

WHOLESALE ELECTRICITY MARKET

PROCEDURE CHANGE PROPOSAL NO: AEPC_2019_04

POWER SYSTEM OPERATION PROCEDURE: DISPATCH

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EXECUTIVE SUMMARY

The publication of this Procedure Change Proposal and accompanying call for submissions commences the Procedure Change Process conducted by AEMO to consider a proposed revised Power System Operation Procedure: Dispatch under the Wholesale Electricity Market Rules (WEM Rules).

The proposed revised Power System Operation Procedure is required by clauses 3.21B.8, 7.2.5, 7.6.10A, 7.6.13, 7.6A.2, 7.6A.7, 7.7.4A, 7.7.5A, 7.7.5B, 7.7.5C, 7.7.9, 7.9.19, 7.13.1(eD), 7.13.3, 7A.3.7, 7A.3.15, and 7B.1.4 of the WEM Rules. Due to the scope of the Procedure, AEMO intends to revise the Procedure in phases, as follows:

- (a) the current Procedure Change which makes:
 - (i) editorial clarifications; and
 - (ii) changes required by upcoming Rule Changes, audit items, or operational matters as detailed in section 3.1; and
- (b) September 2019 – relocate settlement data and administration matters to a new Power System Operation Procedure; and
- (c) January 2020 – revise dispatch matters.

This Procedure Change Proposal includes this document, which outlines the reason for the proposed amendments to the Market Procedure, and the proposed Market Procedure itself, which is available at:

http://www.aemo.com.au/Stakeholder-Consultation/Consultations/AEPC_2019_04.

AEMO invites stakeholders to suggest alternative options or drafting where they consider that these would improve the procedure or better meet the Wholesale Market Objectives in section 122(2) of the *Electricity Industry Act 2004* (Electricity Industry Act) (and clause 1.2.1 of the WEM Rules).

Stakeholders are invited to submit written responses on the proposed Power System Operation Procedure by 5.00 pm Australian Western Standard Time (AWST) on 6 June 2019, in accordance with the call for submissions published with this Procedure Change Proposal.



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1. PROCEDURE CHANGE PROCESS

Section 2.10 of the WEM Rules outlines the Procedure Change Process.

AEMO may initiate the Procedure Change Process in respect of Market Procedures (including Power System Operation Procedures and the Monitoring and Reporting Protocol) for which it is responsible, by developing a Procedure Change Proposal. Rule Participants may notify AEMO where they consider an amendment or replacement of an AEMO Market Procedure would be appropriate (Clauses 2.10.1 and 2.10.2).

If an Amending Rule requires AEMO to develop new Market Procedures or amend or replace existing Market Procedures, then AEMO is responsible for the development, amendment or replacement of Market Procedures to comply with the Amending Rule (Clause 2.10.3).

Under clause 2.9.3 of the WEM Rules, Market Procedures:

- (a) must:
 - (i) be developed, amended or replaced in accordance with the process in the WEM Rules;
 - (ii) be consistent with the Wholesale Market Objectives; and
 - (iii) be consistent with the WEM Rules, the Electricity Industry Act and the WEM Regulations; and
- (b) may be amended or replaced in accordance with section 2.10 of the WEM Rules and must be amended or replaced in accordance with section 2.10 of the WEM Rules, where a change is required to maintain consistency with Amending Rules.

The Wholesale Market Objectives are:

- (a) to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system;
- (b) to encourage competition among generators and retailers in the South West interconnected system, including by facilitating efficient entry of new competitors;
- (c) to avoid discrimination in that market against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions;
- (d) to minimise the long-term cost of electricity supplied to customers from the South West interconnected system; and
- (e) to encourage the taking of measures to manage the amount of electricity used and when it is used.

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

AEMO's indicative timeline for this consultation is outlined below. Dates may be adjusted depending on the number and complexity of issues raised in submissions and any meetings with stakeholders.



Process Stage	Indicative date
Procedure Change Proposal published	8 May 2019
Submissions due on Procedure Change Proposal	6 June 2019
Procedure Change Report published	9 July 2019
Proposed commencement of revised Market Procedure	10 July 2019

Prior to the submissions due date, stakeholders may request a meeting with AEMO to discuss the issues and proposed changes raised in this Procedure Change Proposal.



2. BACKGROUND

2.1 Regulatory requirements

Clauses 3.21B.8, 7.2.5, 7.6.10A, 7.6.13, 7.6A.2, 7.6A.7, 7.7.4A, 7.7.5A, 7.7.5B, 7.7.5C, 7.7.9, 7.9.19, 7.13.1(eD), 7.13.3, 7A.3.7, 7A.3.15, and 7B.1.4 of the WEM Rules provide that:

3.21B.8. System Management must document the procedure it follows to grant permission in accordance with section 3.21B in the Power System Operation Procedure and System Management and Market Participants must follow that documented Market Procedure.

