO's decision is to accept the Procedure as amended following the consultation period. The new Power System Operation Procedure: Network Modelling Data will commence at 8:00 AM (AWST) on 13 October 2017.

AEMO has made this decision on the basis that the Procedure:

- Is consistent with the Wholesale Market Objectives.
- Is consistent with the Electricity Industry Act, WEM Regulations, and WEM Rules.
- Has the general support of submissions received during the consultation period.

Additional detail outlining the analysis behind AEMO's decision is in Section 3 of this Procedure Change Report.

The new Power System Operation Procedure: Network Modelling Data is available at:

http://www.aemo.com.au/Stakeholder-Consultation/Consultations/AEPC_2017_08.