



MEETING MINUTES

Subject/Purpose : 182nd Rules Change Committee Special Meeting
 Date & Time : 23 July 2021, 09:03
 Venue : Online via Microsoft Teams
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ATTENDEES

	Name	Designation/Position	Department/Company
1	Maila Lourdes G. De Castro	Chairperson, Independent	RCC
2	Francisco L.R. Castro, Jr.	Member, Independent	RCC
3	Allan C. Nerves	Member, Independent	RCC
4	Concepcion I. Tanglao	Member, Independent	RCC
5	Dixie Anthony R. Banzon	Member, Generation Sector	RCC
6	Cherry A. Javier	Member, Generation Sector	RCC
7	Carlito C. Claudio	Member, Generation Sector	RCC
8	Jessie Victorio	Member (Alternate), Generation Sector	RCC
9	Mark Habana	Member, Generation Sector	RCC
11	Ryan S. Morales	Member, Distribution Sector	RCC
12	Ricardo G. Gumalal	Member, Distribution Sector	RCC
13	Nelson M. Dela Cruz	Member, Distribution Sector	RCC
14	Virgilio Fortich, Jr.	Member, Distribution Sector	RCC
16	Lorreto H. Rivera	Member, Supply Sector	RCC
17	Ambrocio R. Rosales	Member, System Operator	RCC
18	Isidro E. Cacho, Jr.	Member, Market Operator	RCC
19	Karen A. Varquez	RCC Secretariat	PEMC
20	Divine Gayle C. Cruz	RCC Secretariat	PEMC
21	Dianne L. De Guzman	RCC Secretariat	PEMC
22	Kathleen R. Estigoy	RCC Secretariat	PEMC
25	Sheryll M. Dy	Proponent	IEMOP
27	Edward I. Olmedo	Proponent	IEMOP
28	Valfia U. Gregorio	Proponent	IEMOP
30	Melanie C. Papa	Observer	DOE
31	Mari Josephine C. Enriquez	Observer	DOE
40	Richard O. Arcenal	Commenter	SPC Power Corp.
41	Laudy Lyn O. Calde	Commenter	SPC Power Corp.



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I. Call to Order	The meeting was conducted via Microsoft Teams and was called to order at 9:03 AM by Chairperson Maila Lourdes G. De Castro (Independent).
II. Determination of Quorum	<ul style="list-style-type: none"> All principal RCC members and 1 alternate member were in attendance.
III. Presentation and Approval of the Proposed Agenda	<p>The provisional agenda of the meeting was approved and adopted by the body, as amended.</p> <p>Additional comments of the Technical Committee to the Proposed Amendments to WESM Manuals for Improvements to Market Resource Modelling and Monitoring (ORCP-WM-21-04) were added under Matters Arising from Previous Meeting.</p>
IV. Matters Arising from Previous Meeting	
4.1 TC's Additional Comments to the Proposed Amendments to WESM Manuals for Improvements to Market Resource Modelling and Monitoring (ORCP-WM-21-04) <ul style="list-style-type: none"> Provisions explaining the looping example provided Process for simplification 	<p><u>Presenter:</u> Mr. Edward I. Olmedo (Proponent, IEMOP)</p> <p><u>Action Requested:</u> For discussion and approval to endorse to PEM Board</p> <p><u>Meeting Material:</u> Annex A – Market Network Model (MNM) Looping Sample for Distribution Utilities (DU)</p> <p><u>Proceedings:</u></p> <p>As a background, Ms. Dianne De Guzman (Secretariat) stated that Section 5.3.2 of the proposal providing for simplification of the MNM was provisionally approved by the RCC, subject to the submission by the IEMOP of an MNM Looping Sample for Distribution Utilities as requested by the Technical Committee (TC) Chairperson Prof. Jordan Orillaza during the 181st RCC Regular Meeting. The IEMOP submitted the MNM Looping Sample on 21 July 2021, which Prof. Orillaza submitted comments on 22 July 2021. Prof. Orillaza requested for sufficient description of the process that goes with simplification by indicating the generators, loads, lines, among others, and the power flow results in the looping sample. Ms. De Guzman noted that an invitation to attend the meeting was sent to Prof. Orillaza, but he is not, however, present during the meeting.</p>

