

MINUTES OF THE RULES CHANGE COMMITTEE 130th REGULAR MEETING (No. 2017-08)	
Meeting Date & Time:	09 June 2017, 9:00 AM to 4:00 PM
Meeting Venue:	9/F PEMC Training Rooms 2 and 3, Robinsons Equitable Tower, Ortigas Center, Pasig City
Attendance List	
In-Attendance	Not In-Attendance
Rules Change Committee Principal Members: Allan C. Nerves–Independent Maila Lourdes G. de Castro, Chairperson – Independent Francisco Leodegario R. Castro, Jr. – Independent Abner B. Tolentino – Generation (PSALM) Jose Ildebrando B. Ambrosio – Generation (Northwind) Theo Cruz Sunico – Generation (1590 EC) Ciprinilo C. Meneses – Distribution (MERALCO) Juanito O. Tolentino, Jr. – Distribution (MECO) Jose P. Santos –Distribution (INEC) Ludovico D. Lim – Distribution (ANTECO) Lorreto H. Rivera – Supply (TPEC) Ambrocio R. Rosales – System Operator (NGCP) Isidro E. Cacho – Market Operator (PEMC)	Concepcion I. Tanglao – Independent
PEMC – Market Assessment Group (MAG) Chrysanthus S. Heruela Elaine D. Gonzales Geraldine A. Rodriguez Karen A. Varquez Divine Gayle C. Cruz Aldjon Kenneth M. Yap	

PEMC – Legal

Atty. Caryl Miriam L. Mateo
Atty. Sheryll M. Dy

PEMC – Billing and Settlement

Richard Araullo

PEMC – Trading Operation Department

Edward Olmedo

DOE Observers

Ferdinand B. Binondo

1 There being a quorum, Dr. Allan C. Nerves (Independent) called the meeting to order at
2 approximately 9:15 AM. The RCC adopted the proposed agenda, as revised.

3 **1. Review of the Minutes of the Previous Meetings**
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5 The minutes of the 129th RCC meeting held on 19 May 2017 was approved as submitted.
6

7 The following discussions were likewise made during the review of the minutes:
8

9 **▪ On the Dispatch Protocol Manual**
10

11 Taking off from the documented deliberation on the Dispatch Protocol Manual during the
12 previous meeting, Mr. Ambrocio R. Rosales (NGCP-SO) sought to clarify Section 14.4.2
13 *Post-Dispatch Reports and Information*, particularly on the contents of the Dispatch
14 Deviation Reports provided by the System Operator. Further discussions on this matter
15 are documented under Item 2.2 below.
16

17 **▪ On the WESM Metering Manual**
18

19 On Ms. Concepcion Tanglao's (Independent) request to confirm whether or not the RCC
20 agreed to lift from the WESM Rules the definition of variable *t* or *dispatch interval time*
21 used in the formula for computing Site-Specific Loss Adjustments, the Secretariat and Mr.
22 Isidro Cacho (PEMC-MO) clarified that the term *dispatch interval time* is not, in fact, found

or used in the WESM Rules. Hence, the revisions made to the definition of variable t as agreed in the previous meeting were retained.

2. Business Arising from Previous Meetings

2.1. Finalization of Proposed Amendments to the WESM Manual on Metering Standards and Procedures relative to WESM Design Enhancements

In reference to what had been discussed in the previous meeting, Mr. Cacho sought to confirm with the representatives from the Distribution Utilities (DU) and Electric Cooperatives (EC) whether they agree with the PEMC-MO's recommendation, as documented in the minutes, for the DOE to include transitory arrangements in the Department Circular in the meantime that the DUs and ECs have yet to re-configure their respective revenue meters to read 5-minute meter data, specifically, by simply dividing their 15-minute meter readings by three (3). Mr. Ludovico Lim (ANTECO) agreed with this interim arrangement until such time that the DUs and ECs are able to submit actual 5-minute meter data.

In this regard, the RCC agreed to include in its resolution for the proposed amendments to the WESM Metering Manual the suggestion for the DOE to provide the above-described transitory arrangements in the resulting Department Circular approving the proposal.

Also, during the previous meeting of the RCC, the body requested the Philippine Electricity Market Corporation – Billing, Settlement and Metering Department (PEMC – BSMD) to provide a sample computation for the Site-Specific Loss Adjustment (SSLA) given the interim arrangement agreed upon for the utilization of a 5-minute dispatch interval for metering data based on a 15-minute resolution, pending the acquisition of meters capable for the 5-minute dispatch interval.

In compliance with the instructions of the RCC, Mr. Richard Araullo of PEMC-BSMD presented the sample computation for SSLA using seven (7) sample metering points based on a 15-minute resolution divided by three, which is the only manner by which DUs and ECs are likely to provide the computation for the time being to comply with the required submission of 5-minute meter readings (see Annex A).

A comparison of the computations, which yielded differences between the current hourly resolution and the 5-minute resolution, was also presented to the RCC. The RCC opined that the difference in the time resolutions used should not cause any discrepancies in the calculations, as the formula merely divided the values by three (3).

Noting this, the RCC instructed the PEMC-BSMD to either further review the formula such that the computed values for the different resolutions would not differ materially, or propose

an entirely different formula using 5-minute dispatch interval as variable and not merely use the current formula though applied for 5-minute interval.

The body also instructed PEMC-BSMD to produce a computation for the SSLA using actual 5-minute metering data to compare with the 15-minute meter data divided by 3. The RCC, especially the representatives from the Distribution sector, wish to understand the difference in the amount of SSLA that they could expect between using 15-minute and actual 5-minute meter reading. Mr. Lim further explained that while the difference in SSLA between 15-minute and 5-minute meter data might look insignificant if seen per dispatch interval, the accumulated amount throughout a whole billing period's worth of these differences may be significant enough to necessitate justifying to their consumers a possible increase in pass-through charges.

In order to provide the sample computation, Mr. Araullo explained that PEMC would have to coordinate with NGCP for them to provide both actual 5-minute meter data and 15-minute meter data from the same metering points for those revenue meters that the NGCP has already re-configured to record every 5 minutes.

The RCC noted to take up the matter again in its next scheduled meeting, after PEMC's submission of additional computations as requested by the RCC.

Agreements/Action Plans
<p>The RCC agreed to continue the deliberation of the proposal considering their instructions to PEMC as follows:</p> <ul style="list-style-type: none">a) Revise the current formula or propose a new formula for computing SSLA using 5-minute interval as variable.b) Provide sample computations using actual 5-minute meter readings for comparison with 15-minute meter readings.

2.2. Finalization of Proposed Amendments to the WESM Rules and Various Manuals for the Implementation of WESM Design Enhancements – Dispatch Protocol Manual Issue 12 (Proposed Dispatch Protocol Manual Issue 13)

a) Section 14.4.2 *Post-Dispatch Reports and Information*:

In reference to the agreed upon amendments to Section 14.4.2 in the previous meeting, as follows:

Dispatch Deviation Report. For each trading day, the System Operator shall prepare a report presenting on an hourly basis all instances in which the deviation from the dispatch schedule per category occurred all re-dispatch instructions it has issued to Trading Participants, including but not limited to the instructions pertaining to provision of ancillary services, and to emergency directions issued under WESM Rules Clauses 6.3 and 6.5.

Pursuant to section 5.5 of the WESM Manual on Management of Must-Run and Must-Stop Units At the minimum, the Dispatch Deviation Report shall contain the following information as the minimum:

- a. ~~Trading Date and interval concerned~~ Covered period (start time and end time)
- b. ~~Criteria used for the designation of the MRU/MSU~~ Type of instruction (must-run unit, provision of ancillary service)
- c. Short description of the issue being addressed (e.g. frequency breached x Hz)
- d. ~~Loading of scheduled Ancillary Services~~

Mr. Rosales clarified that the SO does not issue instructions to ancillary services providers, either those providing regulating or contingency reserves, since they are already scheduled. Hence, he requested amending the subject section to no longer reflect that Dispatch Deviation Reports should contain such instructions. He also requested to indicate that the Dispatch Deviation Report is submitted weekly, as currently being done by the SO.

The RCC agreed to revise the section as follows:

Dispatch Deviation Report. For each trading day, The System Operator shall prepare submit a report presenting to the Market Operator, on a weekly basis, containing deviation to actual dispatch from the RTD schedule for each trading day, on an hourly basis all instances in which the deviation from the dispatch schedule per category occurred including but not limited to all re-dispatch instructions it has issued to Trading Participants, including but not limited to the instructions pertaining to provision of ancillary services, and to emergency directions issued under WESM Rules Clauses 6.3 and 6.5.

Pursuant to section 5.5 of the WESM Manual on Management of Must-Run and Must-Stop Units The Dispatch Deviation Report shall contain, among others, the following information as the minimum:

- a. ~~Trading Date and interval concerned~~ Covered period (start time and end time)
- b. ~~Criteria used for the designation of the MRU/MSU~~ Resource name
- c. Reason for deviation:
 - Utilized for ancillary services
 - Testing Requirement
 - Re-dispatch of constrain-on and constrain-off generating units
 - Designation of must-run units
- d. ~~c.~~ Short description of the issue being addressed (e.g. frequency breached x Hz)
- d. ~~Loading of scheduled Ancillary Services~~

Agreements/Action Plans

The RCC agreed to adopt proposed further changes to Section 14.4.2 of the Dispatch Protocol Manual.

b) Provisions relative to Excess Generation procedures:

As requested by the RCC during its 129th meeting on 19 May 2017, Mr. Edward Olmedo from PEMC-TOD presented a simulation for excess generation during day-ahead projection (see Annex B).

For the simulation, the following cases were assumed for the day-ahead projection:

- ✓ The 24-hour demand profile during the dates with the minimum demand shall be used
- ✓ Pmin is assumed to be offered by generators at the floor price
- ✓ Ramping is based on maximum ramp rate
- ✓ In Day-Ahead and RTD, all generators are expected to offer their maximum capacities

The results of the simulation for the day-ahead projection were as follows:

- ✓ DAP solution did not reflect excess generation since commercial Pmin was zero (technical Pmin was not automatically committed, they were instead offered at floor price)
- ✓ Generation output of some North Luzon generators and Leyte A would be lower than technical Pmin
- ✓ Advisory from Market Operator was published (based on external application) that excess generation is experienced (sum of technical Pmin less demand > 0)
- ✓ Generators were given an idea that they would not be scheduled even when offer was at offer floor price
- ✓ Generators would have to make decisions to de-commit

After the presentation, Mr. Rosales opined that the procedure in addressing the foreseen excess generation was still unclear. Mr. Olmedo explained that if the generators are informed that it is scheduled under Pmin, then it will have the chance to de-commit its offers.

Mr. Ciprinilo Meneses (MERALCO) added that the agreement of the RCC during its previous meeting regarding the consideration of transmission loss factor in ranking which generators shall first be shut-down may aid in addressing the issues on excess generation. If a generator gets a schedule in the day-ahead projection that is below its technical Pmin, the generator with the highest transmission loss factor could be taken out of the stack then the schedules of the other generators next in line can be increased to compensate the removed generator.

182 In this way, there will be no generator dispatched below its technical Pmin. To this, Mr. Olmedo
183 answered that the Market Dispatch Optimization Model was re-designed to consider zero (0)
184 Pmin as valid, hence automatic re-stacking as Mr. Meneses described would not be possible.

185
186 Another concern raised by Mr. Rosales was the treatment of generators that may be bumped
187 off from the original schedule due to other generators that were scheduled below its Pmin but
188 still ran at its technical Pmin. Mr. Olmedo stated that if the generator insisted to dispatch at its
189 Pmin level even though it was scheduled below its Pmin, then it would be considered as non-
190 compliant. In this regard, Mr. Ferdinand Binondo (DOE) commented that a compensation for
191 these displaced generators could perhaps be considered.

192
193 Mr. Olmedo clarified that between the results of day-ahead projection and real-time dispatch,
194 generators may still change their offers or commitment decisions since projected demand
195 could still change, which would in turn address excess generation. He then recommended
196 that if excess generation is still anticipated four (4) hours before real-time dispatch, then the
197 MO could already recommend to the SO a list of generators that could be shut down. Mr.
198 Rosales agreed with the suggestion.

199
200 It was also suggested that generators capable of providing downward ancillary service or
201 those that could shut down voluntarily could be pre-determined to absorb excess generation.
202 These generators will then be incentivized accordingly or will be compensated for the costs
203 of shutting-down. Mr. Olmedo therefore stated that PEMC would also propose a
204 compensation scheme for those generators that would be shut-down during real-time
205 dispatch.

206
207 Considering the discussions above, the RCC then agreed that additional provisions clarifying
208 the procedures in addressing the foreseen excess generation, including the determination of
209 generators that could be shut-down and the corresponding settlement for these generators
210 would be proposed by PEMC-MO for inclusion in the WESM Manual on Dispatch Protocol,
211 subject for further deliberation of the body.

Agreements/Action Plans
The RCC agreed with PEMC's recommended procedures on addressing excess generation and will deliberate on the proposed provisions reflecting the same in the next meeting.

2.3. Revisions to the Proposed Amendments to the WESM Rules and WESM Manual on Market Surveillance, Enforcement and Compliance

Mr. Jose Mari Bigornia from the Market Surveillance Committee (MSC) assisted by Ms. Hiyasminh Aleia Dagum (MSC Secretariat) presented the MSC's further revisions to the following items:

a) *Replacement of "PEM Board Committees" or "PEM Committees" with "WESM Governance Committees"*

Following the RCC instruction for the MSC to look into other manuals that may have been affected by the above proposal, the MSC submitted additional amendments to various manuals affected by the above proposal as follows:

- PEM Audit Market Manual Issue 2.0;
- Manual of Procedures for Changes to the WESM Rules Issue 2.0;
- Guidelines Governing the Constitution of the PEM Board Committees Issue 2.0;
- Dispute Resolution Market Manual Issue 5.0;
- Technical Committee Market Manual Issue 2.0;
- Catalogue of Market Monitoring Data and Indices Issue 1.0; and
- WESM Consultation Guidelines Issue 1.0

Having no objection on the proposed additional amendments, the RCC approved the MSC's proposed revisions to the affected provisions of the various manuals for endorsement to the PEM Board.

b) *Timeline for submission of Market Intervention Report to the PEM Board*

Mr. Bigornia informed the RCC of the MSC's proposal with respect to the timeline for submission of the Market Intervention Report to the PEM Board. Mr. Bigornia stated that the MSC agreed to amend the provision as follows:

*11.3.12 5.3.6 A copy of the **Market Surveillance Committee's Market Intervention Report** shall be sent **submitted** to the PEM Board, for review and approval, **within a reasonable period, provided that such period will not be less than twenty (20) working days after the MSC has received the notification from the Market Operator or the System Operator.***

Ms. Dagum explained that the proposal aligns the provision with the procedures of the MSC and its approved internal rules. The RCC then raised its concern on the timeline and recalled that they were recommending to have a timeline of at most thirty (30) working days for the MSC to submit its report to the PEM Board. However, Mr. Bigornia and Ms.