7.2.5. Unless otherwise directed by System Management, each Market Generator must by 10 AM each day provide to System Management for each of its Intermittent Generators with capacity exceeding 10 MW its most current forecast of the MWh energy output of the Intermittent Generator for each Trading Interval between noon of the current Scheduling Day and the end of the corresponding Trading Day in a format and by a method specified in the Power System Operation Procedure.

7.6.10A. System Management must develop a Power System Operation Procedure documenting the manner and time in which the obligation in clause 7.6.10 is to be complied with, including how consumption is to be measured or estimated.

7.6.13. System Management must document in the Power System Operation Procedure the procedure to be followed, and must follow that documented Market Procedure, when scheduling and issuing Operating Instructions to dispatch Registered Facilities covered by any Ancillary Service Contract in a form sufficient for audits and investigations under these Market Rules.

7.6A.2. With respect to the scheduling of Stand Alone Facilities for Ancillary Services and the scheduling of Facilities in the Balancing Portfolio generally:

- (a) at least once every month, Synergy must provide to System Management the following information in regard to the subsequent month:
 - (i) a plant schedule describing the merit order in which the Facilities in the Balancing Portfolio are to be called upon and any restrictions on the operations of such Facilities;*
 - (ii) a plan for which fuels will be used in each Facility in the Balancing Portfolio and guidance as to how that plan might be varied depending on circumstances;*
 - (iii) a description as to how Ancillary Services are to be provided from Facilities in the Balancing Portfolio; and*
 - (iv) a description as to how Ancillary Services are to be provided from the Stand Alone Facilities,**

where the format and time resolution of this data is to be described in a procedure;

- (b) System Management must provide to Synergy by 8:30 AM on the Scheduling Day associated with a Trading Day a forecast of total system demand for the Trading Day where the format and time resolution of this data is to be described in a procedure;*
- (c) System Management must provide to Synergy by 4:00 PM on the Scheduling Day associated with a Trading Day:
 - (i) a forecast of the requirements for energy in the Balancing Portfolio, being a forecast of the whole of system energy requirement less:
 - 1. the aggregate energy of all Resource Plans associated with other Market Participants' Scheduled Generators and Dispatchable Loads, including Synergy's Dispatchable Loads; and***



2. *the aggregate forecast output of other Market Participants' Non-Scheduled Generators, including the aggregate forecast output of any Non-Scheduled Generators which are Stand Alone Facilities, for the Trading Day;*
 - (ii) *the Dispatch Plan for each Facility for the Trading Day; and*
 - (iii) *a forecast of the detailed Ancillary Services required from each Facility in the Balancing Portfolio and Ancillary Services from each Stand Alone Facility,*
where the format and time resolution of this data is to be described in a procedure;
- (d) *System Management must consult with Synergy in developing the information described in clause 7.6A.2(c) and Synergy must provide System Management with any information required by System Management in accordance with a procedure to support the preparation of the information in clause 7.6A.2(c). In the event of any failure by Synergy to provide information required by System Management in a timely fashion then System Management may use its reasonable judgement to substitute its own information;*
- (e) *System Management must determine by 4:00 PM on the Scheduling Day associated with a Trading Day the aggregate forecast output of all Non-Scheduled Generators for the Trading Day, referred to in clause 7.6A.2(c)(i)(2);*
- (f) *If after 4:00 PM on the Scheduling Day but prior to the start of a Trading Interval on the corresponding Trading Day, System Management becomes aware of a change in conditions which will require a significant change in the Dispatch Plan it may make such change but must notify Synergy of such change; and*
- (g) *Synergy must notify System Management as soon as practicable if it becomes aware that it is unable to comply with a Dispatch Plan, providing reasons as to why it cannot comply.*

7.6A.7. *Subject to clause 7.6A.8, System Management must document the procedures System Management and Synergy must follow to comply with this clause 7.6A, including the process to follow in developing the confidential procedure described in clause 7.6A.8, in the Power System Operation Procedure, and System Management and Synergy must follow that documented Market Procedure.*

7.7.4A. *When selecting Non-Balancing Facilities from the Non-Balancing Dispatch Merit Order, and subject to 7.6.1C and 7.6.1E, System Management must select them in accordance with the Power System Operation Procedure. The selection process specified in the Power System Operation Procedure must:*

