



## RULES CHANGE COMMITTEE

### Proposed Urgent Amendments to the WESM Rules and Various WESM Manuals on the Enhancements to Market Operator and System Operator Procedures

Effective Date : 30 March 2021

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**WHEREAS**, the DOE on 23 October 2015 adopted<sup>1</sup> enhancements to WESM design and operations which includes among others the change from a 1-hour dispatch interval to a 5-minute dispatch interval;

**WHEREAS**, the Market Operator was tasked<sup>2</sup> to propose changes to the WESM Rules and Market Manuals, and ensure upgrading of the Market Management System and other systems which are necessary for the implementation of the enhancements to WESM design and operations;

**WHEREAS**, among the preparations made for the implementation of the enhanced market design were the conduct since 26 June 2017 of the Parallel Operations Program (POP) for the New Market Management System (NMMS) with the Market Operator, System Operator and WESM Members, and the market readiness assessment since 26 April 2019 to evaluate the capability of the NMMS to implement the scheduling and dispatch processes in a 5-minute dispatch;

**WHEREAS**, based on the results of the POP and the findings of the market readiness assessment, the Market Operator and System Operator have noted possible enhancements to the processes for scheduling and dispatch that needs to be incorporated in the WESM Manual on Dispatch Protocol Issue 13.2 ("Dispatch Protocol Manual") and other relevant Market Manuals;

**WHEREAS**, the Market Operator (Independent Electricity Market Operator of the Philippines or IEMOP) submitted to the Rules Change Committee (RCC) on 23 March 2021 proposed urgent amendments to the following WESM Manual in view of the forthcoming implementation of the enhanced WESM design and operations on 26 June 2021 ("Go-Live Date"):

- (1) WESM Manual on Dispatch Protocol, Issue 13.2;
- (2) WESM Manual on Registration, Suspension and De-Registration Criteria and Procedures Issue 5.3; and
- (3) WESM Manual on Market Network Model Development and Maintenance - Criteria and Procedures Issue 4.2 (MNM Manual).

**WHEREAS**, the proposal seeks to:

- (1) improve the information exchanged between the Market Operator and System Operator;
- (2) enhance procedures to further strengthen the implementation of generators' self-commitment; and
- (3) further ensure the reliability of grid operations under a regime of self-dispatch in a 5-minute dispatch interval;

<sup>1</sup> DOE Department Circular No. 2015-10-0015 dated 23 October 2015.

<sup>2</sup> DC No. 2015-10-0015, 3.

**WHEREAS**, following the procedures for processing proposed urgent amendments specified in Section 7.2 of the WESM Manual on Procedures for Changes to the WESM and Retail Rules and Market Manuals (“Rules Change Manual”), the RCC convened for the 176<sup>th</sup> (Special) Meeting on 26 March 2021 to determine if the proposal is urgent based on the criteria set forth in Section 3.1 of the Rules Change Manual, and if so, deliberate on the proposal for endorsement to the PEM Board;

**WHEREAS**, the IEMOP presented to the RCC a summary of the proposed changes, as follows:

	DESCRIPTION	RATIONALE	BENEFITS
1	Use of nomenclature for reserve types (i.e. regulation, contingency, and dispatchable) as provided under DOE DC2019-12-0018	For harmonization with policy direction	Consistency with DOE DC
2	Replacement of system snapshot with real-time data, including the reference to the MNM manual concerning the required type of information for this data	To reflect change in type of data received with the use of the Inter-Control Centre Communications Protocol (ICCP) of the NMMS	Provide clarity on how real-time data shall be exchanged between Market Operator (MO) & System Operator (SO) thru the NMMS
3	Clarification on the process of updating SO constraints in the NMMS	To clarify current process of updating SO constraints data in NMMS	Provide clarity in current process, which will be also adopted in 5-minute market
4	Submission of Generator test profile with granularity of every 5-minutes during the testing and commissioning period by Generator Trading Participants	The test profile will be the reference of the SO in its submission of overriding constraints.	Provide more accurate market schedules in 5-minute market
5	Submission of variable renewable energy (VRE) MW projections for next day to the SO	To align responsibility of VREs in the Philippine Grid Code (PGC) in submitting projections	Improve SO Day-Ahead Planning and A/S Scheduling
6	Enhancement in the process of creating Merit Order Tables	Remove capacities that cannot be used for energy re-dispatch (i.e. ancillary services, outages)	Improve SO decisions on re-dispatch
7	Inclusion of procedures for optional dispatch using automatic generation control (AGC)	Provide guidelines on AGC dispatch through SO's Energy Management System	Provide clearer guidelines on how generators are dispatched using AGC
8	Provision of generator dispatch guidelines during conditions beyond the normal grid frequency threshold (e.g. $\leq 59.7$ Hz or $\geq 60.3$ Hz)	Provide clear guidelines on how generators should act when system frequency breaches normal operating thresholds	<ul style="list-style-type: none"> <li>✓ Provide clearer guidelines in generator self-dispatch</li> <li>✓ Enjoin each plant operator to act on conditions that ensures grid security and reliability</li> </ul>
9	Change of SO reporting template from SO Dispatch Deviation Report to Dispatch Instruction Report	Streamline SO reporting to only provide re-dispatch instructions issued during the day (e.g. ancillary services, must-run unit (MRU), constrain-on, and constrain-off)	<ul style="list-style-type: none"> <li>✓ Improve reporting efficiency given volume of data upon transition to 5-minute market</li> <li>✓ TPs should be responsible in reporting</li> </ul>

Proposed Urgent Amendments to the WESM Rules and Various WESM Manuals on the Enhancements to Market Operator and System Operator Procedures

	DESCRIPTION	RATIONALE	BENEFITS
			their limitations if unable to follow RTD schedule
10	Revision of guidelines during start-up / shutdown	Establish that start-up / shutdown shall be managed by offers / nominations	Clearer guidelines on TP responsibility to manage start-up / shutdown through their offers / nominations
11	Updating of flowchart on emergency procedures	Based on current SO practice	Reflect current SO practice
12	Reflecting the option on Generator availability	Generators have the option to declare if their availability shall consider either: (a) market offers and generator breaker status (b) market offers only	Encourage self-commitment
13	Consistency in requirements for real-time data	Provide consistency between Dispatch Protocol and MNM regarding the types of real-time data to be provided by SO to MO	Ensure consistency in requirements
14	Improvement in the process on MNM Development and Deployment	Provide efficiency and flexibility in updating the MNM to reflect real-time model	Ensure timely updating of the MNM
15	Provision for urgent updates to the MNM		

**WHEREAS**, the IEMOP further clarified that the proposal was submitted as Urgent because the changes are intended to be immediately implemented to guide WESM stakeholders during the ongoing POP and the forthcoming conduct of the Limited Live Dispatch Operations (LLDO) prior the Go-Live Date, and to establish the rules and procedures upon the Go-Live Date. On such implementation, PEMC recommended that the full implementation will only start on the Go-Live Date while the implementation prior Go-Live Date will only be limited to providing guidance during the said preparatory activities;

**WHEREAS**, following initial discussions, the RCC certified the proposal as urgent since it satisfies the following criteria for urgent proposals per Section 3.1 of the Rules Change Manual:

- (a) To avoid, reduce the risk of or mitigate the adverse effects of certain conditions on the ability of the power system to function normally; and
- (b) To facilitate the implementation of any regulation, circular, order or issuance of the DOE or ERC pursuant to the EPIRA.

**WHEREAS**, the RCC proceeded to deliberate on the proposal during the same meeting and instructed the proponent to make the following revisions to the proposal:

- (a) Reflect global change in the WESM Rules and the Dispatch Protocol Manual to use the nomenclature for ancillary services based on DOE Circular No. DC2019-12-0018, where applicable, for consistency;

- (b) Adopt the definition for contingency reserves, regulating reserves and dispatchable reserves from DOE Circular No. DC2019-12-0018 to facilitate the implementation of the prevailing policy on reserves;
- (c) Provide definition of Automatic Generation Control in Section 2 of the Dispatch Protocol Manual (Definitions) to align with the PGC definition of AGC;
- (d) Add a provision stating that the Market Operator shall provide the System Operator with only one (1) WESM Merit Order Table per hour, not every five (5) minutes, to address the concern raised by the System Operator that it would be tedious to rely on WMOTs with changing information every 5 minutes;
- (e) Delete the terms “must-stop units” and “displaced generation”, as proposed, for consistency with DOE Circular No. DC2018-04-007 and PEM Board Resolution No. 2020-24-10;
- (f) Reflect global change in the WESM Rules and the Dispatch Protocol Manual to replace “Dispatch Deviation Report” with “Dispatch Instruction Report”, where applicable, for consistency;
- (g) Revise the WESM Manual on Market Operator Information Disclosure and Confidentiality Issue 5.0 (version for enhanced market design) to replace “Dispatch Deviation Report” with “Dispatch Instruction Report”, and provide specific timeline when the Market Operator shall publish said Report; and
- (h) Provide clearer rationale for the proposed new provision stating that the Market Operator shall only provide the DOE, ERC and PEM Board with monthly report of Market Network Model updates instead of having the same ratified by the PEM Board (Section 4.5.7 of the Market Network Model Manual)

**WHEREAS**, the RCC provisionally approved the proposal, subject to further revisions by the proponent as directed by the body;

**WHEREAS**, the RCC also recommends the proposal's a) conditional immediate implementation to 1) provide guidance during the preparatory activities for Go-Live Date, in such activities as the POP and the LLDO, and 2) to establish the rules and procedures upon the Go-Live Date, and b) full implementation from Go-Live Date until six (6) months from the publication following the PEM Board's approval or until such time that a general amendment on the same matter has been approved and become effective, whichever comes first, per Section 7.4 of the Rules Change Manual;

**WHEREAS**, upon review of the revised proposal as submitted by the IEMOP on 29 March 2021, the RCC approved additional changes as follows:

- (a) Proposed changes to WESM Rules Clause 3.15.3.1 to be consistent with the proposed revisions to Dispatch Protocol Section 14.4.7, which provides that the SO Dispatch Instruction Report will include all SO dispatch instructions, including MRUs and constrain-on and constrain-off generators, and that the report will be deemed final if there are no discrepancies reported by Generation Companies within two (2) weeks of its publication by the Market Operator.
- (b) Rewording of the proposed new Section 14.4.9 of the Dispatch Protocol to reflect the ERC directive<sup>3</sup> on the reconciliation/validation timeline of the System Operator and Generation Companies of reported discrepancies, clarify the effect of non-submission of reconciliation/validation results within the prescribed timeline, and clearly provide the option for Generation Companies in such cases to lodge related claims for additional compensation to the WESM dispute resolution process;

<sup>3</sup> Under Section 4.4.1.1.3 of ERC Decision dated 29 August 2020 on ERC Case No. 2017-042RC

**WHEREAS**, the RCC approved the final version of the proposal and its endorsement to the PEM Board, providing proposed changes to the:

- (a) WESM Rules;
- (b) WESM Manual on Dispatch Protocol, Issue 13.2;
- (c) WESM Manual on Registration, Suspension and De-Registration Criteria and Procedures Issue 5.3;
- (d) WESM Manual on Market Network Model Development and Maintenance - Criteria and Procedures Issue 4.2; and
- (e) WESM Manual on Market Operator Information Disclosure and Confidentiality Manual Issue 5.0.

**NOW THEREFORE**, we, the undersigned, on behalf of the sectors we represent, hereby resolve via electronic communication platforms, as follows:







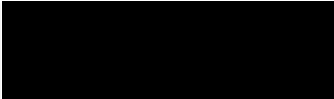

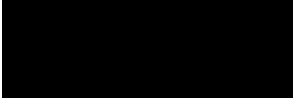


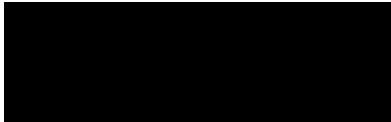
**RESOLVED**, that the RCC approves the Proposed Urgent Amendments to the WESM Rules and WESM Manuals on Enhancements to the Market Operator and System Operator Procedures (attached as Annexes A, B, C, D, and E);

**RESOLVED FURTHER**, that the said Proposed Urgent Amendments to the WESM Rules and WESM Manuals on Enhancements to the Market Operator and System Operator Procedures, are hereby endorsed to the PEM Board for approval for:

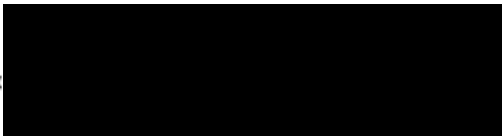


- Immediate implementation in so far as to provide guidance to WESM stakeholders during the preparations for the Go-Live Date, in such activities as the POP and the LLDO, and to establish the rules and procedures upon the Go-Live Date;
- Full implementation from the Go-Live Date until six (6) months from the publication following the PEM Board's approval or until such time that a general amendment on the same matter has been approved and become effective, whichever comes first; and
- Transmittal to the DOE for information.

Done this **30<sup>th</sup>** day of **March 2021**, Pasig City.