Dagum explained that consultations with or data requests from relevant Market Participants and the System Operator are most often necessary to be able to adequately assess the market intervention, making 30 working days infeasible.

The RCC thus stated that if the time allotted was not sufficient for the submission of a full report by the MSC, the MSC may seek for a one time extension for the submission of the final report. Upon further discussion, with the MSC representative in agreement, the said provision was then revised as follows:

11.3.12 5.3.6 A copy of the Market Surveillance Committee's Market Intervention Report shall be sent submitted to the PEM Board, for review and approval, within a reasonable period, provided that the initial report shall be submitted within thirty (30) working days after the MSC has received the notification from the Market Operator or the System Operator.

There being no further matters for deliberation under this item, the RCC approved the above proposed amendments for inclusion in the proposal to amend the WESM Rules and Market Manual on Market Surveillance for endorsement to the PEM Board.

Agreements/Action Plans
a) The RCC adopted further amendments to the WESM Rules, Market Surveillance, Compliance and Enforcement Manual and other affected WESM Manuals.
b) The RCC agreed to endorse the proposal to the PEM Board as revised.

3. New Business

3.1. Proposed General Amendments to the Price Determination Methodology Manual and the Constraint Violation Coefficients and Pricing Re-run Manual (*originally submitted as urgent amendments*)

The Secretariat informed the RCC that the proposed amendments to the WESM Manuals on: (a) Price Determination Methodology (PDM), and (b) Constraint Violation Coefficient and Pricing Re-run (CVC- PR) received no comments from the WESM stakeholders.

During the review of the amendments, which will be re-submitted to the PEM Board as general amendments, the difference between a Must-Run Unit (MRU) and a constrain-on generating unit was again clarified. Mr. Cacho and Mr. Rosales explained that MRUs are those generators given RTD schedules that are re-dispatched above their schedules, while constrain-on generating units are those that were not given RTD schedules but were re-dispatched. Among the proposed amendments is for constrain-on generating units to be able

to file for additional compensation since currently, only MRUs are allowed to do so. This was addressed in the proposed Section 8.3.1 of the PDM Manual in the previously-submitted urgent amendments.

In line with this, Ms. Geraldine Rodriguez (Secretariat) explained that since the urgent amendments previously submitted to the PEM Board (RCC Resolution No. 2017-03 dated 03 March 2017) remain pending and noting that the regular proposal for the amendment of the PDM and the CVC-PR basically mirror what was proposed in the urgent amendments, the RCC may need to withdraw the previously submitted urgent amendments and replace the same with the regular amendments to the PDM and CVC-PR.

The RCC then noted the information and approved the following: a) withdrawal of the previously-submitted urgent amendments; and b) the submission of the regular amendments to the WESM Manuals on Price Determination Methodology and Constraint Violation Coefficient and Pricing Re-run for endorsement to the PEM Board.

Agreements/Action Plans

The RCC agreed to re-submit to the PEM Board the urgent amendments to the WESM Manuals on PDM and CVC-PR as general amendments.

3.2. Proposed Amendments to the Market Operator Information Disclosure and Confidentiality Manual

Ms. Karen Varquez from PEMC spearheaded the discussion on the proposed amendments to the WESM Manual on Market Operator Information Disclosure and Confidentiality with comments received from the MSC, Technical Committee (TC), MERALCO and SN Aboitiz Power (SNAP) (see Annex C for stakeholders' comments and PEMC's responses).

The summary of the comments received from the WESM Stakeholders were as follows:

WESM Stakeholder	Section	Comments
SN Aboitiz	3.4.3. Expiration of confidentiality	Over-riding constraints, contingency Limits and outage schedules submitted by the System Operator to the Market Operator should be public data
DOE		
MERALCO	Appendix A. Market Information Catalogue -	Metering Service Provider (MSP) Performance reports

WESM Stakeholder	Section	Comments
		should first be reviewed by MSPs
Technical Committee	Appendix B Non-Exhaustive List of Information to be Published on the Market Network Model Technical Data and Parameters	Clarification on MNM information
Market Surveillance Committee		59th minute snapshot and aggregate MQ should be public data
Ms. Concepcion Tanglao	Various sections	Minor and clerical corrections

306 Aside from adopting clerical corrections and re-numbering, the RCC made the following
307 agreements following due deliberation of the proposal:
308

Proposed Amendments	RCC Discussion	RCC-agreed revisions
<p>The following information will lose their confidentiality classification after the expiration of the following periods:</p> <p>xxx</p> <p>Information: Security limits Over-riding constraints, and contingency limitations Limits and outage schedules submitted imposed by the System Operator, and which are submitted to the Market Operator, including but not limited to instructions issued to generating units designated as must run units, and to system advisories</p> <p>Expiry Period: One (1) day after the relevant trading day</p> <p>xxx</p>	<p>Per SNAP:</p> <p>Over-riding constraints, contingency Limits and outage schedules should be made available prior to the start date of the activity to provide more information to Trading Participants and interested parties on the availability of generators and transmission lines and ensure that Trading participants can make informed decisions. To ensure that every market participant are equally capable of making informed decisions, any participant affected by outages should not be able to change the bid of their other plants in their portfolio until the information is published and all participants are appropriately informed.</p> <p>PEMC: No objection</p>	<p>The RCC agreed to adopt SNAP's suggestion to no longer classify the information on over-riding constraints, contingency limits and outage schedules submitted by the System Operator to the Market Operator as confidential.</p>

Proposed Amendments	RCC Discussion	RCC-agreed revisions
<i>Annex A. Market Information Catalogue</i>		
<p>Under Market Information Category: Transmission System Information provided by SO the System Operator to the Market Operator</p> <p><i>Specific Information column:</i></p> <p><u>Status of generating units all elements of the market network model such as network element outages, network switch and circuit breaker statuses</u></p>	<p>The proposed provision was revised to be consistent with the RCC's agreed changes to <i>Appendix B. List of Information to be Published on the Market Network Model Technical Data and Parameters</i> (see discussion below).</p> <p>Mr. Cacho recommended to note in the RCC Resolution that a development time for software and or hardware upgrade is necessary to implement the disclosure of the subject market information. The RCC agreed with said recommendation.</p>	<p><u>Status of generating units all elements of the market network model such as network element outages, network switch and circuit breaker statuses</u></p>
<p><i>Specific Information:</i></p> <p><u>Metering Service Provider (MSP) Performance</u></p> <p><i>Means of Provision:</i></p> <p><u>Market information website</u></p> <p><i>Publication timeline:</i></p> <p><u>In accordance with the timetable under the applicable Metering Manuals</u></p>	<p>On MERALCO's recommendation that the Metering Services Providers be provided with its initial performance monitoring results prior to the release of the final settlement statement, the RCC, noting that said timelines proposed were more appropriate to be specified in the relevant Metering Manuals and not in the manual subject of amendment, asked MERALCO to accordingly propose the necessary changes in the affected manuals, subject to the rules change procedures.</p>	
<p><i>Specific Information:</i></p> <p><u>Planned transmission line, transformer, and generator outages</u></p>	<p>Mr. Rosales stated that the SO does not currently provide the MO with its Grid Operations Maintenance Program (GOMP), which contains the subject information covering a 1-year time horizon. He opined that for</p>	<p><i>Specific Information:</i></p> <p><u>Planned transmission line, transformer, and generator outages</u></p>

Proposed Amendments	RCC Discussion	RCC-agreed revisions
	<p>the purposes of Trading Participants, grid conditions that the MO currently provides for the week ahead should already be sufficient. Mr. Binondo also raised that the publication of the said GOMP in the market website is not provided in the WESM Rules, and it is submitted only to the DOE by the NGCP but not published. If necessary, the publication of the GOMP should be incorporated first in the WESM Rules before it could be published.</p>	<p>Information/ Data Source: <u>System Operator</u></p> <p>Classification: <u>Public</u></p> <p>Recipient: <u>Public</u></p> <p>Means of Provision: <u>Market Information Website</u></p> <p>Publication Timeline: <u>Monthly</u></p>
<p>Snapshot quantity and meter data (<i>not included in proposal</i>)</p>	<p>On the MSC's recommendation to categorize the monthly aggregate MQ per Trading Participant and 59th snapshot data as public information, the RCC requested further clarification from the MSC regarding its rationale.</p> <p>Mr. Cacho raised that per the WESM Rules, any data identifiable to a particular Trading Participant is treated as confidential; thus MSC's suggestion goes against this policy. Further, if the 59th snapshot data, which would essentially be the system snapshot every 5 minutes for the enhanced market design, is to be published, then an IT system modification would be necessary that would require development time.</p> <p>The RCC also agreed that the MSC may submit its proposal to amend the relevant clauses and provisions subject to the rules change procedures.</p>	

Proposed Amendments	RCC Discussion	RCC-agreed revisions																								
<p><u>Appendix B. Non-Exhaustive List of Information to be Published on the Market Network Model Technical Data and Parameters</u></p> <p><u>The following technical data and parameters shall be published in relation to the Market Network Model.</u></p> <table><tr><th>Equipment</th><th>Technical Data/Parameters Available</th></tr><tr><td>Transformer</td><td>Impedance (resistance and reactance) Rating</td></tr><tr><td>Lines</td><td>Impedance (resistance and reactance) Charging Rating</td></tr><tr><td>Generators</td><td>Pmin/Pmax</td></tr><tr><td>Loads per Common Bus</td><td>Estimated Loading</td></tr><tr><td>Other Shunt and Series Devices (i.e. inductors, capacitors, and voltage regulators)</td><td>Impedance Rating</td></tr></table> <p><u>The above information shall be prepared in a PSS/E “raw” data file format, which includes how each equipment is connected among each other in the power system as represented in the Market Network Model.</u></p>	Equipment	Technical Data/Parameters Available	Transformer	Impedance (resistance and reactance) Rating	Lines	Impedance (resistance and reactance) Charging Rating	Generators	Pmin/Pmax	Loads per Common Bus	Estimated Loading	Other Shunt and Series Devices (i.e. inductors, capacitors, and voltage regulators)	Impedance Rating	<p>Mr. Cacho stated that the information in the proposed Appendix B could be used to simulate the whole power system so that Trading Participants would be able to re-compute market results. He stated that the proposal is also in response to a previous audit finding. Mr. Rosales however responded that the public disclosure of these data should be cleared first with NGCP. He added that using these information could reveal the vulnerabilities of the grid which would compromise its security.</p> <p>The RCC hence agreed to remove as information to be made public the impedances of transformer, lines, and other shunt/series devices.</p>	<p>xxx</p> <table><tr><th>Equipment</th><th>Technical Data/Parameters Available</th></tr><tr><td>Transformer</td><td>Impedance (resistance and reactance) Rating</td></tr><tr><td>Lines</td><td>Impedance (resistance and reactance) Charging Rating</td></tr><tr><td>Generators</td><td>Pmin/Pmax</td></tr><tr><td>Loads per Common Bus</td><td>Estimated Loading</td></tr><tr><td>Other Shunt and Series Devices (i.e. inductors, capacitors, and voltage regulators)</td><td>Impedance Rating</td></tr></table> <p>xxx</p>	Equipment	Technical Data/Parameters Available	Transformer	Impedance (resistance and reactance) Rating	Lines	Impedance (resistance and reactance) Charging Rating	Generators	Pmin/Pmax	Loads per Common Bus	Estimated Loading	Other Shunt and Series Devices (i.e. inductors, capacitors, and voltage regulators)	Impedance Rating
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309 The RCC, thereafter, approved the proposed amendments to the WESM Manual on
310 Information Disclosure and Confidentiality for endorsement to the PEM Board.


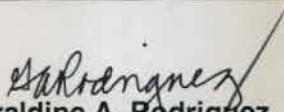
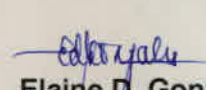
4. Next Meeting

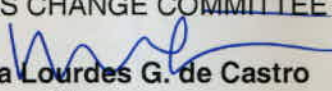
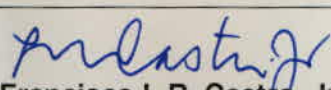


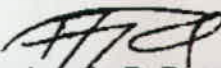

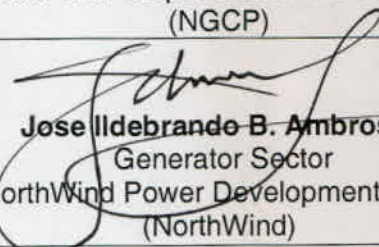
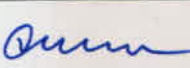


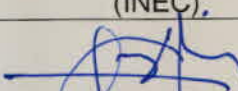
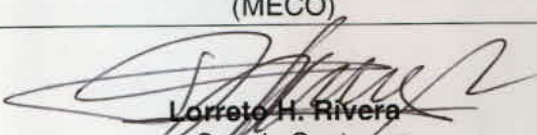
The RCC agreed to hold subsequent meetings on the following schedules:

- July 7
- August 4
- September 1

5. Adjournment

There being no other matter to be discussed, the meeting was adjourned at around 3:20 PM.