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	<p>In reference to the diagram in Annex A, Mr. Edward I. Olmedo (IEMOP) said that they added the label of substations in the actual network configuration. He explained that if the embedded generators are required to register, it should have its own real-time monitoring. There are also revenue meters in the connection points, and the generator has both real-time monitoring and revenue meter which is settled in WESM involving the Site-Specific Loss Adjustment (SSLA) process. He added that how it is being modelled in the MNM is already described in the proposed provision such that the Market Operator (MO) may model the generating unit at the nearest substation to which it is operationally connected. Due to lack of real-time data, the generator is positioned in the nearest substation and the load resource is the sum of power withdrawn in the substation plus the power injected by the generator. Further, Mr. Olmedo said that they will add further description to the diagram as requested by Prof. Orillaza, which Chairperson De Castro welcomed to resolve the comment.</p> <p>Mr. Ambrocio R. Rosales (System Operator) commented that the MNM diagram does (unlooped) not allow the flow from substation 1 to substation 2 in case of line tripping especially if the distribution utility's system is large and meshed or complex. It also has an impact such that if single outage contingency will be applied in the model, it will provide a different solution which is not reflective to the actual scenario. He suggested that a looping between substation 1 and substation 2 by adding a pseudo-line be considered. He noted that the diagram appears to be radial which is not equivalent to the actual network if simplified.</p> <p>Mr. Nerves asked if it is possible to shift from one model to another depending on the situation. Mr. Olmedo replied that the model is static and cannot be switched. Mr. Olmedo explained that the diagram is dependent on real-time data and that they are trying to validly estimate a value even in the absence of real-time data. He also said that the diagram only reflects their current process, and they are also exploring the option to indicate a pseudo-line between substations 1 and 2.</p> <p>Mr. Nerves inquired if the constraint to switch between two (2) models is due to software limitations. Mr. Olmedo responded that the software can switch and that switching can happen due to contingency or scheduled maintenance.</p> <p>Mr. Rosales suggested that for pseudo-lines, it should not be normally opened in the other end such that when contingency occurs, there would</p>

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	<p>be no need to switch off the other end. He noted that a pseudo-line is being used by the SO in their Energy Market System (EMS) to reflect the looping during single outage contingency. He stated that the model should not be on a case-to-case basis as embedded generators can be identified, and if it will just be connected to a substation, the output will vary in the market run. Mr. Olmedo said that they humbly disagree to the statement of Mr. Rosales.</p> <p>Mr. Claudio stated that the mere connection of substations 1 and 2 will impact the drawdown of substation 1 such that it will decrease due to the placement of generator compared when it is looped because the impact will be distributed.</p> <p>Mr. Virgilio Fortich, Jr. (Distribution) asked if the substation has its own revenue meter and if a monitoring meter needs prior registration with IEMOP. Mr. Olmedo replied that it is possible, but the WESM uses data from the registered revenue meters at the connection point. He also explained that the revenue meter in the substation may be used for purposes of monitoring or matching with the revenue meter of the generator. The real-time monitoring data is from the Remote Telemetering Units (RTUs) used in real-time scheduling and pricing. For settlement, data from the registered revenue meter is the one being used. If a new substation is built, it will undergo registration and assessment, and if it is an additional feeder, it is being registered as part of the registered revenue meter which should be a WESM compliant meter and not only a statistical meter. Prior registration of monitoring meter is also required before energization.</p> <p>Further, Mr. Claudio pointed out that the diagram may be confusing because of the bus line since normally, customer 1 and customer 2 is directly connected to the substation of the NGCP. He also asked if the model is for Visayas and Mindanao. Mr. Olmedo responded that the customers are not necessarily connected to NGCP's substation, and the model is not for Visayas and Mindanao as there are similar configurations in Luzon.</p> <p>Mr. Ryan Morales (Distribution) requested for the statistics of cases where such simplification as discussed by Mr. Olmedo is applied. He also inquired if it is possible for IEMOP to provide a sample based on power flow and proximity for clarity. Mr. Olmedo replied that they are only documenting their current process and they will propose another revision in the MNM to account for the suggestions.</p>



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	<p><u>Resolution:</u> IEMOP to provide the description as requested by TC Chairperson and the further refinements for discussion of the RCC in the next meeting. Other provisions will also be reviewed for consistency with the discussion.</p>
<p>4.2 Proposed General Amendments to the WESM Rules and WESM Manuals regarding Market Operator and System Operator Procedures (ORCP-WR-WM-21-07)</p>	<p><u>Presenters (IEMOP-Proponent):</u> Mr. Edward I. Olmedo and Ms. Valfia U. Gregorio</p> <p><u>Action Requested:</u> For discussion and approval to endorse to the PEM Board</p> <p><u>Meeting Material:</u> Annex B – Matrix of Proposed General Amendments to the WESM Rules and WESM Manuals regarding Market Operator and System Operator Procedures (ORCP-WR-WM-21-07)</p> <p><u>Proceedings:</u></p> <p>Ms. De Guzman noted that the RCC will start off with Section 11.1.4 of the proposal. Ms. Valfia U. Gregorio (IEMOP) discussed the proposal. Below are the highlights of the proceedings:</p> <ul style="list-style-type: none"> On the comment of APC in Section 11.1.6: <i>“What happens to changes in the nomination of generators as well as an outage of a generator in between the 5th to the 60th minute? This runs inconsistent to item 10.1.2 wherein Merit Order Table (MOT) should exclude the generators on outage.”</i> <p>IEMOP responded that the proposed Section 11.1.6 (11.1.4 in the current manual) is being proposed for practical purposes. The MOT only serves as a guide for the cheapest available generation to be re-dispatched in real-time if necessary. Regardless, the generators re-dispatched based on MOTs will be compensated in the enhanced WESM design and operations.</p> <p>Mr. Carlito Claudio (Generator) asked for the rationale for using the first MOT and opined that the later MOT will be more realistic. Mr. Olmedo responded that the proposal was jointly discussed with the SO and it was introduced for practical purposes as it can serve as reference or benchmark for Real Time Dispatch (RTD) for the next trading interval. Mr. Claudio noted that there can be a huge difference</p>