Proposed Urgent Amendments to the WESM Rules and Various WESM Manuals on the Enhancements to Market Operator and System Operator Procedures

Approved by: <b>THE RULES CHANGE COMMITTEE</b>	
Independent Members:	
 <b>MAILA LOURDES G. DE CASTRO</b> Chairperson	 <b>FRANCISCO L.R. CASTRO, JR.</b>
 <b>ALLAN C. NERVES</b>	 <b>CONCEPCION I. TANGLAO</b>
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 <b>DIXIE ANTHONY R. BANZON</b> Masinloc Power Partners Co. Ltd. (MPPCL)	 <b>CHERRY A. JAVIER</b> Aboitiz Power Corp. (APC)
 <b>CARLITO C. CLAUDIO</b> Millennium Energy, Inc./ Pansia Energy, Inc. (MEI/PEI)	 <b>MARK D. HABANA</b> Vivant Corporation - Philippines (Vivant)
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 <b>VIRGILIO C. FORTICH, JR.</b> Cebu III Electric Cooperative, Inc. (CEBECO III)	 <b>RYAN S. MORALES</b> Manila Electric Company (MERALCO)
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Supply Sector Member:
<div> <b>LORRETO H. RIVERA</b> TeaM (Philippines) Energy Corporation (TPEC)</div>
Market Operator Member:
<div> <b>ISIDRO E. CACHO, JR.</b> Independent Electricity Market Operator of the Philippines (IEMOP)</div>
System Operator Member:
<div> <b>AMBROCIO R. ROSALES</b> National Grid Corporation of the Philippines (NGCP)</div>

## Proposed Urgent Amendments to the WESM Rules and Various WESM Manuals on the Enhancements to Market Operator and System Operator Procedures

### A. WESM Rules

WESM Rules				
Title	Clause	Provision	Proposed Amendment	Rationale
Overriding Constraints	3.5.13.1	<p>xxx</p> <p>The <i>System Operator</i> shall advise the <i>Market Operator</i> of the actions it has taken in relation to the foregoing, including but not limited to information necessary for the proper settlement of affected <i>generating units</i>, and the <i>Market Operator</i> shall publish the said information no later than one (1) week from the relevant trading day. For proper settlement of must-run units, <i>Trading Participants</i> shall review the information and notify the <i>Market Operator</i> of any discrepancies no later than two (2) weeks from the date of publication, otherwise the information contained in the report shall be deemed final for use in the settlement of <i>must-run units</i>. <b>(As amended by DOE DC NO.2015-11-0016 dated 12 November 2015 and further amended by DOE DC No. 2018-04-0007 dated 28 March 2018)</b></p>	<p>xxx</p> <p>The <i>System Operator</i> shall advise the <i>Market Operator</i> of the actions it has taken in relation to the foregoing, including but not limited to information necessary for the proper settlement of affected <i>generating units</i>, and the <i>Market Operator</i> shall publish the said information no later than one (1) week from the relevant trading day. <del>For proper settlement of must-run units,</del> <i>Trading Participants</i> shall review the information and notify the <i>Market Operator</i> of any discrepancies no later than two (2) weeks from the date of publication, otherwise the information contained in the report shall be deemed final <del>for use in the settlement of must-run units.</del> <b>(As amended by DOE DC NO.2015-11-0016 dated 12 November 2015 and further amended by DOE DC No. 2018-04-0007 dated 28 March 2018)</b></p>	<p>To reinforce responsibility of Trading Participants (TP) in reporting their limitations if unable to follow RTD schedule and to encourage TP's active review of SO reports as part of their responsibilities.</p> <p>To be consistent with the proposed change of SO's reporting of their dispatch instructions, containing all dispatch instructions from the System Operator (e.g. dispatch of must-run units), instead of dispatch deviations of generating units. Further, per proposed changes in DP Section 14.4.7, the SO Report will be named as "Dispatch Instruction Report".</p>



WESM Rules				
Title	Clause	Provision	Proposed Amendment	Rationale
Responsibilities of the System Operator	3.8.2	<p>3.8.2.2 After each one (1) hour interval, in accordance with the <i>timetable</i>, the <i>System Operator</i> shall advise the <i>Market Operator</i> of:</p> <p>a. xxx xxx</p> <p>The <i>System Operator</i> shall likewise provide a <i>dispatch</i> deviation report to the <i>Market Operator</i>, in accordance with the <i>timetable</i>, detailing among others the circumstances and <i>dispatch</i> levels of units that were <i>constrained-on</i> or <i>constrained-off</i> or put on must-run during that one (1) hour <i>interval</i>.</p>	<p>3.8.2.2 After each one (1) hour interval, in accordance with the <i>timetable</i>, the <i>System Operator</i> shall advise the <i>Market Operator</i> of:</p> <p>a. xxx xxx</p> <p>The <i>System Operator</i> shall likewise provide a <i>dispatch</i> <del>deviation</del> <b><u>instruction</u></b> report to the <i>Market Operator</i>, in accordance with the <i>timetable</i>, detailing among others the circumstances and <i>dispatch</i> levels of units that were <i>constrained-on</i> or <i>constrained-off</i> or put on must-run during that one (1) hour <i>interval</i>.</p>	To change of report name to Dispatch Instruction Report consistent with proposed changes to WESM DP
System Operator Implementation of Real-Time Dispatch	3.8.3.4	<p>Subject to Clause 3.8.3.4, if, in real-time, the available <i>generation</i> from a <i>must dispatch generating unit</i> differs from the available <i>generation</i> assumed in the <i>dispatch schedule</i> provided to the <i>System Operator</i>, the <i>System Operator</i> shall allow the <i>must dispatch generating unit</i> to generate at its <i>maximum available output</i>, and, if all available <i>frequency</i> regulation is exhausted during a <i>dispatch interval</i>, shall adjust the <i>dispatch</i> of other <i>generating units</i>, to compensate as required in accordance with relevant <i>Market Manuals</i>.</p>	<p>Subject to Clause 3.8.3.4<del>3</del>, if, in real-time, the available <i>generation</i> from a <i>must dispatch generating unit</i> differs from the available <i>generation</i> assumed in the <i>dispatch schedule</i> provided to the <i>System Operator</i>, the <i>System Operator</i> shall allow the <i>must dispatch generating unit</i> to generate at its <i>maximum available output</i>, and, if all available <del><i>frequency</i> regulation is</del> <b><u>regulating reserves are</u></b> exhausted during a <i>dispatch interval</i>, shall adjust the <i>dispatch</i> of other <i>generating units</i>, to</p>	<p>Revised reference clause to 3.8.3.3.</p> <p>For consistency with the proposed changes in the WESM DP on</p>

WESM Rules				
Title	Clause	Provision	Proposed Amendment	Rationale
			compensate as required in accordance with relevant <i>Market Manuals</i> .	
Dispatch Conformance Standards	3.8.5	3.8.5.6 In cases when a <i>generating unit</i> was identified as a <i>Must-Stop Unit</i> , the <i>System Operator</i> shall include such in the Dispatch Deviation Report.	3.8.5.6 In cases when a <i>generating unit</i> was identified as a <i>Must-Stop Unit</i> , the <i>System Operator</i> shall include such in the Dispatch Deviation <b><u>Instruction</u></b> Report.	Change of report name to Dispatch Instruction Report consistent with proposed changes to WESM DP
Glossary		<p>xxxx</p> <p>Contingency Reserve. The ability to respond so as to arrest a significant drop in system frequency such as would arise as a result of a credible contingency affecting one (or more) <i>generating units</i> within a region, or transmission flows into a region.</p> <p>xxxx</p> <p>Dispatchable Reserve. The ability to respond to a re-dispatch performed by the <i>System operator</i> during a <i>trading interval</i>, on either a regular or an ad hoc basis.</p> <p>xxxx</p> <p>Regulating Reserve. The ability to adjust generation continuously in response to small frequency changes, so a so as to cover load fluctuations or minor</p>	<p>xxxx</p> <p>Contingency Reserve. <del>The ability to respond so as to arrest a significant drop in system frequency such as would arise as a result of a credible contingency affecting one (or more) <i>generating units</i> within a region, or transmission flows into a region.</del></p> <p><b><u>Synchronized generation capacity from qualified generating units and qualified interruptible loads allocated to cover the loss or failure of a synchronized generating unit or a transmission element or the power import from a circuit interconnection.</u></b></p> <p>xxxx</p> <p>Dispatchable Reserve. <del>The ability to respond to a re-dispatch performed by the <i>System operator</i> during a <i>trading</i></del></p>	To harmonize with DOE DC2019-12-0018 (regulating, contingency, dispatchable).

WESM Rules				
Title	Clause	Provision	Proposed Amendment	Rationale
		breakdowns, defined as an <i>ancillary service</i> in clause 3.3.4.2 (a).	<del>interval, on either a regular or an ad hoc basis.</del> <b><u>Generating capacity that is not scheduled for regular energy supply, regulating reserve, contingency reserve, or interruptible loads not scheduled for contingency reserve, and that are readily available for dispatch in order to replenish the contingency reserve service whenever a generating unit trips or a loss of a single transmission interconnection occurs.</u></b>  XXXX  <del>Regulating Reserve. The ability to adjust generation continuously in response to small frequency changes, so a so as to cover load fluctuations or minor breakdowns, defined as an ancillary service in clause 3.3.4.2 (a).</del> <b><u>Readily available and dispatchable generating capacity that is allocated exclusively to correct deviations from the acceptable nominal frequency caused by unpredicted variations in demand or generation output.</u></b>	

B. WESM Manual on Dispatch Protocol Issue 13.2

WESM Manual on Dispatch Protocol Issue 13.2				
Title	Clause	Provision	Proposed Amendment	Rationale
DEFINITIONS	2.1.2	<p>XXX</p> <p>u. <b>Primary Reserve.</b> Synchronized generating capacity that is allocated to stabilize the system <i>frequency</i> and to cover the loss or failure of a synchronized <i>generating unit</i> or a <i>transmission line</i> or the power import from a single circuit interconnection, as defined in the <i>Grid Code</i>. Also referred to as <i>contingency reserves</i>.</p> <p>XXX</p> <p>w. <b>Red Alert.</b> An alert issued by the <i>System Operator</i> when the <i>Primary Reserve</i> is zero, a <i>generation</i> deficiency exists, or there is critical loading or imminent overloading of <i>transmission lines</i> or equipment.</p> <p>XXX</p> <p>x. <b>Secondary Reserve.</b> Synchronized generating capacity that is allocated to restore the system frequency to the</p>	<p>XXX</p> <p><u>a. Ancillary Service Procurement Agreement. A contractual agreement under which a WESM Member, registered as an Ancillary Service Provider, agrees with the System Operator to provide ancillary services.</u></p> <p><u>b. Automatic Generation Control . The regulation of the power output of generating units to respond to a change in system frequency or tie-line loading, as defined in the Grid Code, or to meet its target loading level.</u></p> <p>a- <u>c.</u> Automatic Load Dropping (ALD). xxx</p> <p>b- <u>d.</u> Availability. xxx</p> <p>c- <u>e.</u> Bid. xxx</p> <p>d- <u>f.</u> Capability. xxx</p> <p>e- <u>g.</u> Cascading Outages. xxx</p> <p>f- <u>h.</u> Contingency. xxx</p>	<p>To add definition of an ancillary service procurement agreement, which will be referred to in later sections.</p> <p>To add definition of automatic generation control, which will be referred to in later sections.</p>

WESM Manual on Dispatch Protocol Issue 13.2				
Title	Clause	Provision	Proposed Amendment	Rationale
		<p>nominal <i>frequency</i> of 60Hz, as defined on the Grid Code. Also referred to as <i>regulating reserves</i>.</p> <p>XXX</p> <p>ff. <b>System Snapshot.</b> Otherwise known as EMS Snapshot. The <i>system snapshot</i> contains MW loadings of <i>generators</i> and <i>loads</i>. The <i>system snapshot</i> also indicates connection status of the power system.</p> <p>XXX</p> <p>hh. <b>Tertiary Reserve.</b> Capacity used in order to replenish the <i>Secondary Reserve</i> and for such other cases, as defined in the <i>Grid Code</i>.</p>	<p><del>tt. <b><u>I. Primary Contingency Reserve.</u></b> Synchronized generating capacity that is allocated to stabilize the system <i>frequency</i> and to cover the loss or failure of a synchronized <i>generating unit</i> or a <i>transmission line</i> or the power import from a single circuit interconnection, as defined in the <i>Grid Code</i>. Also referred to as <i>contingency reserves</i>.</del></p> <p><b><u>Synchronized generation capacity from qualified generating units and qualified interruptible loads allocated to cover the loss or failure of a synchronized generating unit or a transmission element or the power import from a circuit interconnection.</u></b></p> <p><del>g. <b><u>I. Demand Control.</u></b> xxx</del></p> <p><del>h. <b><u>k. Demand Control Imminent Warning.</u></b> xxx</del></p> <p><del>hh. <b><u>I. Tertiary Dispatchable Reserve.</u></b> Capacity used in order to replenish the <i>Secondary Reserve</i> and for such other cases, as defined in the <i>Grid Code</i>. <b><u>Generating capacity</u></b></del></p>	<p>To harmonize with DOE DC2019-12-0018 (regulating, contingency, dispatchable). This is the definition of Contingency reserve in said DOE DC.</p> <p>To harmonize with DOE DC2019-12-0018 (regulating, contingency, dispatchable). This is the definition of</p>

WESM Manual on Dispatch Protocol Issue 13.2				
Title	Clause	Provision	Proposed Amendment	Rationale
			<p><u>that is not scheduled for regular energy supply, regulating reserve, contingency reserve, or interruptible loads not scheduled for contingency reserve, and that are readily available for dispatch in order to replenish the Contingency Reserve service whenever a generating unit trips or a loss of a single transmission interconnection occurs.</u></p> <p><del>i. m.</del> Disturbance. xxx <del>j. n.</del> Frequency control. xxx <del>k. o.</del> Generator. xxx <del>l. p.</del> Load shedding. xxx <del>m. q.</del> Manual Load Dropping. xxx <del>n. r.</del> Market Management System (MMS). xxx <del>o. s.</del> Maximum available capacity. xxx <del>p. t.</del> MMS-Market Participant Interface (MPI). xxx <del>q. u.</del> Multiple Outage Contingency. xxx <del>r. v.</del> Offer. xxx <del>s. w.</del> Operating margin. xxx</p>	Dispatchable reserve in said DOE DC.