Prepared By:	Reviewed By:	Noted By:
 Divine Gayle C. Cruz Analyst – Market Governance Administration Unit	 Geraldine A. Rodriguez Assistant Manager – Market Governance Administration Unit	 Elaine D. Gonzales Manager – Market Data and Analysis Division
Market Assessment Group	Market Assessment Group	Market Assessment Group

<p>Approved by:</p> <p>RULES CHANGE COMMITTEE</p> <p> Maila Lourdes G. de Castro Chairperson Independent</p>	
<p>Members:</p>	
<p>Concepcion I. Tanglao Independent</p>	<p> Francisco L.R. Castro, Jr. Independent</p>
<p> Allan C. Nerves Independent</p>	<p> Isidro E. Cacho, Jr. Market Operator Philippine Electricity Market Corporation (PEMC)</p>
<p> Ambrocio R. Rosales Transmission Sector National Grid Corporation of the Philippines (NGCP)</p>	<p> Abner B. Tolentino Generation Sector Power Sector Assets and Liabilities Management Corporation (PSALM)</p>
<p> Jose Ildebrando B. Ambrosio Generator Sector NorthWind Power Development Corp. (NorthWind)</p>	<p>Theo C. Sunico Generation Sector Vivant Corporation</p>
<p> Ciprinilo C. Meneses Distribution Sector (PDU) Manila Electric Company (MERALCO)</p>	<p> Jose P. Santos Distribution Sector (EC) Ilocos Norte Electric Cooperative, Inc. (INEC)</p>
<p> Juanito O. Tolentino, Jr. Distribution Sector (PDU) Mactan Electric Company (MECO)</p>	<p> Ludovico D. Lim Distribution Sector (EC) Antique Electric Cooperative, Inc. (ANTECO)</p>
<p> Lorraine H. Rivera Supply Sector TeaM (Philippines) Energy Corporation (TPEC)</p>	

ANNEX A: Sample Computation of Site-Specific Loss Adjustment

RCC-MIN-17-08_130

09 June 2017

5 – Minute Active and Reactive Energy in 1 Hour

Energy	0:05	0:10	0:15	0:20	0:25	0:30	0:35	0:40	0:45	0:50	0:55	1:00	SUM
kWh-M1	840.00	840.00	840.00	835.33	835.33	835.33	816.67	816.67	816.67	812.00	812.00	812.00	9,912.00
kVarh-M1	233.33	233.33	233.33	233.33	233.33	233.33	228.67	228.67	228.67	228.67	228.67	228.67	2,772.00
kWh-M2	609.00	609.00	609.00	609.00	609.00	609.00	595.00	595.00	595.00	588.00	588.00	588.00	7,203.00
kVarh-M2	161.00	161.00	161.00	154.00	154.00	154.00	154.00	154.00	154.00	147.00	147.00	147.00	1,848.00
kWh-M3	4.67	4.67	4.67	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	45.50
kVarh-M3	11.67	11.67	11.67	11.67	11.67	11.67	11.67	11.67	11.67	11.67	11.67	11.67	140.00
kWh-M4	50.17	50.17	50.17	49.00	49.00	49.00	49.00	49.00	49.00	50.17	50.17	50.17	595.00
kVarh-M4	23.33	23.33	23.33	23.33	23.33	23.33	23.33	23.33	23.33	24.50	24.50	24.50	283.50
kWh-M5	126.00	126.00	126.00	126.00	126.00	126.00	124.60	124.60	124.60	123.20	123.20	123.20	1,499.40
kVarh-M5	-	-	-	-	-	-	-	-	-	-	-	-	-
kWh-M6	144.67	144.67	144.67	140.00	140.00	140.00	140.00	140.00	140.00	140.00	140.00	140.00	1,694.00
kVarh-M6	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	30.33	30.33	30.33	343.00
kWh-M7	2.45	2.45	2.45	2.49	2.49	2.49	2.42	2.42	2.42	2.56	2.56	2.56	29.72
kVarh-M7	1.02	1.02	1.02	1.05	1.05	1.05	1.02	1.02	1.02	1.09	1.09	1.09	12.50

Power Conversion of 5-minute Active and Reactive Energy (kWh-M ÷ t, kVarh-M ÷ t), where t = (1÷12) Hour

Power	0:05	0:10	0:15	0:20	0:25	0:30	0:35	0:40	0:45	0:50	0:55	1:00
kW-M1	10,080.00	10,080.00	10,080.00	10,024.00	10,024.00	10,024.00	9,800.00	9,800.00	9,800.00	9,744.00	9,744.00	9,744.00
kVar-M1	2,800.00	2,800.00	2,800.00	2,800.00	2,800.00	2,800.00	2,744.00	2,744.00	2,744.00	2,744.00	2,744.00	2,744.00
kW-M2	7,308.00	7,308.00	7,308.00	7,308.00	7,308.00	7,308.00	7,140.00	7,140.00	7,140.00	7,056.00	7,056.00	7,056.00
kVar-M2	1,932.00	1,932.00	1,932.00	1,848.00	1,848.00	1,848.00	1,848.00	1,848.00	1,848.00	1,764.00	1,764.00	1,764.00
kW-M3	56.00	56.00	56.00	42.00	42.00	42.00	42.00	42.00	42.00	42.00	42.00	42.00
kVar-M3	140.00	140.00	140.00	140.00	140.00	140.00	140.00	140.00	140.00	140.00	140.00	140.00
kW-M4	602.00	602.00	602.00	588.00	588.00	588.00	588.00	588.00	588.00	602.00	602.00	602.00
kVar-M4	280.00	280.00	280.00	280.00	280.00	280.00	280.00	280.00	280.00	294.00	294.00	294.00
kW-M5	1,512.00	1,512.00	1,512.00	1,512.00	1,512.00	1,512.00	1,495.20	1,495.20	1,495.20	1,478.40	1,478.40	1,478.40
kVar-M5	-	-	-	-	-	-	-	-	-	-	-	-
kW-M6	1,736.00	1,736.00	1,736.00	1,680.00	1,680.00	1,680.00	1,680.00	1,680.00	1,680.00	1,680.00	1,680.00	1,680.00
kVar-M6	336.00	336.00	336.00	336.00	336.00	336.00	336.00	336.00	336.00	364.00	364.00	364.00
kW-M7	29.40	29.40	29.40	29.82	29.82	29.82	28.98	28.98	28.98	30.66	30.66	30.66
kVar-M7	12.18	12.18	12.18	12.60	12.60	12.60	12.18	12.18	12.18	13.02	13.02	13.02

ANNEX A: Sample Computation of Site-Specific Loss Adjustment

RCC-MIN-17-08_130

09 June 2017

Computed Active Power Losses for each 5 – Minute Dispatch Interval

Power	0:05	0:10	0:15	0:20	0:25	0:30	0:35	0:40	0:45	0:50	0:55	1:00
kW-M1	10,080.00	10,080.00	10,080.00	10,024.00	10,024.00	10,024.00	9,800.00	9,800.00	9,800.00	9,744.00	9,744.00	9,744.00
Line Losses	156.29	156.29	156.29	154.22	154.22	154.22	148.03	148.03	148.03	146.15	146.15	146.15
Core Loss	19.18	19.18	19.18	19.20	19.20	19.20	19.14	19.14	19.14	19.16	19.16	19.16
Copper Loss	10.54	10.54	10.54	10.39	10.39	10.39	9.97	9.97	9.97	9.84	9.84	9.84
Adjusted-kW	10,266.01	10,266.01	10,266.01	10,207.81	10,207.81	10,207.81	9,977.14	9,977.14	9,977.14	9,919.15	9,919.15	9,919.15
kW-M2	7,308.00	7,308.00	7,308.00	7,308.00	7,308.00	7,308.00	7,140.00	7,140.00	7,140.00	7,056.00	7,056.00	7,056.00
Line Losses	122.11	122.11	122.11	121.15	121.15	121.15	116.23	116.23	116.23	114.04	114.04	114.04
Core Loss	13.91	13.91	13.91	14.00	14.00	14.00	13.95	13.95	13.95	13.88	13.88	13.88
Copper Loss	7.65	7.65	7.65	7.59	7.59	7.59	7.27	7.27	7.27	7.13	7.13	7.13
Adjusted-kW	7,451.67	7,451.67	7,451.67	7,450.73	7,450.73	7,450.73	7,277.45	7,277.45	7,277.45	7,191.05	7,191.05	7,191.05
kW-M3	56.00	56.00	56.00	42.00	42.00	42.00	42.00	42.00	42.00	42.00	42.00	42.00
Line Losses	1.00	1.00	1.00	0.75	0.75	0.75	0.73	0.73	0.73	0.73	0.73	0.73
Core Loss	0.11	0.11	0.11	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Copper Loss	0.06	0.06	0.06	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Adjusted-kW	57.17	57.17	57.17	42.87	42.87	42.87	42.86	42.86	42.86	42.85	42.85	42.85
kW-M4	602.00	602.00	602.00	588.00	588.00	588.00	588.00	588.00	588.00	602.00	602.00	602.00
Line Losses	10.90	10.90	10.90	10.55	10.55	10.55	10.37	10.37	10.37	10.55	10.55	10.55
Core Loss	1.15	1.15	1.15	1.13	1.13	1.13	1.15	1.15	1.15	1.18	1.18	1.18
Copper Loss	0.63	0.63	0.63	0.61	0.61	0.61	0.60	0.60	0.60	0.61	0.61	0.61
Adjusted-kW	614.68	614.68	614.68	600.29	600.29	600.29	600.12	600.12	600.12	614.35	614.35	614.35
kW-M5	1,512.00	1,512.00	1,512.00	1,512.00	1,512.00	1,512.00	1,495.20	1,495.20	1,495.20	1,478.40	1,478.40	1,478.40
Line Losses	34.44	34.44	34.44	34.08	34.08	34.08	33.21	33.21	33.21	32.65	32.65	32.65
Core Loss	6.94	6.94	6.94	6.95	6.95	6.95	6.98	6.98	6.98	6.97	6.97	6.97
Copper Loss	2.60	2.60	2.60	2.59	2.59	2.59	2.52	2.52	2.52	2.47	2.47	2.47
Adjusted-kW	1,555.98	1,555.98	1,555.98	1,555.62	1,555.62	1,555.62	1,537.91	1,537.91	1,537.91	1,520.48	1,520.48	1,520.48
kW-M6	1,736.00	1,736.00	1,736.00	1,680.00	1,680.00	1,680.00	1,680.00	1,680.00	1,680.00	1,680.00	1,680.00	1,680.00
Line Losses	39.41	39.41	39.41	37.74	37.74	37.74	37.19	37.19	37.19	36.97	36.97	36.97
Core Loss	3.30	3.30	3.30	3.22	3.22	3.22	3.28	3.28	3.28	3.30	3.30	3.30
Copper Loss	1.83	1.83	1.83	1.75	1.75	1.75	1.72	1.72	1.72	1.71	1.71	1.71
Adjusted-kW	1,780.54	1,780.54	1,780.54	1,722.71	1,722.71	1,722.71	1,722.19	1,722.19	1,722.19	1,721.99	1,721.99	1,721.99
kW-M7	29.40	29.40	29.40	29.82	29.82	29.82	28.98	28.98	28.98	30.66	30.66	30.66
Line Losses	-	-	-	-	-	-	-	-	-	-	-	-
Core Loss	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Copper Loss	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Adjusted-kW	29.49	29.49	29.49	29.91	29.91	29.91	29.07	29.07	29.07	30.75	30.75	30.75

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ANNEX A: Sample Computation of Site-Specific Loss Adjustment

RCC-MIN-17-08_130

09 June 2017

Equivalent Active Energy Losses for each 5 – Minute Dispatch Interval (kW-M × t, Line Losses × t, Core Loss × t, Copper Loss × t, Adjusted-kW × t), where t = (1÷12) Hour

