

**WHOLESALE ELECTRICITY SPOT MARKET
RULES CHANGE COMMITTEE**

RESOLUTION NO. 2016-05

**Proposed Changes to the WESM Rules for the Implementation of
Enhancements to Market Design and Operations**

WHEREAS, the Department of Energy (DOE) issued Department Circular No. DC2015-10-0015 on 05 November 2015 providing the policies for the further enhancement of the wholesale electricity spot market (WESM) design and operations;

WHEREAS, pursuant to the directives of the DOE as stated in said Department Circular, the Philippine Electricity Market Corporation (PEMC), on 01 December 2015, submitted to the Rules Change Committee (RCC) the Proposed Changes to the WESM Rules for the Implementation of Enhancements to Market Design and Operations;

WHEREAS, said proposal was based from the results of the WESM Design Study commissioned on 02 April 2013, which sought to review the WESM design and operations and address the findings and recommendations of the Independent Operational Audit of the Systems and Procedures on Market Operations;

WHEREAS, the proposed amendments intended to provide in the WESM Rules the following enhancements to the WESM design and operations:

1. Shortening of trading and dispatch interval from one (1) hour to five (5) minutes;
2. Ex-ante pricing only for energy and reserves for every 5-minute dispatch interval;
3. One (1) hour settlement interval for settlement purposes based on weighted average of the 5-minute ex-ante prices;
4. Automatic pricing corrections;
5. Implementation of hourly day-ahead projections (DAP) with sensitivities and hour-ahead projections (HAP);
6. Implementation of nodal-based short-term demand forecasting; and
7. Automatic dispatch conformance monitoring for energy and reserves.

WHEREAS, the proposal was presented before the RCC during its 107th Regular Meeting held on 02 December 2015, and was thereafter approved for posting to solicit comments from participants and interested parties;

WHEREAS, the proposal was published on 03 December 2015 in the Market Information Website, with the corresponding notice to participants;

WHEREAS, the RCC initially deliberated on the proposal during its 109th Regular Meeting on 03 February 2016 with comments received from the Technical Committee, Aboitiz

Power Corporation, AES Philippines and SN Aboitiz Power, but agreed to defer further deliberations to March 02 and 03, 2016, after having been informed that the Secretariat just received the comments of NGCP-System Operator and the DOE, which comments have not been integrated into the matrix of comments for RCC discussion;

WHEREAS, during its 110th and 111th Regular Meetings on March 02 and 03, 2016 respectively, the RCC deliberated on the proposal, taking into consideration all previously received comments including those from the NGCP-System Operator and the DOE;

WHEREAS, the RCC received comments from MERALCO halfway through its 03 March meeting, but noting the length of time already poured into the discussion since 02 February and they were submitted way past the commenting period, the body decided to no longer consider the comments;

WHEREAS, the RCC already considered in its deliberations on the proposal the amendments to the WESM Rules reflecting the implementation of Preferential Dispatch as promulgated by the DOE through Department Circular No. DC2016-01-0002;

WHEREAS, the RCC subsequently approved PEMC's Proposed Changes to the WESM Rules for the Implementation of Enhancements to Market Design and Operations, as discussed subject to the review by the Secretariat that the WESM Rules subject of amendment is the latest version of the WESM Rules as amended, after considering the clerical changes as confirmed by the RCC during its meeting of 07 October 2015 and subsequently via email on 01 February 2016.

NOW THEREFORE, we, the undersigned and in behalf of the sector we represent, hereby resolve as follows:

RESOLVED, that the Proposed Changes to the WESM Rules for the Implementation of Enhancements to Market Design and Operations, as revised, is hereby approved by the RCC;

RESOLVED FURTHER, that the attached Proposed Changes to the WESM Rules for the Implementation of Enhancements to Market Design and Operations (Annex A) is hereby endorsed to the PEM Board for approval and endorsement to the DOE.

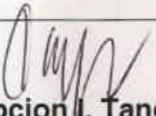
Done this 03 March 2016, Pasig City.

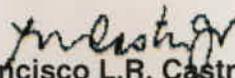
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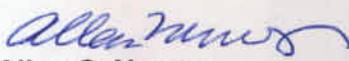
Approved by:
RULES CHANGE COMMITTEE

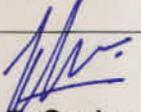

Maila Lourdes G. de Castro
Chairperson
Independent

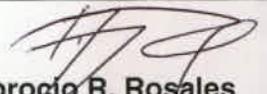
Members:

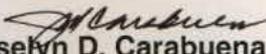

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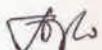

Francisco L.R. Castro, Jr.
Independent

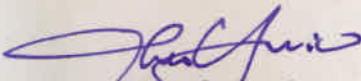

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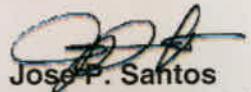

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Jose Ferlino P. Raymundo
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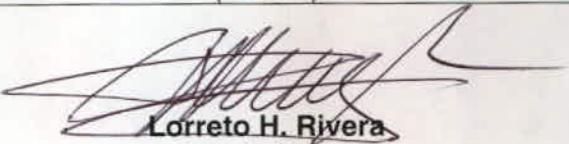

Theo C. Sunico
Generation Sector
Vivant Corporation


Ciprinilo C. Meneses
Distribution Sector (PDU)
Manila Electric Company
(MERALCO)

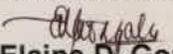

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Gilbert A. Pagobo
Distribution Sector
Mactan Electric Company
(MECO)


Ludovico D. Lim
Distribution Sector
Antique Electric Cooperative, Inc.
(ANTECO)


Lorreto H. Rivera
Supply Sector
TeaM (Philippines) Energy Corporation
(TPEC)

Certified True and Correct:


Elaine D. Gonzales
RCC Secretary
PEMC

Proposed Amendments to the WESM Rules on the Implementation of Enhancements to Market Design and Operations

Title	Section	Provision	Proposed Amendment	Rationale
Responsibilities of the Market Operator	1.3.1.2	In performing clause 1.3.1.1 (d), the <i>Market Operator</i> shall: (a) xxx (b) Identify any significant variations in and between trading intervals; and xxx	In performing clause 1.3.1.1 (d), the <i>Market Operator</i> shall: (a) xxx (b) Identify any significant variations in and between trading intervals accordance with the guidelines to be developed in Clause 1.3.1.3; and xxx	To clarify that the provision should be read together with Clause 1.3.1.3.
	1.3.1.3	The <i>Market Operator</i> shall, in consultation with <i>WESM Participants</i> , develop guidelines as to what constitutes a significant variation.	The <i>Market Operator</i> shall, in consultation with <i>WESM Participants</i> , develop, review and update, as may be necessary, guidelines as to what constitutes a significant variation.	To state the need to also review and update the guidelines developed by the MO
1.4.2. Composition of the PEM Board	1.4.2.4	The <i>PEM Board</i> shall consist of: (a) One (1) <i>Director</i> representing the <i>Market Operator</i> , (b) One (1) <i>Director</i> representing the <i>TRANSCO</i> ; (c) Four (4) <i>Directors</i> who are nominated by <i>WESM Members</i> registered under Clause 2.3.4 as <i>Distribution Utilities</i> , provided that: xxx	The <i>PEM Board</i> shall consist of: (a) One (1) <i>Director</i> representing the <i>Market Operator</i> , (b) One (1) <i>Director</i> representing the <i>TRANSCO</i> or its concessionaire; (c) Four (4) <i>Directors</i> who are nominated by <i>WESM Members</i> registered under clause 2.3.4 as <i>Distribution Utilities</i> , provided that: xxx	For clarity and to reflect current membership of the PEM Board.

Title	Section	Provision	Proposed Amendment	Rationale
Generation Company	2.3.1.8	A <i>Generation Company</i> is required to operate <i>scheduled generating units</i> and <i>priority dispatch generating units</i> in accordance with the scheduling and <i>dispatch</i> procedures described in Chapter 3, within the <i>dispatch tolerances</i> specified in accordance with Clause 3.8.7.	A <i>Generation Company</i> is required to operate <i>scheduled generating units</i> and <i>priority dispatch generating units</i> in accordance with the scheduling and <i>dispatch</i> procedures described in Chapter 3, within and in accordance with the <i>dispatch tolerances</i> conformance standards specified in accordance with Clause 3.8.7 3.8.5 .	Proposed adoption of dispatch conformance standards , which refer to the compliance requirements that should be met by scheduled generating units and ancillary services providers. Such standards shall be established in accordance with clause 3.8.5, as revised.
Trading Participant	2.3.3.5	Prior to registration of a <i>Trading Participant</i> in respect of a <i>scheduled generating unit</i> or a <i>priority dispatch generating unit</i> or <i>scheduled load facility</i> , an <i>Intending WESM Member</i> may seek a ruling from the <i>System Operator</i> with respect to the <i>dispatch tolerances</i> to be applied.	Prior to registration of a <i>Trading Participant</i> in respect of a <i>scheduled generating unit</i> or a <i>priority dispatch generating unit</i> or <i>scheduled load facility</i>, an <i>Intending WESM Member</i> may seek a ruling from the <i>System Operator</i> with respect to the <i>dispatch tolerances</i> to be applied.	Proposed deletion of clauses 2.3.3.5 to 2.3.3.8 since the application of dispatch conformance standards under the provisions under 3.8.5.3 for intending WESM Members and newly registered generating units and scheduled loads are now provided in proposed clause.
Trading Participant	2.3.3.6	If no prior ruling is sought under Clause 2.3.3.5, the <i>System Operator</i> shall make a ruling with respect to <i>dispatch tolerances</i> upon registration of that <i>Trading Participant</i> .	If no prior ruling is sought under Clause 2.3.3.5, the <i>System Operator</i> shall make a ruling with respect to <i>dispatch tolerances</i> upon registration of that <i>Trading Participant</i>.	
Trading Participant	2.3.3.7	The <i>System Operator</i> may, at any time, review any ruling made under Clause 2.3.3.5 or 2.3.3.6 in the light of further information or experience.	The <i>System Operator</i> may, at any time, review any ruling made under Clause 2.3.3.5 or 2.3.3.6 in the light of further information or experience.	
Trading Participant	2.3.3.8	A <i>Generation Company</i> may appeal to the <i>PEM Board</i> in respect of a ruling provided under Clause 2.3.3.5, 2.3.3.6 or 2.3.3.7 that is relevant to that person or entity.	A <i>Generation Company</i> may appeal to the <i>PEM Board</i> in respect of a ruling provided under Clause 2.3.3.5, 2.3.3.6 or 2.3.3.7 that is relevant to that person or entity.	
Trading	2.3.3.9	If at any time a <i>Trading Participant</i> ceases to	2.3.3.9 2.3.3.5 If at any time a <i>Trading</i>	Re-numbering. Correction of clerical

Title	Section	Provision	Proposed Amendment	Rationale
Participant		be eligible to be registered as a <i>Trading Participant</i> in accordance with Clause 2.3.3.4, that <i>Trading Participant</i> shall inform the <i>Market Operator</i> accordingly and, as soon as practicable after the <i>Market Operator</i> becomes aware that a <i>Trading Participant</i> is no longer eligible to be registered, the <i>Market Operator</i> shall issue a <i>suspension notice</i> in respect of that <i>Trading Participant</i> in accordance with clause 3.15.7.	<i>Participant</i> ceases to be eligible to be registered as a <i>Trading Participant</i> in accordance with Clause 2.3.3.4, that <i>Trading Participant</i> shall inform the <i>Market Operator</i> accordingly and, as soon as practicable after the <i>Market Operator</i> becomes aware that a <i>Trading Participant</i> is no longer eligible to be registered, <i>the Market Operator</i> shall issue a suspension notice in respect of that <i>Trading Participant</i> in accordance with clause 3.15.7 8 .	error. Issuance of suspension notice is provided under 3.15.8.
Ancillary Services Provider	2.3.5.3	xxx (d) Provide written <i>authorization</i> to the <i>Market Operator</i> which sets out the relevant information determined under Clause 2.3.5.3 (a), (b) and (c).	xxx (d) Provide written authorization certification to the <i>Market Operator</i> which sets out the relevant information determined under Clause 2.3.5.3 (a), (b) and (c).	Amendment in (d) is in accordance with the certification being provided by the SO
Ancillary Services Provider		NEW	<u>2.3.5.5 Ancillary Services Providers shall comply with the dispatch conformance standards developed pursuant to Clause 3.8.5.</u>	To ensure compliance with dispatch conformance standards by Ancillary Services Providers.
Effect of a Suspension Notice	2.7.2	If a <i>Trading Participant</i> who is either a <i>Direct WESM Member</i> or an <i>Indirect WESM Member</i> receives a <i>suspension notice</i> from the <i>Market Operator</i> in accordance with any provision of the <i>WESM Rules</i> , that <i>Trading Participant</i> is suspended from participation in the <i>spot market</i> unless and until the <i>Market Operator</i> declares the <i>suspension notice</i> to be revoked in accordance with clause 3.15.7.	If a <i>Trading Participant</i> who is either a <i>Direct WESM Member</i> or an <i>Indirect WESM Member</i> receives a <i>suspension notice</i> from the <i>Market Operator</i> in accordance with any provision of the <i>WESM Rules</i> , that <i>Trading Participant</i> is suspended from participation in the <i>spot market</i> unless and until the <i>Market Operator</i> declares the <i>suspension notice</i> to be revoked in accordance with clause 3.15.7 3.15.8 .	Correction of clerical error. Issuance and revocation of suspension notice is provided under 3.15.8.
Scope of	3.1	This Chapter 3 sets out the rules which the	This Chapter 3 sets out the rules which govern	• Customer added to clarify that

Title	Section	Provision	Proposed Amendment	Rationale
Chapter 3		<p>govern operation of the <i>spot market</i>, and related matters, including but not limited to:</p> <p>(a) The definition of the <i>market network model</i>, pricing zones, <i>reserve categories</i> and <i>reserve regions</i>, <i>trading interval</i> and <i>timetable</i>; xxx</p> <p>(d) The procedures for provision of <i>ancillary services</i> and for determining payment for those services;</p> <p>(e) The procedures for <i>preparing week ahead projections</i> and <i>day-ahead projections</i>; xxx</p> <p>(i) The procedures for determining <i>settlements amounts</i> and for paying and receiving <i>settlements</i>; xxx</p>	<p>the operation of the spot market, and related matters, including but not limited to:</p> <p>(a) The definition of the market <i>network model</i>, <u>customer</u> pricing zones, <i>reserve categories</i> and <i>reserve regions</i>, <u><i>dispatch interval</i></u>, trading<u><i>settlement interval</i></u> and <i>timetable</i>; xxx</p> <p>(d) The procedures for provision of <i>ancillary services</i> and for determining payment for those services <u><i>reserves</i></u>;</p> <p>(e) The procedures for preparing <i>week ahead projections</i> and, day ahead projections, <u>and <i>hour ahead projections</i></u>; xxx</p> <p>(i) The procedures for determining, <u><i>paying and receiving</i></u> <i>settlements amounts</i> and for paying and receiving settlements; xxx</p>	<p>pricing zones apply to customers</p> <ul style="list-style-type: none"> • Global change to distinguish settlement intervals and dispatch intervals in the implementation of a shorter dispatch interval. Settlement interval refers to the 1-hour period for settlements while dispatch interval refers to the 5-minute periods for the actual trading and dispatch of generation and interruptible or dispatchable loads. • Hour ahead projections extend the RTD process into the future for a 1 hour period, with the same resolution as the RTD process (5-minutes or 10-minutes). The hour ahead projection (HAP) process would facilitate generators in making short-term decisions and provides a short-term assessment of market outcomes. See proposed clause 3.7.5. • Correction in (i) since settlement amounts are what is being determined, paid and received. Please see definition of settlements and settlement amounts.
Market	3.2.1.1	The <i>Market Operator</i> shall maintain and	The Market Operator shall maintain and	In line with IES' recommendation to

Title	Section	Provision	Proposed Amendment	Rationale
Network Model		publish a <i>market network model</i> , which will be used for the purpose of central scheduling and <i>dispatch</i> , pricing and <i>settlement</i> .	publish a market network model, which will be used for the purpose of central scheduling and <i>dispatch</i> , pricing and <i>settlement</i> . <u>The Market Operator shall also publish any adaptations or adjustments to the market network model.</u>	have better information available to all market participants.
	3.2.1.2	<p>The <i>market network model</i> shall represent fairly, and in a manner, which will facilitate consistent and reliable operation of the <i>power system</i>:</p> <p>(a) The <i>transmission network</i> under the control of the <i>System Operator</i>, and</p> <p>(b) Such other aspects of the <i>power system</i> which, when <i>connected</i>, may be capable of materially affecting <i>dispatch</i> of <i>scheduled generating units</i> or pricing within the <i>spot market</i>.</p>	<p>The <i>market network model</i> shall represent fairly, and in a manner which will facilitate consistent and reliable operation of the <i>power system</i>:</p> <p>(a) The <i>transmission network</i> under the control of the <i>System Operator</i>, and</p> <p>(b) <u>The sub-transmission network under the control of the Distribution Utility and other aspects of the power system which may</u> Such other aspects of the power system which, when <i>connected</i>, may be capable of materially affecting <i>dispatch</i> of <i>scheduled generating units</i> or pricing within the <i>spot market</i>.</p>	This is to include standing network data of Large Distributors so as not to have an adverse material effect on the market solution
	3.2.1.4	<p>Where appropriate, the <i>Market Operator</i> in coordination with the <i>System Operator</i>, shall make alterations to the <i>market network model</i> so as to maintain:</p> <p>(a) the relationship between the <i>market network model</i> and the <i>transmission network</i>; and</p>	<p>Where appropriate, the <i>Market Operator</i> in coordination with the <i>System Operator</i> <u>or with other Network Service Providers</u> shall make alterations to the <i>market network model</i>, so as to maintain:</p> <p>(a) the relationship between the <i>market network model</i> and the <i>transmission</i> <u>and or the sub-transmission</u> <i>network</i>; and</p> <p>xxx</p>	

Title	Section	Provision	Proposed Amendment	Rationale
Market Trading Nodes	3.2.2.1	<p>xxx</p> <p>A <i>market trading node</i> is a designated point in the <i>market network model</i> where energy is bought or sold based on the schedules and prices determined by the <i>market dispatch optimization model</i>. A <i>market trading node</i> where energy is primarily sold into the WESM is referred to as the <i>generator node</i> while a <i>market trading node</i> where energy is primarily bought from the WESM is referred to as a <i>Customer node</i>.</p>	<p>A <i>market trading node</i> is a designated point in the <i>market network model</i> where energy is bought or sold based on the dispatch schedules and prices determined by the <i>market dispatch optimization model</i>. A <i>market trading node</i> where energy is primarily sold into the WESM is referred to as the <i>generator node</i> while a <i>market trading node</i> where energy is primarily bought from the WESM is referred to as a <i>Customer node</i>.</p>	<p>For clarity.</p> <p>The deleted provision is unnecessary.</p>
Market Trading Nodes	3.2.2.3 (A)	<p>3.2.2.3(A) xxx</p> <p>3.2.2.4xxx</p>	<p>3.2.2.3(A)3.2.2.4 xxx</p> <p>3.2.2.43.2.2.5 xxx</p>	<p>Consistent with the DOE requirement that there should be no letters in the clause numbers (e.g. 3.2.2.3 (A)).</p>
Customer Pricing Zones	3.2.3.1	<p><i>Customer nodes</i> may be grouped into <i>Customer pricing zones</i> in accordance with the procedures to be developed by the <i>Market Operator</i> and subject to the approval of the <i>PEM Board</i>. The <i>Market Operator</i> shall maintain and publish the <i>Customer pricing zones</i> to be used for the <i>settlement of energy for Customers</i>.</p>	<p><i>Customer market trading nodes</i> may be grouped into <i>Customer pricing zones</i> in accordance with the procedures to be developed by the <i>Market Operator</i> and subject to the approval of the <i>PEM Board</i>. The <i>Market Operator</i> shall maintain and publish the <i>Customer pricing zones</i> to be used for the <i>settlement of energy for Customers</i>.</p>	<p>Global change of generator node to generator market trading node and customer node to customer market trading node, for uniformity and clarity. (See also corresponding changes in the glossary definition)</p>
Ancillary Services (Introduction)	3.3.1.1	<p><i>Ancillary services</i> are services that are essential to the management of <i>power system security</i>, that facilitate orderly trading in electricity and ensure that electricity</p>	<p>Ancillary services are services that are essential to the management of power system security, that facilitate orderly trading in electricity and ensure that electricity supplies</p>	<p>Added phrase is to ensure consistency of A/S provisions under the Philippine Grid Code (PGC).</p>

Title	Section	Provision	Proposed Amendment	Rationale
		<i>supplies</i> are of an acceptable quality.	are of an acceptable quality as defined in the Philippine Grid Code.	
	3.3.1.3	<p>The requirements for <i>ancillary services</i> are to be met in the following ways:</p> <p>(a) xxxx</p> <p>(b) By the System Operator purchasing <i>ancillary services</i> in accordance with Clause 3.3.3.</p>	<p>The requirements for <i>ancillary services</i> are to be met in the following ways:</p> <p>(a) xxxx</p> <p>(b) By the System Operator procuring purchasing <i>ancillary services</i> in accordance with Clause 3.3.3.</p>	For clarity
Ancillary Services Contracting by the System operator	3.3.2.1	<p>The System Operator shall use reasonable endeavors to ensure that sufficient <i>facilities</i> are available and operable to provide for the:</p> <p>xxx</p> <p>(c) availability, at all times, of the number of independent power sources able to provide <i>black start-up facilities</i>, determined in accordance with the procedures developed by the Market Operator to ascertain the quantities of <i>ancillary services</i> which the System Operator shall purchase.</p>	<p>The System Operator shall use reasonable endeavors to ensure that sufficient <i>facilities</i> are available and operable to provide for:</p> <p>xxx</p> <p>(c) availability, at all times, of the number of independent power sources able to provide <i>black start-up facilities</i>, determined in accordance with the procedures developed by the System Market Operator to ascertain the quantities of <i>ancillary services</i> which the System Operator shall procure purchase.</p>	Correction on the current provision since it is the System Operator, not the Market Operator, which develops the procedures in the procurement of ancillary services.
Ancillary Services Agreements	3.3.3.2	<p>The System Operator shall arrange for the provision of adequate <i>ancillary services</i> for each region either:</p> <p>(a) by competitive tendering process, administered by the Market Operator, whereby a number of <i>Ancillary Services Providers</i> can provide a particular category of <i>ancillary services</i>; or</p>	<p>The System Operator shall arrange for the provision of adequate ancillary services for each region through any or a combination of the following either:</p> <p>(a) By competitive tendering process, administered by the Market Operator, whereby a number of Ancillary Services Providers can provide a particular category of ancillary</p>	<ul style="list-style-type: none"> • Same as clause 3.3.1.3 • The current WESM Rules provide the possible modes of procurement of ancillary services by the System Operator. The proposed amendments considers the discretion of the System Operator in the manner by which

Title	Section	Provision	Proposed Amendment	Rationale
		(b) by negotiating contracts directly with an <i>Ancillary Services Provider</i> who is a <i>Direct WESM Member</i> , where only one Ancillary Services Provider can provide the required ancillary services; or (c) where applicable, by competitive <i>spot market</i> trading in accordance with Clause 3.3.4.	services; or (b) by negotiating entering into contracts directly with an Ancillary Services Providers who is a Direct WESM member, where only one Ancillary Services Provider can provide the required ancillary services; or (b) (c) Where applicable, by competitive spot market trading in accordance with Clause 3.3.4.	it will procure Ancillary Services, which is anyway regulated by the ERC. On the other hand, it retains the provision for competitive spot trading of reserves in the WESM. • Re-numbering
Ancillary Services Agreements	3.3.3.3 3.3.3.4	3.3.3.3 The <i>System Operator</i> shall negotiate any <i>ancillary services agreements</i> with <i>Ancillary Services Providers</i> who are <i>Direct WESM Members</i> on commercial terms acceptable to the parties and at arms-length, subject to Clause 3.3.3.2. 3.3.3.4 xxx	3.3.3.3 The System operator shall negotiate any ancillary services agreements with Ancillary Services Providers who are Direct WESM members on commercial terms acceptable to the parties and at arms length, subject to clause 3.3.3.2. 3.3.3.4 3.3.3 xxx	• Same as clause 3.3.3.2 (1st bullet) • Re-numbering
Ancillary Services Agreements	3.3.3.5 3.3.3.6	3.3.3.5 Payments for <i>ancillary services</i> that are provided are to be made by the <i>Market Operator</i> via the <i>settlements system</i> in accordance with clause 3.13.14. 3.3.3.6 xxx	3.3.3.5 3.3.4 Payments for <i>ancillary services</i> that are provided under clause 3.3.3.2 (b) are to be made by the <i>Market Operator</i> via the <i>settlements system</i> in accordance with clause 3.13.14 3.13.13 . 3.3.3.6 3.3.5 xxx	• For clarity, to distinguish that there are ancillary services, i.e. reserves, that are traded in the WESM and are settled under the settlements system of the Market Operator. • Re-numbering
Ancillary Services Agreements	3.3.3.7	Any dispute between the <i>System Operator</i> and the <i>Ancillary Services Provider</i> in relation to the determination of a payment for spot market ancillary services shall be	3.3.3.7 Any dispute between the System operator and the Ancillary Services Provider in relation to the determination of a payment for spot market ancillary services shall be	The dispute resolution process in the WESM is already provided in clause 7.3.

Title	Section	Provision	Proposed Amendment	Rationale
		determined by the Dispute Resolution Administrator in accordance with Clause 7.3, unless otherwise provided in the <i>Ancillary Services Procurement Agreement (ASPA)</i> .	determined by the Dispute Resolution Administrator in accordance with clause 7.3, unless otherwise provided in the Ancillary Services Procurement Agreement (ASPA).	
Reserve Market Arrangements	NEW		<u>3.3.4.3 The Market Operator, in consultation with the System Operator, shall determine an appropriate set of reserve regions that will be used for the purpose of setting reserve requirements, and determining reserve prices and reserve cost recovery charges.</u>	To identify the responsible parties in determining the reserve regions
Reserve Market Arrangements	NEW		<u>3.3.4.4 The Market Operator shall maintain and publish the set of reserve categories, as well as the defined reserve regions, that shall be traded in the spot market.</u>	To identify the responsible party in the publication of reserve categories and reserve areas in the WESM
Ancillary Services Cost Recovery	3.3.5	Ancillary Services Cost Recovery	Ancillary Services <u>Reserve Market</u> Cost Recovery	To clarify that this section provides the cost recovery of ancillary services being traded in the WESM, specifically in the reserve market
Ancillary Services Cost Recovery	3.3.5.1	The <i>System Operator</i> shall maintain and <i>publish reserve cost recovery zones</i> within which <i>reserve cost recovery charges</i> may be recovered to meet each locationally specific requirement.	The System Operator <u>Market Operator</u> shall maintain and <i>publish reserve cost recovery zones</i> within which <i>reserve cost recovery charges</i> may be recovered to meet each locationally specific requirement.	To identify that the <i>Market Operator</i> , who is the administrator of the reserve market shall be responsible in maintaining and in the publication of reserve cost recovery zones.
Ancillary Services Cost Recovery	3.3.5.2	The costs of <i>ancillary services</i> are to be recovered through the <i>settlement amounts</i> calculated by the <i>Market Operator</i> under clause 3.13.10: (a) in accordance with the cost recovery	The costs of ancillary services <u>reserves</u> are to be recovered through the <i>settlement amounts</i> calculated by the <i>Market Operator</i> under clause 3.13.10 <u>3.13.9</u> : (a) in accordance with the cost recovery	<ul style="list-style-type: none"> • Global change from ancillary services to reserves for A/S that are traded in the WESM, as appropriate. • Change in reference clause

Title	Section	Provision	Proposed Amendment	Rationale
		<p>formula to be developed by the <i>System Operator</i> for the categories of reserve which are defined in clause 3.3.4.2; and (b) from those <i>WESM Members</i> or others on whose behalf the <i>System Operator</i> is deemed to purchase each <i>ancillary service</i>, in proportion to the benefits which are considered to be derived by those <i>WESM Members</i>, in respect of <i>ancillary services</i> not included in clause 3.3.5.2 (a).</p>	<p>formula to be developed by the <i>System <u>Market</u> Operator</i> for the <u>each</u> categories of reserve <u>category</u>, which are defined in clause 3.3.4.2; and (b) From those WESM members or others on whose behalf the System operator is deemed to purchase each ancillary service, in proportion to the benefits which are considered to be derived by those WESM members, in respect of ancillary services not included in clause 3.3.5.2 (a).</p>	<p>3.13.10 to 3.13.9 is due to Re-numbering.</p> <ul style="list-style-type: none"> • Change from <i>System Operator</i> to <i>Market Operator</i> is consistent with the fact that it is the <i>Market Operator</i> that seeks for approval for the cost recovery methodology • Cost recovery for A/S under contract with the <i>System Operator</i> is governed by the ASPP.
Ancillary Services Cost Recovery	3.3.5.4	<p>When allocating <i>reserve cost recovery</i> charges to <i>Trading Participants</i> in a particular <i>reserve cost recovery zone</i> as published in clause 3.3.5.1 the <i>Market Operator</i> may recover:</p> <p>(a) The cost of <i>regulating reserve</i>, in each <i>reserve cost recovery zone</i>, from:</p> <p>(i) <i>Customers</i> with <i>load facilities</i> connected in that <i>reserve cost recovery zone</i>, under a formula which shall account for both the relative size of the <i>Customer</i> loads, and the degree to which they contribute to deviations from their schedule within the <i>trading interval</i>; and</p> <p>(ii) <i>Scheduled Generation Companies</i> with <i>generating systems</i> connected in that <i>reserve cost recovery zone</i> under a formula which shall account for both the</p>	<p>When allocating <i>reserve cost recovery</i> charges to <i>Trading Participants</i> in a particular <i>reserve cost recovery zone</i> as published in clause 3.3.5.1 the <i>Market Operator</i> may recover <u>the cost of reserves from Trading Participants and Network Service Providers.</u></p> <p>(a) The cost of <i>regulating reserve</i>, in each <i>reserve cost recovery zone</i>, from:</p> <p>(i) <i>Customers</i> with <i>load facilities</i> connected in that <i>reserve cost recovery zone</i>, under a formula which shall account for both the relative size of the <i>customer</i> loads, and the degree to which they contribute to deviations from their schedule within the <i>trading interval</i>; and</p> <p>(ii) <i>Scheduled Generation Companies</i> with <i>generating systems</i> connected in that <i>reserve cost recovery zone</i> under a formula which shall account for both the relative size of the <i>generating systems</i>, and the degree to which they deviate from dispatch instructions,</p>	<ul style="list-style-type: none"> • The proposed change is to make the cost recovery non-specific for flexibility, to ensure consistency with the Grid Code in the event that the latter is amended in relation to reserve categories. Moreover, details of the cost recovery will be detailed in the PCRM, which shall be merged in the future with the PDM.