WESM Manual on Dispatch Protocol Issue 13.2				
Title	Clause	Provision	Proposed Amendment	Rationale
			<p><del>t. <u>x.</u> Preferential Dispatch Units. xxx</del></p> <p><del>ff. <u>y. System Snapshot Real-Time Data.</u> Otherwise known as EMS Snapshot. The system snapshot contains <u>analog measurements</u> (MW loadings and MVAR) of generators and loads. The system snapshot also indicates <u>and the connection status of power system breakers and disconnect switches.</u></del></p> <p><del>v. <u>z.</u> Real-Time Dispatch. xxx</del></p> <p><del>w. <u>aa.</u> Red Alert. An alert issued by the System Operator when the Primary <u>Contingency</u> Reserve is zero, a generation deficiency exists, or there is critical loading or imminent overloading of transmission lines or equipment.</del></p> <p><del>x. <u>bb. Secondary Regulating Reserve.</u> Synchronized generating capacity that is allocated to restore the system frequency to the nominal frequency of 60Hz, as defined on the Grid Code. Also referred to as</del></p>	<p>To reflect change in type of data received with the use of Inter-Control Centre Communications Protocol (ICCP) of the NMMS.</p> <p>To harmonize with DOE DC2019-12-0018 (regulating, contingency, dispatchable). This is the definition of</p>

WESM Manual on Dispatch Protocol Issue 13.2				
Title	Clause	Provision	Proposed Amendment	Rationale
			<p><del>regulating reserves.</del> <b><u>Readily available and dispatchable generating capacity that is allocated exclusively to correct deviations from the acceptable nominal frequency caused by unpredicted variations in demand or generation output.</u></b></p> <p>y- <b><u>cc.</u></b> Security. xxx z- <b><u>dd.</u></b> Self-scheduled nomination. xxx <del>aa- <b><u>ee.</u></b> Shutdown. xxx</del> <del>bb- <b><u>ff.</u></b> Stability. xxx</del> <del>cc- <b><u>gg.</u></b> Start-up. xxx</del> <del>dd- <b><u>hh.</u></b> System Integrity Protection Scheme (SIPS). xxx</del> <del>ee- <b><u>ii.</u></b> System Operator System Advisories. xxx</del> <del>ff- <b><u>System Snapshot.</u></b> xxx</del> <del>gg- <b><u>jj.</u></b> Technical Constraint. xxx</del> <del>hh- <b><u>Tertiary Reserve.</u></b> xxx</del> <del>ii- <b><u>kk.</u></b> Voltage Control. xxx</del> <del>jj- <b><u>ll.</u></b> Voltage Instability. xxx</del> <del>kk- <b><u>mm.</u></b> Voltage Sag. xxx</del></p>	Regulating reserve in said DOE DC.



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Title	Clause	Provision			Proposed Amendment		Rationale	
WESM TIMETABLE	4.4	Table 2. DAP Timeline			Table 2. DAP Timeline		To reflect change in type of data received with the use of ICCP of the NMMS	
		Time	Activity	Responsible Party	Time	Activity		Responsible Party
		XXX	XXX	XXX	XXX	XXX		XXX
		Before [STPH1 + 1 minute]	Provide updates on the following, if any: 1. XXX 2. XXX 3. XXX 4. XXX 5. Real-time system snapshot 6. XXX 7. XXX	System Operator	Before [STPH 1 + 1 minute]	Provide updates on the following, if any: 1. XXX 2. XXX 3. XXX 4. XXX 5. Real-time system snapshot data 6. XXX 7. XXX		System Operator
		XXX	XXX	XXX	XXX	XXX		XXX
		XXX	XXX	XXX	XXX	XXX		XXX
		XXX	XXX	XXX	XXX	XXX		XXX
		XXX	XXX	XXX	XXX	XXX		XXX
		XXX	XXX	XXX	XXX	XXX		XXX
		XXX	XXX	XXX	XXX	XXX		XXX
WESM TIMETABLE	4.5	Table 4. HAP Timeline			Table 4. HAP Timeline		To reflect change in type of data received with the use of ICCP of the NMMS	
		Time	Activity	Responsible Party	Time	Activity		Responsible Party
		XXX	XXX	XXX	XXX	XXX		XXX
		Before [STDI1 – 7	Provide updates on the	System Operator	Before [STDI1 – 7	Provide updates on the		System Operator

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Title	Clause	Provision				Proposed Amendment			
		minutes ]	following, if any: 1. XXX 2. XXX 3. XXX 4. XXX 5. XXX 6. <i>Real-time system snapsh ot</i>			minutes ]	following, if any: 1. XXX 2. XXX 3. XXX 4. XXX 5. <i>Real-time system <del>snapshot</del> data</i>		
		XXX	XXX	XXX		XXX	XXX	XXX	
		XXX	XXX	XXX		XXX	XXX	XXX	
		XXX	XXX	XXX		XXX	XXX	XXX	
WESM TIMETABLE	4.6	Table 5. RTD Timeline				Table 5. RTD Timeline			
		Time	Activity	Responsible Party		Time	Activity	Responsible Party	To reflect change in type of data received with the use of ICCP of the NMMS
		XXX	XXX	XXX		XXX	XXX	XXX	
		Before [STDI – 7 minutes]	Provide updates on the following, if any:  1. XXX 2. XXX	System Operator		Before [STDI – 7 minutes]	Provide updates on the following, if any:  1. XXX 2. XXX	System Operator	

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Title	Clause	Provision				Proposed Amendment			Rationale
			3. XXX 4. XXX 5. <i>Real-time system snapshot</i>				3. XXX 4. XXX 5. <i>Real-time system snapshot of <u>data</u></i>		
		XXX	XXX	XXX	XXX	XXX	XXX		
		XXX	XXX	XXX	XXX	XXX	XXX		
		XXX	XXX	XXX	XXX	XXX	XXX		
			XXX	XXX	XXX	XXX	XXX		
				XXX	XXX	XXX	XXX		
		SYSTEM OPERATOR INPUT DATA AND REPORTS	7.4.1	7.4.1	<b>Market run data Inputs.</b> For each dispatch interval, the System Operator shall provide and update data, if necessary, which shall be used in the pre-dispatch projections and real-time dispatch market runs: a. <i>Outage</i> schedules b. <i>Contingency</i> lists c. <i>Over-riding constraints</i> d. <i>Reserve</i> requirements	7.4.1	<b>Market run data Inputs.</b> For each dispatch interval, the System Operator shall provide <u>and or</u> update <u>the</u> data, if necessary, which shall be used in the pre-dispatch projections and real-time dispatch market runs: a. <i>Outage</i> schedules b. <i>Contingency</i> lists c. <i>Over-riding constraints</i> d. <i>Reserve</i> requirements	Minor clerical amendment to clarify the provision	
SYSTEM OPERATOR INPUT DATA AND REPORTS	7.6.4	(New)				<u><b>Generating units undergoing regulatory and commercial tests shall submit to the System Operator</b></u>			Gen TPs on testing and commissioning to submit test profiles for each dispatch

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Title	Clause	Provision	Proposed Amendment	Rationale
			<b><u>the MW profile that details the MW target for each <i>dispatch interval</i> during its requested test period on or before two (2) working days prior to the start of its testing.</u></b>	interval during the test period. The test profile will be the reference of the SO in its submission of overriding constraints.
SYSTEM STATUS	7.9	<p>7.9.1 <b>System Snapshot.</b> The <i>system snapshot</i> depicts the status of individual power facilities in the grid. The <i>system snapshot</i> is collected by the <i>Market Operator</i> from the <i>System Operator's EMS/SCADA</i>.</p> <p>a. The <i>system snapshot</i> contains the following information:</p> <ul style="list-style-type: none"> <li>• Generator Unit MW and MVAR (analog measurements)</li> <li>• Load MW and MVAR (analog measurements) and</li> <li>• Breaker Status</li> <li>• Bus Voltages</li> <li>• Frequency</li> </ul> <p>b. The system snapshot is an input to the MDOM which calculates the WAP, DAP, HAP, and RTD schedules. Specifically, the system snapshot data is used for the</p>	<p>7.9.1 <b>System Snapshot <u>Real-Time Data</u>.</b> The <del><i>system snapshot</i></del> <b><u>real-time data represents</u></b> depicts the analog measurements, and connection status of breakers and disconnect switches <del>status of individual power facilities in the grid. The <i>system snapshot</i> It</del> is collected by the <i>Market Operator</i> from the <i>System Operator's EMS/SCADA</i>.</p> <p>a. The <del><i>system snapshot</i></del> <b><u>real-time data shall</u></b> contains the following information <b><u>as prescribed in the WESM Market Manual on Market Network Model Development and Maintenance - Criteria and Procedure.</u></b></p>	To reflect change in type of data received with the use of ICCP of the NMMS

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Title	Clause	Provision	Proposed Amendment	Rationale
		<p>network configuration and nodal demand forecasting processes.</p> <p>7.9.2 <b>System Operator System Advisories.</b> The <i>System Operator system advisories</i> contain other information not included in the submission of <i>system snapshots</i>. Further to the information provided in Section 7.4.2, these are messages issued by the <i>System Operator</i> depicting particular events or incidents that would transpire prior, during or after real time condition.</p>	<ul style="list-style-type: none"><li>• <del>Generator Unit MW and MVAR (analog measurements)</del></li><li>• <del>Load MW and MVAR (analog measurements)</del> and</li><li>• <del>Breaker Status</del></li><li>• <del>Bus Voltages</del></li><li>• <del>Frequency</del></li></ul> <p>b. The <del>system snapshot</del> <b><u>real-time data</u></b> is an input to the MDOM which calculates the WAP, DAP, HAP, and RTD schedules. Specifically, the <del>system snapshot</del> <b><u>real-time</u></b> data is used for the network configuration and nodal demand forecasting processes.</p> <p>7.9.2 <b>System Operator System Advisories.</b> The <del>System Operator system advisories</del> contain other information not included in the submission of <del>system snapshots</del>. Further to the information provided in</p>	

WESM Manual on Dispatch Protocol Issue 13.2				
Title	Clause	Provision	Proposed Amendment	Rationale
			Section 7.4.2, these are messages issued by the <i>System Operator</i> depicting particular events or incidents that would transpire prior, during or after real time condition.	
SYSTEM STATUS	7.10	7.10.2 The <i>System Operator</i> shall provide the information contained in this Section in accordance with the <i>timetable</i> set in Section 4.	7.10.2 The <i>System Operator</i> shall <b><u>update</u></b> <del>provide</del> the information contained in this Section <del>in accordance with</del> <b><u>considering</u></b> the <i>timetable</i> set in Section 4.	To clarify the responsibility of SO to update system status
MARKET PROJECTIONS - Responsibilities	8.3.3	<p><i>Trading Participants</i> shall be responsible for:</p> <p>a. Ensuring submission of <i>self-scheduled nominations, bids, and offers</i> as set out in the <i>WESM Rules</i> and in accordance with the <i>WESM timetable</i> and the procedures and requirements set forth in this Dispatch Protocol; and</p> <p>b. Maintaining their respective infrastructure to ensure access to the <i>MPI</i> of the <i>MMS</i>.</p>	<p><i>Trading Participants</i> shall be responsible for:</p> <p>a. Ensuring submission of <i>self-scheduled nominations, bids, and offers</i> as set out in the <i>WESM Rules</i> and in accordance with the <i>WESM timetable</i> and the procedures and requirements set forth in this Dispatch Protocol; <del>and</del></p> <p><b><u>b. Submission of day-ahead self-scheduled nominations of its must dispatch generating units to the System Operator by 1300H; and</u></b></p>	Propose that Must Dispatch generating units provide SO day-ahead forecasts for planning purposes as also provided under PGC SD 8.3.2.6

WESM Manual on Dispatch Protocol Issue 13.2																								
Title	Clause	Provision	Proposed Amendment	Rationale																				
			c. Maintaining their respective infrastructure to ensure access to the <i>MPI</i> of the <i>MMS</i> .																					
Data Inputs/Information Requirements	8.4.2	<p>The data inputs for the market projections are as follows:</p> <p>a. XXX b. XXX c. <i>System snapshot</i> d. XXX e. XXX f. XXX g. XXX h. XXX i. XXX</p>	<p>The data inputs for the market projections are as follows:</p> <p>a. XXX b. XXX c. <del><i>System snapshot</i></del> <b><u>Real-time data</u></b> d. XXX e. XXX f. XXX g. XXX h. XXX i. XXX</p>	Reflect change in type of data received with the use of ICCP of the NMMS																				
REAL-TIME DISPATCH SCHEDULING	9.5	<p>Table 6. Summary of Inputs and Sources for the <i>Real-time dispatch</i></p> <table><tr><th>INPUTS</th><th>SOURCE</th></tr><tr><td>XXX</td><td>XXX</td></tr><tr><td>XXX</td><td>XXX</td></tr><tr><td><i>System Snapshot</i></td><td><i>System Operator</i></td></tr><tr><td>XXX</td><td>XXX</td></tr><tr><td>XXX</td><td>XXX</td></tr></table>	INPUTS	SOURCE	XXX	XXX	XXX	XXX	<i>System Snapshot</i>	<i>System Operator</i>	XXX	XXX	XXX	XXX	<p>Table 6. Summary of Inputs and Sources for the <i>Real-time dispatch</i></p> <table><tr><th>INPUTS</th><th>SOURCE</th></tr><tr><td>XXX</td><td>XXX</td></tr><tr><td>XXX</td><td>XXX</td></tr><tr><td><del><i>System snapshot</i></del> <b><u>Real-Time Data</u></b></td><td><i>System Operator</i></td></tr></table>	INPUTS	SOURCE	XXX	XXX	XXX	XXX	<del><i>System snapshot</i></del> <b><u>Real-Time Data</u></b>	<i>System Operator</i>	Reflect change in type of data received with the use of ICCP of the NMMS
INPUTS	SOURCE																							
XXX	XXX																							
XXX	XXX																							
<i>System Snapshot</i>	<i>System Operator</i>																							
XXX	XXX																							
XXX	XXX																							
INPUTS	SOURCE																							
XXX	XXX																							
XXX	XXX																							
<del><i>System snapshot</i></del> <b><u>Real-Time Data</u></b>	<i>System Operator</i>																							