Energy	0:05	0:10	0:15	0:20	0:25	0:30	0:35	0:40	0:45	0:50	0:55	1:00	SUM
kWh-M1	840.0000	840.0000	840.0000	835.3333	835.3333	835.3333	816.6667	816.6667	816.6667	812.0000	812.0000	812.0000	9,912.0000
Line Losses	13.0240	13.0240	13.0240	12.8517	12.8517	12.8517	12.3357	12.3357	12.3357	12.1792	12.1792	12.1792	151.1719
Core Loss	1.5986	1.5986	1.5986	1.6002	1.6002	1.6002	1.5953	1.5953	1.5953	1.5970	1.5970	1.5970	19.1736
Copper Loss	0.8779	0.8779	0.8779	0.8660	0.8660	0.8660	0.8306	0.8306	0.8306	0.8199	0.8199	0.8199	10.1835
Adjusted-kWh	855.5006	855.5006	855.5006	850.6512	850.6512	850.6512	831.4283	831.4283	831.4283	826.5962	826.5962	826.5962	10,092.5290
kWh-M2	609.0000	609.0000	609.0000	609.0000	609.0000	609.0000	595.0000	595.0000	595.0000	588.0000	588.0000	588.0000	7,203.0000
Line Losses	10.1759	10.1759	10.1759	10.0954	10.0954	10.0954	9.6859	9.6859	9.6859	9.5036	9.5036	9.5036	118.3824
Core Loss	1.1590	1.1590	1.1590	1.1666	1.1666	1.1666	1.1623	1.1623	1.1623	1.1565	1.1565	1.1565	13.9333
Copper Loss	0.6372	0.6372	0.6372	0.6321	0.6321	0.6321	0.6059	0.6059	0.6059	0.5944	0.5944	0.5944	7.4090
Adjusted-kWh	620.9721	620.9721	620.9721	620.8942	620.8942	620.8942	606.4541	606.4541	606.4541	599.2545	599.2545	599.2545	7,342.7246
kWh-M3	4.6667	4.6667	4.6667	3.5000	3.5000	3.5000	3.5000	3.5000	3.5000	3.5000	3.5000	3.5000	45.5000
Line Losses	0.0837	0.0837	0.0837	0.0623	0.0623	0.0623	0.0612	0.0612	0.0612	0.0608	0.0608	0.0608	0.8040
Core Loss	0.0089	0.0089	0.0089	0.0067	0.0067	0.0067	0.0068	0.0068	0.0068	0.0069	0.0069	0.0069	0.0879
Copper Loss	0.0049	0.0049	0.0049	0.0036	0.0036	0.0036	0.0036	0.0036	0.0036	0.0035	0.0035	0.0035	0.0469
Adjusted-kWh	4.7642	4.7642	4.7642	3.5726	3.5726	3.5726	3.5716	3.5716	3.5716	3.5712	3.5712	3.5712	46.4388
kWh-M4	50.1667	50.1667	50.1667	49.0000	49.0000	49.0000	49.0000	49.0000	49.0000	50.1667	50.1667	50.1667	595.0000
Line Losses	0.9082	0.9082	0.9082	0.8793	0.8793	0.8793	0.8644	0.8644	0.8644	0.8794	0.8794	0.8794	10.5936
Core Loss	0.0955	0.0955	0.0955	0.0939	0.0939	0.0939	0.0957	0.0957	0.0957	0.0987	0.0987	0.0987	1.1512
Copper Loss	0.0526	0.0526	0.0526	0.0509	0.0509	0.0509	0.0500	0.0500	0.0500	0.0508	0.0508	0.0508	0.6127
Adjusted-kWh	51.2229	51.2229	51.2229	50.0241	50.0241	50.0241	50.0101	50.0101	50.0101	51.1955	51.1955	51.1955	607.3576
kWh-M5	126.0000	126.0000	126.0000	126.0000	126.0000	126.0000	124.6000	124.6000	124.6000	123.2000	123.2000	123.2000	1,499.4000
Line Losses	2.8699	2.8699	2.8699	2.8399	2.8399	2.8399	2.7673	2.7673	2.7673	2.7206	2.7206	2.7206	33.5930
Core Loss	0.5780	0.5780	0.5780	0.5796	0.5796	0.5796	0.5816	0.5816	0.5816	0.5805	0.5805	0.5805	6.9587
Copper Loss	0.2168	0.2168	0.2168	0.2157	0.2157	0.2157	0.2099	0.2099	0.2099	0.2057	0.2057	0.2057	2.5444
Adjusted-kWh	129.6647	129.6647	129.6647	129.6351	129.6351	129.6351	128.1588	128.1588	128.1588	126.7068	126.7068	126.7068	1,542.4962
kWh-M6	144.6667	144.6667	144.6667	140.0000	140.0000	140.0000	140.0000	140.0000	140.0000	140.0000	140.0000	140.0000	1,694.0000
Line Losses	3.2841	3.2841	3.2841	3.1449	3.1449	3.1449	3.0989	3.0989	3.0989	3.0811	3.0811	3.0811	37.8269
Core Loss	0.2753	0.2753	0.2753	0.2682	0.2682	0.2682	0.2735	0.2735	0.2735	0.2754	0.2754	0.2754	3.2770
Copper Loss	0.1523	0.1523	0.1523	0.1462	0.1462	0.1462	0.1434	0.1434	0.1434	0.1423	0.1423	0.1423	1.7524
Adjusted-kWh	148.3784	148.3784	148.3784	143.5592	143.5592	143.5592	143.5157	143.5157	143.5157	143.4988	143.4988	143.4988	1,736.8564
kWh-M7	2.4500	2.4500	2.4500	2.4850	2.4850	2.4850	2.4150	2.4150	2.4150	2.5550	2.5550	2.5550	29.7150
Line Losses	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Core Loss	0.0047	0.0047	0.0047	0.0048	0.0048	0.0048	0.0047	0.0047	0.0047	0.0050	0.0050	0.0050	0.0575
Copper Loss	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0024	0.0024	0.0024	0.0025	0.0025	0.0025	0.0301
Adjusted-kWh	2.4572	2.4572	2.4572	2.4923	2.4923	2.4923	2.4221	2.4221	2.4221	2.5626	2.5626	2.5626	29.8026

gpc

ANNEX A: Sample Computation of Site-Specific Loss Adjustment

RCC-MIN-17-08_130

09 June 2017

Power Conversion of 15-minute Active and Reactive Energy

$$\text{kW-M} = (\text{kWh-M-15min} + \text{kWh-M-30min} + \text{kWh-M-45min} + \text{kWh-M-00min}) \div 1 \text{ hour}$$

$$\text{kVar-M} = (\text{kVarh-M-15min} + \text{kVarh-M-30min} + \text{kVarh-M-45min} + \text{kVarh-M-00min}) \div 1 \text{ hour}$$

Energy	0:15	0:30	0:45	1:00	SUM	Power	
kWh-M1	2,520.00	2,506.00	2,450.00	2,436.00	9,912.00	kW-M1	9,912.00
kVarh-M1	700.00	700.00	686.00	686.00	2,772.00	kVar-M1	2,772.00
kWh-M2	1,827.00	1,827.00	1,785.00	1,764.00	7,203.00	kW-M2	7,203.00
kVarh-M2	483.00	462.00	462.00	441.00	1,848.00	kVar-M2	1,848.00
kWh-M3	14.00	10.50	10.50	10.50	45.50	kW-M3	45.50
kVarh-M3	35.00	35.00	35.00	35.00	140.00	kVar-M3	140.00
kWh-M4	150.50	147.00	147.00	150.50	595.00	kW-M4	595.00
kVarh-M4	70.00	70.00	70.00	73.50	283.50	kVar-M4	283.50
kWh-M5	378.00	378.00	373.80	369.60	1,499.40	kW-M5	1,499.40
kVarh-M5	-	-	-	-	-	kVar-M5	-
kWh-M6	434.00	420.00	420.00	420.00	1,694.00	kW-M6	1,694.00
kVarh-M6	84.00	84.00	84.00	91.00	343.00	kVar-M6	343.00
kWh-M7	7.35	7.46	7.25	7.67	29.72	kW-M7	29.72
kVarh-M7	3.05	3.15	3.05	3.26	12.50	kVar-M7	12.50

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ANNEX A: Sample Computation of Site-Specific Loss Adjustment

RCC-MIN-17-08_130

09 June 2017

Sum of the 12 Intervals 5-Minute Energy Vs. 1 Hour Trading Interval

Energy	Sum of the 12 Intervals 5-Minute Energy	1 Hour Trading Interval	Difference	% Difference
kWh-M1	9,912.0000	9,912.0000		
Line Losses	151.1719	151.1426	-0.029282	-0.019373%
Core Loss	19.1736	19.1738	0.000222	0.001158%
Copper Loss	10.1835	10.1814	-0.002122	-0.020846%
Adjusted-kWh	10,092.5290	10,092.4979	-0.031182	-0.000309%
kWh-M2	7,203.0000	7,203.0000		
Line Losses	118.3824	118.3588	-0.023602	-0.019941%
Core Loss	13.9333	13.9335	0.000253	0.001813%
Copper Loss	7.4090	7.4074	-0.001589	-0.021452%
Adjusted-kWh	7,342.7246	7,342.6997	-0.024938	-0.000340%
kWh-M3	45.5000	45.5000		
Line Losses	0.8040	0.8030	-0.001044	-0.130046%
Core Loss	0.0879	0.0880	0.000095	0.107481%
Copper Loss	0.0469	0.0468	-0.000064	-0.135667%
Adjusted-kWh	46.4388	46.4378	-0.001013	-0.002182%
kWh-M4	595.0000	595.0000		
Line Losses	10.5936	10.5935	-0.000130	-0.001230%
Core Loss	1.1512	1.1510	-0.000212	-0.018431%
Copper Loss	0.6127	0.6127	-0.000008	-0.001237%
Adjusted-kWh	607.3576	607.3572	-0.000350	-0.000058%
kWh-M5	1,499.4000	1,499.4000		
Line Losses	33.5930	33.5893	-0.003764	-0.011206%
Core Loss	6.9587	6.9586	-0.000183	-0.002635%
Copper Loss	2.5444	2.5442	-0.000291	-0.011452%
Adjusted-kWh	1,542.4962	1,542.4920	-0.004239	-0.000275%
kWh-M6	1,694.0000	1,694.0000		
Line Losses	37.8269	37.8214	-0.005548	-0.014669%
Core Loss	3.2770	3.2769	-0.000157	-0.004792%
Copper Loss	1.7524	1.7522	-0.000272	-0.015514%
Adjusted-kWh	1,736.8564	1,736.8504	-0.005977	-0.000344%
kWh-M7	29.7150	29.7150		
Line Losses	0.0000	0.0000	0.000000	
Core Loss	0.0575	0.0575	-0.000017	-0.028966%
Copper Loss	0.0301	0.0301	0.000003	0.010463%
Adjusted-kWh	29.8026	29.8025	-0.000014	-0.000045%



Evaluating Excess Generation

Looking at Minimum Demand and Pmin

	Luzon-Visayas	Luzon	Visayas
Pmin	5,013.7	4,091.3	922.4
Pmax	17,704.3	14,688.1	3,016.2
Minimum Demand (2016)	4,765.0	3,918.0	827.0
Pmin – Minimum Demand	248.7	173.3	95.4



Simulating Excess Generation

Assumptions

- ☐ The 24-hour demand profile during the dates with the minimum demand shall be used
- ☐ Pmin is assumed to be offered by generators at the floor price
- ☐ Ramping is based on maximum ramp rate
- ☐ In Day-Ahead and RTD, all generators are expected to offer their maximum capacities



Simulating Excess Generation

Summary of Results in the Day-Ahead Projection

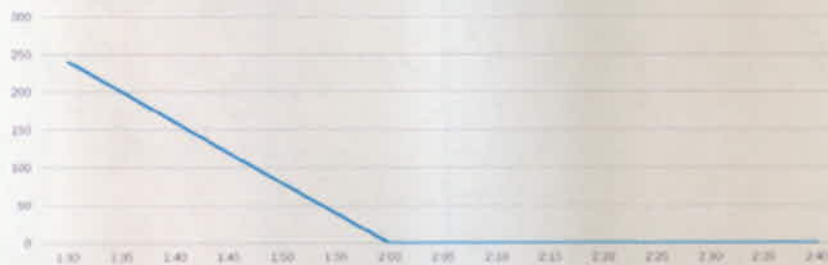
- ☐ DAP solution did not reflect excess generation since commercial Pmin is zero (technical Pmin is not automatically committed, they were instead offered at floor price)
- ☐ Generation output of some North Luzon generators and Leyte A will be lower than technical Pmin
- ☐ Advisory from Market Operator was published (based on external application) that excess generation is experienced (sum of technical less demand > 0)
- ☐ This now provides the generators an idea that they will not be scheduled even when offer is at offer floor price
- ☐ Generators will have to make decisions to de-commit



Simulating Excess Generation

Summary of Results in the RTD

- ☐ Note that 5-minute RTD schedules are based on actual loading and ramp rates
- ☐ If generators continue to offer at offer floor price, the affected generators will reflect RTD schedules that show their gradual decrease to being off-line



Philippine Electricity
Market Corporation

**END OF
PRESENTATION**

WESM Works.

- WESM Helpdesk Ticketing System
www.wesm.ph/wesm-helpdesk
- +63.2.318.WESM (9376)
- +63.2.634.0985
- www.wesm.ph

Proposed Amendments to the WESM Information Disclosure and Confidentiality Manual

Title	Section	Provision (Issue 3)	Proposed Amendment (as submitted using Issue 3 as baseline)	Rationale	Comments / Amendments	PEMC Response	Revised Proposed Amendment (Issue 4 as baseline)
Definitions	3	3 – Definitions	3 – Definitions SECTION 2 DEFINITIONS, REFERENCES, AND INTERPRETATION				3 – Definitions SECTION 3 DEFINITIONS, REFERENCES, AND INTERPRETATION
		Unless otherwise defined, the terms used in this manual which are defined in the WESM Rules will bear the same meaning as defined in the WESM Rules. Some of the definitions are quoted here for convenience.	2.1.1. Unless otherwise defined, the terms used in this manual which are defined in the WESM Rules and Market Manuals will bear the same meaning as defined in the WESM Rules and Market Manuals . Some of the definitions are quoted here for convenience. 2.1.2. The following words and phrases as used in this Market Manual shall have the following meaning –	Consistent with scope of the manual, which covers market information furnished to or received by, or produced or provided by the Market Operator in the course of or arising from its operations of the WESM, including information that is required by the WESM Rules and the various WESM manuals to be published, disclosed or protected by the Market Operator or the WESM members.	<ul style="list-style-type: none"> CITanglao: 2.1.1. Unless otherwise defined, the terms used in this manual which are defined in the WESM Rules and Market Manuals will shall bear the same meaning as defined in the WESM Rules and Market Manuals . Some of the definitions are quoted here for convenience. 2.1.2. The following words and phrases as used in this Market Manual shall have the following meaning – <ul style="list-style-type: none"> DOE: Acceptable, but suggest to retain the original Section 2 (Purpose) to avoid renumbering of the entire Manual.	Agree	3.1 Definitions 3.1.1. Unless otherwise defined, the terms used in this manual which are defined in the WESM Rules and Market Manuals will shall bear the same meaning as defined in the WESM Rules and Market Manuals . Some of the definitions are quoted here for convenience. 3.1.2. The following words and phrases as used in this Market Manual shall have the following meaning –
		Disclose xxx	a. Disclose xxx	Renumbering			
		Disclosing Party xxx	b. Disclosing Party xxx				
		Market information xxx	c. Market information xxx				
		Market Information Website xxx	Market Information Website xxx	Already defined under the WESM Rules			
		Market Operator xxx	Market Operator xxx				
		Market Transaction xxx	d. Market Transaction xxx	<ul style="list-style-type: none"> For consistency with the formatting of Market Manuals Renumbering 			
		Recipient xxx	e. Recipient xxx				
		NEW	2.2 References This Market Manual shall be read in association with the WESM Rules and other relevant Market Manuals. 2.3 Interpretation 2.3.1 Any reference to a clause in any section of this Market Manual shall refer to the particular clause of the same				3.2 References This Market Manual shall be read in association with the WESM Rules and other relevant Market Manuals. 3.3 Interpretation 3.3.1 Any reference to a clause in any section of this Market Manual shall refer to the particular clause of the same