Title	Section	Provision	Proposed Amendment	Rationale
		<p>relative size of the generating systems, and the degree to which they deviate from dispatch instructions,</p> <p>(b) The cost of contingency reserve, in each reserve cost recovery zone, from:</p> <p>(i) Generation Companies with generating systems connected in that reserve cost recovery zone; and</p> <p>(ii) Network Service Providers serving that reserve cost recovery zone, under a formula which accounts for the relative size of the relevant generating system and distribution network, their reliability, and the impact which failure may have on conditions within that reserve cost recovery zone.</p>	<p>(b) The cost of contingency reserve, in each reserve cost recovery zone, from:</p> <p>(i) Generation Companies with generating systems connected in that reserve cost recovery zone; and</p> <p>(ii) Network Service Providers serving that reserve cost recovery zone, under a formula which accounts for the relative size of the relevant generating system and distribution network, their reliability, and the impact which failure may have on conditions within that reserve cost recovery zone. and</p> <p>(2) Network Service Providers serving that reserve cost recovery zone, under a formula which accounts for the relative size of the relevant generating system and distribution network, their reliability, and the impact which failure may have on conditions within that reserve cost recovery zone.</p>	
Approval, Periodic Review and Evaluation of Ancillary Service Arrangements	3.3.7	3.3.7 Approval, Periodic Review and Evaluation of Ancillary Service Arrangements	3.3.7 Approval, Periodic Review and Evaluation of Ancillary Service Reserve Market Arrangements	To clarify that this section only provides the review of the market arrangements of reserves being traded in the WESM.
Approval, Periodic Review and Evaluation of Ancillary Service	3.3.7.1	3.3.7.1The <i>System Operator</i> of TRANSCO shall charge user fees for <i>ancillary services</i> to all electric power industry participants or self-generating entities <i>connected</i> to the grid. Such fees shall be fixed by the <i>ERC</i> after due notice and public hearing.	3.3.7.1The <i>System Operator</i> of TRANSCO shall charge user fees for <i>ancillary services</i> to all electric power industry participants or self-generating entities <i>connected</i> to the grid. Such fees shall be fixed by the <i>ERC</i> after due notice and public hearing.	The cost recovery of the System Operator for ancillary services is governed by the Ancillary Services Procurement Plan (ASPP) that is being approved by the ERC.

Title	Section	Provision	Proposed Amendment	Rationale
Arrangements Approval, Periodic Review and Evaluation of Ancillary Service Arrangements	3.3.7.2	3.3.7.2 The <i>System Operator</i> , in consultation with <i>Market Operator</i> and <i>WESM Participants</i> shall conduct a periodic review and evaluation of the following: (a) <i>Ancillary services categories, ancillary services arrangements and ancillary services cost recovery formula;</i> (b) <i>Reserve categories, reserve regions, and locationally specific reserve requirements;</i> and (c) xxx	3.3.7.2 3.3.7.1 The System Market <i>Operator</i> , in consultation with Market System <i>Operator</i> and <i>WESM Participants</i> shall conduct a periodic review and evaluation of the following: (a) Ancillary services categories, ancillary services arrangements and ancillary services cost recovery formula; (b) (a) Reserve categories, reserve regions, reserve market cost recovery formula, and locationally specific reserve requirements; and (c) (b) (b) xxx	<ul style="list-style-type: none"> • The review and evaluation of ancillary services that are not being traded in the reserve market shall be conducted outside of the WESM. • Re-numbering
Approval, Periodic Review and Evaluation of Ancillary Service Arrangements	3.3.7.3	3.3.7.3 Any proposed changes to the <i>ancillary service categories, ancillary services arrangements, ancillary services cost recovery formula, reserve categories, reserve regions</i> or <i>locationally specific reserve requirements</i> that will affect the fees of ancillary services shall be filed by the System Operator of TRANSCO with the <i>ERC</i> for approval.	3.3.7.3 Any proposed changes to the ancillary service categories, ancillary services arrangements, ancillary services cost recovery formula, reserve categories, reserve regions or locationally specific reserve requirements that will affect the fees of ancillary services shall be filed by the System Operator of TRANSCO with the ERC for approval.	The review and evaluation of ancillary services that are not being traded in the reserve market shall be conducted outside of the WESM. On the other hand, the review and evaluation of reserves being traded in the WESM is already provided in clause 3.3.7.2.
Approval, Periodic Review and Evaluation of Ancillary Service Arrangements	3.3.7.4 3.3.7.5	3.3.7.4 The <i>System Operator</i> shall continuously adjust the <i>reserve effectiveness factors</i> for each <i>reserve facility category</i> , and the quantum of <i>reserve</i> to be scheduled to meet each <i>locationally specific reserve requirement</i> by the <i>market dispatch optimization model</i> , so as to accurately reflect the <i>power system</i> under existing or	3.3.7.4 The System Operator shall continuously adjust the reserve effectiveness factors for each reserve facility category, and the quantum of reserve to be scheduled to meet each locationally specific reserve requirement by the market dispatch optimization model, so as to accurately reflect the power system under existing or future	<ul style="list-style-type: none"> • In line with IES' recommendation to remove REFs, subject to the implementation of the new MMS. • R-enumbering • Deletion of the approval of the PEM Board is to ensure consistency with the rules change process in chapter 8.

Title	Section	Provision	Proposed Amendment	Rationale
		<p>future conditions, within the relevant market time frames, as advised by the <i>System Operator</i> under clause 3.5.3.1.</p> <p>3.3.7.5 Any proposed changes in the procedures reviewed under this clause 3.3.7 shall be approved by the <i>PEM Board</i> in accordance with the rule change process set out in Chapter 8.</p>	<p>conditions, within the relevant market time frames, as advised by the <i>System Operator</i> under clause 3.5.3.1.</p> <p>3.3.7.5 3.3.7.2 Any proposed changes in the procedures reviewed under this clause 3.3.7 shall be approved by the <i>PEM Board</i> in accordance with the rules change process set out in Chapter 8.</p>	
Market Trading Interval and Timetable	3.4	Market Trading Interval and Timetable	<p>Market Trading Interval, Dispatch Interval, Settlement Interval and Timetable</p>	<ul style="list-style-type: none"> • Global change to distinguish settlement intervals and dispatch intervals in the implementation of a shorter dispatch interval. Settlement interval refers to the 1-hour period for settlements while dispatch interval refers to the 5-minute periods for the actual trading and dispatch of generation and interruptible or dispatchable loads.
Dispatch Interval		NEW	<p><u>3.4.1 Dispatch Interval</u></p> <p><u>3.4.1.1 A dispatch interval is defined to be a five (5) minute period.</u></p> <p><u>3.4.1.2 The market dispatch optimization model defined in clause 3.6 will be run by the Market Operator for each dispatch interval. If the market dispatch optimization model is not successfully run for any dispatch interval, then the results of the hour ahead projection shall be used</u></p>	To define "dispatch interval" and its use

Title	Section	Provision	Proposed Amendment	Rationale
			<p><u>for that dispatch interval in accordance with the relevant Market Manual.</u></p> <p><u>3.4.1.3 Nodal energy dispatch prices for energy and dispatch interval prices for each reserve category and each reserve area will be determined for each dispatch interval.</u></p>	
Trading Intervals	3.4.1.1	<p>3.4.1.1 For the purpose of trading in <i>energy</i> and <i>ancillary services</i>, <i>trading interval</i> is one (1) hour, commencing on the hour.</p> <p>3.4.1.2 Only <i>energy</i> shall be traded during the <i>interim WESM</i>. Trading in <i>ancillary services</i> shall be implemented upon commencement of the <i>spot market</i> for <i>ancillary services</i> established under clause 3.3.4.</p>	<p>3.4.1.13.4.2.1For the purpose of trading in <i>energy</i> and <i>ancillary services</i>, <i>trading interval</i> is A settlement interval is defined to be a period of one (1) hour, commencing on the hour.</p> <p>3.4.1.2 Only <i>energy</i> shall be traded during the <i>interim WESM</i>. Trading in <i>ancillary services</i> shall be implemented upon commencement of the <i>spot market</i> for <i>ancillary services</i> established under clause 3.3.4.</p> <p>3.4.2.2 Energy settlement prices and energy settlement quantities shall be determined for every settlement interval, in accordance with clause 3.10.6 and 3.13, respectively.</p> <p>3.4.2.3 Reserve settlement prices and reserve settlement quantities for each reserve region and reserve category shall be determined for every settlement interval, in accordance with clause 3.10.7 and 3.13.5, respectively.</p>	<ul style="list-style-type: none"> • To define "settlement interval" and its use. • Deleted clause 3.4.1.2 since this is already implied in clause 3.5.7.
Timetable	3.4.2	3.4.2 Timetable	3.4.23.4.3 Timetable	<ul style="list-style-type: none"> • Clarify that week ahead and day

Title	Section	Provision	Proposed Amendment	Rationale
		<p>3.4.2.1 xxx</p> <p>3.4.2.2 The <i>timetable</i> shall include the schedule and procedure for the following: (a) Determining and publishing <i>week ahead projections</i> including precise specification of the <i>market horizon</i> to be used for such <i>projections</i>; (b) Determining and publishing <i>day- ahead projections</i> including precise specification of the <i>market horizon</i> to be used for such <i>projections</i>; (c) Submitting offers, bids and data; and (d) If necessary, for any other action to be taken by the <i>Market Operator</i>, the <i>System Operator</i>, or any <i>WESM Member</i> during the operation of the <i>spot market</i>.</p> <p>3.4.2.3 xxx</p> <p>3.4.2.4 xxx</p>	<p>3.4.2.1 3.4.3.1 xxx</p> <p>3.4.2.2 3.4.3.2 The <i>timetable</i> shall include the schedule and procedure for the following: (a) Determining and publishing <i>week ahead projections</i> for each hour including precise specification of the <i>market horizon</i> to be used for such <i>projections</i>; (b) Determining and publishing <i>day- ahead projections</i> for each hour including precise specification of the <i>market horizon</i> to be used for such <i>projections</i>; (c) Submitting offers, bids and data; and (d) If necessary, for any other action to be taken by the <i>Market Operator</i>, the <i>System Operator</i>, or any <i>WESM Member</i> during the operation of the <i>spot market</i>; (e) Determining and publishing hour ahead projections for each dispatch interval including precise specification of the market horizon to be used for such projections; and (f) Determining and publishing load forecasts, real time dispatch schedules, and market prices.</p> <p>3.4.2.3 3.4.3.3 xxx</p> <p>3.4.2.4 3.4.3.4 xxx</p>	<p>ahead projections will be for each hour, while hour ahead projections will be for each dispatch interval, as to be defined in the WESM timetable.</p> <ul style="list-style-type: none"> Also clarify that the timetable should provide the timeliness requirements for the publication of load forecasts, dispatch schedules and market prices. <ul style="list-style-type: none"> Re-numbering
Network	3.5.2.1	Each <i>Network Service Provider</i> shall submit	Each <i>Network Service Provider</i> shall submit to	Revision of reference clause

Title	Section	Provision	Proposed Amendment	Rationale
Service Provider Data		to the <i>System Operator standing network data</i> relating to all <i>network</i> elements which are under that <i>Network Service Provider's</i> control and included in the <i>market network model</i> , in accordance with clause 3.5.2.4 and the Grid Code and Distribution Code.	the <i>System Operator <u>standing network data</u></i> relating to all network elements which are under that <i>Network Service Provider's</i> control, <u>which the Market Operator shall include</u> and included in the <i>market network model</i> , in accordance with clause 3.5.2.4 3.5.2.6 and the <i>Grid Code and Distribution Code</i> .	<p>due to the proposed amendments and Re-numbering in the subsequent clauses.</p> <ul style="list-style-type: none"> To clarify that it is the <i>Market Operator</i> which shall include the data relating to all network elements in the market network model submitted by Network Service Providers in the market network model
Network Service Provider Data		NEW	<p><u>3.5.2.2 Each Network Service Provider shall submit to the System Operator any planned outages of network elements which are under that Network Service Provider's control and that are included in the market network model.</u></p> <p><u>3.5.2.3 Each Network Service Provider shall submit to the System Operator, in real-time, information on the present state of its network including status of switches or circuit breakers and all available measurements for all network elements which are under that Network Service Provider's control and that are included in the market network model.</u></p>	To provide the requirement that each Network Service Provider shall inform the System Operator of outages and the status of its network that are included in the MNM
Network Service Provider Data	3.5.2.2 3.5.2.3 3.5.2.4	3.5.2.2 xxx 3.5.2.3 Each <i>Network Service Provider</i> shall submit period-specific network data	3.5.2.2 3.5.2.4 xxx 3.5.2.3 3.5.2.5 Each <i>Network Service Provider</i> shall submit period-specific network data	<ul style="list-style-type: none"> To provide the requirement that each Network Service Provider shall inform the System Operator of all material changes to its network, as soon as possible

Title	Section	Provision	Proposed Amendment	Rationale
	3.5.2.5	<p>variations to the <i>System Operator</i> as soon as any material change in previously submitted network data becomes apparent with respect to the expected state of any of its <i>networks</i> in any <i>trading interval</i> of any <i>trading day</i> in the current weekahead <i>market horizon</i>.</p> <p>3.5.2.4 The standing <i>network data</i> and any variations to that data submitted in accordance with Clause 3.5.2.3 shall be provided by <i>Network Service Providers</i> in a form which allows the <i>System Operator</i> to readily derive and verify the information specified in Appendix A2, as it may pertain to any <i>trading interval</i> of any trading day in the week ahead <i>market horizon</i>.</p> <p>3.5.2.5 Each <i>Network Service Provider</i> shall immediately advise the <i>System Operator</i> of any circumstances which threaten a significant probability of material adverse change in the state of its network in any trading interval of any trading day in the current week ahead <i>market horizon</i>.</p>	<p>variations to the <i>System Operator</i> as soon as any material change in previously submitted network data becomes apparent with respect to the expected state of any of its <i>networks</i> in any trading dispatch interval of any trading day in the current week ahead market horizon.</p> <p>3.5.2.43.5.2.6 The standing network data and any variations to that data submitted in accordance with Clause 3.5.2.3 3.5.2.5 shall be provided by <i>Network Service Providers</i> in a form which allows the <i>System Operator</i> to readily derive and verify the information specified in Appendix A2, as it may pertain to any trading dispatch interval of any trading day in the week-ahead <i>market horizon</i>.</p> <p>3.5.2.53.5.2.7 Each <i>Network Service Provider</i> shall immediately advise the <i>System Operator</i> of any circumstances which threaten a significant probability of material adverse change in the state of its network in any trading dispatch interval of any trading day in the current week ahead <i>market horizon</i>.</p>	<ul style="list-style-type: none"> • Clarify that required data from NSPs in clauses 3.5.2.6 and 3.5.2.7, as revised, pertain to any dispatch interval (not trading interval) • Re-numbering
System Operator Data	3.5.3.1	The <i>System Operator</i> shall submit to the <i>Market Operator</i> standing <i>network data</i> relating to all <i>network</i> elements which are under the <i>Network Service Provider's</i> control and included in the <i>market network model</i> , in accordance with the <i>timetable</i> .	The <i>System Operator</i> shall submit to the <i>Market Operator</i> standing network data relating to all network elements which are under the a <i>Network Service Provider's</i> control and included in the <i>market network model</i> , in accordance with the <i>timetable</i> .	To clarify that there are many Network Service Providers, whose network elements may be included in the market network model.

Title	Section	Provision	Proposed Amendment	Rationale
System Operator Data	3.5.3.2	<p>Where necessary, the <i>System Operator</i> shall, in accordance with the <i>timetable</i>, promptly advise the <i>Market Operator</i> to:</p> <p>(a) Vary the <i>market network model</i> representation employed for any <i>trading interval</i> in the current week ahead <i>market horizon</i> to take account of information received from <i>Network Service Providers</i>; and</p> <p>(b) Apply, or vary, any system security constraints, over-riding constraints or reserve requirements constraints to be applied in any trading interval in the current week-ahead market horizon to take account of current, or projected, system conditions.</p>	<p>Where necessary, the <i>System Operator</i> shall, in accordance with the <i>timetable</i>, promptly advise the <i>Market Operator</i> to:</p> <p>(a) Vary the <i>market network model</i> representation employed for any trading interval in the current week-ahead market horizon dispatch interval in the current week-ahead market horizon to take account of information received from <i>Network Service Providers</i>; and</p> <p>(b) Apply, or vary, any system security constraints, over-riding constraints or reserve requirements constraints to be applied in any trading interval in the current week-ahead market horizon dispatch interval in the current week-ahead market horizon to take account of current, or projected, system conditions.</p>	<p>To clarify the <i>System Operator's</i> responsibility in providing information for all market projections and real time dispatch, including the elements that have armed load shedding schemes and consequently do not need to be operated based on an N-1 security constrained dispatch basis, to the MO.</p>
System Operator Data	3.5.3.5	<p>In accordance with the <i>timetable</i>, any revision under Clause 3.5.3.2 to the system representation or <i>constraints</i> to be employed with respect to any market <i>trading interval</i> shall take effect the next time a <i>market dispatch optimization model</i> run is initiated.</p>	<p>In accordance with the <i>timetable</i>, any revision under Clause 3.5.3.2 to the system representation or <i>constraints</i> to be employed with respect to any market trading interval dispatch interval shall take effect the next time a <i>market dispatch optimization model</i> run is initiated.</p>	<p>To clarify the timeline wherein updates on the system representation or constraints will be taking effect.</p>
System Operator Data	3.5.3.6	<p>The <i>System Operator</i> shall advise the <i>Market Operator</i> of any circumstances which threaten a significant probability of material adverse change in the state of the network, or system, in any trading interval of any trading day in the current week-ahead market horizon.</p>	<p>The <i>System Operator</i> shall advise the <i>Market Operator</i> of any circumstances which threaten a significant probability of material adverse change in the state of the network, or system, in any trading interval dispatch interval of any trading day in the current week-ahead market horizon.</p>	<p>For consistency with proposed amendments in clause 3.1.</p>
System	3.5.3.7	<p>The <i>System Operator</i> shall submit to the</p>	<p>The <i>System Operator</i> shall submit to the</p>	<p>For consistency with proposed</p>

Title	Section	Provision	Proposed Amendment	Rationale
Operator Data		Market Operator a <i>variable renewable energy aggregated generation forecast</i> for each of the next twenty-four (24) <i>trading intervals</i> and update the same once every <i>trading interval</i> in accordance with the relevant <i>Market Manuals</i> and the relevant provisions of the <i>Grid Code</i> .	Market Operator a variable renewable energy aggregated generation forecast for each of the dispatch intervals within the next twenty-four (24) trading intervals day and update the same once every trading dispatch interval in accordance with the relevant Market Manuals and the relevant provisions of the Grid Code.	amendments in clause 3.1.
System Operator Data	NEW		<u>3.5.3.10 The Market Operator shall publish the market network model representation, all network status data, any system security constraints, over-riding constraints or reserve requirements constraints used in any market projections, dispatches, prices and settlements.</u>	For transparency.
System Operator Data	NEW		<u>3.5.3.11 The System Operator shall be responsible for taking measures to ensure that the Market Operator is provided with data in a timely and reliable manner, and which has undergone a process of quality checking by System Operator and cross-quality checking by the Market Operator (if required and feasible) substitution from alternative primary sources.</u>	This provides the System Operator's responsibility to provide data to the Market Operator that has undergone quality checking.
Load Forecasting	3.5.4		<u>All load forecasts at each customer market trading node in the market network model shall be specified in units of megawatt (MW) and will apply to the end of the relevant dispatch interval unless otherwise stated.</u>	For clarity.

Title	Section	Provision	Proposed Amendment	Rationale
Load Forecasting	3.5.4.1	Each <i>Customer</i> may submit a forecast in respect of each <i>trading interval</i> for each of its registered <i>load facilities</i> for each <i>trading day</i> of week in accordance with the <i>timetable</i> . xxx	Each <i>Customer</i> may submit a forecast in respect of each <i>trading</i> <i>dispatch</i> <i>interval</i> for each of its registered load facilities for each trading day of the week in accordance with the timetable. xxx	<ul style="list-style-type: none"> • Consistent with clause 3.1. • Clerical correction
Load Forecasting	3.5.4.3	The unrestrained <i>net load forecast</i> for any <i>trading interval</i> shall be prepared so as to represent the <i>net load</i> as it would be, or would have been, in the absence of <i>load shedding</i> .	The unrestrained net load forecast for any <i>trading interval</i> shall be prepared so as to represent the net load as it would be, or would have been, in the absence of load shedding.	To cover all unrestrained net load forecasts.
Load Forecasting	3.5.4.4	If <i>load shedding</i> is expected to occur in any <i>trading interval</i> , a restrained <i>net load forecast</i> for that <i>trading interval</i> shall be prepared on the same basis, but accounting for <i>load shedding</i> to the extent that it is expected to occur.	If load shedding loss of load is expected to occur in any <i>trading</i> <i>dispatch</i> <i>interval</i> , a restrained net load forecast for that <i>trading</i> <i>dispatch</i> <i>interval</i> shall be prepared on the same basis, but accounting for load shedding to the extent that it is expected to occur.	Net load forecasts shall be prepared on a dispatch interval basis, not trading interval.
Load Forecasting	3.5.4.5	NEW	<u>The Market Operator shall annually review the performance of its nodal load forecasts used for week-ahead projections, day-ahead projections, hour-ahead projections, and determining dispatch schedules.</u>	The Market Operator performance for each workflow will be reviewed based on the results of the performance monitoring under the Market Operator Performance Standards under clause 1.3.2.
Load Forecasting	3.5.4.6	NEW	<u>The Market Operator shall periodically review the methodologies for performing nodal load forecasts used for week-ahead projections, day-ahead projections, hour-ahead projections, and determining</u>	The Market Operator will ensure continuing improvement of its forecasting methodologies, which may be based on best practices from other jurisdictions.

Title	Section	Provision	Proposed Amendment	Rationale
			<u>dispatch schedules.</u>	
Generation Offers and Data	3.5.5.1	Each <i>Scheduled Generation Company</i> including <i>Generation Companies</i> with <i>bilateral contracts</i> shall submit a <i>standing generation offer</i> for each of <i>its scheduled generating units</i> for each <i>trading interval</i> in each <i>trading day</i> of the week in accordance with the <i>timetable</i> . The <i>standing generation offer</i> shall apply until revised or updated by the <i>Scheduled Generation Company</i> .	Each <i>Scheduled Generation Company</i> including <i>Generation Companies</i> with <i>bilateral contracts</i> shall submit a <i>standing generation offer</i> for each of <i>its scheduled generating units</i> for each trading dispatch interval in each <i>trading day</i> of the week in accordance with the <i>timetable</i> . The <i>standing generation offer</i> shall apply until revised or updated by the <i>Scheduled Generation Company</i> .	Generation offers shall be submitted for each dispatch interval.
Generation Offers and Data	3.5.5.3	Each <i>Generation Company</i> shall, in consultation with the System Operator, submit check data to be used by the Market Operator, in accordance with Clause 3.5.12, to assist in determining the validity of any generation offer which may be submitted by the scheduled Generation Company.	Each <i>Generation Company</i> shall, in consultation with the System operator submit check data to be used by the <i>Market Operator</i> , in accordance with clause 3.5.12, to assist in determining the validity of any generation offer which may be submitted by the <i>Scheduled <u>Generator</u> Generation Company</i> .	Not being applied, thus the deletion of the phrase indicated
Generation Offers and Data	3.5.5.4	Each <i>Non-Scheduled Generation Company</i> shall submit a standing nomination of <i>loading levels</i> for each of its <i>non-scheduled generating units</i> for each <i>trading interval</i> in each <i>trading day</i> of the week in accordance with the <i>timetable</i> . The standing nomination of <i>loading levels</i> shall apply until revised or updated by the <i>Non-Scheduled Generation Company</i> .	Each <i>Non-Scheduled Generation Company</i> shall submit a standing nomination of <i>loading levels</i> for each of its <i>non-scheduled generating units</i> for each trading dispatch interval in each <i>trading day</i> of the week in accordance with the <i>timetable</i> . The standing nomination of <i>loading levels</i> shall apply until revised or updated by the <i>Non-Scheduled Generation Company</i> .	Same as clause 3.5.5.1
Generation	3.5.5.5	<i>Generation Companies</i> shall provide to the	<i>Generation Companies</i> shall provide to the	Same as clause 3.5.5.1

Title	Section	Provision	Proposed Amendment	Rationale
Offers and Data		<p><i>Market Operator and the System Operator standing projected outputs in respect of their must dispatch generating units and priority dispatch generating units for each trading interval in each trading day of the week in accordance with the relevant Market Manuals and provisions of the Grid Code. The standing projected outputs shall apply until revised or updated by the relevant Generation Company.</i></p>	<p><i>Market Operator and the System Operator standing projected outputs in respect of their must dispatch generating units and priority dispatch generating units for each trading dispatch interval in each trading day of the week in accordance with the relevant Market Manuals and provisions of the Grid Code. The standing projected outputs shall apply until revised or updated by the relevant Generation Company.</i></p>	
Customer Demand Bids	3.5.6.1	<p><i>Each Customer may submit a standing demand bid in respect of each trading interval for each of its registered scheduled load facilities for each trading day of the week in accordance with the timetable.</i></p>	<p><i>Each Customer may submit a standing demand bid in respect of each trading dispatch interval for each of its registered scheduled load facilities for each trading day of the week in accordance with the timetable.</i></p>	<p>For consistency with the submission of Generation offers, customer bids shall be submitted for each dispatch interval.</p>
Generation Company Reserve Offers	3.5.7.2	<p><i>When applicable, subject to Clause 3.3.4.2, each scheduled generator registered as an Ancillary Services Provider in respect of a reserve facility in a particular reserve region shall submit a standing reserve offer for each of its relevant reserve facilities in respect of that reserve region for each trading interval for each day of the week in accordance with the timetable. The standing reserve offer shall apply until revised or updated by the scheduled generator registered as an Ancillary Services Provider.</i></p>	<p><i>When applicable, subject to Clause 3.3.4.2, each scheduled generator registered as an Ancillary Services Provider in respect of a reserve facility in a particular reserve region shall submit a standing reserve offer for each of its relevant reserve facilities in respect of that reserve region for each trading dispatch interval for each day of the week in accordance with the timetable. The standing reserve offer shall apply until revised or updated by the scheduled generator registered as an Ancillary Services Provider.</i></p>	<ul style="list-style-type: none"> • For consistency with clause 3.5.5.1
	3.5.8.1	<p><i>This section shall apply only upon commencement of the spot market for</i></p>	<p><i>This section shall apply only upon commencement of the spot market for ancillary services established under Clause</i></p>	<ul style="list-style-type: none"> • Emphasizes that for the spot market for ancillary services, the SO has to provide ancillary service certification and ERC has