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Title	Clause	Provision			Proposed Amendment		Rationale
		XXX	XXX		XXX	XXX	
		XXX	XXX		XXX	XXX	
		XXX	XXX		XXX	XXX	
					XXX	XXX	
					XXX	XXX	
PREPARATION OF THE WESM MERIT ORDER TABLE	10.1.2	The <i>WMOT</i> is generated by stacking in an unconstrained manner of scheduled and unscheduled capacities, excluding negative quantities through the <i>market offers</i> submitted for the <i>real-time dispatch</i> runs. <i>Energy offer</i> blocks submitted by <i>generator Trading Participants</i> for a particular dispatch interval are arranged from lowest to the highest priced offer block, without considering any <i>constraints</i> . The <i>WMOT</i> stacks <i>energy offers</i> into two, namely, the energy offers that were scheduled (or “Offers Dispatched”) and <i>energy offers</i> that were not scheduled (or “Offers Not Dispatched”).			The <i>WMOT</i> is generated by stacking, in an unconstrained manner, of scheduled and unscheduled capacities, excluding negative quantities, <b><u>reserve schedules, and generators on outage</u></b> through the <i>market offers</i> submitted for the <i>real-time dispatch</i> runs. <i>Energy offer</i> blocks submitted by <i>generator Trading Participants</i> for a particular dispatch interval are arranged from lowest to the highest priced offer block, without considering any <i>constraints</i> . The <i>WMOT</i> stacks <i>energy offers</i> into two, namely, the energy offers that were scheduled (or “Offers Dispatched”) and <i>energy offers</i> that were not scheduled (or “Offers Not Dispatched”).		To reflect more accurate presentation of available capacities for re-dispatch
PREPARATION OF THE WESM MERIT ORDER TABLE	10.3.2	Consistent with its obligations set out in this Dispatch Protocol in respect to the issuance of dispatch instructions, the System Operator shall be responsible for ensuring the			Consistent with its obligations set out in this Dispatch Protocol in respect to the issuance of dispatch instructions, the System Operator shall be		Renamed to dispatch instruction report. Also, MRU reports will be integrated in the dispatch instruction report per



WESM Manual on Dispatch Protocol Issue 13.2				
Title	Clause	Provision	Proposed Amendment	Rationale
		application of the information provided in the WMOT in the real-time operation of the grid. The System Operator shall also be responsible for identifying the generating units designated as must-run units through the dispatch deviation report and report on must-run units prepared in accordance with Sections 14.4.2 and 14.4.5.	responsible for ensuring the application of the information provided in the WMOT in the real-time operation of the grid. The System Operator shall also be responsible for identifying the generating units <b><u>that were issued dispatch instructions</u></b> designated as must-run units through the dispatch deviation <b><u>instruction</u></b> report <del>and report on must-run units</del> prepared in accordance with Sections 14.4.2 and 14.4.5.	proposed revisions in Section 14.4.5.
Preparation of WMOT	10.4	<p>10.4.1 The <i>WMOT</i> shall be prepared using the <i>offers</i>, excluding negative quantities, and the <i>real-time dispatch schedule</i> of each <i>generating system</i> for which <i>offers</i> were submitted for the relevant <i>dispatch interval</i>. The specific information that will be used is as follows:</p> <p>XXX</p> <p>10.4.5 The “Offers Dispatched” consists of the <i>energy offer</i> blocks which have been scheduled in the RTD schedule for the <i>dispatch interval</i>. To the extent possible, the <i>dispatch schedule</i> of</p>	<p>10.4.1 The <i>WMOT</i> shall be prepared using <b><u>the real-time dispatch schedules, and</u></b> the <i>offers</i>, excluding negative quantities, <b><u>reserve schedules, and</u></b> <b><u>generators on outage</u></b>, <del>and the <i>real-time dispatch schedule</i></del> of each <i>generating system</i> for which <i>offers</i> were submitted for the relevant <i>dispatch interval</i>. The specific information that will be used is as follows:</p> <p>XXX</p>	Proposed to amend to reflect more accurate presentation of available capacities for re-dispatch

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Title	Clause	Provision	Proposed Amendment	Rationale
		<p>each <i>generating unit</i> will be split into corresponding <i>offer</i> blocks. The scheduled <i>offer</i> blocks will then be sorted and listed from the lowest-priced to the highest-priced scheduled <i>offer</i> block, with the lowest-priced scheduled <i>offer</i> block at the bottom of the list and the highest-priced at the top of the list. The <i>generating units</i> for which no <i>offers</i> are submitted but were scheduled are considered as price takers. Their respective schedules, MW, are included in this list and are placed at the bottom of the list with <i>must dispatch generating units</i> at the bottom and followed by <i>priority dispatch generating units</i> and <i>non-scheduled generating units</i> in that order.</p> <p>10.4.6 The “Offers Not Dispatched” consists of the remaining <i>energy offers</i> of each <i>generating unit</i> that are not scheduled or included in the RTD schedule for the <i>dispatch interval</i>. To the extent possible, the remaining <i>offers</i> will be sorted by <i>offer</i> blocks. The <i>offer</i> blocks not dispatched will then be sorted and</p>	<p>10.4.5 The “Offers Dispatched” consists of the <i>energy offer</i> blocks, <b><u>excluding reserve schedules</u></b>, which have been scheduled in the RTD schedule for the <i>dispatch interval</i>. To the extent possible, the <i>dispatch schedule</i> of each <i>generating unit</i> will be split into corresponding <i>offer</i> blocks. The scheduled <i>offer</i> blocks will then be sorted and listed from the lowest-priced to the highest-priced scheduled <i>offer</i> block, with the lowest-priced scheduled <i>offer</i> block at the bottom of the list and the highest-priced at the top of the list. The <i>generating units</i> for which no <i>offers</i> are submitted but were scheduled are considered as price takers. Their respective <b><u>MW</u></b> schedules, <del>MW</del>, are included in this list and are placed at the bottom of the list with <i>must dispatch generating units</i> at the bottom and followed by <i>priority dispatch generating</i></p>	

WESM Manual on Dispatch Protocol Issue 13.2				
Title	Clause	Provision	Proposed Amendment	Rationale
		listed from the lowest-priced to the highest-priced scheduled <i>offer</i> block, with the lowest-priced scheduled offer block at the bottom of the list and the highest-priced at the top of the list. Capacities that were not dispatched through their <i>energy offers</i> but have <i>reserve dispatch</i> targets shall be excluded from the list.	<p><i>units and non-scheduled generating units</i> in that order.</p> <p>10.4.6 The “Offers Not Dispatched” consists of the remaining <i>energy offers</i> of each <b>available</b> <i>generating unit</i> that are not scheduled or included in the RTD schedule for the <i>dispatch interval</i>. To the extent possible, the remaining <i>offers</i> will be sorted by <i>offer</i> blocks. The <i>offer</i> blocks not dispatched will then be sorted and listed from the lowest-priced to the highest-priced scheduled <i>offer</i> block, with the lowest-priced scheduled offer block at the bottom of the list and the highest-priced at the top of the list. Capacities that were not dispatched through their <i>energy offers</i> but have <i>reserve dispatch</i> targets shall be excluded from the list.</p>	
Use of WMOT	10.6.2	As far as practicable, and when <i>secondary reserves</i> have been exhausted, the <i>System Operator</i> shall issue re-dispatch instructions	10.6.2 As far as practicable, and when <del><i>secondary</i></del> <b><i>regulating</i></b> reserves have been exhausted, the	To harmonize with DOE DC2019-12-0018 (regulating, contingency, dispatchable)

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Title	Clause	Provision	Proposed Amendment	Rationale
		based on the <i>WMOT</i> . However, the <i>System Operator</i> may resort in an <i>out of merit dispatch</i> whenever the quality of the <i>grid frequency</i> is affected or the <i>security</i> of the <i>grid</i> is at risk.	<i>System Operator</i> shall issue re-dispatch instructions based on the <i>WMOT</i> . However, the <i>System Operator</i> may resort in an <i>out of merit dispatch</i> whenever the quality of the <i>grid frequency</i> is affected or the <i>security</i> of the <i>grid</i> is at risk.	
DISPATCH IMPLEMENTATION	11.1.3	11.1.3 During each <i>dispatch interval</i> , the <i>Trading Participant</i> is directed under <i>WESM Rules</i> Clause 3.8.4.1 to implement the <i>dispatch targets</i> determined by the <i>Market Operator</i> .	<p>11.1.3 <del>During each <i>dispatch interval</i></del> <b><u>Except for generating units operating on automatic generation control (AGC)</u></b>, the <i>Trading Participant</i> is directed under <i>WESM Rules</i> Clause 3.8.4.1 to implement the <i>dispatch targets</i> determined by the <i>Market Operator</i> <b><u>for each dispatch interval</u></b>.</p> <p><b><u>11.1.4 For generating units operating on AGC, the dispatch instructions shall be issued by the System Operator. The Trading Participant shall then comply with the dispatch instructions issued by the System Operator through their facilities for AGC, based on the dispatch target</u></b></p>	Proposed to provide option for automated dispatching

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Title	Clause	Provision	Proposed Amendment	Rationale
			<u>determined by the Market Operator for each dispatch interval.</u>	
DISPATCH IMPLEMENTATION	11.1.4	11.1.4 xxx	<p>11.1.45 xxx</p> <p><b><u>11.1.6 The System Operator shall make use of the first WMOT available for the hour as reference for its re-dispatch instruction at any dispatch interval for that hour (e.g. 1005H WMOT shall be used for all dispatch intervals from 1005H to 1100H).</u></b></p>	<p>Re-numbered item due to additional clause in 11.1.4.</p> <p>Added new clause to specify first WMOT shall be used as reference for the rest of the hour in SO re-dispatch in consideration of the SO's operational issues in relying on multiple 5-minute WMOTs in a one-hour interval.</p>
RESPONSIBILITIES	11.3	<p>11.3.1 The <i>System Operator</i>, in coordination with the <i>Market Operator</i>, shall be responsible for the following:</p> <p>a. XXX</p> <p>b. Implementing the <i>WMOT</i> provided by the <i>Market Operator</i>;</p> <p>c. Assuring the <i>security</i> and reliability of the grid at all times in compliance with the provisions of the System Security</p>	<p>11.3.1 The <i>System Operator</i>, in coordination with the <i>Market Operator</i>, shall be responsible for the following:</p> <p>a. XXX</p> <p><b><u>b. Directly issuing dispatch instructions to generating units operating on AGC</u></b></p>	Proposed to provide option for automated dispatching consistent with revisions in Section 11.1.3.