Title	Section	Provision (Issue 3)	Proposed Amendment (as submitted using Issue 3 as baseline)	Rationale	Comments / Amendments	PEMC Response	Revised Proposed Amendment (Issue 4 as baseline)
			<p>section in which the reference is made, unless otherwise specified or the context provides otherwise.</p> <p>2.3.2 Where there is a discrepancy or conflict between this Market Manual and the WESM Rules, the WESM Rules shall prevail.</p> <p>2.3.3 Standards and policies appended to, or referenced in, this Market Manual shall provide a supporting framework.</p>				<p>section in which the reference is made, unless otherwise specified or the context provides otherwise.</p> <p>3.3.2 Where there is a discrepancy or conflict between this Market Manual and the WESM Rules, the WESM Rules shall prevail.</p> <p>3.3.3 Standards and policies appended to, or referenced in, this Market Manual shall provide a supporting framework.</p>
Confidential or Protected Information	4	4 CONFIDENTIAL OR PROTECTED INFORMATION	4.3 CONFIDENTIAL OR PROTECTED INFORMATION	Renumbering			4 CONFIDENTIAL OR PROTECTED INFORMATION (section number retained)
	4.1	4.1. Definition Confidential information is defined xxx	4.1. Definition 3.1 Background Confidential information is defined xxx	Renumbering	CITanglao: but the content seems to be mainly a definition..?	Improve the flow by removing para and refer to Definition under the WESM Rules. Note that this will require renumbering of the subsequent sub-sections.	4.1. Definition Confidential information is defined xxx
	4.2	4.2. Criteria for confidentiality	4.2 3.2 . Criteria for confidentiality	Renumbering			4.2 4.1 . Criteria for confidentiality
	4.3	4.3. Information considered as confidential Without limiting the generality of the foregoing definition and criteria and subject to permitted disclosures set forth in this Manual and the WESM Rules, the following market information is confidential: a. bids and offers information identifiable to a specific trading participant or WESM member; b. energy and reserve dispatch projections and schedules (WAP, DAP, RTD, RTX) identifiable to a specific trading participant or WESM member; c. dispatch instruction identifiable to a specific Trading Participant or WESM Member;	4.3 3.3 . Information considered as confidential Without limiting the generality of the foregoing definition and criteria and subject to permitted disclosures set forth in this Manual and the WESM Rules, the following market information is confidential: a. bids and offers information identifiable to a specific trading participant or WESM member; b. energy and reserve dispatch projections and schedules (WAP, DAP, RTD, RTX) identifiable to a specific trading participant or WESM member; c. dispatch instruction identifiable to a specific Trading Participant or WESM Member;	<ul style="list-style-type: none"> Consistent with the 5-minute dispatch interval Renumbering 	CITanglao: xxx Without limiting the generality of the foregoing definition and criteria and subject to permitted disclosures set forth in this Manual and the WESM Rules, the following market information is shall be considered confidential: xxx	Agree	4.3 4.2 . Information considered as confidential Without limiting the generality of the foregoing definition and criteria and subject to permitted disclosures set forth in this Manual and the WESM Rules, the following market information is shall be considered confidential: a. bids and offers information identifiable to a specific trading participant or WESM member; b. energy and reserve dispatch projections and schedules (WAP, DAP, RTD, RTX) identifiable to a specific trading participant or WESM member;

Title	Section	Provision (Issue 3)	Proposed Amendment (as submitted using Issue 3 as baseline)	Rationale	Comments / Amendments	PEMC Response	Revised Proposed Amendment (Issue 4 as baseline)
		<p>d. transmission network data or information provided and classified by the System Operator as confidential information;</p> <p>c. dispatch instruction identifiable to a specific Trading Participant or WESM Member;</p> <p>d. transmission network data or information provided and classified by the System Operator as confidential information;</p> <p>e. metering installation information identifiable to a specific Trading Participant;</p> <p>f. raw, adjusted and edited metered data identifiable to a specific Trading Participant or WESM Member;</p> <p>g. settlement amounts, settlement statements and any other information contained in such statements and other settlement information identifiable to a specific Trading Participant or WESM Member;</p> <p>h. bilateral contract data declared by or identifiable to a specific Trading Participant or WESM Member;</p> <p>i. line rental information identifiable to a specific Trading Participant or WESM Member;</p> <p>j. prudential security information identifiable to a specific Trading Participant;</p> <p>k. Information on real-time system condition contained in advisories and notices received by the Market Operator from the System Operator</p> <p>l. projected output provided by Trading Participants in respect of their must dispatch generating units or priority dispatch generating units that are identifiable to that Trading Participant; and</p> <p>m. nomination of loading levels for non-scheduled generating units.</p> <p>This list is a non-exhaustive list.</p>	<p>d. transmission network data or information provided and classified by the System Operator as confidential information;</p> <p>e. metering installation information identifiable to a specific Trading Participant;</p> <p>f. raw, adjusted and edited metered data identifiable to a specific Trading Participant or WESM Member;</p> <p>g. settlement amounts, settlement statements and any other information contained in such statements and other settlement information identifiable to a specific Trading Participant or WESM Member;</p> <p>h. bilateral contract data declared by or identifiable to a specific Trading Participant or WESM Member;</p> <p>i. line rental information identifiable to a specific Trading Participant or WESM Member;</p> <p>j. prudential security information identifiable to a specific Trading Participant;</p> <p>k. Information on real-time system condition contained in advisories and notices received by the Market Operator from the System Operator</p> <p>l. projected output provided by Trading Participants in respect of their must dispatch generating units or priority dispatch generating units that are identifiable to that Trading Participant; and</p> <p>m. nomination of loading levels for non-scheduled generating units.</p> <p>This list is a non-exhaustive list.</p>	<ul style="list-style-type: none"> SO advisories are proposed to be public in nature, although it is being published by the MO only through the MMS-MPI. The information from SO advisories are provided to the general public in other MO reports. 			<p>c. dispatch instruction identifiable to a specific Trading Participant or WESM Member;</p> <p>d. transmission network data or information provided and classified by the System Operator as confidential information;</p> <p>e. metering installation information identifiable to a specific Trading Participant;</p> <p>f. raw, adjusted and edited metered data identifiable to a specific Trading Participant or WESM Member;</p> <p>g. settlement amounts, settlement statements and any other information contained in such statements and other settlement information identifiable to a specific Trading Participant or WESM Member;</p> <p>h. bilateral contract data declared by or identifiable to a specific Trading Participant or WESM Member;</p> <p>i. line rental information identifiable to a specific Trading Participant or WESM Member;</p> <p>j. prudential security information identifiable to a specific Trading Participant;</p> <p>k. Information on real-time system condition contained in advisories and notices received by the Market Operator from the System Operator</p> <p>l. projected output provided by Trading Participants in respect of their must dispatch generating units or priority dispatch generating units that are identifiable to that Trading Participant; and</p> <p>m. nomination of loading levels for non-scheduled generating units.</p> <p>This list is a non-exhaustive list.</p>
		<p>4.4. Information not considered as confidential</p> <p>4.4.1. The following information are not confidential:</p> <p>a. nodal/regional energy and reserve prices and (DAP, WAP, RTD and RTX)</p>	<p>4.4 3.4. Information not considered as confidential</p> <p>4.4.1 3.4.1. The following information are not confidential:</p> <p>a. for real-time dispatch and market projections:</p>	<ul style="list-style-type: none"> Consistent with the 5-minute dispatch interval and hourly settlements based on 5-minute final 	<ul style="list-style-type: none"> CITanglao: <p>xxx</p> <p>4.4.1 3.4.1. The following information are shall not be considered confidential:</p>	Agree.	<p>4.4 3.3. Information not considered as confidential</p> <p>4.4.1 3.3.1. The following information are not confidential:</p> <p>The following information are shall not be considered confidential:</p>

Title	Section	Provision (Issue 3)	Proposed Amendment (as submitted using Issue 3 as baseline)	Rationale	Comments / Amendments	PEMC Response	Revised Proposed Amendment (Issue 4 as baseline)
		<p>b. nodal administered prices, except if otherwise provided for in the WESM Rules and its amendments, regulation, market manual including this Manual or regulatory issuance or decision</p> <p>c. reserve requirements (WAP, DAP, RTD)</p> <p>d. load forecast (WAP, DAP, RTD) and actual system demand</p> <p>e. must run unit (MRU) generation prices</p> <p>f. substitute prices used for settlement of WESM transactions in trading intervals when there are pricing errors</p> <p>g. net settlement surplus or deficit allocation³</p> <p>h. participant registration data and changes thereto, specifically, the:</p> <ul style="list-style-type: none"> • maximum generation capacity (Pmax) • minimum generation stable loading (Pmin) • generator ramp up and ramp down rates • customer peak and off-peak loads • other information that are generally and publicly available from any other source <p>This list is a non-exhaustive list.</p>	<p><u>i. nodal/regional energy dispatch prices, zonal energy prices, and reserve prices and (DAP, WAP, RTD and RTX) for each reserve category in each region</u></p> <p><u>ii. reserve requirements</u></p> <p><u>iii. load forecasts</u></p> <p>b. nodal administered prices, except if otherwise provided for in the WESM Rules and its amendments, regulation, market manual including this Manual or regulatory issuance or decision</p> <p>c. reserve requirements (WAP, DAP, RTD)</p> <p>d. load forecast (WAP, DAP, RTD) and actual system demand</p> <p>c. final nodal energy dispatch prices and reserve dispatch prices used for settlements</p> <p>e. must run unit (MRU) generation prices</p> <p>f. substitute prices used for settlement of WESM transactions in trading intervals when there are pricing errors</p> <p>g. <u>d. net settlement surplus or deficit allocation³</u></p> <p>h. participant registration data and changes thereto, specifically, the:</p> <ul style="list-style-type: none"> • <u>i. maximum generation capacity (Pmax)</u> • <u>ii. minimum generation stable loading (Pmin)</u> • <u>iii. generator ramp up and ramp down rates</u> • <u>iv. customer peak and off-peak loads</u> <p>e. Information on (i) settlement amounts unpaid by the end of each month, and (ii) the specific WESM Member that failed to pay the settlement amounts shall be disclosed by the Market Operator.</p> <p>f. Information on real-time system condition contained in advisories and notices received by the Market Operator from the System Operator</p>	<p>nodal energy dispatch prices and reserve dispatch prices. Note that final nodal energy dispatch prices already includes substitute prices (AP, PSM, SEC)</p> <ul style="list-style-type: none"> • Renumbering • MRUs are already price-takers • PSM substitute prices are already included in proposed item (c) • Deleted reference for NSS (footnote) since this will be replaced by the new ERC issuance on the propose PDM (which already includes the NSS) • Added information on unpaid settlement amounts per DOE DC 2013-07-0018 issued on 26 July 2013 • Moved information on real-time system condition in accordance with WESM Rule 3.11.1.1 	<p>xxx</p> <p>correction in numbering</p> <ul style="list-style-type: none"> • DOE: <p>Acceptable, please. See recommendations on Section 3.4.3 concerning inclusion of the data on over-riding constraints, contingency limits and outage schedules in the list of non-confidential information.</p>		<p>a. for real-time dispatch and market projections:</p> <p><u>i. nodal/regional energy dispatch prices, zonal energy prices, and reserve prices and (DAP, WAP, RTD and RTX) for each reserve category in each region</u></p> <p><u>ii. reserve requirements</u></p> <p><u>iii. load forecasts</u></p> <p>b. nodal administered prices, except if otherwise provided for in the WESM Rules and its amendments, regulation, market manual including this Manual or regulatory issuance or decision</p> <p>c. reserve requirements (WAP, DAP, RTD)</p> <p>d. load forecast (WAP, DAP, RTD) and actual system demand</p> <p>c. final nodal energy dispatch prices and reserve dispatch prices used for settlements</p> <p>e. must run unit (MRU) generation prices</p> <p>f. substitute prices used for settlement of WESM transactions in trading intervals when there are pricing errors</p> <p>g. <u>d. net settlement surplus or deficit allocation³</u></p> <p><u>h. participant registration data and changes thereto, specifically, the:</u></p> <ul style="list-style-type: none"> • <u>i. maximum generation capacity (Pmax)</u> • <u>ii. minimum generation stable loading (Pmin)</u> • <u>iii. generator ramp up and ramp down rates</u> • <u>iv. customer peak and off-peak loads</u> <p>f. Information on (i) settlement amounts unpaid by the end of each month, and (ii) the specific WESM Member that failed to pay the settlement amounts shall be disclosed by the Market Operator.</p> <p>g. Information on real-time system condition contained in advisories and notices received by the Market Operator from the System Operator</p> <p>h. market network model technical data and parameters and</p>

ANNEX C

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Title	Section	Provision (Issue 3)	Proposed Amendment (as submitted using Issue 3 as baseline)	Rationale	Comments / Amendments	PEMC Response	Revised Proposed Amendment (Issue 4 as baseline)
			<p>g. market network model technical data and parameters</p> <ul style="list-style-type: none">h. other information that are generally and publicly available from any other source <p>This list is a non-exhaustive list.</p>	(h) as revised under DOE DC 2016-10-0014			<ul style="list-style-type: none">other information that are generally and publicly available from any other source <p>xxx</p>
		4.4.2. Information otherwise classified as confidential will lose its confidentiality status under the following circumstances: xxx	4.4.2 3.4.2 . Information otherwise classified as confidential will lose its confidentiality status under the following circumstances: xxx	Renumbering			4.4.2 3.3.2 . Information otherwise classified as confidential will lose its confidentiality status under the following circumstances: xxx
		4.5. Expiration of confidentiality The following information will lose their confidentiality classification after the expiration of the following periods:	4.5 3.4.3 . Expiration of confidentiality The following information will lose their confidentiality classification after the expiration of the following periods:	<ul style="list-style-type: none">Renumbering	<ul style="list-style-type: none">CI Tangleao: <p>The following information will shall lose their confidentiality classification after the expiration of the following periods:</p> <p>xxx</p> <p>(On 1st and 4th rows) either we remove "a" or the the "s" in Participants</p> <ul style="list-style-type: none">DOE <p>Suggest to exclude the over-riding constraints, contingency limits and outage schedules data submitted by the System Operator to the Market Operator in the list of confidential data, and these should be included in the Section 3.4 (Information not considered as confidential).</p> <p>The said data should be published once available for transparency and immediate reference of the trading participants.</p>	Agree. 	