- (a) *only discriminate between Non-Balancing Facilities based on response time and availability;*
- (b) *permit System Management to not curtail a Demand Side Programme when, due to limitations on the availability of the Demand Side Programme, such curtailment would prevent that Demand Side Programme from being available to System Management at a later time when it would have greater benefit with respect to maintaining Power System Security and Power System Reliability; and*
- (c) *not be inconsistent with section 7.6.*

7.7.5A. *System Management must develop a Power System Operation Procedure specifying:*

- (a) *information that a Market Participant must provide to System Management, for each of the Market Participant's Non-Scheduled Generators, and for each Trading Interval, for the purposes of:*
 - (i) *the estimate referred to in clause 7.7.5A(b);*
 - (ii) *the revised estimate referred to in clause 7.7.5A(c); or*
 - (iii) *step 6 of Appendix 9.*



- (b) *for the purposes of clause 7.7.5B and the Relevant Level Methodology – one or more methods that may be used to estimate the maximum quantity of sent out energy (in MWh) that a Non-Scheduled Generator would have generated in a Trading Interval had a Dispatch Instruction not been issued for that Facility and for that Trading Interval;*
- (c) *for the purposes of the Relevant Level Methodology only – the process for revising an estimate that was made strictly in accordance with one of the methods that, under clause 7.7.5A(b), must be specified in the Power System Operation Procedure; and*
- (d) *for the purposes of clause 7.13.1C(e) – one or more methods that may be used to estimate the decrease in the output (in MWh) of each of Synergy's Non-Scheduled Generators as a result of an instruction from System Management to deviate from the Dispatch Plan or change their commitment or output in accordance with clause 7.6A.3(a).*

System Management and Market Participants must comply with the Power System Operation Procedure.

7.7.5B. The quantity to be used for the purposes of clauses 6.15.2(b)(i) and 7.13.1(eF) is System Management's estimate, determined in accordance with the Power System Operation Procedure, of the maximum amount of sent out energy, in MWh, which each Non-Scheduled Generator, by Trading Interval, would have generated in the Trading Interval had a Dispatch Instruction not been issued.

7.7.5C. The information to be provided by a Market Participant in the Power System Operation Procedure developed under clause 7.7.5A may include such modelling for the Market Participant's Non-Scheduled Generators that System Management considers may assist it to determine the estimates under clause 7.7.5A(a) or to meet the Dispatch Criteria.

7.7.9. System Management must develop, in a Power System Operation Procedure, the procedure System Management and Market Participants must follow in forming, issuing, recording, receiving, confirming and responding to Dispatch Instructions and Operating Instructions and that System Management must follow in determining the quantities described in clause 7.7.5A(a).

7.9.19. System Management must document in the Power System Operation Procedure for Dispatch the processes to be used:

- (a) *for applications under clause 7.9.13;*
- (b) *by System Management in determining whether or not to grant an exemption under clause 7.9.14;*
- (c) *by System Management in determining whether or not to revoke an exemption under clause 7.9.17;*
- (d) *for notification of any exemptions granted or revoked by System Management; and*
- (e) *publishing and maintaining on System Management's website any information and details with respect to any exemptions.*

7.13.1(eD). System Management must prepare the following data for a Trading Day by noon on the first Business Day following the day on which the Trading Day ends, by Trading Interval, the Load Rejection Reserve Response Quantity and the Spinning Reserve Response Quantity calculated in accordance with the Power System Operation Procedure.

7.13.3 System Management must document in the Power System Operation Procedure the procedure to be followed by Rule Participants in providing settlement and monitoring data to AEMO. Rule Participants must comply with that documented Market Procedure.



7A.3.7. *System Management must, no later than two hours after the end of the Trading Day, prepare an estimate of:*

- (a) *the SOI Quantity and the EOI Quantity for each Balancing Facility; and*
- (b) *the Relevant Dispatch Quantity,*

for each Trading Interval in the Trading Day, determined in accordance with the Power System Operation Procedure.

7A.3.15. *System Management must, for each future Trading Interval in the Balancing Horizon, prepare a forecast of the Relevant Dispatch Quantity, and may prepare a forecast of the EOI Quantity for Non-Scheduled Generators, each determined in accordance with the Power System Operation Procedure. System Management must, each time it has new information on which to determine these quantities, update these forecasts, but is not required to do so more than once per Trading Interval.*

7B.1.4. *System Management must, by 12:00 PM on the Scheduling Day, prepare a forecast of the LFAS Quantity for each Trading Interval in the next Trading Day, determined in accordance with the Power System Operation Procedure.*

The proposed Power System Operation Procedure would be the ninth version of this Procedure. AEMO proposes to commence the revised procedure on 16 July 2019.