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	<p>in the MOT especially at the start and end of peak demand hours (e.g. 0700H to 0800H). He explained that the first WMOT was originally proposed to be used every 5 minutes but was requested by the SO to be provided at the start of first five (5) minute which will cover for the 1 hour trading interval as it will be operationally difficult when there is a need to constrain on/off a generator if WMOT will be used every five (5) minutes interval. It was contemplated to be used as advance uniform reference for every 5-minute interval up to the end of the hour. Mr. Claudio recommended to use the latest available WMOT to the SO due to the huge difference in the MOT for start and end of ramping up/down during different hours. Mr. Olmedo explained that the purpose of the provision is to guide the SO in the dispatch. He added that the concern of other participants that generating unit on MOT will not be compensated is no longer true since in the enhanced WESM design, all MOTs will be compensated. Mr. Rosales submitted to the assessment of the MO if it finds that the first WMOT is the appropriate reference.</p> <p>Mr. Allan C. Nerves (Independent) asked whether the SO really need an MOT for 1-hour interval or a reference for 30-minute interval would suffice their requirement. Mr. Rosales answered that 1-hour reference is appropriate since the settlement is also based on 1-hour dispatch.</p> <p>Having no further comments, the RCC agreed to retain the proposed wording of the IEMOP.</p> <ul style="list-style-type: none"> On the comment of APC in Section 11.3.1: <i>“What happens when SO does not or forgot to trigger the automatic generation control (AGC) signal for the plant to respond? Who bears the negative exposure?”</i> <p>IEMOP responded that the concerns are to be observed during the 3-month period of relaxed dispatch operations.</p> <p>Mr. Rosales inquired whether the SO will still be required to issue a re-dispatch instruction thru AGC when the need to constrain on/off arises based on WMOT. Mr. Olmedo replied that the AGCs are still covered by the re-dispatch instructions based on WMOT.</p> <ul style="list-style-type: none"> On the proposed Section 11.4.2 (e), Mr. Rosales said that the SO has no capability yet to perform AGC over aggregated generating unit and its consideration is on a per unit basis. He also mentioned that the capability for the AGC will be enabled upon their switch to cloud-based

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	<p>data. Thus, he suggested that the provision be deleted. Mr. Olmedo said that the provision was inputted by the SO representative during their discussion. As a way forward, Mr. Rosales suggested for the RCC to invite technical expert/s, especially the SO, for such subject matter.</p> <p>Chairperson De Castro noted the suggestion of Mr. Rosales and requested the Secretariat to invite technical resource persons during proposal deliberations of the RCC or its sub-committee.</p> <ul style="list-style-type: none"> • On the proposed Section 14.4.7 and other applicable provision, Chairperson De Castro requested IEMOP to provide the DOE Department Circular revising the timeline for the reporting of the generator to the MO. • On the comment of SPC/SPIC on proposed Section 14.4.9, Mr. Olmedo clarified that the data in the Dispatch Instruction Report is being posted in the market information website, thus, making it available to all trading participants. <p>On the suggested awareness by the MO of reconciliation efforts by the generation company and the SO, Chairperson De Castro asked about IEMOP's internal process that would notify the generator that the MO is aware of the reconciliation efforts. Ms. Gregorio answered that they only wait for the SO's reconciled data.</p> <p>Mr. Richard Arcenal (SPC/SPIC) explained that their suggestion arose from its previous experience, wherein data reconciliation was finished only last year despite their claim dating back in 2017. He also opined that they see it as a compliance issue on the part of SO, which the MO must be aware of since the latter is the one in-charge of the publication. Mr. Olmedo clarified that all changes to the report is being posted in the market information website and all trading participants are notified thru e-mail notifications. He also opined that the suggested wordings of SPC/SPIC are no longer necessary since the MO accommodates requests for meeting with the trading participants to clarify matters.</p> <p>Further, Mr. Arcenal suggested that the reconciliation period be lengthened since the generator bases its reconciliation efforts on the final settlement data and after the MO's provision of the generator's reconciliation data. Thus, the proposed 14 days reconciliation for Administered Price (AP) and Secondary Price Cap (SEC) is a very tight timeline on the side of the generator. Mr. Olmedo explained that the 14-day timeline is being proposed since it will be difficult for the MO and SO to backtrack its logs due to possible discrepancies that happened during the actual interval. He suggested that if such discrepancy exists, it would be better for the generator to raise the</p>