Title	Section	Provision	Proposed Amendment	Rationale
		<i>ancillary services</i> established under Clause 3.3.4.	3.3.4 with the Ancillary Service certification by the System Operator and upon approval of ERC for other types of ancillary reserves.	to approve the other types of ancillary reserves.
Customer Reserve Offers	3.5.8.2	When applicable, subject to Clause 3.3.4.2, each <i>Customer</i> registered as an <i>Ancillary Services Provider</i> in respect of a <i>reserve facility</i> in a particular <i>reserve region</i> may submit a standing <i>reserve offer</i> for each of its <i>interruptible load facilities</i> in respect of that <i>reserve region</i> for each <i>trading interval</i> for each day of the week in accordance with the <i>timetable</i> .	When applicable, subject to Clause 3.3.4.2, each <i>Customer</i> registered as an <i>Ancillary Services Provider</i> in respect of a <i>reserve facility</i> in a particular <i>reserve region</i> may submit a standing <i>reserve offer</i> for each of its <i>interruptible load facilities</i> in respect of that <i>reserve region</i> for each <u>trading dispatch interval</u> for each day of the week in accordance with the <i>timetable</i> .	<ul style="list-style-type: none"> • For consistency with clause 3.5.7.2
Customer Reserve Offers	3.5.8.3	Each reserve offer submitted by a Customer under clause 3.5.8.2 shall: (a) Correspond to a load for that Customer which has been certified as interruptible in accordance with the Grid Code and Distribution Code; (b) Correspond to the response capability of the relevant reserve facility registered for the provision of interruptible load which has been certified as meeting the relevant reserve response standards for that reserve facility category in accordance with the Grid Code and Distribution Code; and (c) Include the information specified in Appendix A2.	Each reserve offer submitted by a Customer under clause 3.5.8.2 shall: (a) Correspond to a load for that Customer which has been certified as interruptible in accordance with the Grid Code and Distribution Code; (b) Correspond to the response capability of the relevant reserve facility registered for the provision of interruptible load which has been certified as meeting the relevant reserve response standards for that reserve facility category in accordance with the Grid Code and Distribution Code; and (c) Include the information specified in Appendix A1.2.	To provide correct reference.
Revision of Standing Offers/Bids	3.5.9.1	A standing <i>generation offer</i> , a standing <i>reserve offer</i> , a standing nomination of <i>loading levels</i> , a standing <i>projected output</i> , or a standing demand <i>bid</i> for any <i>trading</i>	A standing <i>generation offer</i> , a standing <i>reserve offer</i> , a standing nomination of <i>loading levels</i> , a standing <i>projected output</i> , or a standing demand <i>bid</i> for any <u>trading dispatch</u>	For consistency with clause 3.5.7.2 and clause 3.5.8.2

Title	Section	Provision	Proposed Amendment	Rationale
		<i>interval</i> in any day of the week may be revised by the relevant <i>Generation Company</i> or <i>Customer</i> in accordance with the <i>timetable</i> .	<i>interval</i> in any day of the week may be revised by the relevant <i>Generation Company</i> or <i>Customer</i> in accordance with the <i>timetable</i> .	
Initial setting of Market Offers/Bids	3.5.10	When the <i>Market Operator</i> updates a <i>market projection</i> under Clause 3.7, the <i>standing offers</i> , standing nomination of <i>loading levels</i> , standing <i>projected outputs</i> , and <i>standing bids</i> shall be effective in the absence of revised <i>market offers</i> , nomination of <i>loading levels</i> , <i>projected outputs</i> , and <i>market bids</i> for the corresponding <i>trading interval</i> and day of the week.	When the <i>Market Operator</i> updates a <i>market projection</i> under Clause 3.7, the <i>standing offers</i> , standing nomination of <i>loading levels</i> , standing <i>projected outputs</i> , and <i>standing bids</i> shall be effective in the absence of revised <i>market offers</i> , nomination of <i>loading levels</i> , <i>projected outputs</i> , and <i>market bids</i> for the corresponding <i>trading</i> <i>dispatch</i> <i>interval</i> and day of the week.	For consistency with clause 3.5.7.2
Revision of Market Offers/Bids	3.5.11.1	Each scheduled Trading Participant which has submitted standing offers or bids may revise any of its market offers or market bids for any trading interval in any trading day of the current week-ahead market horizon in accordance with the timetable, and subject to Clause 3.5.11.4 and each revised market offer or market bid submitted shall provide the information set out in Appendix A1.	Each scheduled Trading Participant which has submitted standing offers or bids may revise any of its market offers or market bids for any <i>trading</i> <i>dispatch</i> <i>interval</i> in any trading day of the current week-ahead market horizon in accordance with the timetable, and subject to Clause 3.5.11.4 and each revised market offer or market bid submitted shall provide the information set out in Appendix A1.	<ul style="list-style-type: none"> • For consistency with clause 3.5.5.1
Revision of Market Offers/Bids	3.5.11.5	Market bids or market offers for any trading interval may be revised by Trading Participants prior to gate closure if they no longer represent a reasonable estimate of: (a) The expected availability of the relevant generating unit or scheduled load for that trading interval; or (b) The demand bids or offers likely to apply for the real time dispatch optimization of that	Market bids or market offers for any <i>trading</i> <i>dispatch</i> <i>interval</i> may be revised by Trading Participants prior to gate closure if they no longer represent a reasonable estimate of: (a) The expected availability of the relevant generating unit or scheduled load for that <i>trading</i> <i>dispatch</i> <i>interval</i> ; or (b) The demand bids or offers likely to apply for the real time dispatch optimization of that	For consistency with clause 3.5.5.1 and clause 3.5.6.1.

Title	Section	Provision	Proposed Amendment	Rationale
Revision of Market Offers/Bids	3.5.11.6	<p>trading interval.</p> <p>In submitting market bids or market offers for any trading interval, Trading Participants shall also take into account the following:</p> <p>(a) The time remaining until the occurrence of the relevant trading interval involved; and</p> <p>(b) Provision of reasons or circumstances whenever the submitted market bids or market offers are cancelled or are less than the registered capacity of its facility or generating unit.</p>	<p>trading dispatch interval.</p> <p>In submitting market bids or market offers for any trading dispatch interval, Trading Participants shall also take into account the following:</p> <p>(a) The time remaining until the occurrence of the relevant trading dispatch interval involved; and</p> <p>(b) Provision of reasons or circumstances whenever the submitted market bids or market offers are cancelled or are less than the registered capacity of its facility or generating unit.</p>	<p>For consistency with clause 3.5.5.1 and clause 3.5.6.1.</p>
Revision of Market Offers/Bids	3.5.11.7	<p>Trading Participants shall immediately advise the System Operator and Market Operator of any circumstances which threaten a significant probability of material adverse change in the state of their facilities in any trading interval of any trading day in the current week-ahead market horizon.</p> <p>After the occurrence of the significant event referred to above, the Trading Participant shall submit a written report to the Market Operator with supporting data immediately within the following trading day.</p>	<p>Trading Participants shall immediately advise the System Operator and Market Operator of any circumstances which threaten a significant probability of material adverse change in the state of their facilities in any trading dispatch interval of any trading day in the current week-ahead market horizon.</p> <p>After the occurrence of the significant event referred to above, the Trading Participant shall submit a written report to the Market Operator with supporting data immediately within the following trading day.</p>	<p>For consistency with clause 3.5.5.1 and clause 3.5.6.1.</p>
	3.5.11.8	<p>Prior to the <i>spot market</i> commencement date, the <i>System Operator</i>, in consultation with <i>WESM Members</i>, shall publish a non-</p>	<p>Prior to the spot market commencement date, the System Operator, in consultation with WESM members, shall provide the Market Operator, for publication, a non-</p>	<p>To delete the “in consultation with the WESM members” since SO has no capability to publish the information to the WESM members.</p>

Title	Section	Provision	Proposed Amendment	Rationale
		exhaustive list of events that will be deemed to be or to cause a material adverse change in circumstances for the purposes of clause 3.5.11.7.	exhaustive list of events that will be deemed to be or to cause a material adverse change in circumstances for the purposes of clause 3.5.11.7	Only MO has the capability to issue advisories to the WESM participants.
Revision of Market Offers/Bids	3.5.11.9	Each <i>market offer</i> , nomination of <i>loading level</i> , <i>projected output</i> , or <i>market bid</i> for a particular <i>trading interval</i> is deemed to stand with effect from the time it is initiated under Clause 3.5.10 or revised under Clause 3.5.11 and will be used in preparing all market forecasts, <i>dispatch</i> targets or prices for that <i>trading interval</i> , unless and until a valid revision to the <i>market offer</i> , nomination of <i>loading level</i> , <i>projected output</i> , or <i>market bid</i> is accepted by the <i>Market Operator</i> .	Each market offer, nomination of loading level, projected output, or market bid for a particular trading dispatch interval is deemed to stand with effect from the time it is initiated under Clause 3.5.10 or revised under Clause 3.5.11 and will be used in preparing all market forecasts, dispatch targets or prices for that trading dispatch interval, unless and until a valid revision to the market offer, nomination of loading level, projected output, or market bid is accepted by the Market Operator.	For consistency with clause 3.5.5.1 and clause 3.5.6.1.
Over-riding Constraints	3.5.13.1	<p>Subject to Clause 3.5.13.3, the <i>System Operator</i> may require the <i>Market Operator</i> to impose <i>constraints</i> on the power flow, <i>energy generation</i> of a specific <i>facility</i> in the <i>grid</i> to address <i>system security</i> threat, to mitigate the effects of a <i>system emergency</i>, or to address the need to <i>dispatch generating units</i> to comply with systems, regulatory and commercial tests requirements.</p> <p>The <i>System Operator</i>, in consultation with the <i>Market Operator</i> and the <i>Trading Participants</i>, shall develop the criteria and procedures for <i>dispatch</i> of <i>generating units</i> that are required to run as a result of the imposition or relaxation of <i>constraints</i> stated</p>	<p>Subject to clause 3.5.13.3 3.5.13.2, the <i>System Operator</i> may require the <i>Market Operator</i> to impose constraints on the power flow, energy generation of a specific facility in the <i>Grid</i> to address system security threat, to mitigate the effects of a system emergency, or to address the need to dispatch generating units to comply with systems, regulatory and commercial tests requirements.</p> <p>The <i>System Operator</i>, in consultation with the <i>Market Operator</i> and the <i>Trading Participants</i>, shall develop the criteria and procedures for dispatch of generating units that are required to run as a result of the imposition or relaxation of constraints stated in the preceding paragraph, and the manner for</p>	<ul style="list-style-type: none"> • Change in reference clause due to Re-numbering. • Emphasizes that the SO together with the MO and Trading Participants shall develop the criteria and procedures for dispatch of generating units that are required to run

Title	Section	Provision	Proposed Amendment	Rationale
		in the preceding paragraph, and the manner for compensating said units. xxx	compensating said units. xxx	
	3.5.13.2	3.5.13.2 In situations where offers are structured in such a way that provision of any level of <i>reserve</i> services prohibits the simultaneous provision of very low or high levels of <i>generation</i> , the <i>System Operator</i> may also recommend to the <i>Market Operator</i> that <i>constraints</i> should be imposed or relaxed so as to allow <i>generating systems</i> to operate in a range which allows increase of either <i>reserve</i> allocation or <i>energy generation</i> , as appropriate, having regard to: (a) the commercial interests of <i>Trading Participants</i> ; and (b) market priorities and objectives, as reflected by the relevant <i>market prices</i> for <i>energy</i> and <i>reserves</i> in the relevant <i>reserve region</i> .	3.5.13.2 In situations where offers are structured in such a way that provision of any level of <i>reserve</i> services prohibits the simultaneous provision of very low or high levels of <i>generation</i>, the <i>System Operator</i> may also recommend to the <i>Market Operator</i> that <i>constraints</i> should be imposed or relaxed so as to allow <i>generating systems</i> to operate in a range which allows increase of either <i>reserve</i> allocation or <i>energy generation</i>, as appropriate, having regard to: (a) the commercial interests of <i>Trading Participants</i>; and (b) market priorities and objectives, as reflected by the relevant <i>market prices</i> for <i>energy</i> and <i>reserves</i> in the relevant <i>reserve region</i>.	The conditions for imposition and relaxation of constraints are provided in detail under clause 3.6.2.
Over-riding Constraints	3.5.13.3	Prior to the <i>spot market commencement date</i> , the <i>System Operator</i> , in consultation with <i>Trading Participants</i> and the <i>Market Operator</i> , shall <i>publish</i> a general description of the nature of circumstances which will cause it to recommend imposition or relaxation of <i>constraints</i> under Clause 3.5.13.1 or 3.5.13.2 and the type of action which may be taken under those circumstances.	3.5.13.3 3.5.13.2 Prior to the <i>spot market commencement date</i> , the <i>System Operator</i> , in consultation with <i>Trading Participants</i> and the <i>Market Operator</i> , shall <i>publish</i> a general description of the nature of circumstances which will cause it to recommend imposition or relaxation of constraints under Clause 3.5.13.1 or 3.5.13.2 and the type of action which may be taken under those circumstances.	<ul style="list-style-type: none"> • Re-numbering • Deleted references for consistency in the proposed deletion of clause 3.5.13.2

Title	Section	Provision	Proposed Amendment	Rationale
Over-riding Constraints	3.5.13.4	When acting under Clause 3.5.13.1 or 3.5.13.2, the <i>System Operator</i> shall: (a) Notify the relevant <i>Trading Participant</i> of the situation as soon as practicable; and (b) Record appropriate details of the incident.	3.5.13.4 3.5.13.3 When acting under Clause 3.5.13.1 or 3.5.13.2 , the <i>System Operator</i> shall: (a) Notify the relevant <i>Trading Participant</i> of the situation as soon as practicable; and (b) Record appropriate details of the incident.	Same as clause 3.5.13.3
Over-riding Constraints	3.5.13.5	At the request of the <i>Market Operator</i> , the <i>System Operator</i> or any <i>WESM Member</i> , the <i>Market Surveillance Committee</i> may review any decision by the <i>Market Operator</i> to impose or relax constraints under Clause 3.5.13.1 or 3.5.13.2.	3.5.13.3 3.5.13.4 At the request of the <i>Market Operator</i> , the <i>System Operator</i> or any <i>WESM Member</i> , the <i>Market Surveillance Committee</i> may review any decision by the <u>System Operator or the Market Operator</u> to impose or relax constraints, as the case may be under clause 3.5.13.1 or 3.5.13.2.	<ul style="list-style-type: none"> • Same as clause 3.5.13.3 • The System Operator is a WESM member • Clerical
Over-riding Constraints	3.5.13.6	If a review conducted under Clause 3.5.13.5 concludes that a <i>Trading Participant</i> or the <i>Market Operator</i> or the <i>System Operator</i> has acted inappropriately and has thereby imposed significant costs on other parties, the <i>Market Surveillance Committee</i> may refer that matter to the <i>Enforcement and Compliance Officer</i> under Clause 7.2 or require that <i>Trading Participant</i> or the <i>Market Operator</i> or the <i>System Operator</i> , as the case may be, to pay compensation in accordance with Clause 7.2.	3.5.13.6 3.5.13.5 If a review conducted under Clause 3.5.13.5 3.5.13.4 concludes that a <i>Trading Participant</i> or the <i>Market Operator</i> or the <i>System Operator</i> has acted inappropriately, and has thereby imposed significant costs on other parties, the <i>Market Surveillance Committee</i> may refer that matter to the <i>Enforcement and Compliance Officer</i> under clause 7.2 or require that <i>Trading Participant</i> or the <i>Market Operator</i> or the <i>System Operator</i> (as the case may be) to pay compensation in accordance with clause 7.2.	<ul style="list-style-type: none"> • Re-numbering • Deleted references for consistency • Clerical

Title	Section	Provision	Proposed Amendment	Rationale
Model Definition	3.6.1.1	The <i>market dispatch optimization model</i> simultaneously determines <i>dispatch</i> targets for the end of a <i>trading interval</i> , <i>reserve</i> allocations for the <i>trading interval</i> , associated <i>energy</i> prices at all trading <i>nodes</i> in the <i>power system</i> and when applicable <i>reserve</i> prices for all <i>reserve regions</i> .	The <i>market dispatch optimization model</i> simultaneously determines <i>dispatch</i> targets for the end of a trading dispatch <i>interval</i> , <i>reserve</i> allocations for the trading dispatch <i>interval</i> , associated nodal energy dispatch prices at all trading <i>nodes</i> in the <i>power system</i> and when applicable <i>reserve</i> prices for all <i>reserve regions</i> .	<ul style="list-style-type: none"> • Consistent with the proposed rules changes in clause 3.4.2 providing real time dispatch every dispatch interval. • Same as clause 3.10.2
Model Definition	3.6.1.2	The <i>Market Operator</i> shall maintain and <i>publish</i> the <i>formulation</i> of the <i>market dispatch optimization model</i> and the performance standards in accordance with the <i>WESM</i> objectives.	The <i>Market Operator</i> shall maintain and publish the detailed <i>formulation</i> of the <i>market dispatch optimization model</i> and the performance standards , in accordance with the <i>WESM</i> objectives.	<p>The details of the MDOM should also be published and available to the public, such that an independent person could develop and test the market dispatch optimization model.</p> <p>See clause 5.2.6.2. While the MDOM is already covered in the regular audit on market operations under said clause, it has been revised to clearly state that market audits shall include the audit of market dispatch optimization model and processes.</p>
Model Definition	3.6.1.4	In formulating the <i>market dispatch optimization model</i> , the <i>Market Operator</i> and <i>System Operator</i> shall ensure that the <i>dispatch</i> for each <i>trading interval</i> is made subject to:	In formulating the <i>market dispatch optimization model</i> , the <i>Market Operator</i> and <i>System Operator</i> shall ensure that the <i>dispatch</i> for each trading dispatch <i>interval</i> is made subject to:	<ul style="list-style-type: none"> • Consistent with the proposed rules changes in clause 3.4.2 providing real time dispatch every dispatch interval. • Clerical correction • The proposed deletion of the provision on reserve effectiveness factor (REF) is in line with WESM

Title	Section	Provision	Proposed Amendment	Rationale
		<p>(a) <i>Constraints</i> representing limits on <i>generation offers, demand bids</i>, nomination of <i>loading levels, projected outputs</i>, and, when applicable, <i>reserve offers</i> as specified by <i>Trading Participants</i> in accordance with Clause 3.5, except to the extent that as they may be relaxed in accordance with Clause 3.5.13;</p> <p>(b) <i>Constraints</i> representing the technical characteristics of <i>reserve facility categories</i>, including when applicable <i>reserve effectiveness factors</i> initially set at one (1);</p> <p>(c) <i>Energy balance equations</i> for each <i>node</i> in the <i>market network model</i> ensuring that the <i>net load forecast</i> for the end of the <i>trading interval</i> at each <i>market trading node</i> as determined by the <i>Market Operator</i> is met;</p> <p>(d) <i>Constraints</i> representing limitations on the <i>ramp rate</i> from the <i>plant status</i> deemed to apply prior to the commencement of the <i>trading interval</i>;</p> <p>(e) <i>Constraints</i> defining <i>power system reserve</i> requirements as provided by the <i>System Operator</i> under Clause 3.5.3;</p> <p>(f) <i>Network constraints</i>, as implied by the <i>market network model</i> provided by the <i>System Operator</i> under Clause 3.5.3;</p>	<p>(a) <i>Constraints</i> representing limits on <i>generation offers, demand bids</i>, nomination of <i>loading levels, projected outputs</i>, and, when applicable, <i>reserve offers</i> as specified by <i>Trading Participants</i> in accordance with Clause 3.5, except to the extent that as they may be relaxed in accordance with Clause 3.5.13;</p> <p>(b) <i>Constraints</i> representing the technical characteristics of <i>reserve facility categories</i>, including when applicable <i>reserve effectiveness factors</i> initially set at one (1) <u>joint energy and reserves capacity limits and joint energy and reserves ramping limits, where applicable;</u></p> <p>(c) <i>Energy balance equations</i> for each <i>node</i> in the <i>market network model</i> ensuring that the <i>net load forecast</i> for the end of the <i>trading</i> <u>dispatch</u> <i>interval</i> at each <i>market trading node</i> as determined by the <i>Market Operator</i> is met;</p> <p>(d) <i>Constraints</i> representing limitations on the <i>ramp rates</i> from the plants <i>status</i> <u>statuses or standing data</u> deemed to apply prior to the commencement of the <i>trading</i> <u>dispatch</u> <i>interval</i>;</p> <p>(e) <i>Constraints</i> defining <i>power system reserve</i> requirements as provided by the <i>System Operator</i> under Clause 3.5.3 <u>including co-optimized dispatch and applicable ancillary services requirements;</u></p>	<p>Design Study recommendation to remove REFs. Please see clause 10.4.10.2.</p> <ul style="list-style-type: none"> • The constraints to be considered in formulating the MDOM will include joint capacity and ramping limits. • To specify additional considerations in formulating the MDOM. • Revised (e), for consistency with amendments in clause 3.3. • Added item (l) to accommodate possible modeling of co-generation facilities, battery energy storage, pump-storage, combined-cycle and other new technologies.

Title	Section	Provision	Proposed Amendment	Rationale
		(g) to (k) xxx	<p>(f) <i>Network</i> constraints, as implied by the <i>market network model</i> <u>and any system security constraints</u> provided by the <i>System Operator</i> under Clause 3.5.3;</p> <p>xxx</p> <p><u>(l) Any additional constraints that pertain to the operational modes of generators, loads or similar facilities.</u></p>	
Model Definition	3.6.1.5	<p>The <i>market dispatch optimization</i> model shall be designed so that, subject to the approximations and adjustments provided for by clause 3.6.4:</p> <p>xxx</p> <p>c) It will produce <i>energy</i> prices for each <i>market trading node</i>, and when applicable <i>reserve price</i> for each <i>reserve region</i>, so that the recommended <i>dispatch</i> targets for each individual <i>Trading Participant</i> would be optimal for that participant at those prices, given their offers and <i>demand bids</i> and after accounting for other <i>constraints</i> which may affect that <i>Trading Participant</i>, and</p> <p>(d) It will perform its functions in accordance with the performance standards approved by the PEM Board.</p>	<p>The <i>market dispatch optimization</i> model shall be designed so that, subject to the approximations and adjustments provided for by clause 3.6.4:</p> <p>xxx</p> <p>c) It will produce <u>nodal energy dispatch prices</u> for each <i>market trading node</i>, and when applicable <i>reserve price—prices</i> for each <u>reserve category and reserve region</u>, so that the recommended <i>dispatch</i> targets for each individual <i>Trading Participant</i> would be optimal for that participant at those prices, given their offers and demand bids and after accounting for other constraints which may affect that <i>Trading Participant</i>, and</p> <p>(d) It will perform its functions in accordance with the performance standards approved by the PEM Board <u>in accordance with Clause 1.3.2.3 and 10.4.10.2.</u></p>	<ul style="list-style-type: none"> • For consistency with the defined terms in the WESM Rules • Clerical correction • References to the Market Operator performance standards were added in relation to the proposed amendments in clause 3.6.1.4.

Title	Section	Provision	Proposed Amendment	Rationale
Model Definition	3.6.1.8	<p>When restricting dispatch targets under Clause 3.6.1.7, the market dispatch optimization model shall consider the following hierarchy when a combination of the groups are to be restricted:</p> <p>(a) market offers of scheduled generating units beyond its minimum</p> <p>(b) non-scheduled generating units</p> <p>(c) priority dispatch generating units</p> <p>(d) must dispatch generating units</p> <p>(e) minimum stable load of scheduled generating units</p>	<p>When restricting dispatch targets under Clause 3.6.1.7, the market dispatch optimization model shall consider the following hierarchy when a combination of the groups are to be restricted:</p> <p>(a) market offers of scheduled generating units beyond its minimum</p> <p>(b) non-scheduled generating units</p> <p>(c) priority dispatch generating units</p> <p>(d) must dispatch generating units</p> <p>(e) minimum stable load of scheduled generating units</p>	<ul style="list-style-type: none"> • Suggest that the effectivity of this provision is only until such time that the NMMS has been deployed (which is sometime in 2017). Upon NMMS implementation, the WDS amendments will already be effective, automatically removing the Pmin provision. DOE Circular 2015-10-0015 provides that the Pmin should be removed as one of the constraints in the MDOM.
Constraint Violation Coefficients	3.6.2	Constraint Violation Coefficients	<p>Constraint Violation <u>Variables and Coefficients</u></p> <p><u>Constraints that may be relaxed in the market dispatch optimization model shall be set up with one or more non-negative violation variables and associated constraint violation coefficients to ensure that the market dispatch model will always find a solution which satisfies all constraints, if such a solution exists.</u></p>	<ul style="list-style-type: none"> • To enhance scope of section • To clarify the CVC values to ensure that the MDOM will always find a solution, in consideration of the constraints.

Title	Section	Provision	Proposed Amendment	Rationale
			<p><u>The constraint violation coefficients shall be set for:</u> <u>(a) market dispatches, and</u> <u>(b) market pricing re-runs when the market dispatch has resulted in a non-zero violation variable.</u></p>	
Constraint Violation Coefficients	3.6.2.1	<p>The <i>constraint violation coefficients</i> shall be set so as to ensure that :</p> <p>(a) the market <i>dispatch</i> model will always find a solution which satisfies all <i>constraints</i>, if such a solution exists;</p> <p>(b) the binding <i>constraints</i> are prioritized, such that <i>constraints</i> resulting in the lowest reduction in the capability of the <i>network, load or generating units</i> will occur first; and</p> <p>(c) the prices produced by the market optimization algorithm will be appropriate in all the circumstances, taking into consideration the processes defined in Clause 3.10 to adjust or override those prices for <i>settlement purposes</i>.</p>	<p>3.6.2.1 The <i>constraint violation coefficients</i> shall be set <u>for market dispatches</u> so as to ensure that:</p> <p>(a) the market dispatch model will always find a solution which satisfies all constraints, if such a solution exists; <u>and</u></p> <p>(b) the <u>violated binding</u> constraints are prioritized, such that constraints resulting in the lowest reduction in the capability of the <u>dispatches of network elements, loads or and generating units will occur first are physically feasible and reflect the priorities or how the System Operator should manage system security and reliability;</u> and</p> <p>e) the prices produced by the market optimization algorithm will be appropriate in all the circumstances, taking into consideration the processes defined in Clause 3.10 to adjust or override those prices for settlement purposes.</p>	To differentiate and define constraint violation coefficients for market dispatches and market pricing re-runs.