2.2 Context for this consultation

As part of the amalgamation of System Management and AEMO, the Power System Operation Procedures (PSOP) are being revised and updated. In general, AEMO is revising the Market Procedures to:

- (a) remove any Power System Operation Procedures (PSOP) not required by WEM Rules.
- (b) update all PSOPs to current AEMO standards.
- (c) ensure PSOPs comply with obligations.
- (d) ensure content in Procedures is required because a WEM Rule requirement exists to include detail or process or AEMO requires an obligation on itself or Participants.

Due to the scope of the Procedure (as detailed in section 2.1), AEMO intends to revise the Procedure in phases, as follows:

- (a) the current Procedure Change which makes:
 - (i) editorial clarifications; and
 - (ii) changes required by upcoming Rule Changes, audit items, or operational matters as detailed in section 3.1; and
- (b) September 2019 – relocate settlement data and administration matters to a new Power System Operation Procedure; and
- (c) January 2020 – revise dispatch matters.



3. PROPOSED PROCEDURE CHANGE

3.1 Detail of the proposed procedure change

Among numerous editorial changes, AEMO is proposing:

- (a) editorial clarifications; and
- (b) changes as a result of upcoming Rule Changes, comments from the Market Auditor, or operational matters, as detailed in the table below.

Step(s) or Section(s) Affected	Issue
1.3.1; 7.2.1	In accordance with RC_2015_01, include: <ul style="list-style-type: none"> • specific references to clauses 3.21B.8, 7.6A.7, 7.9.19; and • further detail relating to clauses 7.6A.2 and 7.7.5A.
3.1.3	Clarify the format and time resolution of information provided by AEMO to Synergy under clause 7.6A.2(c).
4.8.1	Clarify the requirements for Demand Side Programmes to provide real-time data.
5.4.1; 5.7.2; 5.7.3; 5.7.5	Clarify the: <ul style="list-style-type: none"> • methods by which AEMO may issue, and Market Participants may confirm, Operating Instructions; • level Market Participants must respond to for different types of Operating Instructions; and • interaction of Operating Instructions and Dispatch Instructions. In accordance with RC_2018_07, include requirements to allow: <ul style="list-style-type: none"> • for Operating Instructions to be issued ex-post for Market Generators that are constrained by a Network Outage; and • for the receipt of this Operating Instruction to be deemed confirmed.
7.2.2	Clarify the estimation of constrained-off quantities for Non-Scheduled Generators.
7.5.1	Clarify that the methodology for clause 7A.3.7A uses the same methodology for clause 7A.3.7.
Various	For RC_2014_16, vary steps referring to clauses 7.7.4A and 7.6A.2(c), and remove references to: <ul style="list-style-type: none"> • Resource Plans; • Dispatchable Loads; and • Non-Balancing Facilities.
4.9; 4.10; 5.1 and Appendix 1	Remove unnecessary detail in sections: <ul style="list-style-type: none"> • 4.9: Dispatch Advisory notices (and as a consequence, Appendix 1); • 4.10: Content and management of Dispatch Advisory notices; and • 5.1: Bona fide changes to the physical status of Facilities.

3.2 Proposed drafting

AEMO has published a draft of the proposed Power System Operation Procedure: Dispatch for consultation, which is available at: http://www.aemo.com.au/Stakeholder-Consultation/Consultations/AEPC_2019_04. AEMO has also provided a marked-up version of the revised Procedure.

3.3 Consultation to date

Draft versions of the Market Procedure was presented at the WEM AEMO Procedure Change Working Group (WEM APCWG) meeting held on 2 May 2019, during which changes were recommended by



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

These changes have been incorporated into the proposed Power System Operation Procedure that forms part of this Procedure Change Proposal.

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

The proposed revised WEM Market 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.

3.5 Consistency with Wholesale Market Objectives

The steps outlined in this revised Power System Operation Procedure describe the process, procedure, formats and methods required by the clauses detailed in section 2.1.

AEMO considers that the steps are drafted in a way that does not change the objectives of the WEM Rules. As a result, AEMO considers that the revised Procedure, as a whole, is consistent with the Wholesale Market Objectives.



4. CONSULTATION PROCESS

AEMO invites stakeholders to suggest alternative options or drafting where they consider that these would improve the procedure or better meet the Wholesale Market Objectives in section 122(2) of the Electricity Industry Act (and clause 1.2.1 of the WEM Rules).

Stakeholders are invited to submit written responses on the proposed Power System Operation Procedure by 5.00 pm (AWST) on 6 June 2019, in accordance with the call for submissions published with this paper.

Stakeholders with questions in relation to the proposed Power System Operation Procedure or this Procedure Change Proposal can contact AEMO via email to wa@aemo.com.au.

All correspondence in relation to this Procedure Change Proposal must be entitled "AEPC_2019_04 Dispatch - [Name of the submitting company or individual]".