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	<p>discrepancy during the interval. He further clarified that the timeline for reconciling AP and SEC was based on the ERC-approved PDM decision that is different from the proposal.</p> <p>On the changes on the Dispatch Instruction Report as experienced by SPC/SIPC, Mr. Arcenal asked MO if they really had reconciliation efforts with SO before changing it. Mr. Olmedo answered that they did, and they have accordingly responded to ticket inquiries of SPC/SPIC every week. As to communication with SO on what are the valid MRUs, the MO issued letters to SPC/SPIC in December 2019, while all other changes in the Dispatch Instruction Report are communicated to respective affected trading participants. He also noted that the IDC Manual can be amended to include that the revised Dispatch Instruction Report be republished upon revision, to which Chairperson De Castro requested the proponent to do so.</p> <p>Further, Mr. Arcenal requested for information from the MO and SO to show how the data/event in the Dispatch Instruction Report is properly tagged as Must-Run Unit (MRU), MOT, or Price Substitution Methodology (PSM), as applicable. Chairperson De Castro requested Mr. Olmedo to assist Mr. Arcenal in its inquiry and discuss the same offline, to which Mr. Olmedo agreed.</p> <p>(Chairperson De Castro excused herself from the meeting and requested Mr. Francisco L.R. Castro, Jr. to temporarily preside.)</p> <ul style="list-style-type: none"> • On the diagram on Emergency Procedures During Overload, Mr. Olmedo indicated that the revision provides for the preparation by the SO of significant incident report in case of overloading that has threat to the system security after application of single outage testing as currently indicated in SO's internal process. • On the Enhanced AGC System Command Modes, IEMOP will provide a revised diagram to reflect the proper illustration on AGC Commands within the 5-minute dispatch interval. • On the inquiry of PEMC whether IEMOP also intends to revise WESM Rules Clause 3.2.1.5, IEMOP answered in the affirmative and noted that MNM is treated as an input to the MMS, thus, changes to the MNM are covered by the IBP of IEMOP-TOD. The new features of the MMS allow changes or updates to the MNM as near-to-real-time as possible. Seeking PEM Board approval for any change will defeat this enhanced design. With this, Ms. Gregorio said that IEMOP's revision to WESM Rules Clause 3.2.1.5 will refer to the established business process of IEMOP for altering the MNM.

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	<p>Mr. Olmedo added that their revision was also based on the market operations audit recommendation to streamline the approval process. He explained that all the inputs for changing the MNM are derived by the MO from documented sources based on the MNM Manual. He also mentioned that during a meeting with PEMC, they agree with the latter in indicating that for new regions or grid, PEM Board approval is needed. With this, Ms. Kathleen Estigoy (PEMC) relayed PEMC's suggestion to provide exception to the rules for the integration of new network, which will require PEM Board approval prior to MNM changes.</p> <p>Mr. Olmedo suggested for the word "new region" for consistency with other manuals as it is a defined term. Ms. Estigoy asked if the "new region" would include new distribution utility's network. Mr. Olmedo answered that DU's network is not considered as a region. He opined that if only a part of the DU will be connected and not the whole network, there is no need for the approval to update the MNM and to explicitly state it in the provision. He, however, understand that PEMC intends that the integration of the whole loop of distribution system in the MNM be approved by the PEM Board. When the integration has a major impact to the whole industry, it could be possible that the DU will not agree on its integration. In this case, the integration needs the approval not only by PEMC but by the whole industry, including the DOE, thus, that level of detail need not be stated in the manual.</p> <p>Mr. Fortich, Jr. suggested using the word "creation of new regions". Mr. Castro opined that it would create another question on who creates the region, but for him, region encompasses everything electricity related in a particular area. Mr. Rosales commented that it might be confused with the regions in the Philippines and suggested using "large network" which will include distribution network and transmission network. Also, Ms. Estigoy confirmed that PEMC agrees with the suggestion of Atty. Sheryll Dy (MO) on the use of the word "integration" for consistency.</p> <p>Mr. Castro suggested that the proposed revision be reviewed again noting that what is defined in the manual is "reserved region" as informed by the Secretariat. He also asked if the members are amenable to continue the discussion after the lunch break. The Secretariat confirmed that quorum will no longer be reached as signified by the members in the chat box. Thus, Mr. Castro suggested that other agenda items be discussed in the next meeting, which the members agreed to.</p>