Title	Section	Provision	Proposed Amendment	Rationale
			<p><u>3.6.2.2 The constraint violation coefficients shall be set for market pricing re-runs so as to ensure that:</u></p> <p><u>(a) the dispatches of all network elements, loads and generating units produced by the market optimization algorithm are approximately the same as the original market dispatches; and</u></p> <p><u>(b) the prices produced by the market optimization algorithm will be appropriate in all the circumstances, taking into consideration the processes defined in section 3.10 to adjust or override those prices for market projection, dispatch and settlement purposes when there are instances of non-zero constraint violation variable values.</u></p>	
Constraint Violation Coefficients	3.6.2.2 3.6.2.3	<p>3.6.2.2 The <i>constraint violation coefficients</i> may:</p> <p>(a) Vary according to the time of day, or on any other basis as determined by the <i>Market Operator</i>;</p> <p>(b) Increase progressively as the <i>constraint</i> becomes more severe; and</p> <p>(c) Increase or decrease as a function of the length of time for which the <i>constraint</i> has been violated.</p>	<p>3.6.2.23.6.2.3 The <i>constraint violation coefficients</i> may:</p> <p>(a) Vary according to the time of day, or on any other basis as determined by the <i>Market Operator</i>;</p> <p>(b) Increase progressively as the <i>constraint violation</i> becomes more severe; and</p> <p>(c) Increase or decrease as a function of the length of time for which the constraint has been violated.</p>	<ul style="list-style-type: none"> • Re-numbering • For clarity

Title	Section	Provision	Proposed Amendment	Rationale
		<p>3.6.2.3. The <i>constraint violation coefficients</i> for the <i>nodal energy balance equations</i> referred to in Clause 3.6.1.4(c):</p> <p>(a) will be known as the <i>nodal value of lost load</i>; and</p> <p>(b) may vary from <i>node</i> to <i>node</i> and/or be set so as to reflect <i>load shedding</i> priorities.</p>	<p>3.6.2.33.6.2.4 The <i>constraint violation coefficients</i> for the <i>nodal energy balance equations</i> referred to in clause 3.6.1.4 (c):</p> <p>(a) will be known as the <i>nodal value of loss load</i> (<i>nodal VoLL</i>); and</p> <p>(b) may vary from <i>node</i> to <i>node</i> and/or be set so as to reflect load shedding <u>application of nodal loss load</u> priorities.</p>	<ul style="list-style-type: none"> • The term load shedding should not be used with this condition since this will only confuse the use of load shedding in real application.
Constraint Violation Coefficients	3.6.2.4	<p>3.6.2.4 The <i>Market Operator</i>, in coordination with the <i>System Operator</i>, and in consultation with the <i>WESM Members</i> shall regularly review the appropriateness and applicability of <i>constraint violation coefficients</i> levels in accordance with Clause 10.4.11.1; and revise as maybe necessary to ensure that it reflects the actual conditions of the <i>network</i>. Such revisions shall be approved by the <i>PEM Board</i> and shall be <i>published</i> in accordance with the <i>timetable</i>.</p>	<p>3.6.2.43.6.2.5 The <i>Market Operator</i>, in coordination with the <i>System Operator</i>, and in consultation with the <i>WESM Members</i> shall regularly review the appropriateness and applicability of <u>constraint violation variables and their associated constraint violation coefficients</u> levels in accordance with clause 10.4.11.1; and revise as maybe necessary to ensure that it reflects the actual conditions of the <i>network</i>. Such revisions shall be approved by the <i>PEM Board</i> and shall be <i>published</i> in accordance with the <i>timetable</i>.</p>	<ul style="list-style-type: none"> • Re-numbering • For clarity
Constraint Violation Coefficients		NEW	<p><u>3.6.2.6 For constraints which use two or more violation variables, all violation variables must have upper bounds other than the violation variable corresponding to the highest constraint violation coefficient.</u></p>	<p>To ensure that the MDOM will always find a solution, in consideration of the constraints.</p>

Title	Section	Provision	Proposed Amendment	Rationale
Interpretation of Model Outputs	3.6.3	The output of the <i>market dispatch optimization model</i> is to be interpreted as providing <i>energy</i> and when applicable <i>reserve dispatch targets</i> for the end of each <i>trading interval</i> to which the <i>market dispatch optimization model</i> is applied.	The output of the <i>market dispatch optimization model</i> is to be interpreted as providing <i>energy</i> and when applicable <i>reserve dispatch targets</i> for the end of each trading <i>dispatch</i> <i>interval</i> to which the <i>market dispatch optimization model</i> is applied.	Consistent with the proposed rules changes in clause 3.4.2.
Market Settlement	3.6.6	The market shall be cleared, prices determined, and <i>dispatch</i> determined according to the model results for each <i>trading interval</i> , in the form that is written. The model results shall not be challenged <i>ex-post</i> . xxx	The market shall be cleared, prices determined, and <i>dispatch</i> determined according to the model results for each trading <i>dispatch</i> <i>interval</i> , in the form that is written. The model results shall not be challenged <i>ex-post</i> . xxx	Consistent with the proposed rules changes in clause 3.4.2.
		NEW	<u>3.6.7 Automatic Pricing Re-runs</u>	To minimize PENs due to constraint violations in RTD and to eliminate manual market re-runs. The aim of this proposal is to nearly always produce ex-ante prices before the start of the dispatch interval without delay.
		NEW	<u>3.6.7.1 Should the <i>market dispatch optimization model</i> result in one or more non-zero constraint violation variable values then the <i>dispatch</i> schedules shall remain the same but the prices for <i>energy</i> and <i>reserves</i> shall be determined from an automatic re-run of the <i>market dispatch optimization model</i> with relaxed constraints.</u>	Same as proposed clause 3.6.7.

Title	Section	Provision	Proposed Amendment	Rationale
		NEW	<p><u>3.6.7.2 The purpose of the automatic market pricing re-runs is to ensure that the energy and reserve prices reflect:</u></p> <p><u>(a) the marginal costs of supplying energy at each node;</u> <u>(b) the marginal costs of supplying reserves;</u> <u>(c) shortage pricing when there is a shortage of supply at a node or regional level; and</u> <u>(d) excess pricing when there is an excess of supply at a node or regional level.</u></p> <p><u>Such methodology for shortage pricing and excess pricing shall be approved by the DOE and ERC.</u></p>	Same as proposed clause 3.6.7.
		NEW	<p><u>3.6.7.3 The automatic re-run of the dispatch optimization shall use the following changes to any of the constraints that had non-zero constraint violation variable values:</u></p> <p><u>(a) For each nodal energy balance constraint that was violated, the constraint violation coefficient for the new violation variable shall be set; and</u> <u>(b) For all other constraints that were violated, each constraint's requirement shall be reduced by the minimum amount</u></p>	Same as proposed clause 3.6.7.

Title	Section	Provision	Proposed Amendment	Rationale
			<u>to a level that prevents a violation of that requirement.</u>	
		NEW	<u>3.6.7.4 The automatic re-run shall solve the market dispatch optimization model with the reduced nodal energy and other violated constraint's requirements.</u>	Same as proposed clause 3.6.7.
		NEW	<u>3.6.7.5 The prices determined from the automatic pricing re-run shall be the prices used for projections, dispatch schedules and settlements.</u>	Same as proposed clause 3.6.7.
		NEW	<u>3.6.7.6 The automatic re-run process of detecting non-zero constraint violation variable values, setting up the relaxed dispatch optimization and solving it shall occur as quickly as possible or the time nominated in the Market Operator's published performance standards as required in clause 1.3.2.3.</u>	Same as proposed clause 3.6.7.
		NEW	<u>3.6.7.7 Subject to the procedures published in accordance with WESM Rules Clause 3.6.7.8, the Market Operator may implement automatic pricing re-runs even where the market dispatch optimization model does not reflect non-zero constraint violation variable values.</u>	Same as proposed clause 3.6.7.
		NEW	<u>3.6.7.8 Subject to the procedures approved by the DOE the Market Operator shall develop and publish the procedures of the automatic pricing re-runs. Such</u>	<ul style="list-style-type: none"> • Same as proposed clause 3.6.7. • For transparency

Title	Section	Provision	Proposed Amendment	Rationale
			<u>procedures shall provide the criteria and conditions for performing the automatic pricing re-runs.</u>	
Market Projections	3.7	The <i>Market Operator</i> shall prepare and <i>publish week ahead projections and day-ahead projections</i> using the <i>market dispatch optimization model</i> , in accordance with the <i>timetable</i> .	The <i>Market Operator</i> shall prepare and <i>publish week ahead projections</i> , and day ahead projections, <u>and hour ahead projections</u> using the <i>market dispatch optimization model</i> , in accordance with the <i>timetable</i> .	For consistency with the proposed amendments in clause 3.1.
Week Ahead Projections	3.7.1	xxx 3.7.1.2 <i>Market projections</i> shall be prepared for all <i>trading intervals</i> within the relevant <i>market horizon</i> as defined in the <i>timetable</i> .	xxx 3.7.1.2 Market <u>Week ahead projections</u> shall be prepared for all trading <u>one (1) hour</u> intervals within the relevant <i>market horizon</i> as defined in the <i>timetable</i> . <u>3.7.1.3 Week ahead projections shall be based on the market dispatch optimization model defined in Clause 3.6 based on input data prepared by the Market Operator over the appropriate time horizon in accordance with clause 3.7.4.</u>	Clarify basis of WAP.
Day Ahead Projections	3.7.2	xxx 3.7.2.2 <i>Market projections</i> shall be prepared for all <i>trading intervals</i> within the relevant <i>market horizon</i> as defined in the <i>timetable</i> .	xxx 3.7.2.2 Market <u>Day ahead projections</u> shall be prepared for all trading <u>one (1) hour</u> intervals <u>starting from the succeeding interval for up to the end of the next trading day, with load scenarios,</u> within the relevant <i>market horizon</i> as defined in the <i>timetable</i> .	Clarify basis and timeline of DAP

Title	Section	Provision	Proposed Amendment	Rationale
			<p><u>3.7.2.3 Day ahead projections shall be determined by running the <i>market dispatch optimization model</i> defined in Clause 3.6 with input data prepared by the <i>Market Operator</i> over the appropriate time horizon in accordance with Clause 3.7.4.</u></p>	
		<p>NEW</p>	<p><u>3.7.3 Hour Ahead Projections</u></p> <p><u>3.7.3.1 Hour ahead projections shall be prepared using the <i>market dispatch optimization model</i> by the <i>Market Operator</i> and published at every <i>dispatch interval</i>, in accordance with the <i>timetable</i>, to assist <i>Trading Participants</i> to anticipate and respond to <i>spot market conditions</i> which might reasonably be expected to occur over the next hour.</u></p> <p><u>3.7.3.2 Hour ahead projections shall be prepared for all <i>dispatch intervals</i> within the relevant <i>market horizon</i> as defined in the <i>timetable</i>.</u></p> <p><u>3.7.3.3 Hour ahead projections shall be determined by running the <i>market dispatch optimization model</i> defined in Clause 3.6 with input data prepared by the <i>Market Operator</i> over the appropriate time horizon in accordance with Clause 3.7.4.</u></p>	<p>If the dispatch interval were reduced to 5-minutes then there would be a period of up to 1-hour for which the market participant has no forward information. Per IES' Phase 2 Report, there is the potential for a "blind spot" between the present (RTD) dispatch interval and the first trading period of the DAP. To address this, the proposed "hour ahead projection" (HAP) will augment the RTD and fill in the gap (or "blind spot") between RTD and DAP. The HAP process would essentially extend the RTD process into the future for a 1 hour period, with the same resolution as the RTD process (5-minutes or 10-minutes). The HAP process would facilitate generators in making short-term decisions and provides a short-term assessment of market outcomes.</p>

Title	Section	Provision	Proposed Amendment	Rationale
Preparation of Market Projections	3.7.3	<p>3.7.3 Preparation of Market Projections</p> <p>3.7.3.1 Each <i>market projection</i> shall take into consideration:</p> <p>xxx</p> <p>3.7.3.2 xxx</p> <p>3.7.3.3 The Market Operator shall prepare a <i>market projection</i> corresponding to each <i>load scenario</i> developed under Clause 3.7.3.2.</p> <p>3.7.3.4 xxx</p> <p>3.7.3.5 <i>Market projections</i> shall be prepared by the <i>Market Operator</i> through the application of the <i>market dispatch optimization model</i> to all <i>trading intervals</i> within the relevant <i>market horizon</i> as defined in the <i>timetable</i>.</p>	<p>3.7.3.3.7.4 Preparation of Market Projections</p> <p>3.7.3.13.7.4.1 Each <i>market projection</i> shall take into consideration:</p> <p>xxx</p> <p>3.7.3.23.7.4.2xxx</p> <p>3.7.3.33.7.4.3 The Market Operator shall prepare a market projection corresponding to each load scenario developed under Clause 3.7.3.23.7.4.2.</p> <p>3.7.3.43.7.4.4 xxx</p> <p>3.7.3.53.7.4.5 <i>Market projections</i> shall be prepared by the <i>Market Operator</i> through the application of the <i>market dispatch optimization model</i> to all trading<u>one (1) hour</u> intervals or dispatch intervals, as applicable, within the relevant <i>market horizon</i> as defined in the <i>timetable</i>.</p>	<ul style="list-style-type: none"> • Re-numbering • In accordance with the proposed amendments in clause 3.1
Preparation of Market Projections	3.7.3	<p>3.7.3.6 When preparing a <i>market projection</i>, the starting conditions for each successive <i>trading interval</i> shall be determined in respect of:</p> <p>(a) the first <i>trading interval</i>, as the actual, or expected, <i>power system</i> conditions at the time of the commencement of the <i>market projection</i>; and</p>	<p>3.7.3.63.7.4.6 When preparing a <u>week ahead projections and day ahead market projection projections</u>, the starting conditions for each successive <i>trading</i><u>one (1) hour</u> interval shall be determined in respect of:</p> <p>(a) the first <i>trading</i><u>one (1) hour</u> interval, as the actual, or expected, <i>power system</i> conditions at the time of the commencement</p>	<ul style="list-style-type: none"> • Re-numbering • To clarify that the starting conditions in clause 3.7.4.6, as revised, apply to the WAP and DAP • In accordance with the proposed amendments in clause 3.1

Title	Section	Provision	Proposed Amendment	Rationale
		(b) subsequent <i>trading intervals</i> , as the projected <i>power system</i> conditions determined by the <i>market dispatch optimization model</i> for the end of the previous <i>trading interval</i> in that <i>market projection</i> . 3.7.3.7 xxx 3.7.3.8 xxx	of the <i>market projection</i> ; and (b) subsequent trading one (1) hour intervals, as the projected <i>power system</i> conditions determined by the <i>market dispatch optimization model</i> for the end of the previous trading one (1) hour interval in that <i>market projection</i> . 3.7.3.7 3.7.4.7 xxx 3.7.3.8 3.7.4.8 xxx	
Preparation of Market Projections	3.7.3	NEW	<u>3.7.4.9 When preparing hour ahead projections, the starting conditions for each successive dispatch interval shall be determined as follows:</u> <u>(a) In respect of the first dispatch interval, as the projected power system conditions determined by the market dispatch optimization model that was used to determine targets for the end of the current dispatch interval; and</u> <u>(b) In respect of subsequent dispatch intervals, as the projected power system conditions determined by the market dispatch optimization model for the end of the previous dispatch interval executed as part of the hour ahead projection.</u>	To provide the starting conditions for the HAP
Published Information	3.7.4	3.7.4 Published Information	3.7.4 3.7.5 Published Information	For consistency.

Title	Section	Provision	Proposed Amendment	Rationale
		<p>3.7.4.1 Based on the information referred to in Clause 3.7.3, each <i>market projection</i> published by the <i>Market Operator</i> in accordance with the <i>timetable</i> specified in the relevant <i>Market Manuals</i> shall contain the following information for each <i>trading interval</i> in the period covered by the <i>market projection</i>:</p> <p>(a) The assumed <i>net load forecast</i> at each market <i>network node</i>, plus required <i>reserves</i> for each <i>reserve region</i>;</p> <p>xxx</p> <p>(e) Projected aggregate cleared <i>reserve quantities</i> for <i>reserve regions</i> and <i>reserve facility categories</i>;</p> <p>xxx</p> <p>(h) Identification and quantification of:</p> <p>(i) projected <i>load shedding</i> requirement;</p> <p>xxx</p>	<p>3.7.4.13.7.5.1 Based on the information referred to in cClause 3.7.33.7.4, each <i>market projection</i> published by the <i>Market Operator</i> in accordance with the <i>timetable</i> specified in the relevant <i>Market Manuals</i> shall contain the following information for each <i>trading interval</i> <u>dispatch interval or one (1) hour interval, as applicable</u>, in the period covered by the <i>market projection</i>:</p> <p>(a) The assumed net load forecast at each market network node, plus required reserves for each reserve region;</p> <p>xxx</p> <p>(e) Projected aggregate cleared reserve quantities <u>schedules</u> for <i>reserve region</i> and <i>reserve facility categories</i>;</p> <p>xxx</p> <p>(h) Identification and quantification of:</p> <p>(i) projected load shedding <u>nodal loss of load</u> requirement;</p> <p>xxx</p> <p>(iv) trading <u>One (1) hour intervals or</u></p>	<p>Re-numbering</p>

Title	Section	Provision	Proposed Amendment	Rationale
		(iv) <i>trading intervals</i> for which low or inadequate capacity margins are projected to apply; and (v) projected congestion on <i>market network lines</i> ; and (vi) <i>constraint violation coefficients</i> .	<u><i>dispatch intervals</i></u> for which low or inadequate capacity margins are projected to apply; and (v) projected congestion on <i>market network lines</i> ; and (vi) constraint <u>Non-zero constraint violation variables and their associated constraint violation coefficients</u> .	
Responsibilities of the Market Operator	3.8.1	Prior to commencement of each <i>trading interval</i> , the <i>Market Operator</i> shall, in consultation with the <i>grid operator</i> , and in accordance with the <i>timetable</i> prescribed in the relevant <i>Market Manuals</i> : (a) Determine, or estimate, the <i>status</i> of all <i>generation facility</i> for that <i>trading interval</i> ; (b) Prepare a <i>forecast</i> of the unrestrained <i>net load</i> expected at each <i>market trading node</i> for the end of that <i>trading interval</i> ; (c) Adjust that unrestrained <i>net load forecast</i> to account for <i>load shedding</i> , if required, in accordance with Clause 3.9.5; (d) Determine the most appropriate <i>network</i>	Prior to commencement of each <i>trading</i> <u>dispatch interval</u> , the <i>Market Operator</i> shall, in consultation with the <i>grid operator</i> <u>System Operator</u> , and in accordance with the <i>timetable</i> prescribed in the relevant <i>Market Manuals</i> : (a) Determine, or estimate, the <i>status</i> of all <i>generation facility</i> for that <i>trading</i> <u>dispatch interval</u> ; (b) Prepare a <i>forecast</i> of the unrestrained <i>net load</i> expected at each market <i>trading node</i> for the end of that <i>trading</i> <u>dispatch interval</u> ; (c) Adjust that unrestrained <i>net load forecast</i> to account for <i>load shedding</i> <u>nodal loss of load</u> , if required, in accordance with Clause 3.9.5; (d) Determine the most appropriate <i>network</i> configuration and state to be assumed for the	<ul style="list-style-type: none"> • Consistent with the proposed amendment in clause 3.1 on the implementation of dispatch interval. • For clarity, grid operator was replaced with SO. • Requires MO to submit to the SO the hour ahead Merit-Order Table ranked prior commencement of each dispatch interval.

Title	Section	Provision	Proposed Amendment	Rationale
		<p>configuration and state to be assumed for the end of that <i>trading interval</i>;</p> <p>(e) Use the <i>market dispatch optimization model</i> to determine the <i>target loading level</i> in MW for each <i>scheduled generating unit, must dispatch generating unit, priority dispatch generating unit, non-scheduled generating unit, scheduled load and reserve facility</i> for the end of that <i>trading interval</i> using the latest data from the <i>System Operator and Trading Participants</i>;</p> <p>(f) Submit to the <i>System Operator</i> the <i>dispatch schedule</i> containing the <i>target loading levels</i> to be achieved at the end of that <i>trading interval</i>, determined in accordance with Clause 3.8.1 (e).</p> <p>(g) Send to all <i>Trading Participants</i> a <i>dispatch schedule</i> that contains <i>target loading levels</i> in respect of their <i>scheduled generating unit, must dispatch generating unit, priority dispatch generating unit and non-scheduled generating units</i> calculated under Clause 3.8.1(e) for each trading interval prior to the commencement of that <i>trading interval</i> in accordance with the relevant <i>Market Manuals</i>; and</p>	<p>end of that <i>trading</i>-<i>dispatch</i> <i>interval</i>;</p> <p>(e) Use the <i>market dispatch optimization model</i> to determine the <i>target loading level</i> in MW for each <i>scheduled generating unit, must dispatch generating unit, priority dispatch generating unit, non-scheduled generating unit, scheduled load and reserve facility</i> for the end of that <i>trading</i>-<i>dispatch</i> <i>interval</i> using the latest data from the <i>System Operator and Trading Participants</i>;</p> <p>(f) Submit to the <i>System Operator</i> the <i>dispatch schedule</i> containing the <i>target loading levels</i> to be achieved at the end of that <i>trading</i>-<i>dispatch</i> <i>interval</i>, determined in accordance with Clause 3.8.1 (e).</p> <p>(g) Send to all <i>Trading Participants</i> a <i>dispatch schedule</i> that contains <i>target loading levels</i> in respect of their <i>scheduled generating unit, must dispatch generating unit, priority dispatch generating unit and non-scheduled generating units</i> calculated under Clause 3.8.1(e) for each <i>trading</i>-<i>dispatch</i> <i>interval</i> prior to the commencement of that <i>trading</i>-<i>dispatch</i> <i>interval</i> in accordance with the relevant <i>Market Manuals</i>; and</p>	

Title	Section	Provision	Proposed Amendment	Rationale
		(h) xxx	(h) xxx; <u>and</u> (i) <u>Submit to the System Operator the hour ahead Merit-Order Table ranked from lowest to highest which shall be based on the offers prior the start of a one(1) hour settlement interval.</u>	
Responsibilities of the System operator	3.8.2.1	<p>During each <i>trading interval</i>, the <i>System Operator</i> shall use its reasonable endeavors to:</p> <p>(a) Implement the <i>dispatch</i> targets determined by the <i>Market Operator</i>;</p> <p>(b) Maintain <i>system security</i> consistent with the requirements of the <i>Grid Code</i>;</p> <p>(c) Implement <i>load shedding</i>, if necessary, as provided by Clause 3.9;</p> <p>(d) <i>Dispatch constrain-on</i> or <i>constrain-off</i> generators or <i>must-run units</i> if all</p>	<p>During each <u>five (5) minutes dispatch trading-interval</u>, the <i>System Operator</i> shall use its reasonable endeavors to:</p> <p>(a) <u>Monitor the implementation of the dispatch targets as determined by the Market Operator at the end of that dispatch interval;</u></p> <p><u>(b) Implement the hour ahead Merit-Order Table provided by the Market Operator;</u></p> <p>(b)(c) Maintain <i>system security</i> consistent with the requirements of the <i>Grid Code</i>;</p>	<ul style="list-style-type: none"> • Consistent with the proposed amendment in clause 3.1 on the implementation of dispatch interval. • Deleted specific reserve categories to align with the proposed amendments in clause 3.3. • The inclusion of MRU as other types of Ancillary Service is subject to the approval of ERC based on the latest ASPP of NGCP. For the meantime, this statement should be deleted first so as not to confuse the application of ancillary reserves.

Title	Section	Provision	Proposed Amendment	Rationale
		<p>available <i>frequency</i> regulation and <i>contingency reserves</i> are exhausted during a <i>trading interval</i>. The <i>System Operator</i> may also <i>dispatch</i> generators as <i>must-run units</i> in specific <i>grid</i> areas which have become isolated from the rest of the <i>grid</i> and in which the <i>Market Operator</i> cannot determine the generator schedules;</p> <p>(e) In relation to (d) above, the <i>System Operator</i> shall incorporate to its <i>ancillary service</i> procurement plan <i>must-run units</i> as an additional <i>type</i> of <i>ancillary service</i>. For this purpose, the criteria and procedures developed under Clause 3.5.13 shall be revised accordingly; and</p> <p>(f) Intervene, where necessary, as provided by Clauses 6.3 and 6.5.</p>	<p>(e)(d) Implement <i>load shedding</i>, if necessary, as provided by Clause 3.9;</p> <p>(d)(e) Dispatch constrain-on or constrain-off generators or <i>must-run units</i> if all available frequency regulation and contingency reserves are exhausted during a trading <i>dispatch</i> interval. The <i>System Operator</i> may also dispatch generators as <i>must-run units</i> in specific <i>grid</i> areas which have become isolated from the rest of the <i>grid</i> and in which the <i>Market Operator</i> cannot determine the generator schedules;</p> <p>(e) (f) In relation to (d) above, the <i>System Operator</i> shall incorporate to its ancillary service procurement plan <i>must-run units</i> as an additional type of <i>ancillary service</i>. For this purpose, the criteria and procedures developed under Clause 3.5.13 shall be revised accordingly; and</p> <p>(f) (g) Intervene, where necessary, as provided by Clauses 6.3 and 6.5.</p>	
	3.8.2.2	After each <i>trading interval</i> , in accordance	After each trading one (1) hour interval, in	Consistent with the proposed

Title	Section	Provision	Proposed Amendment	Rationale
		<p>with the <i>timetable</i> prescribed in the relevant <i>Market Manuals</i>, the <i>System Operator</i> shall advise the <i>Market Operator</i> of:</p> <p>(a) situations in which it became necessary for <i>dispatch</i> instructions to deviate from the <i>dispatch</i> targets determined by the <i>Market Operator</i> during the <i>trading interval</i> which may include the <i>dispatch</i> of the <i>constrain-on</i> or <i>constrain-off</i> generators or <i>must-run units</i>;</p> <p>(b) <i>load shedding</i> or other directions issued by the <i>System Operator</i> during the <i>trading interval</i>;</p> <p>(c) significant incidents in which <i>contingency reserve</i> was called upon during the <i>trading interval</i>;</p> <p>(d) <i>network constraints</i> which affected <i>dispatch</i> during the <i>trading interval</i>;</p> <p>(e) binding security <i>constraints</i> which affected <i>dispatch</i> during the <i>trading interval</i>; and</p>	<p>accordance with the <i>timetable</i>, the <i>System Operator</i> shall advise the <i>Market Operator</i> of:</p> <p>(a) situations in which it became necessary for dispatch instructions to deviate from the dispatch targets determined by the <i>Market Operator</i>. during the trading interval which may include the dispatch of the constrain-on or constrain-off generators or must-run units;</p> <p>(b) <i>load shedding</i> or other directions issued by the <i>System Operator</i> during the trading that one (1) hour interval;</p> <p>(c) significant incidents in which contingency reserve ancillary services was called upon during the trading that one (1) hour interval;</p> <p>(d) <i>network constraints</i> which affected dispatch during the trading that one (1) hour interval;</p> <p>(e) binding security <i>constraints</i> which affected dispatch during the trading that one (1) hour interval; and</p> <p>(f) operational irregularities arising during the trading that one (1) hour interval including but not limited to any circumstances in which there was prima facie evidence of a failure to</p>	<p>amendment in clause 3.1 and 3.3.</p> <p>Deletion in (a) since dispatch targets are determined every dispatch interval.</p> <p>Changes in (b) to (g), for clarity.</p>

Title	Section	Provision	Proposed Amendment	Rationale
		<p>(f) operational irregularities arising during the <i>trading interval</i> including but not limited to any circumstances in which there was prima facie evidence of a failure to follow <i>dispatch</i> instructions.</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 <i>must-run</i> during a <i>trading interval</i>.</p> <p>(g) The following information in respect of <i>must dispatch generating units</i> and <i>priority dispatch generating units</i>:</p> <p>(i) any output restrictions imposed by the <i>System Operator</i> or <i>Market Operator</i> on <i>must dispatch generating units</i> and <i>priority dispatch generating units</i>;</p> <p>(ii) the compliance of those units with those output restrictions;</p>	<p>follow <i>dispatch</i> instructions; <u>and</u></p> <p>(g) 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> <u>and the dispatch conformance standards in Clause 3.8.5</u>, detailing among others the circumstances and dispatch levels of units that were constrained-on or constrained-off or put on <i>must-run</i> during a <i>trading</i> <u>that one (1) hour interval</u>.</p>	

Title	Section	Provision	Proposed Amendment	Rationale
		<p>(iii) the compliance of <i>must dispatch generating units</i> and <i>priority dispatch generating units</i> with the other operating parameters imposed by the <i>Grid Code</i>; and</p> <p>(iv) any other information prescribed in the relevant <i>Market Manuals</i>.</p>		
	3.8.2.3	<p>Before each <i>trading interval</i>, in accordance with the <i>timetable</i> prescribed in the relevant <i>Market Manuals</i>, the <i>System Operator</i> shall submit to the <i>Market Operator</i> the <i>variable renewable energy aggregated generation forecast</i> for each interconnected system it operates in accordance with the <i>Grid Code</i>.</p>	<p>Before each <i>trading</i> <i>dispatch interval</i>, in accordance with the timetable prescribed in the relevant <i>Market Manuals</i>, the <i>System Operator</i> shall submit to the <i>Market Operator</i> the variable renewable energy aggregated generation forecast for each interconnected system it operates in accordance with the <i>Grid Code</i>.</p>	<p>Consistent with the proposed amendment in clause 3.1 on the implementation of dispatch interval.</p>
Communication of target loading levels	3.8.3.1	<p>The <i>System Operator</i> and <i>Trading Participants</i> shall communicate with each other with regard to the <i>target loading levels</i> for each <i>trading interval</i> prior to the commencement of that <i>trading interval</i> in accordance with the timetable and consistent with the <i>Grid Code</i>.</p>	<p><u>3.8.3.1 All dispatch targets shall be specified in units of megawatt (MW) and will apply to the end of the relevant dispatch interval unless otherwise stated.</u></p> <p>3.8.3.13.8.3.2 <u>3.8.3.2</u> The <i>System</i> <i>Market Operator</i> and <i>Trading Participants</i> shall communicate <u>the target loading levels</u> to with each <i>other</i> <u>the Trading Participants through the market participant interface</u> with regard to</p>	<p>Consistent with the proposed amendment in clause 3.1 on the implementation of dispatch interval.</p>

Title	Section	Provision	Proposed Amendment	Rationale
			the target loading levels for each trading interval prior to the commencement of that trading interval in accordance with the timetable . and consistent with the Grid Code.	
	3.8.2.3 3.8.3.3	3.8.3.2 xxx 3.8.3.3 Subject to Clause 3.8.3.4, if, in real-time, the available generation 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>trading interval</i> , shall adjust the <i>dispatch</i> of other generating units, to compensate as required in accordance with relevant <i>Market Manuals</i> . 3.8.3.4 xxx 3.8.3.5 xxx	3.8.3.23.8.3.3 xxx 3.8.3.33.8.3.4 Subject to Clause 3.8.3.4 3.8.3.5 , if, in real-time, the available generation 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 trading dispatch interval, shall adjust the <i>dispatch</i> of other generating units, to compensate as required in accordance with relevant <i>Market Manuals</i> . 3.8.3.43.8.3.5 xxx 3.8.3.53.8.3.6 xxx	<ul style="list-style-type: none"> • Consistent with the proposed amendment in clause 3.1 on the implementation of dispatch interval. • Re-numbering
Dispatched Trading Participants	3.8.4.1	<i>Scheduled generating units and priority dispatch generating units</i> who are <i>dispatched</i> shall use reasonable endeavors to achieve a <i>linear ramp rate</i> over the <i>trading interval</i> to reach the <i>target loading</i>	<i>Scheduled generating units and priority dispatch generating units</i> who are dispatched shall use reasonable endeavors to achieve a linear ramp rate over the trading interval to reach the <i>target loading</i> level by the end of	Consistent with the proposed amendment in clause 3.1 on the implementation of dispatch interval.