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Title	Clause	Provision	Proposed Amendment	Rationale
		<p>and Reliability Guidelines and <i>Grid Code</i>;</p> <p>d. Dispatching <i>generators</i> as <i>constrain-on</i> or <i>constrain-off</i>, or as <i>must-run unit</i> if all available <i>reserves</i> are exhausted during a <i>dispatch interval</i>; and</p> <p>e. Reporting events and actions made during <i>dispatch intervals</i></p>	<p><del>b-c.</del> Implementing the <i>WMOT</i> provided by the <i>Market Operator</i>;</p> <p><del>e-d.</del> Assuring the <i>security</i> and reliability of the grid at all times in compliance with the provisions of the System Security and Reliability Guidelines and <i>Grid Code</i>;</p> <p><del>d-e.</del> Dispatching <i>generators</i> as <i>constrain-on</i> or <i>constrain-off</i>, or as <i>must-run unit</i> if all available <i>reserves</i> are exhausted during a <i>dispatch interval</i>; and</p> <p><del>e-f.</del> Reporting events and actions made during <i>dispatch intervals</i></p>	
		<p>11.3.2 XXX</p> <p>11.3.3 All <i>Trading Participants</i> shall comply with their respective <i>dispatch schedules</i> issued by the <i>Market Operator</i> and the re-dispatch instructions issued to them by the <i>System Operator</i>, if any. For this purpose, they shall ensure that their respective internal processes, systems and infrastructure, as well as</p>	<p>11.3.2 XXX</p> <p>11.3.3 All <i>Trading Participants</i> shall comply with their respective <i>dispatch schedules</i> issued by the <i>Market Operator</i>, <b><u>dispatch instructions issued by the System Operator through their facilities for AGC,</u></b> and the re-dispatch instructions issued to them by the <i>System</i></p>	

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		their protocols with their counterparties, shall enable strict compliance with this Section.	<i>Operator</i> , if any. For this purpose, they shall ensure that their respective internal processes, systems and infrastructure, as well as their protocols with their counterparties, shall enable strict compliance with this Section.	
ISSUANCE AND COVERAGE OF DISPATCH INSTRUCTIONS	11.4	<p>11.4.1 <i>Dispatch instructions</i> shall include the following:</p> <p>a. XXX</p> <p>b. XXX</p>	<p>11.4.1 <b><u>Except for generating units operating on AGC, Dispatch instructions</u></b> shall include the following:</p> <p>a. XXX</p> <p>b. XXX</p> <p><b><u>11.4.2 For generating units operating on AGC, the following shall be observed:</u></b></p> <p><b><u>a. The System Operator shall send AGC commands based on a linear ramp rate specified with the Generation Company.</u></b></p>	<p>Proposed to provide option for automated dispatching consistent with revisions in Section 11.1.3.</p> <p>Proposed to ensure reliability of the grid by providing standard initial reaction from generation companies</p>

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Title	Clause	Provision	Proposed Amendment	Rationale
			<p><u>b. The Generation Company shall communicate to the System Operator the status of the AGC operations from start, during, and end of AGC remote control mode, as necessary.</u></p> <p><u>c. The Generation Company shall seek clearance from the System Operator to change from remote to local AGC mode in cases of technical constraints.</u></p> <p><u>d. When the Generation Company observes AGC-related issues that affect its operations, the Generation Company shall immediately communicate such issues to the System Operator prior to changing its mode of dispatch.</u></p> <p><u>e. For an aggregated generating unit, the Generation Company shall pro-rate the</u></p>	



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Title	Clause	Provision	Proposed Amendment	Rationale
		<p>11.4.2 XXX</p> <p>11.4.3 <b>System Operator Clearance.</b> When the <i>grid frequency</i> is not within the normal threshold, the <i>Trading Participants</i> shall seek clearance from the <i>System Operator</i> before ramping up or down to their respective <i>target loading levels</i>. The <i>System Operator</i> shall provide clearance and issue <i>dispatch instructions</i> as it deems appropriate.</p>	<p><u>AGC command to the individual <i>generating units</i> based on each unit's MW capability at that time.</u></p> <p>11.4.23 XXX</p> <p>11.4.34 <b>System Operator Clearance. Generator Dispatch Compliance Beyond Normal Grid Frequency Threshold.</b></p> <p>a. When the <i>grid frequency</i> is not within the normal threshold <u>reaches 59.7Hz or lower</u>, the <i>Trading Participants</i> shall <u>operate based on the following conditions:</u> seek clearance from the <i>System Operator</i> before ramping up or down to their respective <i>target loading levels</i>. The <i>System Operator</i> shall provide clearance and issue <i>dispatch instructions</i> as it deems appropriate.</p>	

WESM Manual on Dispatch Protocol Issue 13.2						
Title	Clause	Provision	Proposed Amendment			Rationale
			<u>Condit ion</u>	<u>Status of Actual Dispatch</u>	<u>Expected Response</u>	
			<u>Frequ ency is 59.7 Hz or lower</u>	<u>If ramping down, or current actual loading is higher than dispatch schedule</u>	<u>Generating unit should stop ramping down and maintain current actual loading unless otherwise instructed by the System Operator</u>	
				<u>If ramping up, or current actual loading is lower than dispatch schedule</u>	<u>Generating unit should continue to ramp up to its dispatch schedule unless otherwise instructed by the System Operator</u>	
			<u>b. Once the grid frequency goes up to 60 Hz after coming off from a state in Section</u>			

WESM Manual on Dispatch Protocol Issue 13.2													
Title	Clause	Provision	Proposed Amendment		Rationale								
			<p><u>11.4.4 (a), then the <i>Trading Participants</i> shall resume to dispatch its <i>generating units</i> to meet its <i>dispatch schedule</i>.</u></p> <p><u>c. When the <i>grid frequency</i> reaches 60.3 Hz or higher, the <i>Trading Participants</i> shall operate based on the following conditions:</u></p> <table><tr><th><u>Con ditio n</u></th><th><u>Status of Actual Dispatch</u></th><th><u>Expected Response</u></th></tr><tr><td rowspan="2"><u>Freq uen cy is 60.3 Hz or high er</u></td><td><u>If ramping down, or current actual loading is higher than <i>dispatch schedule</i></u></td><td><u>Generating unit should continue to ramp down to its <i>dispatch schedule</i> unless otherwise instructed by the <i>System Operator</i></u></td></tr><tr><td><u>If ramping up, or current actual loading is</u></td><td><u>Generator should stop ramping up and maintain current actual</u></td></tr></table>		<u>Con ditio n</u>	<u>Status of Actual Dispatch</u>	<u>Expected Response</u>	<u>Freq uen cy is 60.3 Hz or high er</u>	<u>If ramping down, or current actual loading is higher than <i>dispatch schedule</i></u>	<u>Generating unit should continue to ramp down to its <i>dispatch schedule</i> unless otherwise instructed by the <i>System Operator</i></u>	<u>If ramping up, or current actual loading is</u>	<u>Generator should stop ramping up and maintain current actual</u>	
<u>Con ditio n</u>	<u>Status of Actual Dispatch</u>	<u>Expected Response</u>											
<u>Freq uen cy is 60.3 Hz or high er</u>	<u>If ramping down, or current actual loading is higher than <i>dispatch schedule</i></u>	<u>Generating unit should continue to ramp down to its <i>dispatch schedule</i> unless otherwise instructed by the <i>System Operator</i></u>											
	<u>If ramping up, or current actual loading is</u>	<u>Generator should stop ramping up and maintain current actual</u>											

WESM Manual on Dispatch Protocol Issue 13.2						
Title	Clause	Provision	Proposed Amendment			Rationale
				<u>lower than dispatch schedule</u>	<u>loading unless otherwise instructed by the System Operator</u>	
			<u>d. Once the <i>grid frequency</i> comes down to 60 Hz after coming off from a state in Section 11.4.4 (c), then the Trading Participants shall resume to dispatch its generating units to meet its dispatch schedule.</u>			
DISPATCH OF MUST AND PRIORITY DISPATCH GENERATING UNITS	11.5	11.5.2 If, in real-time, the available <i>generation</i> from a <i>Must dispatch generating unit</i> differs from the available <i>generation</i> assumed in the <i>dispatch schedule</i> provided to the <i>System Operator</i> , the <i>System Operator</i> shall allow the <i>Must dispatch generating unit</i> to generate at its <i>maximum available output</i> , and, if all available <i>secondary reserves</i> are exhausted during a <i>dispatch interval</i> , shall adjust the <i>dispatch</i> of other <i>generating units</i> to compensate as	11.5.2 If, in real-time, the available <i>generation</i> from a <i>Must dispatch generating unit</i> differs from the available <i>generation</i> assumed in the <i>dispatch schedule</i> provided to the <i>System Operator</i> , the <i>System Operator</i> shall allow the <i>Must dispatch generating unit</i> to generate at its <i>maximum available output</i> , and, if all available <del><i>secondary</i></del> <b><i>regulating</i></b> reserves are exhausted during			To harmonize with DOE DC2019-12-0018 (regulating, contingency, dispatchable)

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Title	Clause	Provision	Proposed Amendment	Rationale
		required in accordance with re-dispatch process in this Section.	a <i>dispatch interval</i> , shall adjust the <i>dispatch</i> of other <i>generating units</i> to compensate as required in accordance with re-dispatch process in this Section.	
COMMUNICATING AND REPORTING OF DISPATCH SCHEDULES AND INSTRUCTIONS	11.8	11.8.1 The <i>real-time dispatch</i> targets shall be communicated by the <i>Market Operator</i> to the <i>Trading Participants</i> through the <i>MPI</i> . The <i>WMOT</i> generated for a <i>dispatch interval</i> shall be published in accordance with Section 10.7.2 of this Dispatch Protocol. Redispatch instructions shall be communicated by the <i>System Operator</i> to the <i>Trading Participants</i> through their respective power plant operators.	11.8.1 The <i>real-time dispatch</i> targets shall be communicated by the <i>Market Operator</i> to the <i>Trading Participants</i> through the <i>MPI</i> . The <i>WMOT</i> generated for a <i>dispatch interval</i> shall be published in accordance with Section 10.7.2 of this Dispatch Protocol. <b><u>Dispatch instructions through the AGC facilities shall be communicated by the System Operator through the available communication link with the power plant operator.</u></b> Redispatch instructions shall be communicated by the <i>System Operator</i> to the <i>Trading Participants</i> through their respective power plant operators.	Proposed to provide option for automated dispatching. Also revised dispatch deviation reports to dispatch instruction reports.

WESM Manual on Dispatch Protocol Issue 13.2				
Title	Clause	Provision	Proposed Amendment	Rationale
		<p>11.8.2 The <i>System Operator</i> shall maintain the communication facilities it needs for communicating with <i>Trading Participants</i> which may include telephones, fax, email, web pages and other means of communications.</p> <p>11.8.3 XXX</p> <p>11.8.4 All <i>dispatch instructions</i> issued by the <i>System Operator</i> to <i>Trading Participants</i> shall be recorded through operator logs. The <i>System Operator</i> shall include this information in the dispatch deviation report, in accordance with Section 14.4.</p> <p>11.8.5 Dispatch deviation reports submitted by the System Operator to the Market Operator shall be used for purposes of surveillance, audit, and market settlements.</p>	<p>11.8.2 The <i>System Operator</i> shall maintain the communication facilities it needs for communicating with <i>Trading Participants</i> which may include telephones, fax, email, web pages, <b><u>facilities for AGC,</u></b> and other means of communications.</p> <p>11.8.3 XXX</p> <p>11.8.4 All <i>dispatch instructions</i> issued by the <i>System Operator</i>, <b><u>including those provided through the facilities for AGC,</u></b> to <i>Trading Participants</i> shall be recorded through operator logs. The <i>System Operator</i> shall include this information in the dispatch deviation <b><u>instruction</u></b> report, in accordance with Section 14.4.</p> <p>11.8.5 Dispatch deviation <b><u>instruction</u></b> reports submitted by the System Operator to the Market Operator shall be used for purposes of</p>	

WESM Manual on Dispatch Protocol Issue 13.2				
Title	Clause	Provision	Proposed Amendment	Rationale
			surveillance, audit, and market settlements.	
START-UP AND SHUTDOWN OF GENERATING UNITS	13.2.2	Consistent with its obligations pertaining to real-time dispatch scheduling and implementation, the <i>System Operator</i> shall ensure: a. Continuous and timely submission and updating of the outage schedules, <i>overriding constraint</i> limits of generating units to the <i>Market Operator</i> ; b. XXX c. XXX	Consistent with its obligations pertaining to real-time dispatch scheduling and implementation, the <i>System Operator</i> shall ensure: a. Continuous and timely submission and updating of the outage schedules, <del><i>overriding constraint</i></del> limits of generating units to the <i>Market Operator</i> ; b. XXX c. XXX	For consistency with self-commitment and dispatch principles under the EWDO
General Procedures	13.3	13.3.4 The <i>dispatch scheduling</i> of the <i>generating unit</i> that will <i>start-up</i> or <i>shutdown</i> shall be managed through its <i>market offers</i> submitted within the <i>WESM timetable</i> . The <i>Trading Participant</i> shall submit <i>offers</i> for the <i>dispatch interval</i> during which the unit is to <i>startup</i> or <i>shutdown</i> and make adjustments to its <i>offers</i> , as appropriate.	13.3.4 The <i>dispatch scheduling</i> of the <i>generating unit</i> that will <i>start-up</i> or <i>shutdown</i> shall be managed through its <i>market offers</i> submitted within the <i>WESM timetable</i> . The <i>Trading Participant</i> shall submit <u><i>market offers or nominations</i></u> for the <i>dispatch interval</i> during which the unit is to <i>startup</i> or <i>shutdown</i> and make adjustments to its <u><i>market offers or nominations</i></u> , as appropriate.	For consistency with self-commitment and dispatch principles under the EWDO and provide options especially applicable to generating units with fast-start capability

WESM Manual on Dispatch Protocol Issue 13.2				
Title	Clause	Provision	Proposed Amendment	Rationale
			<b><u>13.3.5 Consistent with the provisions in the WESM Manual on the Market Network Model Development and Maintenance - Criteria and Procedure, the status of generating units shall be based on their registered availability in the market network model.</u></b>	
Start-up of Generating Unit a	13.4	<p>13.4.1 Off-line units will not be included in the <i>dispatch scheduling</i> process. Thus, the <i>generating unit</i> must then be synchronized to the <i>grid</i> prior to the execution of the <i>real-time dispatch</i> run consistent with the <i>WESM timetable</i>.</p> <p>13.4.2 The System Operator shall update the <i>outage schedule of generators</i> to remove the <i>generating unit</i> cleared to <i>start-up</i> from the <i>outage list</i>. Submission shall be in accordance with the <i>WESM timetable</i>. If the <i>start-up</i> will be deferred, the System Operator shall update the <i>outage schedule</i> accordingly and in</p>	<p>13.4.1 Off-line units will not be included in the <del><i>dispatch scheduling</i></del> process. Thus, the <b>A</b> <i>generating unit</i> must then be synchronized to the <del><i>grid</i></del> <b><u>have market offers or nominations</u></b> prior to the execution of the <i>real-time dispatch</i> run consistent with the <i>WESM timetable</i>.</p> <p>13.4.2 The System Operator shall update the outage schedule of generators to remove the generating unit cleared to start-up from the outage list. Submission shall be in accordance with the WESM timetable.</p>	<p>For consistency with self-commitment and dispatch principles under the EWDO</p> <p>Re-numbered</p>



WESM Manual on Dispatch Protocol Issue 13.2				
Title	Clause	Provision	Proposed Amendment	Rationale
		<p>accordance with the <i>WESM timetable</i> for submission of <i>outage schedules</i>.</p> <p>13.4.3 XXX</p> <p>13.4.4 XXX</p>	<p><b><u>13.4.3 If the start-up will be deferred, the System Operator shall update the outage schedule accordingly and in accordance with the WESM timetable for submission of outage schedules.</u></b></p> <p>13.4.34 XXX</p> <p>13.4.45 XXX</p>	
Shutdown of a Generating Unit	13.5	<p>13.5.3 The <i>Trading Participant</i> shall update its <i>offers</i> for the <i>dispatch intervals</i> covered in the <i>shutdown</i> sequence.</p> <p>13.5.4 Once the <i>generating unit</i> has completely <i>shut down</i>, the relevant <i>Trading Participant</i> shall cancel its daily <i>offer</i> profile for the affected <i>trading day</i>.</p>	<p>13.5.3 The <i>Trading Participant</i> shall update its <b><u>market offers or nominations</u></b> for the <i>dispatch intervals</i> covered in the <i>shutdown</i> sequence.</p> <p>13.5.4 Once the <i>generating unit</i> has completely <i>shut down</i>, the relevant <i>Trading Participant</i> shall cancel its daily <i>market offer or nomination</i> profile for the affected <i>trading day</i>.</p>	To clarify that Trading participants also required to update their nominations.