45 Geo

Title	Section	Provision (Issue 3)		Proposed Amendment (as submitted using Issue 3 as baseline)		Rationale	Comments / Amendments	PEMC Response	Revised Proposed Amendment (Issue 4 as baseline)							
		participant, and the dispatch schedules of must run units		schedules of must run units					schedules of must run units							
		Security limits and contingency limitations imposed by the System Operator and which are submitted to the Market Operator, including but not limited to instructions issued to generating units designated as must run units, and to system advisories	One (1) day after the relevant trading day	Security limits Over-riding constraints, and contingency limitations Limits and outage schedules submitted imposed by the System Operator, and which are submitted to the Market Operator, including but not limited to instructions issued to generating units designated as must run units, and to system advisories	One (1) day after the relevant trading day	<ul style="list-style-type: none">MRU schedules are already reflected in the energy schedulesAdded information on outages after 1 trading day to provide more information to Trading Participants and interested parties on the availability of generators and transmission lines	<ul style="list-style-type: none">SN Aboitiz: <p>Over-riding constraints, contingency Limits and outage schedules should be made available prior to the start date of the activity to provide more information to Trading Participants and interested parties on the availability of generators and transmission lines and ensure that Trading participants can make informed decisions. To ensure that every market participant are equally capable of making informed decisions, any participant affected by outages should not be able to change the bid of their other plants in their portfolio until the information is published and all participants are appropriately informed.</p>		Security limits Over-riding constraints, and contingency limitations Limits and outage schedules submitted imposed by the System Operator, and which are submitted to the Market Operator, including but not limited to instructions issued to generating units designated as must run units, and to system advisories	One (1) day after the relevant trading day						
		Projected output provided by Trading Participants in respect of their must dispatch generating units or priority dispatch generating units that are identifiable to that Trading Participant	One (1) day after the relevant trading day	Projected output for must dispatch generating units or priority dispatch generating units that are identifiable to a provided by Trading Participants including any and all information contained in projected output submissions of the relevant Trading Participant in respect of their must dispatch-generating units or priority dispatch-generating units that are identifiable to that Trading Participant	One (1) day after the relevant trading day	<ul style="list-style-type: none">Separated the publication of System Advisories, for clarityClerical revision, for clarity	<p><i>Amendments:</i></p> <p>The following information will lose their confidentiality classification after the expiration of the following periods:</p> <table><tr><th>Information</th><th>Expiry Period</th></tr><tr><td>Bids and offers identifiable to a trading participants, including any and all information contained in the bids and offers submissions of the relevant market participant</td><td>seven (7) days after the relevant trading day</td></tr><tr><td>Energy and reserve dispatch projections and schedules and dispatch instructions identifiable to a trading participant</td><td>One (1) day after the relevant trading day</td></tr></table>	Information	Expiry Period	Bids and offers identifiable to a trading participants, including any and all information contained in the bids and offers submissions of the relevant market participant	seven (7) days after the relevant trading day	Energy and reserve dispatch projections and schedules and dispatch instructions identifiable to a trading participant	One (1) day after the relevant trading day		Projected output for must dispatch generating units or priority dispatch generating units that are identifiable to a provided by Trading Participant including any and all information contained in projected output submissions of the relevant Trading Participant in respect of their must dispatch-generating units or priority dispatch-generating units that are identifiable to that Trading Participant	One (1) day after the relevant trading day
Information	Expiry Period															
Bids and offers identifiable to a trading participants, including any and all information contained in the bids and offers submissions of the relevant market participant	seven (7) days after the relevant trading day															
Energy and reserve dispatch projections and schedules and dispatch instructions identifiable to a trading participant	One (1) day after the relevant trading day															
		The nomination of loading levels for non-scheduled generating units identifiable to a Trading Participant.	One (1) day after the relevant trading day	The nomination of loading levels for non-scheduled generating units	One (1) day after the relevant trading day				The nomination of loading levels for non-scheduled generating units	One (1) day after the relevant trading day						
		From time to time, the PEM Board may declare certain confidential information as having lost its confidentiality status.														

ANNEX C

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Title	Section	Provision (Issue 3)	Proposed Amendment (as submitted using Issue 3 as baseline)	Rationale	Comments / Amendments	PEMC Response	Revised Proposed Amendment (Issue 4 as baseline)
			<div>identifiable to a Trading Participant.</div> <p>From time to time, the PEM Board may declare certain confidential information as having lost its confidentiality status.</p>		<div>Over-riding constraints, contingency Limits and outage schedules submitted by the System Operator to the Market Operator</div> <div>Projected output for must dispatch generating units or priority dispatch generating units that are identifiable to a Trading Participants including any and all information contained in projected output submissions of the relevant Trading Participant</div> <div>The nomination of loading levels for non-scheduled generating units identifiable to a Trading Participant.</div>	<div>One (1) day after the relevant trading day</div> <div>One (1) day after the relevant trading day</div> <div>One (1) day after the relevant trading day</div>	<div>identifiable to a Trading Participant. trading day</div> <p>From time to time, the PEM Board may declare certain confidential information as having lost its confidentiality status.</p>
		5. CONFIDENTIALITY AND DISCLOSURE POLICY	5. 4 CONFIDENTIALITY AND DISCLOSURE POLICY	Renumbering			5. CONFIDENTIALITY AND DISCLOSURE POLICY (section number retained)
		5.1. Obligations to ensure confidentiality The Market Operator or any WESM member xxx The Market Operator, the WESM members xxx 5.2. Breach of confidentiality xxx	5-4 4.1. Obligations to ensure confidentiality 4.1.1 The Market Operator or any WESM member xxx 4.1.2 The Market Operator, the WESM members xxx 5-2 4.2. Breach of confidentiality xxx 5-3 4.3 Permitted disclosures/exceptions to confidentiality	Renumbering • Renumbering • Clerical			5.1. Obligations to ensure confidentiality The Market Operator or any WESM member xxx The Market Operator, the WESM members xxx 5.2. Breach of confidentiality xxx

Title	Section	Provision (Issue 3)	Proposed Amendment (as submitted using Issue 3 as baseline)	Rationale	Comments / Amendments	PEMC Response	Revised Proposed Amendment (Issue 4 as baseline)
		<p>5.3 Permitted disclosures/exceptions to confidentiality</p> <p>5.3.1 xxx</p> <p>5.3.2 xxx</p> <p>5.3.3 Information on (i) settlement amounts unpaid by the end of each month, and (ii) the specific WESM member that failed to pay the settlement amounts shall be disclosed by the Market Operator.</p> <p>5.3.4 xxx</p> <p>5.4 Protection of permitted disclosures</p> <p>5.4.1 xxx</p> <p>5.4.2 xxx</p> <p>5.5. Limitations on access to confidential information</p> <p>The members of the PEM Board, its officers and Committees, who are officers, directors or employees of any WESM Member will have no access confidential information that are classified as commercially sensitive information. The determination as to whether any specific information is commercially sensitive will be made by the Market Operator in accordance with this Manual and the WESM Rules.</p>	<p>5.3.1 4.3.1 xxx</p> <p>5.3.2 4.3.2 xxx</p> <p>5.3.3 Information on (i) settlement amounts unpaid by the end of each month, and (ii) the specific WESM member that failed to pay the settlement amounts shall be disclosed by the Market Operator.</p> <p>5.3.4 4.3.3 xxx</p> <p>5.4 4.4 Protection of permitted disclosures</p> <p>5.4.1 4.4.1 xxx</p> <p>5.4.2 4.4.2 xxx</p> <p>5.5 4.5 Limitations on access to confidential information</p> <p>The members of the PEM Board, its officers and Committees, who are officers, directors or employees of any WESM Member will have no access to confidential information that are classified as commercially sensitive information. The determination as to whether any specific information is commercially sensitive will be made by the Market Operator in accordance with this Manual and the WESM Rules.</p>	<ul style="list-style-type: none"> information on unpaid settlement amounts are made public per DOE DC 2013-07-0018 issued on 26 July 2013 	<p>CITanglao:</p> <p>(On 4.5) use shall? (Also,) It seems this is already defined under Clause 3.2 a Criteria for Confidentiality -- should we just put a cross-reference?</p>	Agree.	<p>5.3 Permitted disclosures/exceptions to confidentiality</p> <p>5.3.1 xxx</p> <p>5.3.2 xxx</p> <p>5.3.3 Information on (i) settlement amounts unpaid by the end of each month, and (ii) the specific WESM member that failed to pay the settlement amounts shall be disclosed by the Market Operator.</p> <p>5.3.4 5.3.3 xxx</p> <p>5.4 Protection of permitted disclosures</p> <p>5.4.1 xxx</p> <p>5.4.2 xxx</p> <p>5.5. Limitations on access to confidential information</p> <p>The members of the PEM Board, its officers and Committees, who are officers, directors or employees of any WESM Member will shall have no access to confidential information that are classified as commercially sensitive information. The determination as to whether any specific information is commercially sensitive will be made by the Market Operator in accordance with Section 3.2 of this Manual and the WESM Rules</p>
		6. MARKET INFORMATION CATALOGUE	6. 5. MARKET INFORMATION CATALOGUE	Renumbering			6. MARKET INFORMATION CATALOGUE (section number retained)
		<p>The Market Information Catalogue lists the market information in the possession of the Market Operator and indicates for each type of information the means of disclosure and the permitted recipient.</p> <p>6.1. Categories of market information</p> <p>Market information in the possession of the Market Operator are classified as:</p> <p>a. market information input data are information furnished to or received by the Market Operator from WESM Members,</p>	<p>5.1. Background</p> <p>The Market Information Catalogue lists the market information in the possession of the Market Operator and indicates for each type of information the means of disclosure and the permitted recipient.</p> <p>6.1 5.2. Categories of market information</p> <p>Market information in the possession of the Market Operator are classified as:</p> <p>a. market information input data are information furnished to or received by the Market Operator from WESM Members, service providers and other parties and</p>	<ul style="list-style-type: none"> Renumbering Additional classification for market information that are published by the MO that are not from any market process 			<p>5.1. Background</p> <p>The Market Information Catalogue lists the market information in the possession of the Market Operator and indicates for each type of information the means of disclosure and the permitted recipient.</p> <p>6.1 5.2 Categories of market information</p> <p>Market information in the possession of the Market Operator are classified as:</p> <p>a. market information input data are information furnished to or received by the</p>

Title	Section	Provision (Issue 3)	Proposed Amendment (as submitted using Issue 3 as baseline)	Rationale	Comments / Amendments	PEMC Response	Revised Proposed Amendment (Issue 4 as baseline)
		<p>service providers and other parties and entities which are used in the performance of various market processes including but not limited to market projections, pricing, scheduling and settlements.</p> <p>b. market information output data are information produced by or provided by the Market Operator resulting from the operations of the various market processes.</p> <p>6.2. Means of disclosure xxx</p>	<p>entities which are used in the performance of various market processes including but not limited to market projections, pricing, scheduling and settlements.</p> <p>b. market information output data are information produced by or provided by the Market Operator resulting from the operations of the various market processes.</p> <p>c. <u>Other market data are information received and published by the Market Operator from service providers and other parties.</u></p> <p>6.2-5.3. Means of disclosure xxx</p>		<p>CI Tangleo:</p> <p>(On 5.3.1) use shall</p>	Agree.	<p>Market Operator from WESM Members, service providers and other parties and entities which are used in the performance of various market processes including but not limited to market projections, pricing, scheduling and settlements.</p> <p>b. market information output data are information produced by or provided by the Market Operator resulting from the operations of the various market processes.</p> <p>c. <u>Other market data are information received and published by the Market Operator from service providers and other parties.</u></p> <p>6.2 6.3 Means of disclosure</p> <p>6.3.1 6.3.1 Market information <u>will shall</u> be made available by the Market Operator through any of the following means:</p> <p>xxx</p>
		<p>6.3. Classification of Disclosure of Market Information</p> <p>Classification or levels of disclosure of market information are classified as follows:</p> <p>6.3.1. Strictly confidential information is confidential information which is not covered by the succeeding paragraphs or have not lost its confidentiality status pursuant to Section 4.4.2 of this Manual, relevant provisions of the WESM Rules and other relevant issuances. This information shall only be disclosed by the Market Operator to the data owner or under the exceptions provided for in WESM Rules clause 5.3.2 and this Manual.</p> <p>6.3.2 xxx</p> <p>6.3.3. Confidential information with permitted disclosure is confidential information but is permitted to be disclosed</p>	<p>6.3-5.4. Classification of Disclosure of Market Information</p> <p>Classification or levels of disclosure of market information are classified as follows:</p> <p>6.3-1 <u>a</u>. Strictly confidential information is confidential information which is not covered by the succeeding paragraphs or have not lost its confidentiality status pursuant to Section 4.4-2 <u>3.4.2</u> of this <u>Market</u> Manual, relevant provisions of the WESM Rules and other relevant issuances. This information shall only be disclosed by the Market Operator to the data owner or under the exceptions provided for in WESM Rules clause 5.3.2 and this <u>Market</u> Manual.</p> <p>6.3-2 <u>b</u>. xxx</p> <p>6.3-3 <u>c</u>. Confidential information with permitted disclosure is confidential information but is permitted to be disclosed to qualified recipients. This information may only be disclosed to the data owner or</p>	<ul style="list-style-type: none"> Renumbering Revised references 			<p>6.3 6.4 Classification of Disclosure of Market Information</p> <p>Classification or levels of disclosure of market information are classified as follows:</p> <p>6.3-1 <u>a</u>. Strictly confidential information is confidential information which is not covered by the succeeding paragraphs or have not lost its confidentiality status pursuant to Section <u>4.4-2</u> of this <u>Market</u> Manual, relevant provisions of the WESM Rules and other relevant issuances. This information shall only be disclosed by the Market Operator to the data owner or under the exceptions provided for in WESM Rules clause 5.3.2 and this <u>Market</u> Manual.</p> <p>6.3-2 <u>b</u>. xxx</p> <p>6.3-3 <u>c</u>. Confidential information with permitted disclosure is confidential information but is permitted to be disclosed to qualified recipients. This information may only be disclosed to the data owner or</p>