Title	Section	Provision	Proposed Amendment	Rationale
		<p>level by the end of that <i>trading interval</i> and within the <i>dispatch tolerances</i> specified in Clause 3.8.7 and those <i>Trading Participants</i> should not be required to operate in any different fashion unless required to:</p> <p>(a) Respond in accordance with reserve or ancillary service contracts; or</p> <p>(b) Respond to a direction in accordance with Clauses 6.3 and 6.5.</p>	<p>that <i>trading-dispatch interval</i> and within the dispatch tolerances specified in clause 3.8.7 conformance standards specified in clause 3.8.5 and those <i>Trading Participants</i> should not be required to operate in any different fashion unless required to:</p> <p>(a) Respond in accordance with reserve or ancillary service contracts; or</p> <p>(b) Respond respond to a direction in accordance with Clauses 6.3 and 6.5.</p>	<ul style="list-style-type: none"> • Conformance standards refer to the automated monitoring system that is necessary for the System Operator to adequately monitor compliances with a shorter dispatch interval. See clause 3.8.5, as revised • Deletion of the requirement for linear ramping with the implementation of 5-minute dispatch interval. See clause 3.8.5. • Deletion of (a) since the dispatch conformance standards under clause 3.8.5, as amended, cover both energy and reserves.
	3.8.4.4	<p><i>A must dispatch generating unit</i> shall generate at its maximum available output at all times, unless the <i>Market Operator</i> or <i>System Operator</i> has instructed the <i>generating unit</i> to restrict output under Clauses 3.8.1(h) or 3.8.3.4.</p>	<p>A must dispatch generating unit shall generate at its maximum available output at all times, unless the Market Operator or System Operator has instructed the generating unit to restrict output under Clauses 3.8.1(h) or 3.8.3.4 3.8.3.5.</p>	<p>Change in reference clause for consistency with the Re-numbering in 3.8.3.</p>
Ramp Rate of Trading Participant	3.8.5	<p>Where applicable, <i>Trading Participants</i> will be assumed to have a linear <i>ramp rate</i> over that <i>trading interval</i> to reach the <i>target loading levels</i> by the end of <i>that trading interval</i>.</p>	<p>Where applicable, <i>Trading Participants</i> will be assumed to have a linear <i>ramp rate</i> over that <i>trading interval</i> to reach the <i>target loading levels</i> by the end of <i>that trading interval</i>.</p>	<p>Deletion of the requirement for linear ramping with the implementation of 5-minute dispatch interval. Linear ramping, which mitigates intra-hour deviations in the current 1-hour dispatch interval is necessary. However, with the 5-minute dispatch, it will be more practical to monitor compliance with</p>

Title	Section	Provision	Proposed Amendment	Rationale
Deviations from the Ramp Rate	3.8.6	<p>If <i>Trading Participants</i> in some part of the <i>power system</i> deviate in aggregate from the assumed linear <i>ramp rate</i> for any reason or as a result of any cause including the initiation of <i>load shedding</i> under Clause 3.9.3, these deviations shall be dealt with by the <i>System Operator</i>, utilizing the <i>reserves</i> or other <i>ancillary services</i> scheduled to deal with such circumstances, in accordance with Clause 3.3.</p> <p><i>Trading Participants</i> are required to comply with linear ramping in any <i>trading interval</i>. Otherwise, the <i>Market Operator</i> or the <i>System Operator</i> shall report the generator to the <i>Market Surveillance Committee</i>.</p>	<p>If <i>Trading Participants</i> in some part of the <i>power system</i> deviate in aggregate from the assumed linear <i>ramp rate</i> for any reason or as a result of any cause including the initiation of <i>load shedding</i> under Clause 3.9.3, these deviations shall be dealt with by the <i>System Operator</i>, utilizing the <i>reserves</i> or other <i>ancillary services</i> scheduled to deal with such circumstances, in accordance with Clause 3.3.</p> <p><i>Trading Participants</i> are required to comply with linear ramping in any <i>trading interval</i>. Otherwise, the <i>Market Operator</i> or the <i>System Operator</i> shall report the generator to the <i>Market Surveillance Committee</i></p>	<p>dispatch targets instead of monitoring linear ramping of all generating units every 5 minutes.</p> <p>Consistent with clause 3.8.5.</p>
Dispatch Tolerances	3.8.7	3.8.7 Dispatch Tolerances	<p>3.8.7 3.8.5 Dispatch Tolerances – Conformance Standards</p>	<ul style="list-style-type: none"> • Conformance is presently assessed on a trading interval basis and is the joint responsibility of MO and SO. We propose to adopt the recommendation provided in Section 4.8 of the WDS Phase 2 Report for an enhanced monitoring system to cover both energy and reserve services. • Re-numbering

Title	Section	Provision	Proposed Amendment	Rationale
Dispatch Tolerances	3.8.7	<p>3.8.7.1 <i>Dispatch tolerances</i> shall be set to allow limits on the extent to which scheduled generating units, and priority dispatch generating units may deviate from dispatch targets issued by the <i>System Operator</i>.</p> <p>3.8.7.2 The Market Operator shall maintain and publish dispatch tolerances standards developed by the System Operator for each type of plant, and location, in accordance with Clause 3.8.7, the Grid Code, and the Distribution Code.</p>	<p>3.8.7.13.8.5.1 <i>Dispatch tolerances</i> shall be set to allow limits on the extent to which scheduled generating units, and priority dispatch generating units may deviate from dispatch targets issued by the <i>System Operator</i>.</p> <p><u>The Market Operator, in consultation with the System Operator and Trading Participants, shall develop dispatch conformance standards to be set forth in the relevant Market Manual.</u></p> <p><u>3.8.5.2 The dispatch conformance standards shall be consistent with the Grid Code and Distribution Code and shall be set for each type of plant.</u></p> <p><u>3.8.5.3 The Market Operator, in consultation with the System Operator and Trading Participants, shall establish the procedures for the:</u></p> <p><u>(a) application of the dispatch conformance standards for registered generating units or scheduled load facilities;</u></p> <p><u>(b) development and application of</u></p>	<ul style="list-style-type: none"> • Same as clause 3.8 • Re-numbering <ul style="list-style-type: none"> • Dispatch conformance standards shall also provide the development of standards and how these standards will be applied for Intending WESM Members who may have facilities that are undergoing commissioning or registered WESM Members with newly registered generating units or scheduled load facilities that may be new technologies. Such

Title	Section	Provision	Proposed Amendment	Rationale
			<p><u>dispatch conformance standards for Intending WESM Members;</u></p> <p><u>(c) monitoring and reporting of non-compliances; and</u></p> <p><u>(d) events that a facility has been identified to be non-conforming.</u></p> <p>3.8.7.2 The Market Operator shall maintain and publish dispatch tolerances standards developed by the System Operator for each type of plant, and location, in accordance with Clause 3.8.7, the Grid Code, and the Distribution Code.</p>	<p>requirement was previously provided under clauses 2.3.3.5 and 2.3.3.6 with respect to dispatch tolerances.</p>
Dispatch Tolerances	3.8.7	NEW	<p><u>3.8.5.4 Checking for non-conformance shall take into account any ancillary service schedule, ancillary service responses, or emergency directions issued to dispatched Trading Participants, or the operation of a generation unit at its minimum stable level.</u></p> <p><u>3.8.5.5 The Market Operator shall implement the procedures in clauses 3.8.5.1 and 3.8.5.3 through a system to automatically check for non-conformance.</u></p>	<p>As further provided in Section 4.8 of the WDS Phase 2 Report, we propose to implement an automated conformance monitoring system (ACMS). The benefits of ACMS are:</p> <ul style="list-style-type: none"> • reduced manual intervention or human error; • enhanced transparency since participants will know the details of the algorithm(s) used to check for conformance; and • consistency between the MO and SO in the implementation of ACMS

Title	Section	Provision	Proposed Amendment	Rationale
			<p><u>3.8.5.6</u> <i>The Market Operator, in consultation with the System Operator and Trading Participants, shall periodically review the application and the appropriateness of the procedures in clauses 3.8.5.1 and 3.8.5.3.</i></p> <p><u>3.8.5.7</u> <i>The Market Operator shall maintain and publish the dispatch conformance standards in clause 3.8.5.1 and 3.8.5.3.</i></p>	
Sanctions of Trading Participants	3.8.8	<p><i>Any Trading Participant who consistently fails to use its reasonable endeavors to act in accordance with dispatch schedules issued under Clause 3.8.1(g), dispatch instructions issued by the System Operator, or who breaches the dispatch tolerance standards published under Clause 3.8.7.2, may be liable of a sanction imposed under Clause 7.2.</i></p>	<p>3.8.8<u>3.8.6</u> <i>Any Trading Participant who consistently fails to use its reasonable endeavors to act in accordance with dispatch schedules issued under Clause 3.8.1(g), dispatch instructions issued by the System Operator, or who breaches the dispatch tolerance—conformance standards published under clause 3.8.7.2<u>3.8.5.7</u>, may be liable of a sanction imposed under Clause 7.2.</i></p>	<ul style="list-style-type: none"> • For consistency with the proposed amendments in clause 3.8 • The parties who will pay for the constrained-on and constrained-off generating units will be identified under the cost recovery mechanism in clause 3.13.13.3, as amended. • Re-numbering
Market Operator Advice on Load Shedding	3.9.1	<p>Direction to Conduct Load Shedding</p> <p><i>The System Operator may direct a WESM Member to conduct load shedding in response to:</i></p>	<p>Direction to Conduct Load Shedding</p> <p><i>The System Operator may direct a WESM Member to conduct load shedding in response</i></p>	<p>Clarifies on what may trigger load shedding</p>

Title	Section	Provision	Proposed Amendment	Rationale
		<p>(a) an overall shortage of <i>energy</i> at a <i>node</i> or in a region specified in the <i>market network model</i>; or</p> <p>(b) other <i>network</i> conditions, as determined by the <i>System Operator</i> in accordance with the procedures established under the <i>Grid Code</i> and <i>Distribution Code</i></p>	<p>to:</p> <p>(a) an overall shortage of supply capacity to meet the demand energy at a node or in a region as specified by the System Operator in the market network model; or;</p> <p>(b) Other network conditions, as determined by the <i>System Operator</i> in accordance with the security and reliability guidelines procedures established under the Grid Code and Distribution Code.</p>	
	3.9.2	<p>Market Operator Advice on Load Shedding</p> <p>In the event that:</p> <p>(a) <i>day-ahead projections</i> performed under Clause 3.7, or</p> <p>(b) <i>dispatch optimization</i> performed under Clause 3.8, indicate that <i>nodal energy prices</i> are expected to be equal to, or exceed, <i>nodal value of lost load</i> at any <i>Customer nodes</i> in the <i>market network model</i>, then the <i>Market Operator</i> shall immediately inform the <i>System Operator</i> of the likelihood of initiating <i>load shedding</i> at those <i>nodes</i>.</p>	<p>Market Operator Advice on Load Shedding Nodal Loss of Load</p> <p>In the event that:</p> <p>(a) <i>day ahead projections</i> performed under clause 3.7; or</p> <p>(b) <i>dispatch optimization</i> performed under clause 3.8 indicates that nodal loads are expected to be reduced by the presence of non-zero nodal energy constraint violation variables or nodal energy dispatch prices which are expected to be equal to, or exceed, <i>nodal value of lost load</i> at any <i>Customer market trading nodes</i> in the <i>market network model</i>, then the <i>Market Operator</i> shall immediately inform the <i>System Operator</i> of</p>	<ul style="list-style-type: none"> • Correct the section title • Clarify content of MO's advice to SO on load shedding

Title	Section	Provision	Proposed Amendment	Rationale
			<p>the presence of nodal loss of load. of the likelihood of initiating load shedding at those nodes.</p>	
	3.9.3	<p>System Operator Responsibility to Initiate Load Shedding</p> <p>The <i>System Operator</i>:</p> <p>(a) shall, if advised by the <i>Market Operator</i> under Clause 3.9.2, consider the need to initiate <i>load shedding</i> at those <i>nodes</i> or at other <i>nodes</i>, after taking account of the <i>load shedding targets</i> from the relevant <i>dispatch optimization</i>, and any other considerations which the <i>System Operator</i> considers relevant under the <i>Grid Code</i> and <i>Distribution Code</i> and any other applicable regulatory instrument; and</p> <p>(b) may initiate <i>load shedding</i> in response to any other circumstances which it reasonably considers necessitates such action under the <i>Grid Code</i> and <i>Distribution Code</i> or any other applicable regulatory instrument.</p>	<p>System Operator Responsibility to Initiate Load Shedding</p> <p>The <i>System Operator</i>:</p> <p>(a) shall, if informed advised by the <i>Market Operator</i> under clause 3.9.2, , consider the need to initiate load shedding, at those nodes, or at other nodes, after taking account of the load shedding targets from the relevant dispatch optimization, act immediately in accordance with the security and reliability guidelines to mitigate the effects of the presence of the nodal loss of load and or any other considerations which the <i>System Operator</i> considers relevant under the <i>Grid Code</i> and <i>Distribution Code</i> and any other applicable regulatory instrument; and</p> <p>(b) may shall initiate <i>load shedding</i> in response to any other circumstances which it reasonably considers necessitates such action under the <i>Grid Code</i> and <i>Distribution Code</i> or any other applicable regulatory instrument.</p>	<p>Clarify SO responsibilities in initiating load shedding.</p>

Title	Section	Provision	Proposed Amendment	Rationale
Advising of Load Shedding	3.9.4	<p>If it is anticipated that <i>load shedding</i> will occur in a <i>trading interval</i>, the System Operator shall, as soon as possible, advise its load shedding plans to:</p> <p>xxx</p>	<p>If it is anticipated that <i>load shedding</i> will occur in a <i>trading</i>-<i>dispatch interval during the one (1) hour interval</i> the System Operator shall, as soon as possible, advise its <i>load shedding</i> plans to:</p> <p>xxx</p>	<p>Consistent with the proposed amendment in clause 3.1 on the implementation of dispatch interval.</p>
Revising Forecasts	3.9.5	<p>If advised by the System Operator of the likelihood of <i>load shedding</i> in any <i>trading interval</i> under Clause 3.9.4, the Market Operator shall, as soon as possible:</p> <p>(a) If practical within the time frame remaining before the start of that <i>trading interval</i>, revise the <i>load forecasts</i> to be used to determine the <i>dispatch schedule</i> for that <i>trading interval</i> in accordance with Clause 3.5.4.4, to account for those <i>load shedding</i> plans; and</p> <p>xxx</p>	<p>If advised by the System Operator of the likelihood of <i>load shedding</i> in any <i>trading</i> <i>dispatch interval</i> under clause 3.9.4, the Market Operator shall, as soon as possible:</p> <p>(a) If practical within the time frame remaining before the start of that <i>trading</i>-<i>dispatch interval</i>, revise the load forecasts to be used to determine the dispatch schedule for that <i>trading</i>-<i>dispatch interval</i> in accordance with Clause 3.5.4.4, to account for those <i>load shedding</i> plans; and</p> <p>xxx</p>	<p>Consistent with the proposed amendment in clause 3.1 on the implementation of dispatch interval.</p>
Management of Load Shedding	3.9.7	<p>The System Operator and the Market Operator shall manage all aspects of <i>dispatch</i> and pricing during periods when <i>load shedding</i> is required in accordance with the detailed procedures to be developed by the System Operator and the Market Operator, in consultation with WESM Participants, and subject to approval by the PEM Board, consistent with the Grid Code</p>	<p>The System Operator and the Market Operator shall manage all aspects of <i>dispatch</i> and pricing <i>dispatching while the Market Operator shall manage dispatch pricing</i> during periods when <i>load shedding</i> is required in accordance with the detailed procedures to be developed by the System Operator and the Market Operator with WESM Participants, and subject to approval by the PEM Board,</p>	<p>Clarify SO and MO responsibilities during periods with load shedding.</p>

Title	Section	Provision	Proposed Amendment	Rationale
		and <i>Distribution Code</i> .	consistent with the <i>Grid Code</i> and <i>Distribution Code</i> .	
Management Procedures for Excess Generation	3.9.8.2	Where necessary to shut down <i>generating systems</i> under Clause 3.9.8.1, the <i>System Operator</i> and the <i>Market Operator</i> shall manage all aspects of <i>dispatch</i> and pricing in accordance with the procedures to be developed by the <i>System Operator</i> and the <i>Market Operator</i> , in consultation with <i>WESM Participants</i> , and subject to approval by the <i>PEM Board</i> . The procedures shall also take into account the occurrence of <i>excess generation</i> during a <i>trading interval</i> when the <i>System Operator</i> has exhausted its <i>ancillary services</i> to address the <i>excess generation</i> .	Where necessary to shut down <i>generating systems</i> under Clause 3.9.8.1, the <i>System Operator</i> and the Market Operator shall manage all aspects of dispatch and pricing <u>dispatching while the Market Operator shall manage pricing</u> in accordance with the procedures to be developed by the System Operator and the Market Operator , in consultation with the <u>System Operator and WESM Participants</u> , and subject to approval by the <i>PEM Board</i> . The procedures shall also take into account the occurrence of <i>excess generation</i> during <u>hour ahead projection and/or dispatch interval</u> when the <i>System Operator</i> has exhausted all <u>mitigating measures</u> its ancillary services to address the <i>excess generation</i> .	<ul style="list-style-type: none"> • Consistent with the proposed amendment in clause 3.1 on the implementation of dispatch interval. • Clarify SO and MO responsibilities during periods with excess generation.
	3.9.8.3	During a <i>trading interval</i> , if <i>excess generation</i> is imminent or is detected in the <i>power system</i> by the <i>System Operator</i> in accordance with the <i>Grid Code</i> and it is established that the <i>excess generation</i> is being caused by a <i>generating system</i> that is not following its <i>dispatch schedule</i> or observing a linear <i>ramp rate</i> , then the <i>Generation Company</i> representing the <i>generating system</i> in the market may be liable of a sanction under Clause 7.2. The <i>Generation Company</i> representing the <i>generating system</i> that is not following its	During a <u>the hour ahead projection and/or dispatch</u> trading interval , if <i>excess generation</i> is imminent or is detected in the <i>power system</i> by the <i>System Operator</i> in accordance with the <i>Grid Code</i> and it is established that the <i>excess generation</i> is being caused by a <i>generating system</i> that is not following its <i>dispatch schedule</i> or observing a linear <i>ramp rate</i> , then the <i>Generation Company</i> representing the <i>generating system</i> in the market may be liable of a sanction under Clause 7.2. The <i>Generation Company</i> representing the <i>generating system</i> that is not	<ul style="list-style-type: none"> • Consistent with the proposed amendment in clause 3.1 on the implementation of dispatch interval. • Clarify SO and MO responsibilities, and Trading Participants' liabilities when not complying with dispatch instructions during periods with excess generation.

Title	Section	Provision	Proposed Amendment	Rationale
		<p><i>dispatch schedule</i> or observing linear <i>ramp rate</i>, however, shall compensate other <i>generation system</i> that has been <i>constrained-off</i> by the <i>System Operator</i>. Such conditions shall also be considered in the procedures to be developed under Clause 3.9.8.2.</p>	<p>following its <i>dispatch schedule</i> or observing linear <i>ramp rate</i>, however, shall compensate other <i>generation system</i> that has been <i>constrained-off</i> by the <i>System Operator</i>. Such conditions shall also be considered in the procedures to be developed under Clause 3.9.8.2.</p>	
<p>Management Procedures for Reserve Violation</p>	<p>3.9.9</p>	<p>3.9.9.1 Should either the <i>dispatch optimization</i> or any <i>market projection</i> indicate a violation of a <i>reserve</i> requirement, the <i>Market Operator</i> shall:</p> <p>(a) Promptly advise the <i>System Operator</i> that it may be necessary to reduce the level of the <i>reserve</i> requirement.</p> <p>(b) Reduce the <i>reserve</i> requirement by the minimum amount to a level that prevents a violation of that requirement.</p> <p>(c) Solve the <i>market dispatch optimization model</i> with the reduced <i>reserve</i> requirement.</p> <p>3.9.9.2 The prices determined in Clauses 3.10.2, 3.10.6 and 3.10.10 will be derived from the solution of the <i>market dispatch</i></p>	<p>3.9.9.1 Should either the <i>dispatch optimization</i> or any <i>market projection</i> indicate a violation of a <i>reserve</i> requirement, the <i>Market Operator</i> shall:</p> <p>(a) Promptly advise inform the <i>System Operator</i> that it may be necessary to reduce the level of the there is a reduction in the level of the <i>reserve</i> requirement.</p> <p>(b) Reduce the <i>reserve</i> requirement by the minimum amount to a level that prevents a violation of that requirement.</p> <p>(c) Solve the <i>market dispatch optimization model</i> with the reduced <i>reserve</i> requirement.</p> <p>3.9.9.2 The prices determined in Clauses 3.10.2, 3.10.6 and 3.10.10 will be derived from the solution of the market dispatch optimization model provided for in clause 3.9.9.1 (c) Thereafter, the Market Operator</p>	<ul style="list-style-type: none"> • Deletion of unnecessary clause. • Addition of reportorial requirement, per DOE comment.

Title	Section	Provision	Proposed Amendment	Rationale
		<i>optimization model</i> provided for in Clause 3.9.9.1 (c).	<u>shall provide a regular report to the PEM Board, the DOE and ERC regarding the violation of the reserve requirement.</u>	
Calculation of Prices	3.10.1	<p>For each <i>trading interval</i>, the <i>Market Operator</i> shall calculate and <i>publish</i> in accordance with the <i>timetable</i>:</p> <p>(a) <i>ex-ante nodal energy prices</i> in accordance with Clause 3.10.2;</p> <p>(b) <i>ex-ante zonal energy prices</i> in accordance with Clause 3.10.3;</p> <p>(c) <i>ex-post nodal energy prices</i> in accordance with Clause 3.10.6;</p> <p>(d) <i>ex-post zonal energy prices</i> in accordance with Clause 3.10.8; and</p> <p>(e) when applicable, <i>zonal reserve prices</i> in accordance with Clause 3.10.10.</p>	<p>For each trading dispatch interval, the <i>Market Operator</i> shall calculate, and publish in accordance with the timetable:</p> <p>(a) <i>ex-ante nodal energy dispatch prices</i> in accordance with Clause 3.10.2;</p> <p>(b) <i>ex-ante zonal energy prices</i> in accordance with Clause 3.10.3;</p> <p>(c) ex-post nodal energy prices in accordance with clause 3.10.6;</p> <p>(d) ex-post zonal energy prices in accordance with clause 3.10.8; and</p> <p>(e) (c) when applicable, zonal reserve prices in accordance with Clause 3.10.10 3.10.7.</p>	<ul style="list-style-type: none"> • With the implementation of the 5-minute dispatch interval, it is also being proposed for the WESM to adapt an ex-ante only pricing, with settlements being based on ex-ante prices and actual measured outcomes; and the ex-ante schedules would not be used in market settlements (see clause 3.14). <p>The next 5-minute ex-ante price is expected to be similar with the ex-post price for the previous 5-minutes, since it will be based on current information about loads, available units and other system conditions, only they are forward-looking to the next dispatch interval, rather than back 5-minutes.</p> <ul style="list-style-type: none"> • Consistent with the proposed amendment in clause 3.1 on the implementation of dispatch interval. • Re-numbering
Determination	3.10.2	Determination of Ex-Ante Nodal Energy	Determination of Ex-Ante Nodal Energy	<ul style="list-style-type: none"> • Consistent with the proposed

Title	Section	Provision	Proposed Amendment	Rationale
of Ex-Ante Nodal Energy Price		<p>Price</p> <p>The <i>ex-ante nodal energy price</i> for each <i>market trading node</i> in any <i>trading interval</i> shall, subject to Clause 3.10.5, be determined as the <i>shadow price</i> on the <i>energy balance equation</i> or equivalent mathematical <i>formulation</i> for that <i>market trading node</i> formed in accordance with Clause 3.6.1.4 (c), in the <i>dispatch optimization</i> performed for that <i>trading interval</i> in accordance with Clause 3.8.1.</p>	<p><u>Dispatch</u> Price</p> <p>The <i>ex-ante nodal energy dispatch price</i> for each <i>market trading node</i> in any <i>trading dispatch interval</i> shall, subject to Clause 3.10.5, be determined as the ex-ante shadow price on the <i>energy balance equation</i> or equivalent mathematical <i>formulation</i> for that <i>market trading node</i> formed in accordance with Clause 3.6.1.4 (c), in the market dispatch optimization performed for that trading dispatch interval in accordance with Clause 3.8.1.</p>	<p>amendments in clause 3.10.1</p> <ul style="list-style-type: none"> • Consistent with the proposed amendment in clause 3.1 on the implementation of dispatch interval. • For clarity
Publishing Ex-Ante Prices According to Timetable	3.10.4	<p>The <i>Market Operator</i> shall <i>publish</i> the <i>ex-ante nodal energy prices</i> and the <i>ex-ante zonal energy prices</i>, prior to the commencement of the <i>trading interval</i> to which they apply in accordance with the <i>timetable</i>.</p>	<p>The <i>Market Operator</i> shall <i>publish</i> the <i>ex-ante nodal energy dispatch prices</i> and the <i>ex-ante zonal energy prices</i>, prior to the commencement of the trading dispatch interval to which they apply in accordance with the timetable.</p>	<ul style="list-style-type: none"> • Consistent with the proposed amendments in clause 3.10.1 • Consistent with the proposed amendment in clause 3.1 on the implementation of dispatch interval.
Pricing Error Notice	3.10.5	<p>In the event where no <i>ex-ante</i> prices can be determined or communicated within the timeframe specified by the <i>timetable</i>, or the calculated prices are believed to be in error, as a result of <i>load shedding</i>, <i>occurrence of constraints violation coefficients</i>, or for any other reason:</p> <p>(a) The <i>Market Operator</i> may, as soon as possible after the end of a <i>trading interval</i>,</p>	<p>3.10.5 3.10.5.1 In the event where no <i>ex-ante dispatch prices</i> can be determined or communicated within the timeframe specified by the timetable, or the calculated prices are believed to be in error, notwithstanding the application of automatic pricing re-run under Clause 3.6.7.1, as a result of load shedding, occurrence of constraints violation coefficients, or for any other reason, (a) The the Market Operator shall issue a pricing error notice. may, as soon as possible after the end of a <i>trading interval</i>,</p>	<ul style="list-style-type: none"> • Consistent with the proposed Automatic Pricing Re-run in clause 3.6.7. • Consistent with the proposed amendment in clause 3.1 on the implementation of dispatch interval. • Consistent with the proposed amendments in clause 3.10.1

Title	Section	Provision	Proposed Amendment	Rationale
		<p>issue a <i>pricing error notice</i>, in which case, the <i>ex-post</i> quantities and the <i>ex-post</i> prices determined according to Clause 3.10.7 shall also serve as <i>ex-ante</i> quantities and <i>ex-ante</i> prices. If no <i>ex-post</i> prices can be determined or the calculated prices are believed to be in error as a result of the imposition or relaxation of <i>constraints</i> pursuant to Clause 3.5.13.1, the <i>Market Operator</i> shall re-run the <i>market dispatch optimization model</i>.</p> <p>The <i>Market Operator</i> shall develop and <i>publish</i> the procedures for the determination of the market re-run prices. Such procedures shall provide the criteria and conditions for the market re-run and the <i>timetable</i> for implementation.</p>	<p>issue a <i>pricing error notice</i>, in which case, the <i>ex-post</i> quantities and the <i>ex-post</i> prices determined according to Clause 3.10.7 shall also serve as <i>ex-ante</i> quantities and <i>ex-ante</i> prices. If no <i>ex-post</i> prices can be determined or the calculated prices are believed to be in error as a result of the imposition or relaxation of <i>constraints</i> pursuant to Clause 3.5.13.1, the <i>Market Operator</i> shall re-run the <i>market dispatch optimization model</i>.</p> <p><u>3.10.5.2 Upon issuance of a pricing error notice, the Market Operator shall, as soon as practicable, implement a market pricing re-run.</u></p> <p><u>3.10.5.3 The market pricing re-runs shall be performed through the market dispatch optimization model using appropriately revised inputs.</u></p> <p><u>3.10.5.4 The Market Operator shall develop and publish the procedures for the determination of the market pricing re-run prices. Such procedures shall provide the criteria and conditions for the market pricing re-run and the timetable for implementation.</u></p> <p><u>3.10.5.5 The procedures developed for the market pricing re-runs shall be designed to produce prices reflecting supply shortages at any nodes where there was load shedding and prices reflecting excess supply where there was excess</u></p>	