WESM Manual on Dispatch Protocol Issue 13.2				
Title	Clause	Provision	Proposed Amendment	Rationale
Post-dispatch Data and Operation Reports	14.1	<p>Background</p> <p>After each dispatch interval, the System Operator is required under WESM Rules Clause 3.8.2 to advise the Market Operator of the occurrence of, among other information, dispatch deviations, load shedding, network constraints, binding security constraints and operational irregularities.</p>	<p>Background</p> <p>After each dispatch interval, the System Operator is required under WESM Rules Clause 3.8.2 to advise the Market Operator of the occurrence of, among other information, dispatch <del>deviations</del> <b>instructions</b>, load shedding, network constraints, binding security constraints and operational irregularities.</p>	
Post-dispatch Reports and Information	14.4.2	<p>Dispatch Deviation Report. For each trading day, the System Operator shall submit a report to the Market Operator, on a weekly basis, containing deviation to actual dispatch from the RTD schedule. The Dispatch Deviation Report shall contain, among others, the following information:</p> <ol style="list-style-type: none"> <li>Covered period (start time and end time)</li> <li>Resource name</li> <li>Reason for Deviation: <ul style="list-style-type: none"> <li>Utilized for ancillary services</li> <li>Testing Requirement</li> <li>Re-dispatch of constrain-on and constrain-off generating units</li> <li>Designation of must-run units</li> </ul> </li> <li>Short description of the issue being addressed (e.g. frequency breached x Hz)</li> </ol>	<p>Dispatch Deviation <b>Instruction</b> Report. <b><u>On a weekly basis,</u></b> <del>For each trading day,</del> the System Operator shall submit a report to the Market Operator, <del>on a weekly basis,</del> containing <b><u>their dispatch instructions that includes, but are not limited to, generator re-dispatch (e.g. constrain-on generation, constrain-off generation, must-run generation), MW output schedule during market intervention or market suspension, and, as necessary, commands via the automatic generation control,</u></b> <del>deviation to actual dispatch from the RTD schedule.</del> The Dispatch</p>	<p>Change to Dispatch Instruction Report to only cover instructions issued by SO. Added proposed changes to format also.</p>

WESM Manual on Dispatch Protocol Issue 13.2				
Title	Clause	Provision	Proposed Amendment	Rationale
			<p><del>Deviation</del> <b><u>Instruction</u></b> Report shall contain, among others, the following information:</p> <p>a. <del>Covered period (start time and end time)</del> <b><u>Date and Time of Incident</u></b></p> <p>b. Resource name</p> <p>c. Reason for <del>Deviation</del> <b><u>Dispatch Instruction</u></b>:</p> <ul style="list-style-type: none"> <li>• Utilized for ancillary services</li> <li>• Testing Requirement</li> <li>• Re-dispatch of constrain-on and constrain-off generating units</li> <li>• Designation of must-run units</li> <li>• <b><u>Limitation on must dispatch generating units</u></b></li> <li>• <b><u>Market Intervention or Market Suspension</u></b></li> </ul> <p>d. Short description of the issue being addressed (e.g. frequency breached x Hz)</p> <p><b><u>e. Type of Dispatch Instruction</u></b></p> <p><b><u>f. Target MW value instructed</u></b></p>	
Post-dispatch Reports and Information	14.4.5	Report on Must-run Units. In accordance with WESM Rules Clause 3.5.13.1, the System Operator shall submit a report to the Market Operator identifying all the generating units designated as must-run units within the	Report on Must-run Units. In accordance with WESM Rules Clause 3.5.13.1, the System Operator shall submit <del>a report</del> <b><u>information</u></b> to the Market Operator identifying all the	To indicate that information on designation of MRUs shall be included in the Dispatch Instruction Report

WESM Manual on Dispatch Protocol Issue 13.2				
Title	Clause	Provision	Proposed Amendment	Rationale
		trading day, as well as information necessary for the proper settlement of such generating units.	generating units designated as must-run units within the trading day, as well as information necessary for the proper settlement of such generating units. <b><u>Such information shall be included in the Dispatch Instruction Report.</u></b>	
Post-dispatch Reports and Information	14.4.7	(NEW)	<b><u>14.4.7 Each generation company shall validate all the data in the Dispatch Instruction Report as published by the Market Operator in the market information website. Any discrepancy in these reports shall be reported by the generation company to the Market Operator within two (2) weeks after the Market Operator's publication of these reports. Failure by the generation company to report to the Market Operator any discrepancy within the period defined herein shall render the data in the report as final.</u></b>	To include provision that discrepancies should be reported within two weeks.
Post-dispatch Reports and Information	14.4.8	(NEW)	<b><u>14.4.8 Within two (2) working days from receipt of a report, the Market Operator shall request the System Operator to validate a reported discrepancy by a generator.</u></b>	Provide the Market Operator time to consolidate and transmit discrepancy report to the SO

WESM Manual on Dispatch Protocol Issue 13.2				
Title	Clause	Provision	Proposed Amendment	Rationale
Post-dispatch Reports and Information	14.4.9	(NEW)	<b><u>14.4.9 The System Operator shall perform reconciliation with the generation company and provide the results of its validation of the reported discrepancies within two (2) weeks from the receipt of the request from the Market Operator. If the Market Operator has not received any validation within the prescribed timeline, the published data from the Dispatch Instruction Report shall be maintained. If the generation company claims additional compensation related to the reported discrepancies that were not validated within the prescribed timeline, the generation company may subject the said claim under the WESM dispute resolution process.</u></b>	To include ERC directive* on SO reconciliation timeline and impact of non-submission by SO of validation within the prescribed timeline.  * Section 4.4.1.1.3 of ERC Decision dated 29 August 2020 on ERC Case No. 2017-042RC
Determination of Reserve Requirements	15.4.2	The level of <i>reserve</i> requirement for secondary <i>reserve</i> service shall be based on the latest issuances on the procurement of <i>ancillary services</i> by the <i>ERC</i> , and shall be used as reference by the <i>Market Operator</i> for the <i>market projections</i> and <i>real-time dispatch schedule</i> .	The level of <i>reserve</i> requirement for secondary <b><u>regulating</u></b> <i>reserve</i> service shall be based on the latest issuances on the procurement of <i>ancillary services</i> by the <i>ERC</i> , and shall be used as reference by the <i>Market Operator</i> for the <i>market projections</i> and <i>real-time dispatch schedule</i> .	To harmonize with DOE DC2019-12-0018 (regulating, contingency, dispatchable)

WESM Manual on Dispatch Protocol Issue 13.2				
Title	Clause	Provision	Proposed Amendment	Rationale
Determination of Reserve Requirements	15.4.3	For <i>primary reserve</i> service and <i>tertiary reserve</i> , the System Operator shall determine the level of <i>reserve</i> requirement in accordance with the latest issuances on the procurement of <i>ancillary services</i> by the ERC.	For <del>primary</del> <b><i>contingency</i></b> reserve service and <del>tertiary</del> <b><i>dispatchable</i></b> reserve, the System Operator shall determine the level of <i>reserve</i> requirement in accordance with the latest issuances on the procurement of <i>ancillary services</i> by the ERC.	To harmonize with DOE DC2019-12-0018 (regulating, contingency, dispatchable)
Management of Must-Run Units	17.5.1	17.5 Reporting and Publication  Each generator shall validate all the data related to MRU contained in the Dispatch Deviation Report as published by the Market Operator in the Market information website. Any discrepancy in these reports shall be reported by the Generator to the Market Operator within two weeks after the Market Operator's publication of these reports. Failure by the Generator to report to the Market Operator any discrepancy within the period defined herein shall render the MRU data relative to the Generator final.	<del>17.5 Reporting and Publication  Each generator shall validate all the data related to MRU contained in the Dispatch Deviation Report as published by the Market Operator in the Market information website. Any discrepancy in these reports shall be reported by the Generator to the Market Operator within two weeks after the Market Operator's publication of these reports. Failure by the Generator to report to the Market Operator any discrepancy within the period defined herein shall render the MRU data relative to the Generator final.</del>	Suggest to delete given the proposed integration of MRU reporting to the Dispatch Instruction Report.
Managing Excess Generation for the Next Day	18.3	18.3.1 There is an impending excess <i>generation</i> when the resulting price in the <i>day-ahead projection</i> run is equivalent to the offer floor price and	18.3.1 There is an impending excess <i>generation</i> when the resulting price in the <i>day-ahead projection</i> run is equivalent to	To harmonize with DOE DC2019-12-0018 (regulating, contingency, dispatchable)

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Title	Clause	Provision		Proposed Amendment	Rationale	
		the aggregate unscheduled Technical Pmin of generating units with floor price offers is greater than or equal to the <i>secondary reserve</i> requirement.		the offer floor price and the aggregate unscheduled Technical Pmin of generating units with floor price offers is greater than or equal to the <del>secondary</del> <b><u>regulating</u></b> reserve requirement.		
Emergency Procedures	20.4	Emergency Procedures during Overload		<b><i>[See Annex B.1 for changes to Emergency Procedures during Overload flowchart]</i></b>	Proposed for refinements in the process flow from SO	
Content Structure of <i>Real-time dispatch Results for the System Operator</i>	Appendix D	XXX		XXX	To harmonize with DOE DC2019-12-0018 (regulating, contingency, dispatchable)	
		<b>a. <i>Real-time dispatch schedules</i></b>		<b>a. <i>Real-time dispatch schedules</i></b>		
		<b>Column Name</b>	<b>Description</b>	<b>Column Name</b>		<b>Description</b>
		END_TIME	XXX	END_TIME		XXX
		REFERENCE_NAME	Concatenates the Resource Name and the market product. The following lists the market products available. <ul style="list-style-type: none"><li>• “EN” for energy</li><li>• “RU” for Regulation raise/upward</li></ul>	REFERENCE_NAME		Concatenates the Resource Name and the market product. The following lists the market products available. <ul style="list-style-type: none"><li>• “EN” for energy</li></ul>

WESM Manual on Dispatch Protocol Issue 13.2					
Title	Clause	Provision		Proposed Amendment	
			<ul style="list-style-type: none"><li>• “RD” for Regulation lower/downward</li><li>• “FR” for Fast Contingency Raise</li><li>• “FL” for Fast Contingency Lower</li><li>• “SR” for Slow Contingency Raise</li><li>• “SL” for Slow Contingency Lower</li><li>• “DR” for Delayed Contingency Raise</li><li>• “DL” for Delayed Contingency Lower</li></ul> <div>XXX</div>		<ul style="list-style-type: none"><li>• “RU” for Regulation raise/upward</li><li>• “RD” for Regulation lower/downward</li><li>• “FR” for Fast Contingency Raise</li><li>• <b><u>(Contingency Reserve)</u></b></li><li>• <del>“FL” for Fast Contingency Lower</del></li><li>• <del>“SR” for Slow Contingency Raise</del></li><li>• <del>“SL” for Slow Contingency Lower</del></li><li>• “DR” for Delayed Contingency Raise</li><li>• <b><u>(Dispatchable Reserve)</u></b></li><li>• <del>“DL” for Delayed Contingency Lower</del></li></ul>
		MW	XXX		



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						To harmonize with DOE DC2019-12-0018 (regulating, contingency, dispatchable)
		</				

WESM Manual on Dispatch Protocol Issue 13.2							
Title	Clause	Provision			Proposed Amendment		Rationale
			<ul style="list-style-type: none"><li>• “FL” for Fast Contingency Lower</li><li>• “SR” for Slow Contingency Raise</li><li>• “SL” for Slow Contingency Lower</li><li>• “DR“ for Delayed Contingency Raise</li><li>• “DL” for Delayed Contingency Lower</li></ul>			Raise <b><u>(Contingency Reserve)</u></b> <ul style="list-style-type: none"><li>•<del>“FL” for Fast Contingency Lower</del></li><li>•<del>“SR” for Slow Contingency Raise</del></li><li>•<del>“SL” for Slow Contingency Lower</del></li><li>• “DR“ for Delayed Contingency Raise</li><li><b><u>(Dispatchable Reserve)</u></b><ul style="list-style-type: none"><li>• “DL” for Delayed Contingency Lower</li></ul></li></ul>	
		REGION_ID	XXX				
		REQ_MW	XXX				
		XXX					
		REGION_ID	XXX				
		REQ_MW	XXX				
		XXX					
Content Structure of SO Inputs to the	Appendix E	XXX			XXX		