Title	Section	Provision (Issue 3)	Proposed Amendment (as submitted using Issue 3 as baseline)	Rationale	Comments / Amendments	PEMC Response	Revised Proposed Amendment (Issue 4 as baseline)
		to qualified recipients. This information may only be disclosed to the data owner or qualified recipients pursuant to and under the conditions provided for in WESM Rules 5.3.2, Section 5 of this Manual and other relevant issuances that permits its disclosure. This information retains its confidentiality notwithstanding its disclosure to qualified recipients and the recipients are obliged to maintain confidentiality pursuant to the conditions set forth in Section 5 of this Manual.	qualified recipients pursuant to and under the conditions provided for in WESM Rules 5.3.2, Section 5 of this Manual and other relevant issuances that permits its disclosure. This information retains its confidentiality notwithstanding its disclosure to qualified recipients and the recipients are obliged to maintain confidentiality pursuant to the conditions set forth in Section 5 of this Manual. 6.3.4 d. xxx				qualified recipients pursuant to and under the conditions provided for in WESM Rules 5.3.2, Section 5 of this Manual and other relevant issuances that permits its disclosure. This information retains its confidentiality notwithstanding its disclosure to qualified recipients and the recipients are obliged to maintain confidentiality pursuant to the conditions set forth in Section 5 of this Manual. 6.3.4 d. xxx
		6.4. Updating of the market information catalogue a. Updates by the Market Operator The Market Operator will review and update the market information catalogue annually or as may be necessary. The updated catalogue will be submitted for review and approval by the Rules Change Committee and the PEM Board. b. Requests for updates or revisions by the WESM members and other parties A WESM member or any interested party may request that certain information be included in or excluded from the catalogue or that the level of access to any information be reclassified. Requests will be submitted to the Market Operator which will review the proposal and include the same for review and approval either separately or as part of its regular updates of the catalogue.	6.4-5.5. Updating of the market information catalogue a-5.5.1. Updates by the Market Operator The Market Operator will review and update the market information catalogue annually or as may be necessary. The updated catalogue will be submitted for review and approval by the Rules Change Committee and the PEM Board. b-5.5.2. Requests for updates or revisions by the WESM members and other parties A WESM member or any interested party may request that certain information be included in or excluded from the catalogue or that the level of access to any information be reclassified. Requests will be submitted to the Market Operator which will review the proposal and include the same for review and approval either separately or as part of its regular updates of the catalogue.	<ul style="list-style-type: none"> Amendment of this Market Manual is already provided in Section 6, as revised. Renumbering 	CITanglao: (On 5.5.1 and 5.5.2) use shall.	Agree. xxx	6.4-5.5. Updating of the market information catalogue a-5.5.1. Updates by the Market Operator The Market Operator <u>will shall</u> review and update the market information catalogue annually or as may be necessary. The updated catalogue will be submitted for review and approval by the Rules Change Committee and the PEM Board. b-5.5.2. Requests for updates or revisions by the WESM members and other parties A WESM member or any interested party may request that certain information be included in or excluded from the catalogue or that the level of access to any information be reclassified. Requests <u>will shall</u> be submitted to the Market Operator which <u>will shall</u> review the proposal and include the same for review and approval either separately or as part of its regular updates of the catalogue.
Amendments	7	7 Amendments	7-6 Amendments	Renumbering			7 Amendments (section number retained)
		Any amendments to this Manual shall be approved by the DOE, following the procedures for changes Market Manual set in the WESM Rules and in the relevant Market Manual.	Any amendments to this <u>Market</u> Manual shall be approved by the DOE, following the procedures for changes Market Manual set in <u>accordance with Chapter 8 of the</u> WESM Rules and in the relevant <u>corresponding</u> Market Manual <u>on rules change process</u> .	For clarity			Any amendments to this <u>Market</u> Manual shall be approved by the DOE, following the procedures for changes Market Manual set in <u>accordance with Chapter 8 of the</u> WESM Rules and in the relevant <u>corresponding</u> Market Manual <u>on rules change process</u> .

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Title	Section	Provision (Issue 3)	Proposed Amendment (as submitted using Issue 3 as baseline)	Rationale	Comments / Amendments	PEMC Response	Revised Proposed Amendment (Issue 4 as baseline)
Publication and Effectivity	8	8 Publication and Effectivity	8 <u>7</u> Publication and Effectivity	Renumbering			8 Publication and Effectivity (section number retained)
Appendices	9	9 APPENDICES Market Information Catalogue	9 <u>8</u> APPENDICES <u>Appendix A</u> Market Information Catalogue <u>Appendix B Non-Exhaustive List of Information to be Published on the Market Network Model Technical Data and Parameters</u> (see details below)	<ul style="list-style-type: none"> Renumbering Additional appendix, for clarity on the MNM technical data and parameters to be published 			9 APPENDICES (section number retained) <u>Appendix A</u> Market Information Catalogue <u>Appendix B Non-Exhaustive List of Information to be Published on the Market Network Model Technical Data and Parameters</u> (see details below)
Global (Clerical)							
		manual	market manual	For consistency			

Note: For convenience, please underline and put in bold letters the proposed changes to the WESM Manual.



APPENDIX A. MARKET INFORMATION CATALOGUE

Market Information			Information Access				Rationale	Comments
Category	Specific Information	Information/ Data Source	Classification	Recipient	Means of Provision	Publication Timeline		
INPUT DATA								
Rules and regulatory information	Structure and Level of Market Fees	Market Operator	Public	Public	WESM Website-market information website Electronic or printed copies on request - Other means as required by the ERC	Upon approval by the ERC	<ul style="list-style-type: none">• Used defined term• Requests will be directed to the published information in the public website	
	Price Determination Methodology and Administered Price Determination Methodology and their its revisions, including the formulation of Market Dispatch Optimization Model	Market Operator	Public	Public	WESM Website-market information website Electronic or printed copies on request	Upon approval by the ERC	<ul style="list-style-type: none">• APDM is already merged in the PDM• Used defined term• Requests will be directed to the published information in the public website	
Market Network Model (MNM) and related information	Market Network Model	Market Operator	Public	Public	WESM Website-market information website - (MNM Documentation) Electronic or printed copies on request	Updated as necessary N/A	<ul style="list-style-type: none">• Used defined term• Requests will be directed to the published information in the public website	
	MNM Bus-Oriented Single Line Diagram	Market Operator	Public	Public				
	Registry of market trading nodes	Market Operator	Public	Public				
	List of customer pricing zones (CPZ)	Market Operator	Public	Public				
	Reserve cost recovery zones	Market Operator	Public	Public				
MMS—Market—Network Model—MNM Technical Data/ and Parameters ¹	Market Operator	Confidential <u>Public</u>	Data owner and exceptions under WESM Rules 6.3.2- Public	Electronic or printed copies on request-market information website		<ul style="list-style-type: none">• Please see proposed Appendix B.• In accordance with WESM Rule 3.11.1.1 (h) as revised under DOE DC 2016-10-0014		
Registration and Market Participant Data	Registration Lists (e.g. list of participants/ members, applicants and former members) <u>and new metering installation</u>	Market Operator	Public	Public	WESM Website-market information website Electronic or printed copies on request	Updated as necessary	<ul style="list-style-type: none">• In accordance with Section 5.5 of the Metering Manual, Issue 10• Used defined term• Requests will be directed to the published information in the public website	

¹ Please see Appendix B for the non-exhaustive list of information to be published for the Market Network Model Technical Data and Parameters

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Market Information			Information Access				Rationale	Comments
Category	Specific Information	Information/ Data Source	Classification	Recipient	Means of Provision	Publication Timeline		
	Generator Pmax, Pmin, Ramp Up and Ramp Down Rates	Market Trading Participant	Public	Public	- <u>market information website</u> - Electronic or printed	Updated as necessary	<ul style="list-style-type: none"> To provide information on the generating assets in the WESM For clarity Electronic copies for easier and faster processing of requests 	
	Customer Peak and Off-peak Demand	Market Trading Participant	Public	Public	- Electronic or printed copies on request	Updated as necessary		
	Prudential security information (i.e. trading limits, net exposure, prudential security deposit form and amount)	Market Trading Participant/ Market Operator	Confidential	Data owner and exceptions under WESM Rules 5.3.2.	- Electronic or printed copies on request	N/A		
Energy Forecast and Reserve Information	<u>Real-time dispatch</u> , Hour-Ahead, Day-Ahead and Week-Ahead Demand Forecast and Reserve requirement	Market Operator/ System Operator	Public	Market Trading Participants, DOE, ERC, PEMC	- <u>Market Management System Market Participant Interface (MMS MPI)</u>	Daily or <u>Immediately</u> after relevant market run	<ul style="list-style-type: none"> Consistent with the 5-minute dispatch and HAP (hour-ahead) projection For clarity Used defined terms 	
				Public	- <u>WESM Website market information website</u>	<u>Within the next trading day</u> Daily or after relevant market run		
	VRE Aggregated Generation Forecast	System Operator	Public	Public	- <u>WESM Website market information website</u>	<u>Within the next trading day</u> Daily	<ul style="list-style-type: none"> For clarity Used defined terms 	
	<u>Initial Loss Percentage</u>	<u>Market Operator</u>	<u>Public</u>	<u>Public</u>	- <u>market information website</u>	<u>Updated as necessary</u>	In accordance with Section 6.4.2 of the LFM, as reviewed by the RCC on 03 March 2017.	
Generation Offers and Demand Bids	Energy and reserve offers and demand bids including all information contained in the submitted offers	Market Trading Participants	Confidential with expiration (Confidentiality expires after seven days)	Prior to expiration of confidentiality: data owner and exceptions under WESM Rules 5.3.2.	- Electronic or printed copies on request	N/A	Electronic copies for easier and faster processing of requests	
				Public after expiration	- <u>WESM Website market information website</u>	Updated Daily (after expiration of confidentiality)	Used defined terms	
	Projected output of must dispatch and priority dispatch generating units	Market Trading Participants	Confidential with expiration (Confidentiality)	Prior to expiration of confidentiality: data owner and	Electronic or printed copies on request	N/A	<ul style="list-style-type: none"> Used defined terms Electronic copies for easier and faster processing of requests 	

Market Information			Information Access				Rationale	Comments
Category	Specific Information	Information/ Data Source	Classification	Recipient	Means of Provision	Publication Timeline		
	Nominated loading levels of non-scheduled generating units	Market Trading Participants	expires after a day)	exceptions under WESM Rules 5.3.2.			<ul style="list-style-type: none"> Used defined terms Electronic copies for easier and faster processing of requests 	
				Public after expiration	- WESM-Website <u>market information website</u>	Updated Daily (after expiration of confidentiality)		
			Confidential with expiration (Confidentiality expires after a day)	Prior to expiration of confidentiality: data owner and exceptions under WESM Rules 5.3.2.	Electronic or printed copies on request	N/A		
				Public after expiration	- WESM-Website <u>market information website</u>	Updated Daily (after expiration of confidentiality)		
Transmission System Information provided by <u>SO the System Operator</u> to the Market Operator	Generator and Line Outages; Security Limits <u>Over-riding Constraints</u> , and Contingency Lists <u>Limits and outage schedules</u> as submitted by the <u>System Operator</u> to through the MMS	System Operator	Confidential with Permitted Disclosure <u>expiration (Confidentiality expires after a day)</u>	WESM Trading Participants and exceptions under WESM Rules 5.3.2. <u>Public after expiration</u>	- WESM-Website <u>market information website</u>	Updated Daily (<u>after expiration of confidentiality</u>)	<ul style="list-style-type: none"> Consistent with proposed Section 3.5 above For clarity Used defined terms 	
	Real-time system condition or System Operator Advisory on Transmission System conditions, including but not limited to, adverse system condition, outages, load shedding, congestions, and actual system demand based on system snapshot data, etc as provided by the System Operator	System Operator	Confidential with Permitted Disclosure (During trading day)	Trading Participants and exceptions under WESM Rules 5.3.2.	- MMS Advisories/MMS MPI - E-mail	Published near real-time or as provided by the System Operator	Moved to Other Reports below	
			Confidential with expiration (Confidentiality expires after trading day)	Public after expiration	- Daily Market Operations Report	Updated Daily or upon availability of verified/complete information		
	<u>Status of all elements of the market network model such as network</u>	<u>System Operator</u>	<u>Public</u>	<u>Public</u>	- <u>market information website</u>	<u>After the trading day</u>	In accordance to WR 3.11.1.1 (h)	

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Category	Specific Information	Information/ Data Source	Classification	Recipient	Means of Provision	Publication Timeline		
	element outages, network switch and circuit breaker statuses							
	Must Run Unit Report as Prepared/Finalized by SO (i.e. generation unit, quantity and reason for designation)	System Operator	Confidential with expiration (Confidentiality expires after seven days)	Public after expiration of Confidentiality	<ul style="list-style-type: none"> WESM Website Electronic copies on request 	Updated Weekly	Due to the shortening of the dispatch interval and the proposed dispatch conformance standards, the contents of the MRU report will already be provided under the Dispatch Deviation Report (See Others category below)	
Revenue Meter Data	Raw or adjusted meter data	Metering Services Provider	Confidential with permitted disclosure	Data owner, other permitted recipients (subject to sec.5.3.2 4.3.2 of this manual) and exceptions under WESM Rules 5.3.2.	<ul style="list-style-type: none"> Electronic copies on request 	N/A	<ul style="list-style-type: none"> Revised reference section All confidential information are subject to the exceptions under this manual and the WESM Rules 	
OUTPUT DATA								
Energy and Reserve Schedules	Week-ahead (WAP), day-ahead (DAP) and hour-ahead projections (HAP), and real-time dispatch schedules WAP,DAP, RTD and RTX	Market Operator	Confidential with expiration (Confidentiality expires after trading day)	Market Trading Participants, DOE, ERC, PEMC	<ul style="list-style-type: none"> MMS MPI (WAP,DAP, HAP and real-time dispatch) RTD & RTX) 	In accordance with the WESM Timetable	<ul style="list-style-type: none"> Consistent with the 5-minute dispatch and HAP (hour-ahead) projection For clarity Used defined terms 	
				Public after expiration of confidentiality	<ul style="list-style-type: none"> WESM Website market information website (real-time dispatch schedules only) Electronic copies on request 	Updated Daily (after expiration of confidentiality)		
Energy and Reserve Prices	WAP, DAP, HAP, and real-time dispatch prices WAP,DAP,RTD and RTX Prices	Market Operator	Public	Market Trading Participants, DOE, ERC, PEMC	<ul style="list-style-type: none"> MMS MPI (WAP,DAP,HAP and real-time dispatch) RTD & RTX) 	In accordance with the WESM Timetable		
				Public	<ul style="list-style-type: none"> WESM Website market information website Electronic copies on request 	Updated Daily Within the next trading day		