Title	Section	Provision	Proposed Amendment	Rationale
			<u>generation.</u>	
		(b) If no <i>pricing error notice</i> is issued within the time specified in the foregoing paragraph, the <i>ex-post</i> prices and quantities shall serve as <i>ex-ante</i> prices and quantities and shall stand irrespective of the outcome of any subsequent investigations or resolutions of any dispute.	(b) If no <i>pricing error notice</i> is issued within the time specified in the foregoing paragraph, the <i>ex-post</i> prices and quantities shall serve as <i>ex-ante</i> prices and quantities and shall stand irrespective of the outcome of any subsequent investigations or resolutions of any dispute.	Consistent with the proposed amendments in clause 3.10.1
		(c) Should the pricing error also include <i>reserves</i> , the <i>reserve</i> quantity and price determined in the <i>ex-post run</i> shall serve as the <i>reserve</i> quantity and prices.	(c) Should the pricing error also include <i>reserves</i> , the <i>reserve</i> quantity and price determined in the <i>ex-post run</i> shall serve as the <i>reserve</i> quantity and prices.	Consistent with the proposed amendments in clause 3.10.1
Determination of Ex-Post Nodal Energy Price	3.10.6	3.10.6 Determination of Ex-Post Nodal Energy Price xxx	3.10.6 Determination of Ex-Post Nodal Energy Price Xxx	Consistent with the proposed amendments in clause 3.10.1
Procedures for Ex-Post Nodal Energy Price	3.10.7	3.10.7 Procedures for Ex-Post Nodal Energy Price xxx	3.10.7 Procedures for Ex-Post Nodal Energy Price Xxx	Consistent with the proposed amendments in clause 3.10.1
Determination of Ex-Post Zonal Energy Prices	3.10.8	3.10.8 Determination of Ex-Post Zonal Energy Prices xxx	3.10.8 Determination of Ex-Post Zonal Energy Prices xxx	Consistent with the proposed amendments in clause 3.10.1
Determination of Ex-Ante And Ex-Post Energy Settlement	3.10.9	3.10.9 Determination of Ex-Ante And Ex-Post Energy Settlement Prices Subject to Clause 3.10.5, the <i>ex-ante energy settlement prices</i> and <i>ex-post energy</i>	3.10.9 3.10.6 Determination of Ex-Ante And Ex-Post Energy Settlement Prices Subject to Clause 3.10.5, the ex-ante energy settlement prices and ex-post energy	Consistent with the proposed amendments in clause 3.10.1, it is also being proposed for the WESM to adapt an ex-ante only pricing, with settlements being based on ex-

Title	Section	Provision	Proposed Amendment	Rationale
Prices		<p><i>settlement prices</i> for each <i>market trading node</i> in each trading interval shall be:</p> <p>(a) the <i>ex-ante zonal energy price</i> and the <i>ex-post zonal energy price</i> for that <i>trading interval</i> determined for that <i>Customer pricing zone</i> in accordance with Clauses 3.10.3 and 3.10.8, respectively, if that <i>node</i> is deemed to be a <i>Customer node</i> and to lie in a defined <i>Customer pricing zone</i>; and</p> <p>(b) the <i>ex-ante nodal energy price</i> and the <i>ex-post nodal energy price</i> for that <i>node</i>, in that <i>trading interval</i>, determined in accordance with Clauses 3.10.2 and 3.10.6, respectively, for all other <i>nodes</i>.</p>	<p>settlement prices for each market trading node in each trading settlement interval shall be determined as:</p> <p>(a)(b) For generators, the ex-ante the dispatch schedule-weighted average nodal energy dispatch prices and the ex-post nodal energy price for that node, in for the set of dispatch intervals corresponding to that trading settlement interval determined for that generator market trading node in accordance with Clauses 3.10.2 and 3.10.6, respectively, for all other nodes;</p> <p>(b) (a) For customers, The ex-ante the dispatch schedule-weighted average of its zonal nodal energy dispatch prices and the ex-post nodal energy price for the set of dispatch intervals corresponding to that trading settlement interval determined for that customer pricing market trading zone node in accordance with clauses 3.10.2 3.10.3 and 3.10.8, respectively, if that node is deemed to be a <i>Customer node</i> and to lie in a defined <i>Customer pricing zone</i>; and</p> <p>(c) For customers that have been approved by the ERC to use zonal pricing, the ex-ante dispatch schedule-weighted average of the zonal energy prices for the set of dispatch intervals within that settlement interval determined for that customer market trading node in accordance with clauses 3.10.3, if that node is deemed to be</p>	<p>ante prices and actual measured outcomes.</p>

Title	Section	Provision	Proposed Amendment	Rationale
Determination of Zonal Reserve Price	3.10.10	<p>3.10.10 Determination of Zonal Reserve Price</p> <p>When applicable, the <i>zonal reserve price</i> for each market <i>reserve</i> zone in each <i>trading interval</i> shall be determined as the <i>shadow price</i> on the relevant <i>reserve</i> requirement <i>constraint</i>, defined in accordance with Clause 3.6.1.4 (e), in the <i>dispatch</i> optimization for that <i>trading interval</i> and <i>published</i> by the <i>Market Operator</i> before the start of that <i>trading interval</i>.</p>	<p><u>a customer market trading node within a defined customer pricing zone.</u></p> <p>3.10.103.10.7 Determination of Zonal-Reserve Price and Reserve Settlement Price</p> <p><u>(a) When applicable, the <i>zonal-reserve price</i> for each market <i>reserve</i> zone and reserve category in each trading-dispatch interval shall be determined as the shadow price on the relevant reserve requirement constraint, defined in accordance with clause 3.6.1.4 (e), in the dispatch optimization for that dispatch interval and published by the <i>Market Operator</i> before the start of that <i>trading interval</i>.</u></p> <p><u>(b) When applicable, the reserve settlement price for each reserve zone and reserve category in each settlement interval shall be determined as the schedule-weighted average of the corresponding reserve prices for that reserve category.</u></p>	<p>Consistent with the proposed amendments in clause 3.10.1, it is also being proposed for the WESM to adopt an ex-ante only pricing, with settlements being based on ex-ante prices and actual measured outcomes.</p>
Market Information	3.11.1.1	<p>The <i>Market Operator</i> shall <i>publish</i> the following:</p> <p>(a) <i>Nodal energy prices</i> for each <i>market trading node</i>;</p> <p>(b) <i>Zonal energy prices</i> for each <i>Customer energy pricing zone</i>;</p> <p>(c) When applicable, <i>reserve prices</i> for each <i>reserve region</i>; and</p> <p>(d) <i>Binding network constraints</i>, for each <i>trading interval</i> in accordance with the</p>	<p>The <i>Market Operator</i> shall <i>publish</i> the following:</p> <p>(a) <i>Nodal energy dispatch prices</i> for <u>all dispatch intervals and for</u> each <i>market trading node</i>;</p> <p><u>(b) Energy settlement prices for all settlement intervals and for each market trading node;</u></p> <p>(b)<u>(c) Zonal energy prices for all dispatch intervals and for</u> each <i>Customer energy</i></p>	<p>Consistent with the proposed amendments in clause 2.3.1.3, 3.1, and 3.10.1.</p>

Title	Section	Provision	Proposed Amendment	Rationale
		timetable.	<p><i>pricing</i> <i>zone</i>;</p> <p><u>(d) Zonal energy settlement prices for all settlement intervals and for each customer pricing _____ zone;</u></p> <p>(e) <u>(e) When applicable, reserve prices and reserve settlement prices and requirements for each reserve region and reserve category;</u> and</p> <p>(d) <u>(f) Binding network constraints, for each trading dispatch interval in accordance with the timetable;</u></p> <p><u>(g) Violated network and other constraints and the corresponding non-zero constraint violation variable values;</u></p> <p><u>(h) The status of all elements of the market network model such as network element outages, network switch and circuit breaker statuses; and</u></p> <p><u>(i) Settlement information to enable a WESM Participant to recreate or independently verify its settlements.</u></p>	
Market Information	3.11.1.2	<p>As part of the information record under Clause 5.2.5, the <i>Market Operator</i> shall retain details of:</p> <p>xxx</p> <p>(c) actual availabilities of <i>generating units</i> and <i>scheduled load</i> Including, for each <i>trading interval</i> and dispatch offer and dispatch bid:</p> <p>xxx</p>	<p>As part of the information record under clause 5.2.5, the <i>Market Operator</i> shall retain details of:</p> <p>xxx</p> <p>(c) actual availabilities of <i>generating units</i> and <i>scheduled load</i> including, for each <i>trading</i> <u>dispatch interval</u> and dispatch offer and dispatch bid:</p> <p>xxx</p>	Consistent with the proposed amendment in clause 3.1 on the implementation of dispatch interval.

Title	Section	Provision	Proposed Amendment	Rationale
Market Information	3.11.1.3	<p>Each <i>trading</i> day, in accordance with the timetable, the <i>Market Operator</i> shall <i>publish</i>:</p> <p>(a) the <i>dispatch schedule</i> for each <i>scheduled generating unit</i>, <i>must dispatch generating unit</i>, <i>priority dispatch generating unit</i>, <i>non-scheduled generating unit</i> and scheduled load in each <i>trading interval</i> for the previous trading day; and</p> <p>(b) a summary of the information provided to it with respect to each trading <i>interval</i> by the <i>System Operator</i> in accordance with clause 3.8.2.2.</p>	<p>Each <i>trading</i> day, in accordance with the timetable, the <i>Market Operator</i> shall <i>publish</i>:</p> <p>(a) the <i>dispatch schedule</i> for each <i>scheduled generating unit</i>, <i>must dispatch generating unit</i>, <i>priority dispatch generating unit</i>, <i>non-scheduled generating unit</i> and scheduled load in each <u>dispatch interval in the trading settlement intervals</u> for the previous <i>trading day</i>; and</p> <p>(b) A summary of the information provided to it with respect to each <i>trading</i>-<u>dispatch interval</u> by the <i>System Operator</i> in accordance with clause 3.8.2.2.</p>	Consistent with the proposed amendment in clause 3.1 on the implementation of dispatch interval.
Market Information		NEW	<u>3.11.1.3 All information available to all market participants shall be deemed to be publicly available information.</u>	For clarity on the distribution of public information.
Financial Transmission Rights		NEW	<p><u>3.12.7 Price Substitution Methodology for Congestion</u></p> <p><u>Prior to the implementation of the financial transmission rights, the <i>Market Operator</i> shall develop and publish a Market Manual that details the methodology for price substitution in the event of extreme nodal price separation arising from network congestion.</u></p>	Provision on the price substitution methodology.
Submission of Bilateral Contract Data	3.13.1	Submission of Bilateral Contract Data	Submission of Bilateral Contract Data <u>for Energy</u>	To differentiate from the submission of bilateral contract data for reserves.

Title	Section	Provision	Proposed Amendment	Rationale
Submission of Bilateral Contract Data	3.13.1.1	<p><i>Trading Participants</i> who sell electricity pursuant to <i>bilateral contracts</i> and wish those <i>bilateral contracts</i> to be accounted for in <i>settlements</i> after each <i>trading day</i>, in accordance with the billing and <i>settlement timetable</i>, shall:</p> <p>(a) Submit a schedule to the <i>Market Operator</i> specifying the MWH bilateral sell quantities at each relevant <i>market trading node</i>, in each <i>trading interval</i> of that <i>trading day</i>;</p> <p>xxx</p>	<p><i>Trading Participants</i> who sell electricity pursuant to <i>bilateral contracts</i> and wish those <i>bilateral contracts</i> to be accounted for in <i>settlements</i> after each <i>trading day</i>, in accordance with the billing and <i>settlement timetable</i>, shall:</p> <p>(a) Submit a schedule to the <i>Market Operator</i> specifying the MWH bilateral sell quantities at each relevant <i>market trading node</i>, in each trading <u>settlement</u> interval of that <i>trading day</i>;</p> <p>xxx</p>	Consistent with clause 3.1.
Submission of Bilateral Contract Data	NEW		<p><u>3.13.2 Submission of Bilateral Contract Data for Reserves</u></p> <p><u>3.13.2.1 When applicable, <i>Trading Participants</i> who sell reserve capacities pursuant to bilateral contracts with the <i>System Operator</i>, shall submit these bilateral contracts after each trading day, in accordance with the billing and settlements timetable to be accounted for in settlements.</u></p> <p><u>3.13.2.2 The <i>System Operator</i> shall also provide information on their contracted reserve capacities to the <i>Market Operator</i></u></p>	To differentiate from the submission of bilateral contract data for energy.

Title	Section	Provision	Proposed Amendment	Rationale
			<u>for purposes of validating the capacities identified in Clause 3.13.2.1</u>	
Submission of Transmission Right Data	3.13.2	<p>3.13.2 Submission of Transmission Right Data</p> <p>3.13.2.1 xxx</p> <p>3.13.2.2 <i>Trading Participants</i> who hold <i>transmission rights</i> and wish to have those <i>transmission rights</i> accounted for in <i>settlements</i> shall, after each <i>trading day</i>, in accordance with the <i>timetable</i>, submit to the <i>Market Operator</i> a schedule specifying:</p> <p>(a) xxx</p> <p>(b) the MWH quantities of each <i>transmission right</i> in each <i>trading interval</i> of that <i>trading day</i>, as they apply at the <i>sending node</i>;</p> <p>(c) the agreed <i>loss differential</i> associated with each <i>transmission right</i>, if any, as a proportion of the quantity specified in clause 3.13.2 (b); and</p> <p>(d) that the <i>System Operator</i> is in agreement with the submission made under Clause 3.13.2 (and providing evidence of that agreement), and will cover any deficit in that <i>System Operator's</i> settlements position with</p>	<p>3.13.23.13.3 Submission of Transmission Right Data</p> <p>3.13.2.13.13.3.1 xxx</p> <p>3.13.2.23.13.3.2 <i>Trading Participants</i> who hold <i>transmission rights</i> and wish to have those <i>transmission rights</i> accounted for in <i>settlements</i> shall, after each <i>trading day</i>, in accordance with the <i>timetable</i>, submit to the <i>Market Operator</i> a schedule specifying:</p> <p>(a) xxx</p> <p>(b) the MWH quantities of each <i>transmission right</i> in each <i>trading interval</i> <i>trading-settlement interval</i> of that <i>trading day</i>, as they apply at the <i>sending node</i>;</p> <p>(c) the agreed <i>loss differential</i> associated with each <i>transmission right</i>, if any, as a proportion of the quantity specified in clause 3.13.23.13.3.2 (b); and</p> <p>(d) that the <i>System Operator</i> is in agreement with the submission made under clause 3.13.23.13.3 (and providing evidence of that agreement), and will cover any deficit in that <i>System Operator's</i> settlements position with the <i>spot market</i> under clause 3.13.15.1(b)</p>	<ul style="list-style-type: none"> • Re-numbering • Change in reference clauses, which includes the deletion of Clause 3.13.15 that was already deleted as per DOE DC No. 2004-07-008 dated 7 July 2004

Title	Section	Provision	Proposed Amendment	Rationale
		the <i>spot market</i> under Clause 3.13.15.1(b) arising as a result of honoring this <i>transmission right</i> .	arising as a result of honoring this <i>transmission right</i> .	
Data for Bilateral Contracts and Transmission Rights	3.13.3	<p>3.13.3 Data for Bilateral Contracts and Transmission Rights</p> <p>The <i>Market Operator</i> shall:</p> <p>(a) inform the <i>Trading Participants</i> which submitted data under Clause 3.13, if any of the data provided is invalid or incomplete; and</p> <p>(b) if the data provided under Clause 3.13 is valid or complete, employ that data for <i>settlement</i> purposes in accordance with Clauses 3.13.7 and 3.13.13.</p>	<p>3.13.3 3.13.4 Data for Bilateral Contracts and Transmission Rights</p> <p>The Market Operator shall:</p> <p>(a) xxx</p> <p>(b) If the data provided under Clause 3.13 is valid or complete, employ that data for <i>settlement</i> purposes in accordance with Clauses 3.13.7 and 3.13.13 3.13.12.</p>	Re-numbering
Zonal Reserve Settlement Quantity	3.13.4	<p>3.13.4 Zonal Reserve Settlement Quantity</p> <p>The <i>zonal reserve settlement quantity</i> for each <i>Trading Participant</i> in each <i>trading interval</i> shall be calculated as:</p> <p>(a) The aggregate, across all of the <i>Trading Participant's facilities</i> in the relevant <i>reserve region</i>, of the <i>reserve target</i></p>	<p>3.13.4 3.13.5 Zonal Reserve Settlement Quantity</p> <p>The zonal <i>reserve settlement quantity</i> for each <i>Trading Participant</i> in each trading settlement interval shall be calculated as:</p> <p>(a) The aggregate, across all of the Trading Participant's facilities in the relevant reserve region, of the reserve target determined by the dispatch optimization performed prior to the</p>	<ul style="list-style-type: none"> • Re-numbering • For clarity

Title	Section	Provision	Proposed Amendment	Rationale
		<p>determined by the <i>dispatch</i> optimization performed prior to the beginning of that <i>trading interval</i>, in accordance with Clause 3.8.1; multiplied by</p> <p>(b) The <i>reserve effectiveness factor</i> for that <i>reserve facility category</i> to be determined by the <i>System Operator</i>.</p>	<p>beginning of that <i>trading interval</i>, in accordance with Clause 3.8.1; multiplied by The average of the reserve schedule for each facility, less</p> <p>(b) The <i>reserve effectiveness factor</i> for that <i>reserve facility category</i> to be determined by the <i>System Operator</i>. The reserve contracted quantities in accordance with Clause 3.13.2.1, if any.</p>	
Defining the Gross Ex-Ante Energy Settlement Quantity for Market Trading Nodes	3.13.5	<p>3.13.5 Defining the Gross Ex-Ante Energy Settlement Quantity for Market Trading Nodes</p> <p>xxx</p>	<p>3.13.5 Defining the Gross Ex-Ante Energy Settlement Quantity for Market Trading Nodes</p> <p>xxx</p>	Consistent with the proposed amendments in clause 3.10.1.
Defining the Gross Ex-Post Energy Settlement Quantity for Market Trading Nodes	3.13.6	<p>Defining the Gross Ex-Post Energy Settlement Quantity for Market Trading Nodes</p> <p>For each <i>trading interval</i>, the gross <i>ex-post energy settlement quantity</i> before being adjusted for <i>bilateral contracts</i> for each <i>market trading node</i> shall be determined by the <i>Market Operator</i> as follows:</p>	<p>Defining the Gross Ex-Post Energy Settlement Quantity for Market Trading Nodes</p> <p>For each <i>trading</i> settlement <i>interval</i>, the gross <i>ex-post energy settlement quantity</i> before being adjusted for <i>bilateral contracts</i> for each <i>market trading node</i> shall be determined by the <i>Market Operator</i> as follows:</p>	Consistent with the proposed amendments in clause 3.10.1.
		(a) If the <i>market trading node</i> is defined under Clause 3.2.2.1 as lying on the	(a) If the <i>market trading node</i> is defined under Clause 3.2.2.1 is located as lying on the	

Title	Section	Provision	Proposed Amendment	Rationale
		<p>boundary of the <i>power system</i> operated by the <i>System Operator</i>, the <i>gross ex-post energy settlement quantity</i> for the <i>market trading node</i> is the net metered flow into the <i>power system</i> operated by the <i>System Operator</i> through the associated <i>meter</i>, provided however, that if the <i>market trading node</i> is a <i>Customer node</i>, and there is no <i>ERC-registered embedded generation facility</i> associated with that <i>node</i>, or the source of injection cannot be traced, any injection shall not be accounted for in determining the <i>gross ex-post energy settlement quantity</i> for that <i>node</i>;</p> <p>(b) If the <i>market trading node</i> is defined under Clause 3.2.2.2 as a <i>generator node</i> lying on the interface between <i>networks</i>, apparatus or equipment operated by parties other than the <i>System Operator</i> the <i>gross ex-post energy settlement quantity</i> for the <i>market trading node</i> is the net metered flows through the associated <i>meter</i> from the <i>Generation Company</i> to the <i>Customer</i> side of the <i>meter</i>;</p> <p>(c) If the <i>market trading node</i> is defined under Clause 3.2.2.2 as a <i>Customer node</i> lying on the interface between <i>networks</i>, apparatus or equipment operated by parties other than the <i>System Operator</i> the <i>gross</i></p>	<p>boundary of the <i>power system</i> operated by the <i>System Operator</i>, the <i>gross ex-post energy settlement quantity</i> for the <i>market trading node</i> is the net metered flow into the <i>power system</i> operated by the <i>System Operator</i> through the associated <i>meter</i>, provided however, that if the <i>market trading node</i> is a <i>Customer market trading node</i>, and there is no <i>ERC-registered embedded generation facility</i> associated with that <i>node</i>, or the source of injection cannot be traced, any injection shall not be accounted for in determining the <i>gross ex-post energy settlement quantity</i> for that <i>node</i>;</p> <p>(b) If the <i>market trading node</i> is defined under Clause 3.2.2.2 as is a <i>generator market trading node</i> lying on the interface between <i>networks</i>, apparatus or equipment operated by parties other than the <i>System Operator</i> the <i>gross ex-post energy settlement quantity</i> for the <i>market trading node</i> is the net metered flows through the associated <i>meter</i> from the <i>Generation Company</i> to the <i>Customer</i> side of the <i>meter</i>;</p> <p>(c) If the <i>market trading node</i> is defined under Clause 3.2.2.2 as is a <i>Customer market trading node</i> lying located on the interface between <i>networks</i>, apparatus or equipment operated by parties other than the <i>System Operator</i>, the <i>gross ex-post energy settlement</i></p>	

Title	Section	Provision	Proposed Amendment	Rationale
		<p><i>ex-post energy settlement quantity</i> for the <i>market trading node</i> is the negative of the amount determined for the corresponding <i>generator node</i> in Clause 3.13.6(b); and</p> <p>(d) If the net metered flows registered through a <i>meter</i> is inconsistent with the expected power flows at the <i>market trading node</i> to which that <i>meter</i> is associated, the <i>Metering Services Provider</i> shall determine and shall notify the <i>Market Operator</i> and the relevant <i>Trading Participant</i> the appropriate manner of determining the gross <i>ex-post settlement quantity</i> for that <i>market trading node</i>.</p>	<p><i>quantity</i> for the <i>market trading node</i> is the negative of the amount determined for the corresponding <i>generator <u>market trading</u> node</i> in Clause 3.13.6.1(b) 3.13.6(b).</p> <p>(d) If the net metered flows registered through a <i>meter</i> is inconsistent with the expected power flows to the <i>market trading node</i> to which that <i>meter</i> is associated, the <i>Metering Services Provider</i> shall determine and shall notify the <i>Market Operator</i> and the relevant <i>Trading Participant</i> the appropriate manner of determining the gross ex-post <i>settlement quantity</i> for that <i>market trading node</i>.</p>	
Energy Settlement Quantity Adjustments for Bilateral	3.13.7	<p>For <i>settlement</i> purposes, the <i>ex-ante energy settlement quantity</i> for any <i>market trading node</i> in any <i>trading interval</i> shall be determined by the <i>Market Operator</i> by adjusting the gross <i>ex-ante energy settlement quantity</i> for that <i>market trading node</i> and any <i>trading interval</i>, as measured in accordance with Clause 3.13.5 for <i>bilateral contract</i> quantities notified to the <i>Market Operator</i> under Clause 3.13.1.1, or inferred by the <i>Market Operator</i> under Clause 3.13.1.1 and accepted as valid under Clause 3.13.1.2 by:</p> <p>(a) Subtracting all bilateral sell quantities</p>	<p>For <i>settlement</i> purposes, the ex-ante energy settlement quantity for any <i>market trading node</i> in any trading settlement <i>interval</i> shall be determined by the <i>Market Operator</i> by adjusting the gross ex-ante <i>energy settlement quantity</i> for that <i>market trading node</i> and any trading settlement <i>interval</i>, as measured in accordance with Clause 3.13.56 for <i>bilateral contract</i> quantities notified to the <i>Market Operator</i> under Clause 3.13.1.1, or inferred by the <i>Market Operator</i> under Clause 3.13.1.1 and accepted as valid under Clause 3.13.1.2 by:</p> <p>(a) Subtracting all bilateral sell quantities</p>	Consistent with the proposed amendments in clause 3.10.1.

Title	Section	Provision	Proposed Amendment	Rationale
		<p>notified for that <i>node</i> in that <i>trading interval</i> from the measured or estimated gross energy settlement quantity for that <i>node</i> in that <i>trading interval</i>; and</p> <p>(b) Adding all bilateral buy quantities inferred for that <i>node</i> in that <i>trading interval</i> to the measured or estimated gross energy settlement quantity for that <i>node</i> in that <i>trading interval</i>.</p>	<p>notified for that <i>node</i> in that trading settlement interval from the measured or estimated gross energy settlement quantity for that <i>node</i> in that trading settlement interval; and</p> <p>(b) Adding all bilateral buy quantities inferred for that <i>node</i> in that trading settlement interval to the measured or estimated gross energy settlement quantity for that <i>node</i> in that trading settlement interval.</p>	
Determining the Ex Ante Energy Trading Amount	3.13.8	<p>3.13.8 Determining the Ex Ante Energy Trading Amount For settlement purposes, the <i>ex-ante energy trading amount</i> for each <i>market trading node</i> and <i>trading interval</i> will be determined as the <i>ex-ante energy settlement price</i> for that <i>node</i> in that <i>trading interval</i> multiplied by the <i>ex-ante energy settlement quantity</i> in MWh for that <i>node</i> in that <i>trading interval</i>.</p>	<p>3.13.8 Determining the Ex Ante Energy Trading Amount For settlement purposes, the ex-ante energy trading amount for each <i>market trading node</i> and trading settlement interval will be determined as the ex-ante energy settlement price for that <i>node</i> in that trading settlement interval multiplied by the ex-ante energy settlement quantity (in MWh) for that <i>node</i> in that trading settlement interval.</p>	Consistent with the proposed amendments in clause 3.10.1.
Determining the Ex Post Energy Trading Amount	3.13.9	<p>3.13.9 Determining the Ex Post Energy Trading Amount xxx</p>	<p>3.13.9 Determining the Ex Post Energy Trading Amount xxx</p>	Consistent with the proposed amendments in clause 3.10.1.
Determining the Reserve	3.13.10	<p>3.13.10 Determining the Reserve Trading Amount</p>	<p>3.13.10 3.13.9 Determining the Reserve Trading Amount</p>	Consistent with the proposed amendments in clause 2.3.1.3, 3.1,

Title	Section	Provision	Proposed Amendment	Rationale
Trading Amount		<p>3.13.10.1 . For <i>settlement</i> purposes, the <i>reserve trading amount</i> for each <i>Trading Participant</i> who supplies <i>reserve</i> to a particular <i>reserve region</i> in a <i>trading interval</i> will be determined as the <i>zonal reserve price</i> for that <i>reserve region</i> in that <i>trading interval</i> multiplied by the <i>zonal reserve settlement quantity</i> for that <i>Trading Participant</i> in that <i>reserve region</i> for that <i>trading interval</i>.</p> <p>3.13.10.2 xxx</p>	<p>3.13.10.13.13.9.1 For <i>settlement</i> purposes, the <i>reserve trading amount</i> for each <i>Trading Participant</i> who supplies <i>reserve</i> to a particular <i>reserve region</i> in a <i>trading</i> <i>settlement</i> <i>interval</i> will be determined as the <i>zonal</i>-<i>reserve price</i> for that <i>reserve region</i> in that <i>trading</i>-<i>settlement</i> <i>interval</i> multiplied by the <i>zonal</i>-<i>reserve settlement quantity</i> for that <i>Trading Participant</i> in that <i>reserve region</i> for that <i>trading</i>-<i>settlement</i> <i>interval</i>.</p> <p>3.13.10.23.13.9.2 xxx</p>	and 3.10.1.
Determining the Reserve Cost Recovery Charge	3.13.11	<p>3.13.11 Determining the Reserve Cost Recovery Charge</p> <p>The <i>reserve cost recovery charge</i> for <i>settlement</i> purposes will be determined for each <i>Trading Participant</i> in each <i>trading interval</i> in accordance with the procedures developed under Clause 3.3.5.</p>	<p>3.13.113.13.10 Determining the Reserve Cost Recovery Charge</p> <p>The <i>reserve cost recovery charge</i> for <i>settlement</i> purposes will be determined for each <i>Trading Participant</i> in each <i>trading</i> <i>settlement</i> <i>interval</i> in accordance with the procedures developed under Clause 3.3.5.</p>	Re-numbering
Calculation of Line Rental Trading Amounts	3.13.12	<p>3.13.12 Calculation of Line Rental Trading Amounts</p> <p>The <i>Market Operator</i> shall calculate the <i>line rental trading amounts</i> for each <i>bilateral contract</i> associated with the delivery of the <i>bilateral contract</i> quantities through the</p>	<p>3.13.123.13.11 Calculation of Line Rental Trading Amounts</p> <p>The <i>Market Operator</i> shall calculate the <i>line rental trading amounts</i> for each <i>bilateral contract</i> associated with the delivery of the <i>bilateral contract</i> quantities through the</p>	<ul style="list-style-type: none"> • Re-numbering • Consistent with the proposed amendments in clause 3.10.1.