WESM Manual on Dispatch Protocol Issue 13.2							
Title		Clause	Provision		Proposed Amendment		Rationale
Market Projections and Real-time dispatch			f. Reserve Requirement		f. Reserve Requirement		To harmonize with DOE DC2019-12-0018 (regulating, contingency, dispatchable)
			Column Name	Description	Column Name	Description	
			SCHEDULE_ TYPE	Refers to the MMS' COP Schedule Type for Reserve Requirement. The following are the available schedule types for reserves. <ul style="list-style-type: none"><li>RegulationLo werReserve</li><li>RegulationRa iseReserve</li><li>FastContinge ncyLowerRes erve</li><li>FastContinge ncyRaiseRes erve</li><li>SlowContinge ncyLowerRes erve</li><li>SlowContinge ncyRaiseRes erve</li></ul>	SCHEDULE_ TYPE	Refers to the MMS' COP Schedule Type for Reserve Requirement. The following are the available schedule types for reserves. <ul style="list-style-type: none"><li>RegulationLo werReserve</li><li>RegulationRa iseReserve</li><li><del>FastContinge ncyLowerRes erve</del></li><li>FastContinge ncyRaiseRes erve</li><li><b><u>(Contingenc y Reserve)</u></b></li><li><del>SlowContinge ncyLowerRes erve</del></li></ul>	

WESM Manual on Dispatch Protocol Issue 13.2							
Title	Clause	Provision		Proposed Amendment		Rationale	
			<ul style="list-style-type: none"><li>DelayedContingencyLower Reserve</li><li>DelayedContingencyRaise Reserve</li></ul>		<ul style="list-style-type: none"><li><del>SlowContingencyRaiseReserve</del></li><li><del>DelayedContingencyLower Reserve</del></li><li>DelayedContingencyRaise Reserve <b><u>(Dispatchable Reserve)</u></b></li></ul>		
		VERSION	XXX		VERSION		XXX
		OBJECT_ID	XXX		OBJECT_ID		XXX
		TARGET_TIME	XXX		TARGET_TIME		XXX
		MW	XXX		MW		XXX
		(New)	<b><u>Appendix G. Details of Dispatch Instructions Using Automatic Generation Control</u></b>  <b><u>[See Annex B.2]</u></b>		Proposed to provide option for automated dispatching		

*Note: Please underline and put in bold letters the proposed changes to the Market Rules or Manual.*

Provision	Proposed Amendment
<div>20.4.1 Emergency Procedures During Overload</div> <div></div>	<div>20.4.1 Emergency Procedures During Overload</div> <div></div>

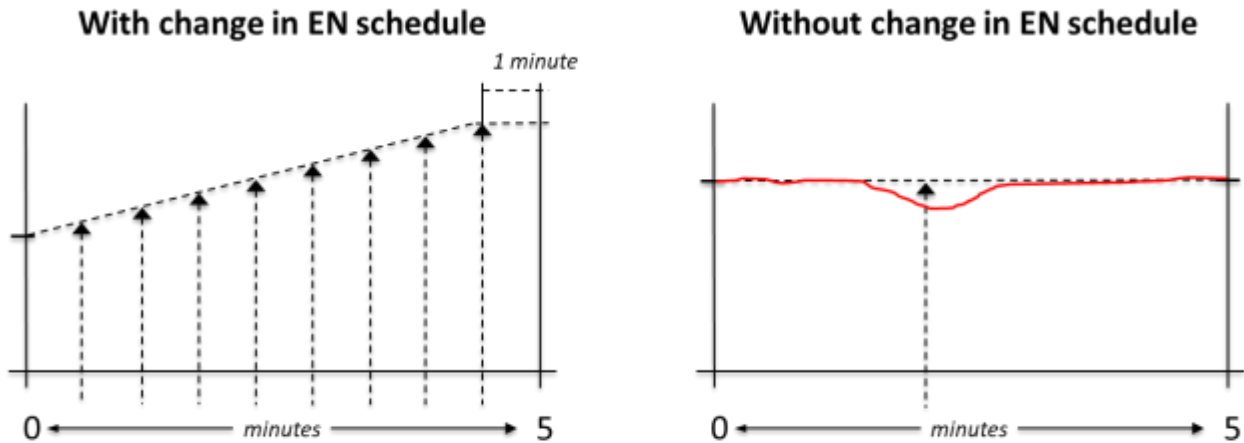
**Appendix G. Details of Dispatch Instructions Using Automatic Generation Control**

**Enhanced AGC System Command Modes**

<u>No.</u>	<u>RTD Schedules</u>	<u>Command Mode</u>	<u>Remarks</u>	<u>Lower Limit</u>	<u>Upper Limit</u>
<u>1</u>	<u>Energy Only</u>	<u>SCHED – O</u>	<u>Energy only</u>	<u>None</u>	
<u>2</u>	<u>Contingency Reserve (CR) Only</u>	<u>AUTO – E</u>	<u>Scheduled for Contingency Reserve only</u>	<u>Pmin</u>	<u>Pmin + CR</u>
<u>3</u>	<u>Energy + Contingency Reserve</u>	<u>SCHED – E</u>	<u>Has energy and contingency reserve schedule</u>	<u>EN</u>	<u>EN + CR</u>
<u>4</u>	<u>Regulating Reserve (RR)</u>	<u>AUTO – R</u>	<u>Scheduled for regulating reserve only</u>	<u>EN – RR Downward</u>	<u>EN + RR Upward</u>
<u>5</u>	<u>Energy + Regulating Reserve</u>	<u>SCHED – R</u>	<u>It has energy and regulating reserve schedules. It also has same energy schedules in previous and current dispatch intervals.</u>		
		<u>AUTO – R</u>	<u>It has energy and regulating reserve schedules. It also has different energy schedules in previous and current dispatch intervals.</u>		
<u>6</u>	<u>Dispatchable Reserve (DR) Only</u>	<u>MANUAL</u>	<u>Scheduled for Dispatchable Reserve only</u>	<u>EN – DR Lower</u>	<u>EN + DR Raise</u>

No.	RTD Schedules	Command Mode	Remarks	Lower Limit	Upper Limit
7	Energy + Dispatchable Reserve	SCHED-O	Has energy and dispatchable reserve schedule		

Illustrating AGC Commands Within the 5-minute Dispatch Interval



Command Mode: **SCHED-O**

C. WESM Manual on Registration, Suspension and De-Registration Criteria and Procedures Issue 5.3

WESM Manual on Registration, Suspension and De-Registration Criteria and Procedures Issue 5.3				
Title	Clause	Provision	Proposed Amendment	Rationale
Other Considerations	(New)	(NEW)	<p><b><u>2.5.4.7 Modelling of the Generating Unit's Availability</u></b></p> <p><b><u>Upon registration, Trading Participants shall specify if the availability of its generating unit shall be based on the real-time status of its generator breaker, or on the availability of its market offers.</u></b></p>	Proposed requirement for generator modelling where TPs need to specify if generator availability is based entirely on its generator breakers, or on the availability of its market offers.



## D. WESM Manual on Market Network Model Development and Maintenance - Criteria and Procedures Issue 4.2

WESM Manual on Market Network Model Development and Maintenance - Criteria and Procedures Issue 4.2				
Title	Clause	Provision	Proposed Amendment	Rationale
Definitions	2.1.5	(NEW)	<u><b>2.1.5 Market Resource refers to the objects defined in the Market Network Model to represent generators, battery energy storage systems, pumped-storage units, and loads.</b></u>	Provide general term used in MNM for all objects representing generators, BESS, pumped-storage units, and loads
MNM Components and Modeling	4.4.12	(NEW)	<p><u><b>4.4.11 Real-Time Data</b></u></p> <p><u><b>The System Operator shall provide the following real-time data, each having its respective real-time data quality, to the Market Operator.</b></u></p> <ul style="list-style-type: none"> <li>a. <u><b>Analog measurements (MW/MVAR) to represent gross generation output and generation net of the station use;</b></u></li> <li>b. <u><b>Analog measurements (MW/MVAR) to represent consumption at least at the connection point;</b></u></li> <li>c. <u><b>Analog measurements (MW/MVAR) measuring loading at the high-side and low-side of the transformer;</b></u></li> <li>d. <u><b>Analog measurements (MW/MVAR) measuring the loading at both ends of an AC line or HVDC link;</b></u></li> <li>e. <u><b>Breaker Status;</b></u></li> <li>f. <u><b>Calculated MW Demand per region; and</b></u></li> <li>g. <u><b>Power System Frequency per grid (Hz).</b></u></li> </ul>	Proposed addition to document provision of real-time data for the MNM.

WESM Manual on Market Network Model Development and Maintenance - Criteria and Procedures Issue 4.2				
Title	Clause	Provision	Proposed Amendment	Rationale
MNM Development Timetable	4.5.4	After the receipt of the official notification from the System Operator, the Market Operator shall initiate the approval process for the MNM uploading to facilitate the implementation of the notified change. Minor changes (such as but not limited to, change in equipment/resources naming conventions, additional bays for future expansions) to the transmission network that has no impact to the market operations may be implemented at a later time.	After the receipt of the official notification from the System Operator, the Market Operator shall <b><u>start the preparations</u></b> <del>initiate the approval process</del> for the MNM uploading <b><u>update</u></b> to facilitate the implementation of the notified change. Minor changes (such as but not limited to, change in equipment/resources naming conventions, additional bays for future expansions) to the transmission network that has no impact to the market operations may be implemented at a later time.	Revise for clarity of existing process
MNM Development Timetable	4.5.6	The table below describes the timeline of activities involved in updating the MNM. The variable “D” stands for the target date of uploading of the new MNM. This date is set by the Market Operator upon its assessment, and is based on energization date or commissioning date of a new or upgraded facility or equipment.  Table 1. MNM Development Timetable	The table below describes the timeline of activities involved in updating the MNM. The variable “D” stands for the target date of uploading <b><u>deployment</u></b> of the new MNM <b><u>update</u></b> . This date is set by the Market Operator upon its assessment, <del>and is based on</del> <b><u>in consideration of the</u></b> energization <del>date</del> or commissioning date of a new or upgraded facility or equipment.  Table 1. MNM Development Timetable  <b><i>[See Annex D.1 for proposed revised Table 1. MNM Development Timetable. Existing Table 1 to be deleted]</i></b>	Revised for clarity.  Also updated MNM Development Timetable to provide more clarity and introduce process improvements

WESM Manual on Market Network Model Development and Maintenance - Criteria and Procedures Issue 4.2				
Title	Clause	Provision	Proposed Amendment	Rationale
MNM Development Timetable	4.5.7	All MNM revisions uploaded to the production system should be ratified by the PEM Board. Ratification of the said network model shall be done upon completion of the seven-day consistency monitoring.	<p><del>All MNM revisions uploaded to the production system should be ratified by the PEM Board. Ratification of the said network model shall be done upon completion of the seven-day consistency monitoring.</del></p> <p><b><u>The Market Operator shall prepare a monthly report containing all MNM updates deployed in the production system. This report shall be provided to the DOE, ERC, and the PEM Board, and shall be similarly published in the market information website ten (10) working days after the end of the billing period.</u></b></p>	<p>It is proposed that instead of a PEM Board Ratification, monthly MNM updates shall instead be provided.</p> <p>Currently with the Existing MMS, IEMOP updates the MNM by grouping network changes in batches. But given the new features of the New MMS, IEMOP intends to update the MNM per network change, and as near-to-real-time as possible. Given the possible volume of such updates, it is proposed that all of them just be collated for a month, then be provided to the DOE, ERC, and PEM Board as the official summary report of MNM updates.</p>
MNM Development Timetable	4.5.8	<p>Additional Considerations in the MNM Development are as follows:</p> <p>a) Network Service Providers shall ensure that they provide ample information regarding their planned activities to the System Operator</p>	<p>Additional Considerations in the MNM Development are as follows:</p> <p>a) Network Service Providers shall ensure that they provide ample information regarding their planned activities to the System Operator b) All planned activities should involve proper coordination between the Market Operator and</p>	<p>Revised “uploading” to “deployment”.</p> <p>Add provision to allow “urgent MNM updates”.</p>