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Market Information			Information Access				Rationale	Comments
Category	Specific Information	Information/ Data Source	Classification	Recipient	Means of Provision	Publication Timeline		
	Ex-Ante and Ex-Post Load Weighted Average Price (LWAP) and Generator Weighted Average Price (GWAP)	Market Operator	Public	Public	- WESM Website market information website - Electronic copies on request	<u>Within the next hour after the relevant dispatch interval</u> Updated-Daily	<ul style="list-style-type: none"> • Addition of GWAP consistent with current publication • Consistent with the 5-minute dispatch and HAP (hour-ahead) projection and enhancement of WESM operations through the implementation of automatic pricing re-runs and use of snapshot quantities to determine AP to facilitate the publication of prices near real-time or right after the trading day and • For clarity 	
	Administered prices	Market Operator	Public	Public	- WESM Website market information website Electronic copies on request	Monthly, after issuance of final settlement <u>Within the next trading day</u>		
	Marginal plants and market clearing prices	Market Operator	Confidential with expiration (Confidentiality expires after trading day)	Public after expiration of confidentiality	- WESM Website market information website Electronic copies on request	Updated Daily (after expiration of confidentiality)		
	Substitute prices for <u>cases of nodal price separation due to PSM for Congestion² related pricing errors</u>	Market Operator	Public	Market Trading Participants, DOE, ERC, PEMC	- MMS MPI - Electronic copies on request	<u>Within the next trading day</u> Near real-time		
				Public	- WESM Website market information website (Market Results Page) - Electronic copies on request	Updated-Daily <u>Within the next trading day</u>		
	<u>Final Nodal Energy Dispatch Prices</u>	<u>Market Operator</u>	Public	Public	- <u>Market information website</u>	<u>Prior the issuance of the final settlement statement</u>		
Automatic Pricing Re-runs	<u>Constraints violated and the corresponding non-zero constraint violation variable values</u>	<u>Market Operator</u>	Public	Public	- <u>market information website</u> (Market Results Page) - <u>Electronic copies on request</u>	<u>Within the next trading day</u>		
Pricing Errors	Pricing error notice (PEN)	Market Operator	Public	Market Participants, DOE, ERC, PEMC	- MMS MPI - E-mail	As-Applicable <u>Within two (2) working</u>	Per Section 6.2 of the CVC Manual Issue 5 as approved by DOE DC 2017-03-0002	

² Price Determination Methodology Manual Section 6

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Market Information			Information Access				Rationale	Comments
Category	Specific Information	Information/ Data Source	Classification	Recipient	Means of Provision	Publication Timeline		
				Public	- <u>market information website</u> Electronic copies on request	<u>days after the trading day</u>		
	Market re-runs results (i.e. resulting market re-run prices)	Market Operator	Public	Public	- WESM Website <u>market information website</u> Electronic copies on request	As Applicable		
Settlements	Settlement amounts, including energy, reserve amounts identifiable to a specific trading participant or WESM member	Market Operator	Confidential	Data owner and exceptions under WESM Rules 5.3.2.	- Electronic Copies	N/A	In accordance to DOE DC 2013-07-0018 issued on 26 July 2013, requiring the MO to disclose the settlement amount unpaid by the end of the month and the specific WESM Member that failed to pay the settlement amounts	See CITanglao's comment below.
	Unpaid settlement amounts as of month-end, specific WESM member that failed to pay settlement amounts as of month-end	Market Operator	Confidential <u>Public</u>	Data owner and exceptions under WESM Rules 5.3.2(i) <u>Public</u>	- Electronic copies <u>market information website</u>	Within fifteen (15) business days after the end of each month <u>Within the month following the end of the billing period</u>		
	Quantities used for settlement (i.e. settlement-ready meter data, spot and bilateral contract quantities declared to the Market Operator) identifiable to a specific Trading Participant or WESM Member	Market Operator	Confidential	Data owner and exceptions under WESM Rules 5.3.2.	- Electronic Copies	N/A		
	Line rental trading amount and other line rental information identifiable to a specific Trading Participant or WESM Member	Market Operator	Confidential	Data owner and exceptions under WESM Rules 5.3.2.	- Electronic Copies	N/A		
	Net settlement surplus and deficit levels and allocations	Market Operator	Public	Public	- WESM Website <u>market information website</u>	Monthly, after the issuance of final settlement		

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Market Information			Information Access				Rationale	Comments
Category	Specific Information	Information/ Data Source	Classification	Recipient	Means of Provision	Publication Timeline		
	<u>Underlying factors affecting NSS</u>	<u>Market Operator</u>	<u>Public</u>	<u>Public</u>	- <u>market information website</u>	<u>Annual</u>	In accordance with WR 3.13.12.3 as approved by DOE DC 2016-10-0014	
Market Operator Performance	Market Operator Performance Indicators and Performance Report	Market Operator	Public	Public	- <u>WESM Website market information website</u>	Annual	Use defined term	
<u>Metering Service Provider (MSP) Performance</u>	<u>Wholesale and Retail MSP Performance Reports</u>	<u>Market Operator</u>	<u>Public</u>	<u>Public</u>	- <u>market information website</u>	<u>In accordance with the timetable under the applicable Metering Manuals</u>	In accordance with Section 10.7.1 of the MM 10	See MERALCO comment below
OTHERS								
<u>Transmission System Information</u>	Real-time system conditions or System Operator Advisory advisories on Transmission System conditions, including but not limited to, adverse system condition, outages, load shedding, congestions, and actual system demand based on system snapshot data, etc as provided by the System Operator	System Operator	Confidential with Permitted Disclosure (During trading day)- <u>Public</u>	WESM Trading Participants and exceptions under WESM Rules 5.3.2: <u>WESM Members</u>	- MMS Advisories/MMS MPI - E-mail	Published near real-time or as provided by the System Operator	<ul style="list-style-type: none"> Moved from Inputs since these are information/ data that are published by the MO as provided by the SO MO reports do not only contain information from SO advisories 	<ul style="list-style-type: none">
			Confidential with expiration (Confidentiality expires after trading day)	Public after expiration	- Daily Market Operations Report	Updated Daily or upon availability of verified/complete information		
	<u>Dispatch Deviation Report by the System Operator (in CSV) and Daily Operations Report</u>	<u>System Operator</u>	<u>Public</u>	<u>Public</u>	- <u>market information website</u>	<u>Within the next trading day</u>	Consistent with publication of Post-dispatch reports under the Dispatch Protocol manual	
	<u>Planned transmission line, transformer, and generator outages</u>	<u>System Operator</u>	<u>Public</u>	<u>Public</u>	- <u>Market information website</u>	<u>Monthly</u>	Provide additional information on the availability of generators and transmission lines to Trading Participants and interested parties	

Note: 1\ Customer pricing zones have been made optional and is currently not implemented in the WESM. The inclusion of CPZ in this list is only for completeness purposes.

Proposed Amendment (Info Matrix) (as published by the RCC)			Comments	Proposed Revised Wording in relation to Comment	PEMC Response
Specific information:	Means of provision:	Publication timeline:			
Metering Service Provider (MSP) Performance x x x	Market information website	In accordance with the timetable under the applicable Metering Manuals	<p>MERALCO:</p> <p>Section 8.5.1 of the Retail Manual for Metering Standards and Procedures 2.0 (RCOA-MSP-002) states:</p> <p>"8.5.1. Monthly Performance Monitoring After every billing period, the Central Registration Body shall release to concerned Contestable Customers, Suppliers and Retail Metering Service Providers the service delivery ratings (refer to Section 8.4.1) of their associated Retail Metering Service Provider. <u>If requested, the Central Registration Body shall discuss the results of the performance monitoring with the concerned Contestable Customer, Supplier, or Retail Metering Service Provider.</u> The results of the monthly performance monitoring shall be published in the market information web site." (emphasis provided)</p> <p>We propose to include in the procedure that the Retail Metering Services Provider (1) be provided a copy of the results of the monthly performance monitoring, for its review and (2) be allowed to submit its comments, explanation, or possible corrections to the results, prior to posting in the market information website.</p> <p>Under Section 6.3.2(c) of the Retail Manual for Metering Standards and Procedures 2.0 (RCOA-MSP-002): "If issued a Meter Trouble Report, a Retail Metering Services Provider shall correct the metering data and submit final metering data not later than five (5) business days prior to the issuance of the final settlement statement." Following the submission of final metering data, the MSP and the Market Operator/Central Registration Body can validate the performance monitoring results prior to the release of the final bill and prior to posting in the market information website. This process is also currently being developed by the Metering Division of PEMC and the MSPs.</p>	<p>MERALCO:</p> <p>Specific information: Metering Service Provider (MSP) Performance</p> <p>x x x</p> <p>Means of provision: Market information website</p> <p>Publication timeline: In accordance with the timetable under the applicable Metering Manuals. <u>The Metering Service Provider (MSP) shall be provided the initial performance monitoring results not later than four (4) business days prior to the release of the final settlement statement. The MSP shall submit its response / comments to the performance monitoring results for the validation of the Market Operator or Central Registration Body prior to the release of the final bill and prior to posting in the market information website.</u></p>	<p>For consideration of RCC, PEMC is amenable with MERALCO's suggestion for RMSPs to be able to review and comment on the RMSP performance reports. The corresponding proposed amendments by MERALCO, however, are under the Retail Metering Manual (these should also be made to the WESM Metering Manual, for consistency.) If so amended, we suggest that the timeline for publication of the MSP performance reports be adjusted to a later date after the release of the final settlement statements for PEMC to handle the comments on the MSP performance reports properly.</p>
Snapshot quantity and meter data (not included in proposal)			Market Surveillance Committee:		We agree with the proposal to publish snapshot data, specifically the actual dispatch data used for

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Proposed Amendment (Info Matrix) (as published by the RCC)			Comments	Proposed Revised Wording in relation to Comment	PEMC Response
Specific information:	Means of provision:	Publication timeline:			
			<p>The MSC observed that the 59th snapshot data and the aggregate metered quantity (MQ) are not yet categorized as public data. The MSC deemed that both data are not confidential, thus it is recommending that the monthly aggregate MQ per trading participant and 59th snapshot data be categorized as public information.</p> <p>In view of this, the MSC also proposes that the WESM Rules Clause 4.8.4 be amended accordingly.</p> <p><i>4.8.4 Confidentiality</i> <i>Subject to clause 4.7.3, metering data is confidential and each WESM member and Metering Services Provider shall ensure that such data is treated as confidential information in accordance with the WESM Rules.</i></p>		<p>the determination of dispatch compliance.</p> <p>On the publication of aggregate MQ per participant. for RCC discussion.</p>
Unpaid settlement amounts as of month-end, specific WESM member that failed to pay settlement amounts as of month-end			<p>CiTanglao:</p> <p>(On changing the information classification from Confidential to Public) IS this ok with concerned WESM members?</p>		<p>This directive has been enforced since August 2013. No complaint on this matter has been received so far.</p>



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Title	Section	Provision	Proposed Amendment	Rationale	Comments / Amendments	PEMC Response	Revised Proposed Amendment												
		NEW	<p>Appendix B. Non-Exhaustive List of Information to be Published on the Market Network Model Technical Data and Parameters</p> <p><u>The following technical data and parameters shall be published in relation to the Market Network Model.</u></p> <table><tr><th>Equipment</th><th>Technical Data/Parameters Available</th></tr><tr><td>Transformer</td><td>Impedance (resistance and reactance) Rating</td></tr><tr><td>Lines</td><td>Impedance (resistance and reactance) Charging Rating</td></tr><tr><td>Generators</td><td>Pmin/Pmax</td></tr><tr><td>Loads per Common Bus</td><td>Estimated Loading</td></tr><tr><td>Other Shunt and Series Devices (i.e. inductors, capacitors, and voltage regulators)</td><td>Impedance Rating</td></tr></table>	Equipment	Technical Data/Parameters Available	Transformer	Impedance (resistance and reactance) Rating	Lines	Impedance (resistance and reactance) Charging Rating	Generators	Pmin/Pmax	Loads per Common Bus	Estimated Loading	Other Shunt and Series Devices (i.e. inductors, capacitors, and voltage regulators)	Impedance Rating		Technical Committee: Does this include models for sub-transmission and distribution levels?	This includes everything that is modeled in the MNM.	
Equipment	Technical Data/Parameters Available																		
Transformer	Impedance (resistance and reactance) Rating																		
Lines	Impedance (resistance and reactance) Charging Rating																		
Generators	Pmin/Pmax																		
Loads per Common Bus	Estimated Loading																		
Other Shunt and Series Devices (i.e. inductors, capacitors, and voltage regulators)	Impedance Rating																		
			<p><u>The above information shall be prepared in a PSS/E "raw" data file format, which includes how each equipment is connected among each other in the power system as represented in the Market Network Model.</u></p>		<ul style="list-style-type: none">Technical Committee: Why specify a data format that is particular to a proprietary software? Suggest that the format be in a more generic format (e.g. .csv and etc.)CITanglao <p>Use shall</p>	<p>The PSS/E is specified for reference of the market participants on the format used by the MO. It is a file format that is just actually a comma-delimited text file that is readable by free power system analysis tools.</p> <p>Agree.</p>	<p><u>The above information shall be prepared in a PSS/E "raw" data file format, which shall include includes how each equipment is connected among each other in the power system as represented in the Market Network Model.</u></p>												

Jpa