Title	Section	Provision	Proposed Amendment	Rationale
		<p><i>transmission line</i> in the <i>market network model</i> as:</p> <p>(a) The expected flow of <i>energy</i> out of the <i>receiving node of the market network line</i> as determined by the <i>market dispatch optimization model</i> multiplied by the <i>ex-ante nodal energy settlement price</i> at that <i>node</i>; less</p> <p>(b) The expected flow of <i>energy</i> into the <i>sending node</i> multiplied by the <i>ex-ante nodal energy settlement price</i> at that <i>node</i> of the <i>market network line</i> as determined by the <i>market dispatch optimization model</i>.</p>	<p><i>transmission line</i> in the <i>market network model</i> as:</p> <p>(a) The expected flow of energy out of the <i>receiving node</i> of the <i>market network line</i> as determined by the <i>market dispatch optimization model</i> multiplied by the the ex-ante nodal energy settlement price at that node; less</p> <p>(b) The expected flow of <i>energy</i> into the <i>sending node</i> multiplied by the ex-ante nodal energy settlement price at that node of the <i>market network line</i> as determined by the <i>market dispatch optimization model</i>.</p>	
Determining the Transmission Rights Trading Amount	3.13.13	<p>3.13.13 Determining the Transmission Rights Trading Amount</p> <p>For <i>settlement</i> purposes, the <i>transmission right trading amount</i> for each <i>transmission right</i> in each <i>trading interval</i> is to be determined as:</p> <p>(a) The <i>MWH</i> capacity of that <i>transmission right</i> in that <i>trading interval</i> as notified under Clause 3.13.2, multiplied by the <i>ex-ante energy settlement price</i> for the <i>receiving node</i> in that <i>trading interval</i>; minus</p>	<p>3.13.13 3.13.12 Determining the Transmission Rights Trading Amount</p> <p>For settlement purposes, the <i>transmission right trading amount</i> for each <i>transmission right</i> in each <i>trading interval</i> is to be determined as:</p> <p>(a) The MWh capacity of that <i>transmission right</i> in that <i>trading interval</i> as notified under Clause 3.13.2, multiplied by the ex-ante energy settlement price for the <i>receiving node</i> in that trading settlement interval; minus the</p>	<ul style="list-style-type: none"> • Re-numbering • Consistent with the proposed amendments in clause 3.10.1. Also, “ex ante” is used to refer dispatch.

Title	Section	Provision	Proposed Amendment	Rationale
		<p>the sum of</p> <p>(b) The MWh capacity of that <i>transmission right</i>, in that <i>trading interval</i>, as notified under Clause 3.13.2, multiplied by the <i>ex-ante energy settlement price</i> at the <i>sending node</i> in that <i>trading interval</i>; plus</p> <p>(c) The MWh capacity of that <i>transmission right</i> in that <i>trading interval</i>, as notified under Clause 3.13.2, multiplied by the <i>agreed loss differential</i> for that <i>transmission right</i>, as notified under Clause 3.13.2, multiplied by the <i>ex-ante energy settlement price</i> at the <i>receiving node</i> in that <i>trading interval</i>.</p>	<p>sum of</p> <p>(b) The MWh capacity of that <i>transmission right</i>, in that <i>trading</i>-<i>settlement</i> <i>interval</i>, as notified under Clause 3.13.2, multiplied by the <i>ex-ante</i> <i>energy settlement price</i> at the <i>sending node</i> in that <i>trading</i>-<i>settlement</i> <i>interval</i>; plus</p> <p>(c) The MWh capacity of that <i>transmission right</i> in that <i>trading</i>-<i>settlement</i> <i>interval</i>, as notified under Clause 3.13.2, multiplied by the <i>agreed loss differential</i> for that <i>transmission right</i>, as notified under Clause 3.13.2, multiplied by the <i>ex-ante</i> <i>energy settlement price</i> at the <i>receiving node</i> in that <i>trading</i>-<i>settlement</i> <i>interval</i>.</p>	
Settlement Amounts for Trading Participants	3.13.14	<p>3.13.14 Settlement Amounts for Trading Participants</p> <p>3.13.14.1 For each <i>billing period</i>, the <i>Market Operator</i> shall determine the <i>settlement amount</i> for each <i>Trading Participant</i> as the sum of the aggregate <i>trading amounts</i> for the <i>trading intervals</i> in that <i>billing period</i>, determined in accordance with Clause 3.13.14.2: plus</p>	<p>3.13.143.13.13 Settlement Amounts for Trading Participants</p> <p>3.13.14.13.13.13.1 For each <i>billing period</i>, the <i>Market Operator</i> shall determine the <i>settlement amount</i> for each <i>Trading Participant</i> as the sum of the aggregate <i>trading amounts</i> for the <i>trading</i>-<i>settlement</i> <i>intervals</i> in that <i>billing period</i>, determined in accordance with clause 3.13.14.23.13.13.2: plus</p>	Re-numbering

Title	Section	Provision	Proposed Amendment	Rationale
		<p>(a) any amount payable by the <i>Market Operator</i> to that <i>Trading Participant</i> in respect of that <i>billing period</i> and not accounted for in Clause 3.13.14.2, including payment for any <i>ancillary services</i> purchased on behalf of the <i>System Operator</i>, less the sum of</p> <p>(b) any <i>market fees</i> which that <i>Trading Participant</i> is required to pay in respect of that <i>billing period</i> as determined in accordance with Clause 2.10; plus</p> <p>(c) any other amounts payable by that <i>Trading Participant</i> to the <i>Market Operator</i> in respect of that <i>billing period</i>, including any <i>ancillary services cost recovery charges</i>.</p>	<p>(a) any amount payable by the <i>Market Operator</i> to that <i>Trading Participant</i> in respect of that <i>billing period</i> and not accounted for in Clause 3.13.14.223.13.13.2, including payment for any <i>ancillary services</i> purchased on behalf of the <i>System Operator</i>, less the sum of</p> <p>(b) any <i>market fees</i> which that <i>Trading Participant</i> is required to pay in respect of that <i>billing period</i> as determined in accordance with Clause 2.10; plus</p> <p>(c) any other amounts payable by that <i>Trading Participant</i> to the <i>Market Operator</i> in respect of that <i>billing period</i>, including any <i>ancillary services</i> <i>reserves</i> <i>cost recovery charges</i>.</p>	
Settlement Amounts for Trading Participants	3.13.14	<p>3.13.14.2 The aggregate <i>trading amount</i> for a <i>Trading Participant</i> for a <i>trading interval</i> equals the sum of:</p> <p>(a) the <i>ex-ante energy trading amounts</i> for each <i>market trading node</i> for which that <i>Trading Participant</i> is responsible calculated in accordance with Clause 3.13.8 (which will typically be positive for a <i>Generation</i></p>	<p>3.13.14.223.13.13.2 The aggregate <i>trading amount</i> for a <i>Trading Participant</i> for a <i>trading</i> <i>settlement</i> <i>interval</i> equals the sum of:</p> <p>(a) the <i>ex-ante energy trading amounts</i> for each <i>market trading node</i> for which that <i>Trading Participant</i> is responsible calculated in accordance with Clause 3.13.8 (which will typically be positive for a <i>Generation Company</i> and negative for a <i>Customer</i>); plus</p>	<ul style="list-style-type: none"> • Re-numbering • Consistent with the proposed amendments in clause 2.3.1.3, 3.3.5.1, and 3.10.1.

Title	Section	Provision	Proposed Amendment	Rationale
		<p><i>Company and negative for a Customer); plus</i></p> <p>(b) <i>the ex-post energy trading amounts for each market trading node for which that Trading Participant is responsible calculated in accordance with Clause 3.13.9 (which may be positive or negative for any Trading Participant); plus</i></p> <p>(c) <i>the reserve trading amounts for each reserve region into which that Trading Participant contributes reserve calculated in accordance with Clause 3.13.10 (which will always be positive for both Generation Companies and Customers); plus</i></p> <p>(d) <i>the transmission right trading amounts for each transmission right held by the WESM Participant calculated in accordance with Clause 3.13.13 (which will typically be positive for any Trading Participant); less the sum of</i></p> <p>(e) <i>the reserve cost recovery charge determined for that Trading Participant with respect to any reserve cost recovery zone within which it has any facility connected</i></p>	<p>(b)(a) <i>the ex-post energy trading amounts for each market trading node for which that Trading Participant is responsible calculated in accordance with Clause 3.13.93.13.8 (which may be positive or negative for any Trading Participant); plus</i></p> <p>(c)(b) <i>the reserve trading amounts for each reserve region into which that Trading Participant contributes reserve calculated in accordance with Clause 3.13.103.13.9 (which will always be positive for both Generation Companies and Customers); plus</i></p> <p>(d)(c) <i>the transmission right trading amounts for each transmission right held by the WESM Participant calculated in accordance with Clause3.13.133.13.12 (which will typically be positive for any Trading Participant);less the sum of</i></p> <p>(e)(d) <i>the reserve cost recovery charge determined for that Trading Participant with respect to any reserve cost recovery zone within which it has any facility connected calculated in accordance with the procedures</i></p> <p><i>developed under clause 3.3.5 (which will be positive for any Trading Participant); and</i></p>	

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		<p>calculated in accordance with the procedures developed under Clause 3.3.5 (which will be positive for any <i>Trading Participant</i>); and</p> <p>(f) any other <i>ancillary service cost recovery charges</i> determined for that <i>Trading Participant</i> in accordance with the procedures developed under Clause 3.3.5 (which will be positive for any <i>Trading Participant</i>).</p> <p>3.13.14.3 xxx</p>	<p>(f)(e) any other ancillary service reserve cost recovery charges determined for that <i>Trading Participant</i> in accordance with the procedures developed under Clause 3.3.5 (which will be positive for any <i>Trading Participant</i>).</p> <p>3.13.14.3 3.13.13.3 xxx</p>	
	3.13.15	<p>3.13.15 Settlement Amounts for the Network Service Provider</p> <p>Deleted (As per DOE DC No. 2004-07-008 dated 7 July 2004)</p>	<p>3.13.15 Settlement Amounts for the Network Service Provider</p> <p>Deleted (As per DOE DC No. 2004-07-008 dated 7 July 2004)</p>	Deletion of currently deleted clause. This will cause Re-numbering of subsequent clauses and already reflected in this proposal.
Treatment of Remaining Settlement Surplus	3.13.16	<p>3.13.16 Treatment of Remaining Settlement Surplus</p> <p>3.13.16.1 If the transactions required by Clauses 3.13.14.2 (a), (b) and (d), in aggregate, result in a surplus or deficit remaining, this will be known as the <i>net settlement surplus</i>.</p> <p>3.13.16.2 The <i>net settlement surplus</i>:</p>	<p>3.13.163.13.14 Treatment of Remaining Settlement Surplus</p> <p>3.13.16.1 3.13.14.1 If the transactions required by Clauses 3.13.14.23.13.13.2 (a), (b) and (d), in aggregate, result in a surplus or deficit remaining, this will be known as the <i>net settlement surplus</i>.</p> <p>3.13.163.13.14.2 The net settlement surplus:</p>	Re-numbering

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		<p>(a) may be retained by the <i>Market Operator</i> to fund deficit as a result of transactions required in Clauses 3.13.14, or may be flowed back to the <i>WESM Participants</i> in accordance with the procedures to be developed under Clause 3.13.16.3, or, may be used by the <i>Market Operator</i> to establish and support the market for financial <i>transmission rights</i> subject to the approval of the <i>PEM Board</i>; and</p> <p>xxx</p> <p>3.13.16.3 xxx</p>	<p>(a) may be retained by the <i>Market Operator</i>, to fund deficit as a result of transactions required in Clauses 3.13.14 3.13.13, or may be flowed back to the <i>Market Participants</i> in accordance with the procedures to be developed under Clause 3.13.16.3 3.13.14.3, or may be used by the <i>Market Operator</i> to establish and support the market for <i>financial transmission rights</i> subject to the approval of the <i>PEM Board</i>; and,</p> <p>xxx</p> <p>3.13.16.3 3.13.14.3 xxx</p>	
Settlement Amounts for Trading Participants with Bilateral Contracts	3.13.17	<p>3.13.17 Settlement Amounts for Trading Participants with Bilateral Contracts</p> <p>3.13.17.1 For each <i>billing period</i>, the <i>Market Operator</i> shall determine the <i>settlement amount</i> for each <i>Trading Participant</i> with <i>bilateral contract</i> as the sum of the aggregate <i>trading amounts</i> for the <i>trading intervals</i> in that <i>billing period</i>, determined in accordance with Clause 3.13.17.2 plus:</p> <p>(a) any amount payable by the <i>Market Operator</i> to that <i>Trading Participant</i> in respect of that <i>billing period</i> and not</p>	<p>3.13.17 3.13.15 Settlement Amounts for Trading Participants with Bilateral Contracts</p> <p>3.13.17.1 3.13.15.1 For each <i>billing period</i>, the <i>Market Operator</i> shall determine the <i>settlement amount</i> for each <i>Trading Participant</i> with <i>bilateral contract</i> as the sum of the aggregate <i>trading amounts</i> for the <i>trading</i> <i>settlement</i> <i>intervals</i> in that <i>billing period</i>, determined in accordance with Clause 3.13.17.2 3.13.15.2 plus:</p> <p>(a) any amount payable by the <i>Market Operator</i> to that <i>Trading Participant</i> in respect</p>	<ul style="list-style-type: none"> • Re-numbering • A/S traded in the WESM will be recovered using the reserve cost recovery charges, in accordance with clause 3.3.5.

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		<p>accounted for in Clause 3.13.17.2, including payment for any <i>ancillary services</i> purchased on behalf of the <i>System Operator</i>; less the sum of</p> <p>(b) any <i>market fees</i> which that <i>Trading Participant</i> is required to pay in respect of that <i>billing period</i> as determined in accordance with Clause 2.10; plus</p> <p>(c) any other amounts payable by that <i>Trading Participant</i> to the <i>Market Operator</i> in respect of that <i>billing period</i>, including any <i>ancillary services</i> recovery charges.</p>	<p>of that <i>billing period</i> and not accounted for in Clause 3.13.17.23.13.15.2, including payment for any <i>ancillary services</i> purchased on behalf of the <i>System Operator</i>, less the sum of</p> <p>(b) any <i>market fees</i> which that <i>Trading Participant</i> is required to pay in respect of that <i>billing period</i> as determined in accordance with Clause 2.10; plus</p> <p>(c) any other amounts payable by that <i>Trading Participant</i> to the <i>Market Operator</i> in respect of that <i>billing period</i>, including any <i>ancillary services</i> reserve cost recovery charges.</p>	
Settlement Amounts for Trading Participants with Bilateral Contracts	3.13.17.2	<p>3.13.17.2 The aggregate <i>trading amount</i> for a <i>Trading Participant</i> for a <i>trading interval</i> equals the sum of:</p> <p>(a) the <i>ex-ante energy trading amounts</i> for each <i>market trading node</i> for which the <i>Trading Participants</i> is responsible calculated in accordance with Clauses 3.13.7 and 3.13.8 (which will typically be positive for a <i>Generation Company</i> and negative for a <i>Customer</i>); plus</p> <p>(b) the <i>ex-post energy trading amounts</i> for each <i>market trading node</i> for which the <i>Trading Participant</i> is responsible calculated</p>	<p>3.13.17.223.13.15.2 The aggregate trading amount for a <i>Trading Participant</i> for a trading settlement interval equals the sum of:</p> <p>(a) The ex-ante energy trading amounts for each market trading node for which the Trading Participants is responsible calculated in accordance with clauses 3.13.7 and 3.13.8 (which will typically be positive for a Generation Company and negative for a Customer); plus</p> <p>(b)(a) the ex-post energy trading amounts for each market trading node for which the Trading Participant is responsible calculated in</p>	<ul style="list-style-type: none"> • Re-numbering • Consistent with the proposed amendments in clause 2.3.1.3, 3.3.5.1, and 3.10.1 • The first sentence already mentioned “the sum of” thus the removal of “plus”.

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		<p>in accordance with Clauses 3.13.7 and 3.13.9 (which will typically be positive or negative for any <i>Trading Participant</i>); plus</p> <p>(c) the <i>line rental trading amount</i> corresponding to the quantity of <i>bilateral contract</i> of that <i>Trading Participant</i> calculated in accordance with Clause 3.13.12; plus</p> <p>(d) the <i>reserve trading amounts</i> for each <i>reserve region</i> into which that <i>Trading Participant</i> contributes <i>reserve</i> calculated in accordance with Clause 3.13.10 (which will always be positive for both <i>Generation Companies</i> and <i>Customers</i>); plus</p> <p>(e) the <i>transmission right trading amounts</i> for each <i>transmission right</i> held by the <i>WESM Participant</i> calculated in accordance with Clause 3.13.13 (which will always be positive for both <i>Generation Companies</i> and <i>Customers</i>); plus</p> <p>(f) the <i>reserve cost recovery charge</i> determined for that <i>Trading Participant</i> with respect to any <i>reserve cost recovery zone</i> within which it has any <i>facility connected</i></p>	<p>accordance with Clauses 3.13.7 and 3.13.93.13.8 (which will typically be positive or negative for any <i>Trading Participant</i>); plus</p> <p>(e)(b) the <i>line rental trading amount</i> corresponding to the quantity of <i>bilateral contract</i> of that <i>Trading Participant</i> calculated in accordance with Clause 3.13.123.13.11; plus</p> <p>(d)(c) the <i>reserve trading amounts</i> for each <i>reserve region</i> into which that <i>Trading Participant</i> contributes <i>reserve</i> calculated in accordance with Clause 3.13.103.13.9 (which will always be positive for both <i>Generation Companies</i> and <i>Customers</i>); plus</p> <p>(e)(d) the <i>transmission right trading amounts</i> for each <i>transmission right</i> held by the <i>WESM Participant</i> calculated in accordance with Clause 3.13.133.13.12 (which will always be positive for both <i>Generation Companies</i> and <i>Customers</i>) plus</p> <p>(f)(e) the <i>reserve cost recovery charge</i> determined for that <i>Trading Participant</i> with respect to any <i>reserve cost recovery zone</i> within which it has any <i>facility connected</i> calculated in accordance with the procedures developed under Clause 3.3.433.3.5 (which will always be positive for any <i>Trading</i></p>	

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		<p>calculated in accordance with the procedures developed under Clause 3.3.4 (which will be positive for any <i>Trading Participant</i>); and</p> <p>(g) any other <i>ancillary service cost recovery charges</i> determined for that <i>Trading Participant</i> in accordance with the procedures developed under Clause 3.3.4. .</p>	<p><i>Participant</i>); and</p> <p>(g)(f) any other <i>ancillary service</i><i>reserve cost recovery charges</i> determined for that <i>Trading Participant</i> in accordance with the procedures developed under Clause 3.3.43.3.5.</p>	
Payment Default Procedure	3.14.11.3	<p>If:</p> <p>xxx</p> <p>(c) The <i>Market Operator</i> receives notice from the defaulting <i>WESM Member</i> that it is not likely to remedy the default specified in the default notice,</p> <p>then the <i>Market Operator</i> may issue a <i>suspension notice</i> in accordance with Clause 3.15.7 under which the <i>Market Operator</i> notifies the defaulting <i>WESM Member</i> that it is prohibited from participating in the <i>spot market</i>.</p>	<p>If:</p> <p>xxx</p> <p>(c) The <i>Market Operator</i> receives notice from the defaulting <i>WESM Member</i> that it is not likely to remedy the default specified in the <i>default notice</i>,</p> <p>then the <i>Market Operator</i> may issue a <i>suspension notice</i> in accordance with Clause 3.15.73.15.8 under which the <i>Market Operator</i> notifies the defaulting <i>WESM Member</i> that it is prohibited from participating in the <i>spot market</i>.</p>	Correction of clerical error. Issuance of suspension notice is provided under 3.15.8.
Replacement of Security	3.15.5.2	<p>If:</p> <p>(a) A <i>WESM Member</i> fails to comply with Clause 3.15.5.1; and,</p>	<p>If:</p> <p>(a) A <i>WESM Member</i> fails to comply with Clause 3.15.5.1; and,</p>	Correction of clerical error. Issuance of suspension notice is provided under 3.15.8.

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		<p>(b) That <i>WESM Member</i> does not remedy that failure within three (3) <i>working days</i> after being notified by the <i>Market Operator</i> of the failure,</p> <p>then the <i>WESM Member</i> is deemed to be in default and the <i>Market Operator</i> shall give the <i>WESM Member</i> a <i>suspension notice</i> in accordance with Clause 3.15.7.</p>	<p>(b) That <i>WESM Member</i> does not remedy that failure within three (3) working days after being notified by the <i>Market Operator</i> of the failure,</p> <p>then the <i>WESM Member</i> is deemed to be in default and the <i>Market Operator</i> shall give the <i>WESM Member</i> a <i>suspension notice</i> in accordance with Clause 3.15.73.15.8.</p>	
Drawdown of Security	3.15.6.3	If a <i>WESM Member</i> fails to comply with Clause 3.15.6.2 within the time period referred to in that clause, then the <i>Market Operator</i> shall give the <i>WESM Member</i> a <i>suspension notice</i> in accordance with clause 3.15.7.	If a <i>WESM Member</i> fails to comply with Clause 3.15.6.2 within the time period referred to in that clause, then <i>the Market Operator</i> shall give the <i>WESM Member</i> a <i>suspension notice</i> in accordance with clause 3.15.7 3.15.8 .	Correction of clerical error. Issuance of suspension notice is provided under 3.15.8.
Suspension of a WESM Member	3.15.8.3	If a suspension notice is revoked, the <i>Market Operator</i> shall publicize that fact in the same manner in which the <i>suspension notice</i> was publicized in accordance with Clause 3.15.7.1.	If a suspension notice is revoked, the <i>Market Operator</i> shall publicize that fact in the same manner in which the <i>suspension notice</i> was publicized in accordance with Clause 3.15.7.1 3.15.8.1 .	Correction of clerical error. Publication of suspension notice is provided under 3.15.8.1.
Metering Installation Components	4.5.1	<p>A metering installation shall:</p> <p>(a) xxx</p> <p>(e) Have electronic data recording facilities such that all metering data can be measured</p>	<p>A metering installation shall:</p> <p>(a) xxx</p> <p>(e) Have electronic data recording facilities such that all metering data can be measured</p>	Deletion of reference to “trading interval” in accordance with the reduction of the trading interval to 5-minute dispatch interval.

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		and recorded in trading intervals;	and recorded in trading intervals accordance <u>with the relevant Market Manual</u> ;	Added phrase is per DOE comment that the requirements under the Metering Manual are more stringent than the PGC and PDC.
Data Validation and Substitution	4.9	The <i>Market Operator</i> is responsible for the validation and substitution of <i>metering data</i> after being furnished <i>settlement-ready metering data</i> by the <i>Metering Services Provider</i> and shall develop data validation procedures in consultation with <i>WESM Participants</i> and in accordance with Appendix C1.2 (d).	The <i>Market Operator</i> is responsible for the validation and substitution of <i>metering data</i> after being furnished <i>settlement-ready metering data</i> by the <i>Metering Services Provider</i> and shall develop data validation procedures in consultation with <i>WESM Participants</i> and in accordance with Appendix C1.2 B1.2 (d).	Correction of reference.
Market Audit	5.2.6.2	The <i>spot market</i> audit shall cover and review compliance by the <i>Market Operator</i> with its procedures and the effectiveness and appropriateness of systems utilized in the operation of the <i>spot market</i> , including but not limited to: xxx (d) the scheduling and <i>dispatch</i> processes; xxx	The <i>spot market audit</i> shall cover and review compliance by the <i>Market Operator</i> with its procedures and the effectiveness and appropriateness of systems utilized in the operation of the <i>spot market</i> , including but not limited to: xxx (d) the <u>market dispatch optimization model's pricing and dispatch</u> scheduling and dispatch processes; xxx	For clarity
Force majeure event	6.7.1	A force majeure is the occurrence in a <i>trading interval</i> of an event or events not within the reasonable control, directly or	6.7.1 A force majeure is the occurrence <u>of an event or events in the grid and in a trading dispatch</u> interval of an event or events that	<ul style="list-style-type: none"> Consistent with the proposed amendment in clause 3.1 on the implementation of dispatch interval.

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		indirectly, of the <i>Market Operator</i> and <i>WESM Member</i> , to the extent that such event, despite the exercise of the reasonable diligence, cannot be or be caused to be prevented, or removed and has resulted in a reduction in the normal capacity of part or all of the power <i>transmission system</i> during that <i>trading interval</i> and such reduction is likely to materially affect the operation of the <i>spot market</i> or materially threaten <i>system security</i> .	<u>is/are</u> not within the reasonable control, directly or indirectly, of the <i>System Operator</i> , <i>Market Operator</i> and <i>WESM Member</i> , to the extent that such event, despite the exercise of the reasonable diligence, cannot be or be caused to be prevented, or removed and has resulted in a reduction in the normal capacity of part or all of the power <i>transmission system</i> during the <i>trading</i> <i>dispatch</i> <i>interval</i> and such reduction is likely to materially affect the operation of the <i>spot market</i> or materially threaten <i>system security</i> .	<ul style="list-style-type: none"> • For clarity
Declaration of Market Suspension	6.9.2.2	The <i>spot market</i> is deemed suspended at the start of the <i>trading interval</i> in which the <i>ERC</i> advises the <i>Market Operator</i> that the spot market is suspended.	The <i>spot market</i> is deemed suspended at the start of the <i>trading</i> <i>dispatch interval or any settlement interval</i> in which the <i>ERC</i> advises the <i>Market Operator</i> that the <i>spot market</i> is suspended.	Consistent with the proposed amendment in clause 3.1 on the implementation of dispatch interval.
Effect of Market Suspension	6.9.3.1	The <i>market price</i> during a <i>trading interval</i> in which the <i>ERC</i> has declared the <i>spot market</i> to be suspended and up to the time that the market resumes in accordance with Clause 6.9.2.4 is to be determined by the <i>Market Operator</i> in accordance with Clause 6.2.3.	The market price during a <i>trading</i> <i>dispatch interval</i> in which the <i>ERC</i> has declared the <i>spot market</i> to be suspended and up to the time that the market resumes in accordance with Clause 6.9.2.4 is to be determined by the <i>Market Operator</i> in accordance with Clause 6.2.3.	Consistent with the proposed amendment in clause 3.1 on the implementation of dispatch interval.
Effect of Market Suspension	6.9.3.2	During a <i>trading interval</i> in which the <i>spot market</i> is suspended, the <i>WESM Rules</i> will continue to apply with such modifications as the <i>Market Operator</i> reasonably determines to be necessary, taking into consideration the circumstances and conditions giving	During a <i>trading</i> <i>dispatch interval</i> in which the <i>spot market</i> is suspended, the <i>WESM Rules</i> will continue to apply with such modifications as the <i>Market Operator</i> reasonably determines to be necessary, taking into consideration the circumstances and conditions giving rise to	Consistent with the proposed amendment in clause 3.1 on the implementation of dispatch interval.