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	<u>Resolution:</u> For continuation of deliberation next meeting.
V. Other Matters	
Presentation of PEMC's newly elected officers	<p><u>Presenter:</u> Ms. Dianne L. De Guzman (Secretariat)</p> <p><u>Action Requested:</u> For information</p> <p><u>Proceedings:</u></p> <p>The RCC noted the newly elected members of the PEM Board, as follows:</p> <ul style="list-style-type: none"> • Generation Sector <ul style="list-style-type: none"> Juan Eugenio L. Roxas Elenita D. Go (Corporate Treasurer) Victor Emmanuel B. Santos, Jr. Danel C. Aboitiz • Distribution Sector <ul style="list-style-type: none"> Allan L. Laniba Felino Herbert P. Agdigos Jose Ronald V. Valles Roel Z. Castro • Supply Sector <ul style="list-style-type: none"> Noel V. Aboboto (Chairman of the Board) • Market Operator <ul style="list-style-type: none"> Richard J. Nethercott • System Operator <ul style="list-style-type: none"> Ronald Dylan P. Concepcion • Independent Members <ul style="list-style-type: none"> Jesus L. Arranza Fortunato C. Leynes Leonido J. Pulido III (PEMC President) Elvin Hayes E. Nidea (PEMC Chief Governance Officer)



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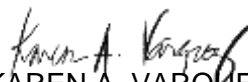
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VII. Next Meeting	
Schedule of Meetings	<p><u>Presenter:</u> Ms. Dianne L. De Guzman (Secretariat)</p> <p><u>Action Requested:</u> For information</p> <p><u>Proceedings:</u></p> <p>The RCC noted the next regular meetings:</p> <ul style="list-style-type: none"> ○ 20 Aug 2021 ○ 17 Sep 2021 ○ 15 Oct 2021
VIII. Adjournment	<p>Considering the schedules of the RCC members, Mr. Fortich moved for the adjournment of the meeting which was duly seconded by Ms. Rivera (Supply). The meeting was adjourned at 12:20 PM.</p>

Prepared by:


 KATHLEEN R. ESTIGOY
 Specialist, Rules Review Division
 Market Assessment Group

Reviewed by:


 KAREN A. VARQUEZ
 Manager, Rules Review Division
 Market Assessment Group

Noted by:


 JOHN MARK S. CATRIZ
 Head, Market Assessment Group

Approved by:


 MAILA LOURDES G. DE CASTRO
 Chairman, Independent


 FRANCISCO LEODEGARIO R. CASTRO, JR.
 Member, Independent


 ALLAN C. NERVES
 Member, Independent



 CONCEPCION I. TANGLAO
 Member, Independent

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DIXIE ANTHONY R. BANZON
Member, Generation Sector
Masinloc Power Partners Co. Ltd. (MPPCL)



CHERRY A. JAVIER
Member, Generation Sector
Aboitiz Power Corp. (APC)




CARLITO C. CLAUDIO
Member, Generation Sector
Millennium Energy, Inc. / Panasia Energy, Inc.
(MEI/PEI)

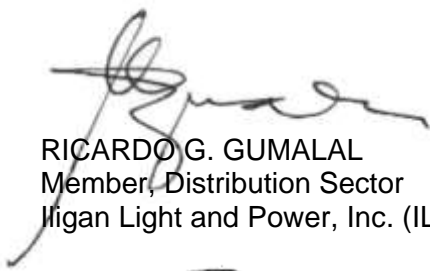
MARK D. HABANA
Member, Generation Sector
Vivant Corporation – Philippines (Vivant)




RYAN S. MORALES
Member, Distribution Sector
Manila Electric Company (MERALCO)




VIRGLIO C. FORTICH, JR.
Member, Distribution Sector
Cebu III Electric Cooperative, Inc. (CEBECO III)



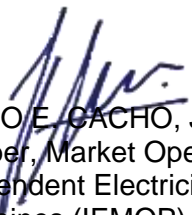
RICARDO G. GUMALAL
Member, Distribution Sector
Iligan Light and Power, Inc. (ILPI)



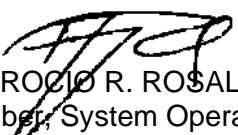
NELSON M. DELA CRUZ
Member, Distribution Sector
Nueva Ecija II Area 1 Electric Cooperative, Inc.
(NEECO II – Area I)