WESM Manual on Market Network Model Development and Maintenance - Criteria and Procedures Issue 4.2				
Title	Clause	Provision	Proposed Amendment	Rationale
		<p>b) All planned activities should involve proper coordination between the Market Operator and the System Operator (including affected Trading Participants if necessary).</p> <p>c) The target date of uploading (Day 'D') by the Market Operator may be moved further depending on justifiable reasons from either the Market Operator or the System Operator. In such cases, the Market Operator in coordination with the System Operator should decide on the new target date of uploading.</p> <p>d) Should the target uploading of a new MNM issue be cancelled, and then other changes to the MNM were put into effect after its cancellation, the System Operator shall notify the Market Operator of its new scheduled energization date seven days prior.</p>	<p>the System Operator (including affected Trading Participants if necessary).</p> <p>c) The target date of <del>uploading</del> <b><u>deployment</u></b> (Day 'D') by the Market Operator may be moved further depending on justifiable reasons from either the Market Operator or the System Operator. In such cases, the Market Operator in coordination with the System Operator should decide on the new target date of <del>uploading</del> <b><u>deployment</u></b>.</p> <p>d) Should the target <del>uploading</del> <b><u>deployment</u></b> of an <del>new</del> MNM <b><u>update</u></b> issue be cancelled, and then other <del>changes</del> <b><u>updates</u></b> to the MNM were put into effect after its cancellation, the System Operator shall notify the Market Operator of its new scheduled energization date seven days prior.</p> <p><b><u>e) In cases where urgent updates to the MNM are necessary, the Network Service Provider or the System Operator shall provide the necessary technical requirements to update the MNM at least two (2) working days prior to the target energization. Urgent updates do not include new market resources.</u></b></p>	
Alterations to the Market Network Model	5.1	REAL-TIME MNM CONFIGURATION	REAL-TIME MNM CONFIGURATION <b><u>DYNAMISM OF MNM USING REAL-TIME DATA</u></b>	Revised for clarity

WESM Manual on Market Network Model Development and Maintenance - Criteria and Procedures Issue 4.2				
Title	Clause	Provision	Proposed Amendment	Rationale
Alterations to the Market Network Model	5.1.1	Real time reconfiguration refers to any changes in the MNM reconfiguration of any part of the transmission system that may affect the dispatch within any trading interval. These revisions shall be made automatically to the MNM based on the inputs and data provided by the System Operator through the EMS. This shall include, but may not be limited to, the following: a) Change in Transmission and Sub-transmission Network topology; b) Line, Generator and Customer Load outage; and c) Reconfiguration as initiated by the System Operator or the Network Service Providers to maintain system security and reliability.	<del>Real time reconfiguration refers to any changes in the MNM reconfiguration of any part of the transmission system that may affect the dispatch within any trading interval. These revisions shall be made automatically to the MNM based on the inputs and data provided by the System Operator through the EMS. This shall include, but may not be limited to, the following:</del> <b><u>The static power system model of the MNM</u></b> <del>These</del> <b><u>dynamically updated</u></b> to the MNM based on the inputs and data provided by the System Operator through the EMS. This shall include, but may not be limited to, the following: a) Change in Transmission and Sub-transmission Network topology <b><u>with reference to real-time status of breakers and disconnect switches; and</u></b> b) <b><u>Scheduled outages of power system equipment (e.g. Lines, Power Transformers, HVDC Links, Generators, and Customer Loads</u></b> outage); and c) <del>Reconfiguration as initiated by the System Operator or the Network Service Providers to maintain system security and reliability.</del>	Revised for clarity. Also removed source of “EMS” since inputs from SO are provided through their different platforms. To add, item (c) is not part of the real-time update.
Alterations to the Market Network Model	5.2	NETWORK DEVELOPMENT	NETWORK DEVELOPMENT OF UPDATES TO THE MNM	Revised for clarity.
Network Development	5.2.1	Network development is any reconfiguration of any part of the transmission or sub-transmission system. The Market Operator should be notified as the network	<b><u>The Market Operator shall develop updates to the market network model and power system model in view of</u></b> Network development is any reconfiguration of any part of the transmission or sub-transmission system.	Revised for clarity.

WESM Manual on Market Network Model Development and Maintenance - Criteria and Procedures Issue 4.2				
Title	Clause	Provision	Proposed Amendment	Rationale
		development may affect the dispatch and are permanent in nature. This shall include the following:  xxxx	<del>The Market Operator should be notified as the network development may affect the dispatch and are permanent in nature.</del> This shall include the following:  xxxx	
MNM	--	MARKET NETWORK MODEL MAINTENANCE AND PUBLICATION	<del>MARKET NETWORK MODEL MAINTENANCE AND PUBLICATION</del>	Not necessary. Clerical edit.
Market Network Model Maintenance	5.4.2	The Market Operator shall maintain an electronic copy of the following for all market network model revisions: a) Bus Oriented Single Line Diagram; and b) Breaker Oriented Single Line Diagram c) Network Parameters	The Market Operator shall maintain an electronic copy of the following for all market network model <del>revisions</del> <b>updates</b> : a) Bus-Oriented Single Line Diagram; and b) Breaker-Oriented Single Line Diagram c) Network <b>Technical</b> Parameters	Revised for clarity on how IEMOP maintains the repository for the MNM.
Alterations to the Market Network Model	5.5	Manner of Publication	<del>Manner of Publication</del> Reporting of MNM Updates	Revise from Publication to Reporting
Manner of Publication	5.5.1	Any changes or revision initiated by the Market Operator or System Operator shall trigger the publication of the revised and approved MNM.	<del>Any changes or revision initiated by the Market Operator or System Operator shall trigger the publication of the revised and approved MNM.</del> <b><u>Within two (2) working days from deployment, the Market Operator shall publish advisory on the MNM updates deployed in the production system.</u></b>	Propose revision on how IEMOP will report MNM updates. Immediate information shall be published after deployment. Then a summary of the changes will be provided every month.

WESM Manual on Market Network Model Development and Maintenance - Criteria and Procedures Issue 4.2				
Title	Clause	Provision	Proposed Amendment	Rationale
Manner of Publication	5.5.2	The Market Operator shall regularly publish the relevant updated MNM documents within seven days after the completion of the MNM consistency monitoring in the MMS' production system. Every revision of the MNM shall have the following associated documents published in the Market Information Website: a) MNM Revisions Manual; b) Bus-Oriented Single Line Diagram; and c) Information brief	<del>The Market Operator shall regularly publish the relevant updated MNM documents within seven days after the completion of the MNM consistency monitoring in the MMS' production system. Every revision of the MNM shall have the following associated documents published in the Market Information Website: a) MNM Revisions Manual; b) Bus-Oriented Single Line Diagram; and c) Information brief</del> <b><u>Consistent with the provisions of Clause 4.5.7 of this Market Manual, the Market Operator shall prepare a monthly report containing all MNM updates deployed in the production system. This report shall be provided to the DOE, ERC, and the PEM Board, and shall be similarly published in the market information website ten (10) working days after the end of the billing period. At the least, it shall contain the following.</u></b> a. <b><u>Summary of MNM Updates during the month</u></b> b. <b><u>Latest Bus-Oriented Single Line Diagram</u></b>	
Generator MTN	6.5.4	(NEW)	<b><u>During the registration of the generator resource, Trading Participants shall specify if its availability shall be based on the real-</u></b>	During the generator modelling, TPs need to specify if generator availability is based entirely on its

WESM Manual on Market Network Model Development and Maintenance - Criteria and Procedures Issue 4.2				
Title	Clause	Provision	Proposed Amendment	Rationale
			<u>time status of its generator breaker, or on the availability of its <i>market offers</i>.</u>	generator breakers, or on the availability of its market offers.
Battery Energy Storage System	6.7.4	(NEW)	<u>During the registration of the <i>battery energy storage system resource</i>, <i>Trading Participants</i> shall specify if its availability shall be based on the real-time status of its connecting breaker, or on the availability of its <i>market offers</i>.</u>	During the BESS modelling, TPs need to specify if generator availability is based entirely on its connecting breakers, or on the availability of its market offers.
Pumped-Storage Unit	6.8.3	(NEW)	<u>During the registration of the <i>pumped-storage unit resource</i>, <i>Trading Participants</i> shall specify if its availability shall be based on the real-time status of its connecting breaker, or on the availability of its <i>market offers</i>.</u>	During the BESS modelling, TPs need to specify if generator availability is based entirely on its connecting breakers, or on the availability of its market offers.



### MNM Development Timetable

<u>ITEM</u>	<u>TIMELINE</u>	<u>ACTIVITY</u>	<u>DESCRIPTION</u>	<u>RESPONSIBLE PARTY</u>
<u>1</u>	<u>Before D – 9</u>	<u>Generator Trading Participants should provide technical specifications of its facility to the Market Operator</u>	<p><u>At the very least, the technical requirements indicated in the WESM Market Manual on Registration, Suspension and De-Registration Criteria and Procedures for new generators, battery energy storage systems, or pumped-storage units should be provided.</u></p> <p><u>The same requirements are also required when requesting for the re-modelling of facilities (i.e. aggregation of disaggregation of resources).</u></p>	<u>Generator Trading Participant</u>
<u>2</u>	<u>Before D – 9</u>	<u>The System Operator should provide technical specifications to the Market Operator for new load facilities</u>	<u>The System Operator should provide the power system topology that reflects the connection of the new load facility.</u>	<u>System Operator</u>
<u>3</u>	<u>Before D – 8</u>	<u>Network Service Providers should provide notice of changes in the Distribution Network</u>	<u>Applicable only for Network Service Providers whose equipment should be included, or are already included, in the Market Network Model</u>	<u>Network Service Providers</u>
<u>4</u>	<u>D – 8</u>	<u>Register New Market Resource in the Central Registration and Settlement System (CRSS) and Market Management System (MMS)</u>	<u>Upon receiving the technical requirements for the registration of new market resources, the Market Operator shall register it in the CRSS and MMS at least eight (8) days prior to their target energization.</u>	<u>Market Operator</u>
<u>5</u>	<u>D – 7</u>	<u>Submit notice of changes to the Grid</u>	<p><u>The System Operator shall submit a notice of changes to the grid, which includes the following.</u></p> <p>a. <u>Power system topology (or diagram) that highlights the changes;</u></p>	<u>System Operator</u>

<u>ITEM</u>	<u>TIMELINE</u>	<u>ACTIVITY</u>	<u>DESCRIPTION</u>	<u>RESPONSIBLE PARTY</u>
			<ul style="list-style-type: none"> <li>b. <u>Real-time mapping definitions; and</u></li> <li>c. <u>Technical parameters affected by the change.</u></li> </ul>	
<u>6</u>	<u>D – 6</u>	<u>Initiate Preparations for MNM Update</u>	<u>The Market Operator shall make the necessary preparations concerning the MNM update, specifically for network changes that has a material effect to the system operations and market operations as appropriately assessed by the Market Operator. It shall involve the changes as notified by the System Operator, and changes recommended by the Market Operator, where appropriate, including simplifications and alterations to the market network model that maintains: (a) the relationship between the market network model and the transmission network; and (b) consistency with market requirements.</u>	<u>Market Operator</u>
<u>7</u>	<u>Before D – 2</u>	<u>Market Model and Power System Model Update</u>	<p><u>The Market Operator shall effect changes to the MNM through the updating of the market and power system models recognized by the MMS.</u></p> <p><u>The Market Operator may create different “MNM Update Tasks” for such MNM updates. An MNM update task represents a collection of changes in the MNM. Each MNM update task can be deployed separately for production use.</u></p>	<u>Market Operator</u>
<u>8</u>	<u>Before D – 2</u>	<u>Testing of “MNM Update Task”</u>	<u>The Market Operator shall perform functional and technical tests on the updated network model for each MNM task to ensure its consistency with the updated power system.</u>	<u>Market Operator</u>
<u>9</u>	<u>Before D – 1</u>	<u>Confirm schedule of energization</u>	<u>The System Operator shall inform the Market Operator of the final schedule of energization.</u>	<u>System Operator</u>

<u>ITEM</u>	<u>TIMELINE</u>	<u>ACTIVITY</u>	<u>DESCRIPTION</u>	<u>RESPONSIBLE PARTY</u>
<u>10</u>	<u>On or Before D</u>	<u>Notice of Planned Deployment to the WESM Participants</u>	<u>The Market Operator shall inform the WESM Participants of the planned deployment date for the updating of the MNM in the production system of the MMS</u>	<u>Market Operator</u>
<u>11</u>	<u>D</u>	<u>Deployment of MNM Update Task</u>	<p><u>The Market Operator shall deploy the MNM Update Task in the production system.</u></p> <p><u>Should the MNM update task involve changes that are not yet energized, and the updated MNM's power system model is unable to dynamically adapt to its non-energization, then the Market Operator may defer the deployment of the MNM Update Task to a later date.</u></p>	<u>Market Operator</u>
<u>12</u>	<u>D</u>	<u>Notice of Post-Deployment to the WESM Participants</u>	<u>The Market Operator shall inform the WESM Participants of the successful deployment of MNM update in the production system of the MMS</u>	<u>Market Operator</u>
<u>13</u>	<u>D</u>	<u>Provide Updates on Market Model and Power System Model to the System Operator</u>	<u>The Market Operator shall provide the System Operator with relevant information to ensure reliable operation between the two entities. This primarily includes the updated mapping information between the MMS and EMS</u>	<u>Market Operator</u>
<u>14</u>	<u>D to D+7</u>	<u>Consistency monitoring of the updated MNM</u>	<u>The Market Operator shall continuously monitor the status of the recently updated MNM in the production system for the next seven days</u>	<u>Market Operator</u>

E. Market Operator Information Disclosure and Confidentiality Manual

Market Operator Information Disclosure and Confidentiality Manual Issue 5.0				
Title	Clause	Provision	Proposed Amendment	Rationale
OTHERS			<i>[See table below]</i>	Consistent with the proposed changes in the WESM DP Section 14.4.2

Category	Specific Information	Information/ Data Source	Classification	Recipient	Means of Provision	Publication Timeline
xxx						
OTHERS						
Transmission System Information	xxx Dispatch Deviation <del>Instruction</del> Report by the System Operator (in CSV) and Daily Operations Report	xxx System Operator	xxx Public	xxx Public	xxx Market Information Website	xxx <del>Within the next trading day</del> <b>Weekly report to be submitted within the following week</b>