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		rise to the decision by <i>the ERC</i> to suspend the <i>spot market</i> .	the decision by the <i>ERC</i> to suspend the <i>spot market</i> .	
Breaches of the WESM Rules by WESM Members	7.2.2.8	<p>The <i>Enforcement and Compliance Officer</i> may further recommend to the <i>PEM Board</i> that the <i>WESM Member</i> determined to be in breach be suspended in accordance with Clause 3.15.7 if the said <i>Member</i> has:</p> <p>xxx</p> <p>The <i>Enforcement and Compliance Officer</i> may recommend to the <i>PEM Board</i> for approval the suspension of the party in breach in accordance with Clause 3.15.7.</p>	<p>The <i>Enforcement and Compliance Officer</i> may further recommend to the <i>PEM Board</i> that the <i>WESM Member</i> determined to be in breach be suspended in accordance with clause 3.15.73.15.8 if the said <i>Member</i> has:</p> <p>xxx</p> <p>The <i>Enforcement and Compliance Officer</i> may recommend to the <i>PEM Board</i> for approval the suspension of the party in breach in accordance with Clause 3.15.73.15.8.</p>	Correction of clerical error. Issuance of suspension notice is provided under 3.15.8.
Glossary	11	Ancillary services cost recovery charge. The charge payable by <i>WESM Members</i> for recovery of the cost incurred by the Market Operator for the provision of Ancillary Services.	Ancillary services cost recovery charge. The charge payable by <i>WESM Members</i> for recovery of the cost incurred by the Market Operator for the provision of Ancillary Services.	Consistent with the proposed changes in Clause 3.3.5.2.
Glossary	11	NEW	Automatic Pricing Re-run. The automated process under Clause 3.6.7 that solves the <i>market dispatch optimization model</i> with relaxed constraints after detecting non-zero constraint violation variable values to produce <i>energy</i> and <i>reserve</i> prices according to the <i>timetable</i> .	Consistent with Clause 3.6.7.
Glossary	11	Constraint Violation Coefficients. Coefficients set by the <i>Market Operator</i> in accordance with clause 3.6.2. The Market Operator is to ensure that, if constraints shall be violated, such violation will occur in	Constraint Violation Coefficients. Coefficients set for constraint violation variables by the <i>Market Operator</i> in accordance with Clause 3.6.2. The <i>Market Operator</i> shall is to ensure that, if constraints shall be violated, such	For clarity

Title	Section	Provision	Proposed Amendment	Rationale
		appropriate priority order.	violation will occur in appropriate priority order.	
Glossary	11	Customer Node. A market trading node at which electricity will normally be purchased from the spot market and which is classified as a customer node in accordance with clause 3.2.2.2.	Customer Market Trading Node. A market trading node at which electricity will normally be purchased from the spot market and which is classified as a customer market trading node in accordance with Clause 3.2.2.2.	For clarity
Glossary	11	Dispatch Tolerances. Limits on the extent to which Trading Participants may deviate from dispatch targets determined by the System operator in accordance with clause 3.8.7.	Dispatch Tolerances Conformance Standards . Limits on the extent to which Trading Participants may deviate from dispatch targets determined by the System operator Standards that define whether or not dispatched Trading Participants comply with dispatch schedules and dispatch instructions for energy and reserves in accordance with Clause 3.8.7 3.8.5 .	Same with Clause 3.8.7
Glossary	11	NEW	<u>Dispatch Instruction. Refers to the instruction issued by the System Operator to Trading Participants such as Generation Companies with Scheduled Generating Units and to Generation Companies whose Generating Units will provide Ancillary Services to implement the final Dispatch Schedule in real time.</u>	For clarity.
Glossary	11	NEW	<u>Dispatch Interval. A five-minute period commencing every five (5) minutes according to the Timetable and Clause 3.4.1.</u>	Same as clause 3.1
Glossary	11	Dispatch Schedule. The target loading levels in MW for each scheduled generating unit,	Dispatch Schedule. The target loading levels in MW for each scheduled generating unit,	Same as clause 3.1

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		must dispatch generating unit, priority dispatch generating unit, non-scheduled generating unit, scheduled load and reserve facility for the end of that trading interval, determined by the <i>Market Operator</i> through the use of a market dispatch optimization model in accordance with Clause 3.8.1.	must dispatch generating unit, priority dispatch generating unit, non-scheduled generating unit, scheduled load and reserve facility for the end of that trading dispatch interval , determined by the <i>Market Operator</i> through the use of a market dispatch optimization model in accordance with Clause 3.8.1.	
Glossary	11	Ex-Ante Energy Settlement Price. The ex-ante nodal energy price or the ex-ante zonal reserve price, as may be appropriate, determined in accordance with clause 3.10.12.	<p>Ex-Ante Energy Settlement Price. The ex-ante schedule-weighted average nodal energy dispatch prices or the ex-ante zonal reserve price, as may be appropriate, for the set of dispatch intervals corresponding to a settlement interval, determined for a market trading node in accordance with Clause 3.10.12 3.10.6.</p> <p>Reserve Settlement Price. The schedule-weighted average price for each reserve region and reserve category in each settlement interval, determined in accordance with Clause 3.10.7.</p>	Same as clauses 3.1, and 3.10.1
Glossary	11	NEW	Energy Trading Amount. Determined as the energy settlement price for that node in that settlement interval multiplied by the energy settlement quantity (in MWh) for that node in that settlement interval in accordance with Clause 3.13.8.	<ul style="list-style-type: none"> • Same as clause 3.10.1 <p>For consistency with the proposed amendments in clause 3.13.8</p>
Glossary	11	Ex-Ante. A matter determined in relation to a trading interval before that trading interval commences.	Ex-Ante. A matter determined in relation to a trading dispatch interval before that trading dispatch interval commences.	Same as clause 3.1

Title	Section	Provision	Proposed Amendment	Rationale
Glossary	11	Ex-Ante Dispatch. The dispatch targets set for the end of a trading interval, immediately preceding the beginning of that trading interval.	Ex-Ante Dispatch. The dispatch targets set for the end of a trading interval, immediately preceding the beginning of that trading interval.	<ul style="list-style-type: none"> • Also refers to dispatch schedule.
Glossary	11	Ex-Ante Nodal Energy Price. The price determined by the Market Operator for a particular market network node and trading interval, immediately prior to commencement of that trading interval, directly from the dispatch optimization for that trading interval in accordance with clause 3.10.2.	Ex-Ante Nodal Energy Dispatch Price. The price determined by the Market Operator for a particular market network node and trading dispatch interval, immediately prior to commencement of that trading dispatch interval, directly from the market dispatch optimization for that trading dispatch interval in accordance with Clause 3.10.2. <u>In the case of market projections, the nodal energy price may be determined on a dispatch interval basis (hour ahead projections) or trading one hour interval basis (day ahead projections and week ahead projections).</u>	Same as clause 3.1
Glossary	11	Ex-Ante Zonal Energy Price. The price determined by averaging ex-ante nodal energy prices in accordance with clause 3.10.3.	Ex-Ante Zonal Energy Price. The price determined by averaging ex-ante nodal energy prices in accordance with clause 3.10.3 for each customer pricing zone under clause 3.2.3.	Same as clause 3.10.1
Glossary	11	<p>Ex-post. A matter determined in relation to a trading interval after that trading interval concludes.</p> <p>Ex-Post Energy Settlement Price. The ex-post nodal energy price or the ex-post zonal energy price, as appropriate, determined in accordance with clause 3.10.12.</p>	<p>Ex-post. A matter determined in relation to a trading interval after that trading interval concludes.</p> <p>Ex-Post Energy Settlement Price. The ex-post nodal energy price or the ex-post zonal energy price, as appropriate, determined in accordance with clause 3.10.12.</p>	Same as clause 3.10.1

Title	Section	Provision	Proposed Amendment	Rationale
		<p>Ex-Post Energy Settlement Quantity. The amount determined by the System Operator in accordance with clause 3.13.6.</p> <p>Ex-Post Nodal Energy Price. The price determined by the Market Operator for a particular market node and trading interval, after the end of that trading interval in accordance with clause 3.10.6.</p> <p>Ex-Post Zonal Energy Price. A price determined by averaging ex-post nodal energy prices in accordance with clause 3.10.11.</p>	<p>Ex-Post Energy Settlement Quantity. The amount determined by the System Operator in accordance with clause 3.13.6.</p> <p>Ex-Post Nodal Energy Price. The price determined by the Market Operator for a particular market node and trading interval, after the end of that trading interval in accordance with clause 3.10.6.</p> <p>Ex-Post Zonal Energy Price. A price determined by averaging ex-post nodal energy prices in accordance with clause 3.10.11.</p>	
Glossary	11	Excess Generation. Generations which may be scheduled to occur in excess of load requirements, even though market energy prices have fallen to the market price floor, and which shall then be dealt with in accordance with clause 3.9.8.	Excess Generation. Generations which may be scheduled to occur in excess of load requirements, even though market nodal energy dispatch prices have fallen to the market price floor, and which shall then be dealt with in accordance with clause 3.9.8.	Same as clause 3.10.2
Glossary	11	Generator Node. A market trading node at which electricity will normally be sold to the spot market and which is classified as a generator node in accordance with clause 3.2.2.2.	Generator Market Trading Node. A market trading node at which electricity will normally be sold to the spot market and which is classified as a generator market trading node in accordance with Clause 3.2.2.2.	For clarity
Glossary	11	Gross Ex-Ante/Ex-Post Energy Settlement Quantity. The ex-ante/ex-post energy settlement quantity determined in accordance with clauses 3.13.5/3.13.6 for a market trading node, in a trading interval before any adjustment for bilateral contracts.	Gross Ex-Ante/Ex-Post Energy Settlement Quantity. The ex-ante/ex-post energy settlement quantity determined in accordance with Clauses 3.13.5/3.13.6 for a market trading node, in a trading settlement interval before any adjustment for bilateral contracts.	Same as clause 3.10.1

Title	Section	Provision	Proposed Amendment	Rationale
Glossary	11	NEW	<u>Hour Ahead Projection. Projections of market conditions for the dispatch intervals in the hour ahead determined and published by the Market Operator in accordance with clause 3.7.3.</u>	Same as clause 3.1
Glossary	11	Interruptible Load. Means load that a Customer is able to interrupt at very short notice in response to: (a) A frequency deviation; or (b) A request of the System operator, in order to meet contingency reserve requirements, subject to the requirements of the Grid Code and Distribution Code.	Interruptible Load. Means load that a Customer is able to interrupt at very short notice in response to: (a) A frequency deviation; or (b) A request of the System Operator, in order to meet contingency reserve <u>applicable ancillary service</u> requirements, subject to the requirements of the Grid Code and Distribution Code.	Consistent with clause 3.3
Glossary	11	Line Rental. The economic rental arising from the use of a transmission line, calculated as the difference in value between flows out of the receiving node of that line and flows into the sending node, in accordance with clause 3.13.12.	Line Rental. The economic rental arising from the use of a transmission line, calculated as the difference in value between flows out of the receiving node of that line and flows into the sending node, in accordance with clause 3.13.12 <u>3.13.11</u> .	For consistency in the proposed amendments in clause 3.13.12.
Glossary	11	Load Weighted Average. An average produced by multiplying each nodal energy price by the load at that node, summing the results, and then dividing by the sum of the loads involved.	Load Weighted Average. An average produced by multiplying each nodal energy <u>dispatch</u> price by the load at that node, summing the results, and then dividing by the sum of the loads involved.	Same as clause 3.1
Glossary	11	Market Bid. A demand bid for a particular trading interval of a particular trading day in the current market horizon, whether formed from a standing bid in accordance with clause 3.5.10 or revised by the relevant	Market Bid. A demand bid for a particular <u>dispatch interval corresponding to a settlement</u> interval of a particular trading day in the current market horizon, whether formed from a standing bid in accordance with clause	Same as clause 3.1

Title	Section	Provision	Proposed Amendment	Rationale
		Trading Participant, in accordance with clause 3.5.11.	3.5.10 or revised by the relevant Trading Participant, in accordance with clause 3.5.11.	
Glossary	11	Market Dispatch Optimization Model. The optimization model which contains the mathematical algorithm approved by the PEM Board to be used for the purposes of determining dispatch schedules and energy prices, and preparing market projections based on the price determination methodology approved by ERC.	Market Dispatch Optimization Model. The optimization model which contains the mathematical algorithm approved by the PEM Board to be used for the purposes of determining dispatch schedules and nodal energy dispatch prices, and preparing market projections based on the price determination methodology approved by <i>ERC</i> .	Same as clause 3.10.2
Glossary	11	Market Network Model. A mathematical representation of the power system, which will be used for the purpose of determining dispatch schedules and energy prices, and preparing market projections.	Market Network Model. A mathematical representation of the power system, which will be is used for the purpose of determining dispatch schedules and nodal energy dispatch prices, and preparing market projections	Same as Clause 3.10.2
Glossary	11	Market Offer. A generation offer for a particular trading interval of a particular trading day in the current market horizon, whether formed from a standing offer in accordance with clause 3.5.10 or revised by the relevant Trading Participant, in accordance with clause 3.5.11.	Market Offer. A generation offer for a particular dispatch interval corresponding to a trading settlement interval of a particular trading day in the current market horizon, whether formed from a standing offer in accordance with Clause 3.5.10 or revised by the relevant Trading Participant, in accordance with Clause 3.5.11.	Same as Clause 3.1
Glossary	11	Market Price. A generic term covering prices for energy and reserve, ex-ante or ex-post, nodal or zonal, as appropriate.	Market Price. A generic term covering prices for energy and reserve, ex-ante or ex-post, nodal or zonal, as appropriate.	Same as Clause 3.10.1
Glossary	11	Market Projections. Week ahead or day ahead projections of spot market conditions, performed in accordance with clause 3.7.	Market Projections. Week ahead or, day ahead, or hour ahead projections of spot market conditions, performed in accordance	Same as Clause 3.1

Title	Section	Provision	Proposed Amendment	Rationale
Glossary	11	Must-Run Unit (MRU). A generating unit identified and instructed, by the System Operator to either a) come on-line, or b) provide additional energy on a particular Trading Interval but the dispatch of which is said to be Out of Merit, to address System Security requirements. For clarity, MRU shall be utilized only after the System Operator has exhausted all available Ancillary Services. MRUs are classified as follows: a. Scheduled MRU - MRU designated by the System Operator before the trading interval and included in the Real Time Dispatch schedule through the imposition of Security Limit as defined in the WESM Dispatch Protocol Manual. b Real- Time MRU - MRU designated by the System Operator within a trading interval.	with clause 3.7. Must-Run Unit (MRU). A generating unit identified and instructed, by the System Operator to either a) come on-line, or b) provide additional energy on a particular Trading-dispatch Interval but the dispatch of which is said to be Out of Merit, to address System Security requirements. For clarity, MRU shall be utilized only after the System Operator has exhausted all available Ancillary Services. MRUs are classified as follows: a. Scheduled MRU - MRU designated by the System Operator before the trading-dispatch interval and included in the Real Time Dispatch schedule through the imposition of Security Limit as defined in the WESM Dispatch Protocol Manual. b Real- Time MRU - MRU designated by the System Operator within a trading-dispatch interval.	Same as Clause 3.1
Glossary	11	Net Settlement Surplus. The settlement surplus remaining after all market transactions have been accounted for, including the assignment of transmission line rentals to Network Service Providers. This remainder is assumed to be attributable to economic rentals arising from other binding constraints, and accounted for in accordance with clause 3.13.16.	Net Settlement Surplus. The settlement surplus remaining after all market transactions have been accounted for, including the assignment of transmission line rentals to Network Service Providers. This remainder is assumed to be attributable to economic rentals arising from other binding constraints, and accounted for in accordance with Clause 3.13.16 3.13.14 .	For consistency in the proposed amendments in clause 3.13.16.
Glossary	11	Nodal Energy Price. The energy price at a node determined ex ante or ex-post.	Nodal Energy Price. The energy price at a node determined ex ante or ex-post	See proposed amendment on Ex-ante Nodal Energy Dispatch Price
			Nodal Energy Dispatch Price. The price	Consistent with the proposed

Title	Section	Provision	Proposed Amendment	Rationale
			<u>determined by the Market Operator for a particular market trading node and dispatch interval, immediately prior to commencement of that dispatch interval, directly from the dispatch optimization for that dispatch interval in accordance with Clause 3.10.2.</u>	amendments in clause 3.10.2.
Glossary	11	Pricing error notice. A notice issued in accordance with clause 3.9.6 advising the market that the ex ante prices for a particular trading interval are unavailable, or invalid.	Pricing error notice. A notice issued in accordance with Clause 3.9.6 advising the market that the ex-ante prices for a particular trading dispatch interval are unavailable, or invalid.	Same as clause 3.1
Glossary	11	Projected Output. The loading level nominated by a generation company for its must dispatch generating units or priority dispatch generating units indicating the forecasted output of its must dispatch generating unit or priority dispatch generating unit at the end of a trading interval.	Projected Output. The loading level nominated by a generation company for its must dispatch generating units or priority dispatch generating units indicating the forecasted output of its must dispatch generating unit or priority dispatch generating unit at the end of a trading trading <u>dispatch</u> interval.	Same as clause 3.1
Glossary	11	Projection. A set of results derived in accordance with clause 3.7 from a series of market dispatch optimization model runs describing projected market conditions over a day-ahead or week-ahead market horizon for a particular scenario of net forecast load, and set of assumptions with respect to availability of key system elements.	Projection. A set of results derived in accordance with clause 3.7 from a series of market dispatch optimization model runs describing projected market conditions over <u>an hour-ahead</u> , day-ahead or week-ahead or <u>hour-ahead</u> market horizon for a particular scenario of net forecast load, and set of assumptions with respect to availability of key system elements.	For consistency with the proposed implementation of hour ahead projections
Glossary	11	Receiving node. For a transmission line, the	Receiving node. For a transmission line, the	For consistency in the proposed amendments Clauses 3.13.12 and

Title	Section	Provision	Proposed Amendment	Rationale
		node from which there is a net flow of electricity out of that line in a particular trading interval to be accounted for in determining the line rental, in accordance with clause 3.13.12. For a transmission right, the node to which the issuer of the transmission right is deemed to guarantee transfer of electricity, to be advised to the Market Operator in accordance with clause 3.13.2 and accounted for in accordance with clause 3.13.15.	node from which there is a net flow of electricity into out of that line in a particular trading settlement interval to be accounted for in determining the line rental, in accordance with Clause 3.13.12 3.13.11 . For a transmission right, the node to which the issuer of the transmission right is deemed to guarantee transfer of electricity, to be advised to the Market Operator in accordance with Clause 3.13.2 and accounted for in accordance with clause 3.13.15.	3.13.15.
Glossary	11	Reserve. Contingency reserve or regulating reserve.	<u>Reserve. Ancillary services that are traded in the WESM.</u>	General definition to ensure consistency with the proposed amendments in clause 3.3.
Glossary	11	Reserve Effectiveness Factor. A factor to define the effectiveness of reserve from a particular type of reserve provider in meeting requirements for particular reserve categories.	Reserve Effectiveness Factor. A factor to define the effectiveness of reserve from a particular type of reserve provider in meeting requirements for particular reserve categories.	Same as clause 3.3.7.4.
Glossary	11	Reserve Facility Category. A particular type of reserve facility, characterized by its technology (eg interruptible load, synchronized generation, non-synchronized generation) which is reflected in the type of offer it can make, and the reserve effectiveness factor.	Reserve Facility Category. A particular type of reserve facility, characterized by its technology (eg interruptible load, synchronized generation, non-synchronized generation) which is reflected in the type of offer it can make, and the reserve effectiveness factor.	Same as clause 3.3.7.4.
Glossary	11	NEW	<u>Reserve Trading Amount. Determined for each Trading Participant who supplies reserve. This is computes as the reserve settlement price multiplied by the reserve settlement quantity for that Trading</u>	For consistency in the proposed amendments in clause 3.13.10.

Title	Section	Provision	Proposed Amendment	Rationale
			<u>Participant in that reserve region for that settlement interval in accordance with Clause 3.13.9.</u>	
Glossary	11	Run. A particular instance of the market dispatch optimization model performed for a particular trading interval, or a set of such instances model performed for all the trading intervals in a market horizon.	<u>Market Run.</u> A particular instance of the market dispatch optimization model performed for a particular trading dispatch interval, or a set of such instances model performed for all the trading dispatch intervals in a market horizon.	Same as clause 3.1
Glossary	11	Sending node. For a transmission line, the node into which there is a net flow of electricity out of that line in a particular trading interval to be accounted for in determining the line rental, in accordance with clause 3.13.12. For a transmission right, the node from which the issuer of the transmission right is deemed to guarantee transfer of electricity, to be advised to the Market Operator in accordance with clause 3.13.2 and accounted for in accordance with clause 3.13.15.	Sending node. For a transmission line, the node into which there is a net flow of electricity out of that line in a particular trading settlement interval to be accounted for in determining the line rental, in accordance with clause 3.13.12 3.13.11 . For a transmission right, the node from which the issuer of the transmission right is deemed to guarantee transfer of electricity, to be advised to the Market Operator in accordance with clause 3.13.2 and accounted for in accordance with clause 3.13.15.	For consistency in the proposed amendments in clauses 3.13.12 and 3.13.15.
Glossary	11	Settlement Amount. The amount payable by or to a Trading Participant, or Network Service Provider, in respect of a billing period as determined by the Market Operator under clause 3.13.14 or clause 3.13.15.	Settlement Amount. The amount payable by or to a Trading Participant, or Network Service Provider, in respect of a billing period as determined by the Market Operator under clause 3.13.14 3.13.13 or clause 3.13.15.	For consistency in the proposed amendments in clauses 3.13.14.
Glossary	11	NEW	<u>Settlement interval. A 1-hour period commencing on the hour according to the Timetable and clause 3.4.2.</u>	For consistency in the proposed amendments in clause 3.4.2

Title	Section	Provision	Proposed Amendment	Rationale
Glossary	11	Settlement Price. An ex-ante or ex-post energy settlement price.	Settlement Price. An ex-ante or ex-post energy or reserve settlement price.	Same as clause 3.10.1
Glossary	11	Settlement Quantity. An ex-ante or ex-post energy settlement quantity, or a zonal reserve settlement quantity.	Settlement Quantity. An ex-ante or ex-post energy settlement quantity , or a zonal reserve settlement quantity.	Same as clauses 2.3.1.3 and 3.10.1
Glossary	11	Suspension Notice. A notice issued by the Market Operator under clause 3.15.7.	Suspension Notice. A notice issued by the Market Operator under clause 3.15.7 3.15.8 .	Correction of clerical error. Issuance of suspension notice is provided under 3.15.8.
Glossary	11	NEW	<u>Technical Committee. The committee of that name established in accordance with clause 1.7.</u>	For consistency since other WESM Governance Committees are defined.
Glossary	11	Timetable. The timetable prepared by the Market Operator for operation of the spot market in accordance with clause 3.4.2.	Timetable. The timetable prepared by the Market Operator for operation of the spot market in accordance with clause 3.4.2 3.4.3 .	For consistency in the proposed amendments in 3.4.2 and 3.4.3,
Glossary	11	Trading Amount. The amount to be paid by, or paid to a Trading Participant, or Network Service Provider in respect of energy, reserve, line rentals, or transmission rights calculated in accordance with clauses 3.13.7, 3.13.8, 3.13.9, 3.13.10, or 3.13.14 respectively.	Trading Amount. The amount to be paid by, or paid to a Trading Participant, or Network Service Provider in respect of energy, reserve, line rentals, or transmission rights calculated in accordance with clauses 3.13.7, 3.13.8, 3.13.9, 3.13.10 , or 3.13.14 3.13.13 respectively.	For consistency in the proposed amendments in clauses 3.13.10 and 3.13.14.
Glossary	11	Trading interval. A 1-hour period commencing on the hour .	Trading interval. A 1-hour period commencing on the hour .	See Dispatch Interval.
Glossary	11	Transmission Right. The right to financial compensation based on differences between nodal energy prices at different market	Transmission Right. The right to financial compensation based on differences between nodal energy dispatch prices at different	Consistent with the proposed amendments on the definition of nodal energy prices and clauses

Title	Section	Provision	Proposed Amendment	Rationale
		trading nodes as notified under clause 3.13.2, and settled in accordance with clause 3.13.15.	market trading nodes as notified under Clause 3.13.2 3.13.3 , and settled in accordance with Clause 3.13.15 3.13.12 .	3.13.2 and 3.13.15.
Glossary	11	WESM Participants. All Generation Companies, Distribution Utilities, Suppliers, Aggregators, End-users, the TRANSCO or its Buyer or Concessionaire, IPP Administrators, and other entities authorized by the ERC to participate in the WESM in accordance with the Act.	WESM Participants. All Generation Companies, Distribution Utilities, Suppliers, Aggregators, End-users, the TRANSCO or its Buyer or Concessionaire, IPP Administrators, and other entities under clause 2.2.1 that are authorized by the ERC to participate in the WESM in accordance with the Act.	Examples are provided under clause 2.2.1
Glossary	11	Zonal Energy Price. An ex-ante or ex-post zonal energy price.	Zonal Energy Price. An ex-ante or ex-post zonal energy price. The price determined in accordance with Clause 3.10.3 for each customer pricing zone under Clause 3.2.3.	Same as clause 3.10.1
Glossary	11	Zonal Reserve Price. The price for reserve in a particular supply zone, and trading interval, determined in accordance with clause 3.10.10.	Zonal Reserve Price. The price for reserve in a particular supply zone reserve region and dispatch trading interval, determined in accordance with Clause 3.10.10 3.10.7 .	For consistency in the proposed amendments in clause 3.10.10.
Glossary	11	Zonal Reserve Settlement Quantity. The amount of reserve deemed to have been supplied by a reserve supplier in a particular reserve region and trading interval, determined in accordance with clause 3.13.4.	Zonal Reserve Settlement Quantity. The amount of reserve deemed to have been supplied by a reserve supplier in a particular reserve region and trading settlement interval, determined in accordance with Clause 3.13.4 3.13.5 .	Same as clause 2.3.1.3 and renumbering of reference clause.
Glossary	11	Ancillary services cost recovery charge. The charge payable by <i>WESM Members</i> for recovery of the cost incurred by the Market Operator for the provision of Ancillary Services.	Ancillary services cost recovery charge. The charge payable by <i>WESM Members</i> for recovery of the cost incurred by the <i>Market Operator</i> for the provision of <i>Ancillary Services</i>.	Consistent with the proposed changes in Clause 3.3.5.2.

Title	Section	Provision	Proposed Amendment	Rationale
Glossary	11	NEW	Automatic Pricing Re-run. The automated process under Clause 3.6.7 that solves the <i>market dispatch optimization model</i> with relaxed constraints after detecting non-zero constraint violation variable values to produce <i>energy</i> and <i>reserve</i> prices according to the <i>timetable</i> .	Consistent with Clause 3.6.7.
Glossary	11	Constraint Violation Coefficients. Coefficients set by the <i>Market Operator</i> in accordance with clause 3.6.2. The <i>Market Operator</i> is to ensure that, if constraints shall be violated, such violation will occur in appropriate priority order.	Constraint Violation Coefficients. Coefficients set for constraint violation variables by the <i>Market Operator</i> in accordance with Clause 3.6.2. The <i>Market Operator</i> shall is to ensure that, if constraints shall be violated, such violation will occur in appropriate priority order.	For clarity
Generation Offer	Appendix A1.1	Generation offers: (a) Shall include the location of the connection point and relevant market network node; (b) Shall include the pricing zone of the connection point, (c) May include up to ten (10) energy offer blocks per (aggregate) unit. The maximum combined capacity of generation and reserve offers must not be less than the maximum available capacity of the generator. (d) Shall be for a minimum block size of one (1) MW; (e) Shall have monotonically increasing prices, starting from zero generation; (f) May include negative prices; (g) Shall include maximum up/down ramp rates; and	Generation offers: (a) Shall include the location of the connection point and relevant market network node; (b) Shall include the pricing zone of the connection point, (c) May include up to ten (10) energy generation offer blocks per (aggregate) unit. The maximum combined capacity of generation and reserve offers must not be less than the maximum available capacity of the generator. (d) (b) Shall be for a minimum block size of one (1) MW; (e) (c) Shall have monotonically increasing prices, starting from zero generation; (f) (d) May include negative prices; and (g) (e) Shall include minimum and maximum up/down ramp rates; and	For consistency in the proposed amendments in clause 3.5.5.2.

Title	Section	Provision	Proposed Amendment	Rationale
		(h) Shall include an operating range (upper and lower limit).	(h) Shall include an operating range (upper and lower limit).	
Reserve Offers	Appendix A1.2	<p>A1.2 Reserve Offers Regulation reserve offers from Generation Companies shall consist of:</p> <p>(a) xxx (d) A minimum block size of one (1) MW; and and (e) Monotonically increasing prices starting from zero for the first offer block, which shall correspond to the mandatory reserve capability required from that Generation Company under its connection agreement.</p> <p>Contingency reserve offers from Generation Companies shall consist of:</p> <p>(a) xxx (g) xxx</p> <p>Contingency reserve offers from Customers shall consist of:</p> <p>(a) xxx (b) xxx (c) xxx (d) A minimum block size of one (1) MW; and and (e) Monotonically increasing prices.</p>	<p>A1.2 Reserve Offers Regulation reserve Reserve offers from Generation Companies shall consist of:</p> <p>(a) xxx (d) A minimum block size of one (1) MW; and (e) Monotonically increasing prices starting from zero for the first offer block, which shall correspond to the mandatory reserve capability required from that Generation Company under its connection agreement.</p> <p>Contingency reserve offers from Generation Companies shall consist of:</p> <p>(a) xxx (g) xxx</p> <p>Contingency reserve Reserve offers from Customers shall consist of:</p> <p>(a) xxx (b) xxx (c) xxx (d) A minimum block size of one (1) MW; and (e) Monotonically increasing prices.</p>	<ul style="list-style-type: none"> • For consistency in the proposed amendments in clause 3.3. • Re-numbering
Information to be Supplied by Network Service	Appendix A2	<p>Network Characteristics Most of these information will be supplied as standing data which will be updated only as required for a trading interval.</p>	<p>Network Characteristics Most of these information will be supplied as standing data which will be updated only as required for a trading dispatch interval.</p>	For consistency in the proposed amendments in clause 3.1.

Title	Section	Provision	Proposed Amendment	Rationale
Provider				