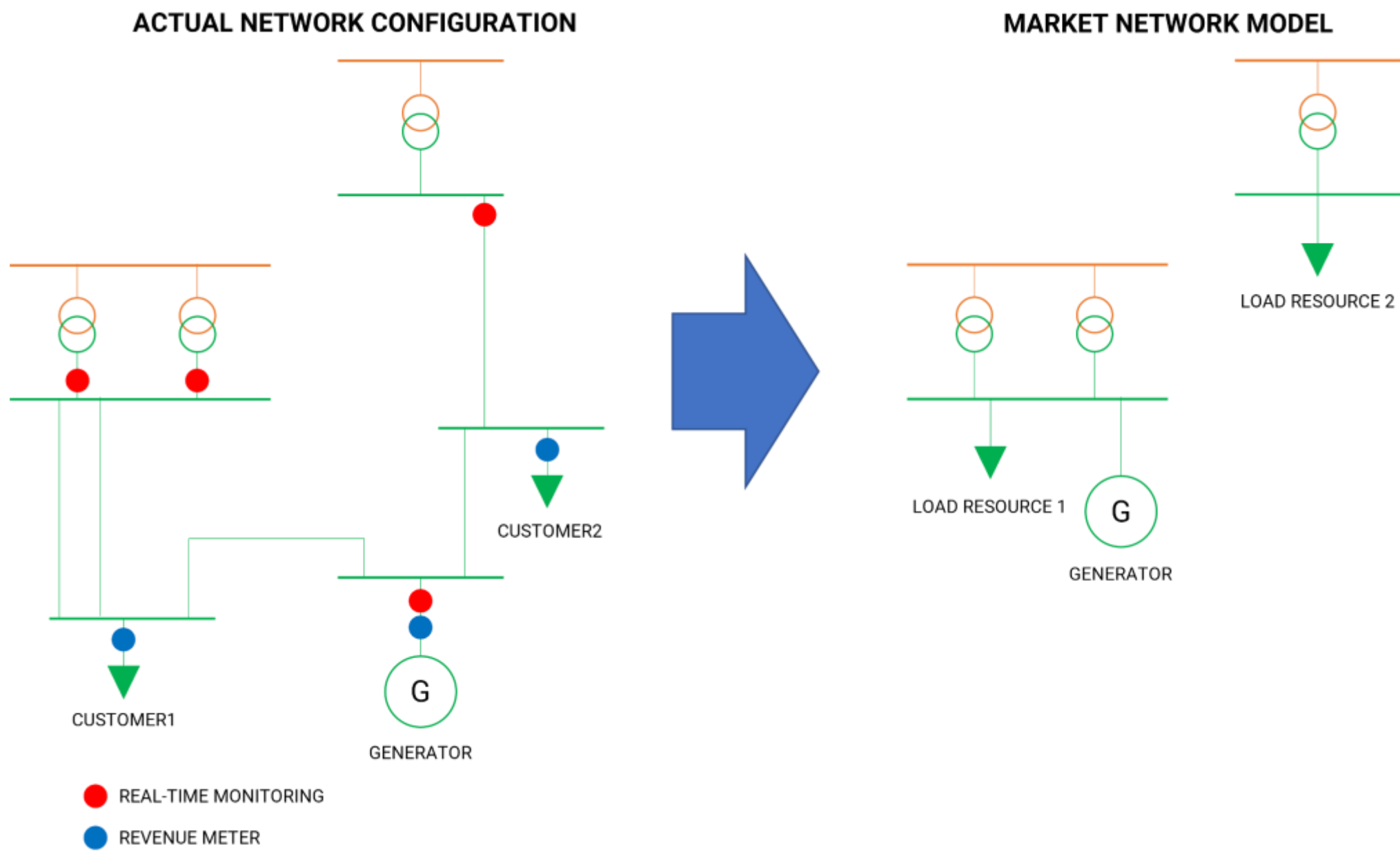
LORRETO H. RIVERA
Member, Supply Sector
TeaM (Philippines) Energy Corporation (TPEC)



ISIDRO E. CACHO, JR.
Member, Market Operator
Independent Electricity Market Operator of the
Philippines (IEMOP)



AMBROCIO R. ROSALES
Member, System Operator
National Grid Corporation of the Philippines
(NGCP)



A. WESM Rules

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
DISPATCH IMPLEMENTATION	11.1.4	11.1.4 xxx	<div>11.1.45 xxx</div> <div>11.1.6 The <i>System Operator</i> shall make use of the first <i>WMOT</i> available for the hour as reference for its re-dispatch instruction at any <i>dispatch interval</i> for that hour (e.g. 1005H <i>WMOT</i> shall be used for all <i>dispatch intervals</i> from 1005H to 1100H).</div>	<div>Re-numbered item due to additional clause in 11.1.4.</div> <div>Added new clause to specify first <i>WMOT</i> shall be used as reference for the rest of the hour in SO re-dispatch in consideration of the SO's operational issues in relying on multiple 5-minute <i>WMOTs</i> in a</div>	<div>APC:</div> <div>What happens to changes in the nomination of generators as well as an outage of a generator in between the 5th to the 60th minute? This runs inconsistent to item 10.1.2 wherein MOT should exclude the generators on outage.</div>		This is being proposed for practical purposes. The MOT only serves as a guide for the cheapest available generation to be re-dispatched in real-time if necessary. Regardless, generator's re-dispatched based on MOTs shall be compensated	<div><u>The <i>System Operator</i> shall make use of the first <i>WMOT</i> available for the hour as reference for its re-dispatch instruction at any <i>dispatch interval</i> for that hour (e.g. 1005H <i>WMOT</i> shall be used for all <i>dispatch intervals</i> from 1005H to 1100H).</u></div> <div>Proposal retained</div>

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Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
				one-hour interval.				
RESPONSIBILITIES	11.3	<p>11.3.1 The <i>System Operator</i>, in coordination with the <i>Market Operator</i>, shall be responsible for the following:</p> <p>a. XXX</p> <p>b. Implementing the <i>WMOT</i> provided by the <i>Market Operator</i>;</p> <p>c. Assuring the <i>security</i> and reliability of the grid at all times in compliance with the provisions of the System Security and Reliability Guidelines and <i>Grid Code</i>;</p> <p>d. Dispatching <i>generators</i> as <i>constrain-on</i> or <i>constrain-off</i>, or as <i>must-run unit</i> if all available <i>reserves</i> are exhausted during a <i>dispatch interval</i>; and</p>	<p>11.3.1 The <i>System Operator</i>, in coordination with the <i>Market Operator</i>, shall be responsible for the following:</p> <p>1. XXX</p> <p><u>b. Directly issuing dispatch instructions to generating units operating on AGC</u></p> <p>b-c. Implementing the <i>WMOT</i> provided by the <i>Market Operator</i>;</p> <p>e-d. Assuring the <i>security</i> and reliability of the grid at all times in compliance with the provisions of the System Security and Reliability Guidelines and <i>Grid Code</i>;</p> <p>d-e. Dispatching <i>generators</i> as <i>constrain-on</i> or <i>constrain-off</i>, or as <i>must-run unit</i> if all available <i>reserves</i> are exhausted</p>	Proposed to provide option for automated dispatching consistent with revisions in Section 11.1.3.	<p>APC:</p> <p>What happens when SO does not or forgot to trigger the AGC signal for the plant to respond? Who bears the negative exposure?</p>		Same response as before. These concerns are to be observed during the 3-month period of relaxed dispatch operations.	Approved

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
		e. Reporting events and actions made during <i>dispatch intervals</i> 11.3.2 XXX	during a <i>dispatch interval</i> ; and e.f. Reporting events and actions made during <i>dispatch intervals</i> 11.3.2 XXX					
RESPONSIBILITIES		11.3.3 All <i>Trading Participants</i> shall comply with their respective <i>dispatch schedules</i> issued by the <i>Market Operator</i> and the re-dispatch instructions issued to them by the <i>System Operator</i> , if any. For this purpose, they shall ensure that their respective internal processes, systems and infrastructure, as well as their protocols with their counterparties, shall enable strict compliance with this Section	11.3.3 All <i>Trading Participants</i> shall comply with their respective <i>dispatch schedules</i> issued by the <i>Market Operator</i> , <u>dispatch instructions issued by the System Operator through their facilities for AGC,</u> and the re-dispatch instructions issued to them by the <i>System Operator</i> , if any. For this purpose, they shall ensure that their respective internal processes, systems and infrastructure, as well as their protocols with their counterparties, shall		TC: AGC operations on energy shall be subject to MOU/MOA APC: For clarity	APC: 11.3.3 All <i>Trading Participants</i> shall comply with their respective <i>dispatch schedules</i> issued by the <i>Market Operator</i> , <u>the dispatch instructions issued by the System Operator through to their facilities operating on for AGC mode,</u> and the re-dispatch instructions issued to them by the <i>System Operator</i> , if any. For this purpose, they	TC: For SO concurrence. APC: Agree	Adopted

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
			enable strict compliance with this Section.			shall ensure that their respective internal processes, systems and infrastructure, as well as their protocols with their counterparties, shall enable strict compliance with this Section.		
ISSUANCE AND COVERAG E OF DISPATCH INSTRUCTI ONS	11.4	11.4.1 <i>Dispatch instructions</i> shall include the following: 1. XXX 2. XXX 11.4.2 XXX	11.4.1 <u>Except for generating units operating on AGC, Dispatch instructions</u> shall include the following: 1. XXX 2. XXX 11.4.2 3 XXX	Proposed to provide option for automated dispatching consistent with revisions in Section 11.1.3.				
			<u>11.4.2 For generating units operating on AGC, the following shall be observed:</u> <u>a. The System Operator shall send AGC commands based on a linear ramp rate</u>		APC: For clarity	APC: <u>11.4.2 For generating units operating on AGC, the following shall be observed:</u> <u>a. The System Operator shall send AGC commands based on a linear ramp rate</u>	Agree	Sir Amby: Requested to invite SO technical representative RCC: Retained original proposal for item a, and deleted item e

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Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
			<p><u>specified with the Generation Company.</u></p> <p><u>b. The Generation Company shall communicate to the System Operator the status of the AGC operations from start, during, and end of AGC remote control mode, as necessary.</u></p> <p><u>c. The Generation Company shall seek clearance from the System Operator to change from remote to local AGC mode in cases of technical constraints.</u></p> <p><u>d. When the Generation Company observes AGC-related issues that affect its operations, the Generation Company shall immediately</u></p>			<p><u>specified with by the Generation Company.</u></p> <p>xxx</p>		

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
			<p><u>communicate such issues to the System Operator prior to changing its mode of dispatch.</u></p> <p><u>e. For an aggregated generating unit, the Generation Company shall pro-rate the AGC command to the individual generating units based on each unit's MW capability at that time.</u></p>					
		11.4.3 System Operator Clearance. When the <i>grid frequency</i> is not within the normal threshold, the <i>Trading Participants</i> shall seek clearance from the <i>System Operator</i> before ramping up or down to their respective <i>target loading levels</i> . The <i>System Operator</i> shall provide clearance and	11.4.34 System Operator Clearance. <u>Generator Dispatch Compliance Beyond Normal Grid Frequency Threshold.</u> a. When the <i>grid frequency</i> is not within the normal threshold	Proposed to ensure reliability of the grid by providing standard initial reaction from generation companies	APC: For clarity Abnormal grid frequency snapshots should also be explicit in the SO's Dispatch Instruction Report for common	APC: 11.4.34 System Operator Clearance. <u>Generator Dispatch Compliance Outside the Beyond Normal Grid Frequency Threshold.</u> a. When the <i>grid frequency</i> is not within the normal threshold	APC: Suggest to retain all.	Adopted IEMOP's proposal

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement												
		issue <i>dispatch instructions</i> as it deems appropriate.	<p><u>reaches 59.7Hz or lower</u>, the <i>Trading Participants</i> shall <u>operate based on the following conditions</u>: seek clearance from the System Operator before ramping up or down to their respective target loading levels. The System Operator shall provide clearance and issue dispatch instructions as it deems appropriate.</p> <table><tr><th>Cond ition</th><th>Status of Actual Dispatch</th><th>Expected Response</th></tr><tr><td><u>Freq uenc y is 59.7 Hz or lower</u></td><td><u>If ramping down, or current actual loading is higher than <i>dispatch schedule</i></u></td><td><u><i>Generating unit</i> should stop ramping down and maintain current actual loading unless otherwise instructed by the</u></td></tr></table>	Cond ition	Status of Actual Dispatch	Expected Response	<u>Freq uenc y is 59.7 Hz or lower</u>	<u>If ramping down, or current actual loading is higher than <i>dispatch schedule</i></u>	<u><i>Generating unit</i> should stop ramping down and maintain current actual loading unless otherwise instructed by the</u>		reference and to corroborate the Trading Participants' response to such occurrences.	<p><u>dips to 59.7Hz or lower</u>, the <i>Trading Participants</i> shall <u>operate based on the following conditions</u>: seek clearance from the System Operator before ramping up or down to their respective target loading levels. The System Operator shall provide clearance and issue dispatch instructions as it deems appropriate.</p> <table><tr><th>Cond ition</th><th>Status of Actual Dispatc h</th><th>Expected Response</th></tr><tr><td><u>Freq uenc y is 59.7 Hz or lower</u></td><td><u>If ramping down, or current actual loading is higher than <i>dispatc h</i></u></td><td><u><i>Generatin g unit</i> should stop ramping down and maintain current actual loading unless otherwise</u></td></tr></table>	Cond ition	Status of Actual Dispatc h	Expected Response	<u>Freq uenc y is 59.7 Hz or lower</u>	<u>If ramping down, or current actual loading is higher than <i>dispatc h</i></u>	<u><i>Generatin g unit</i> should stop ramping down and maintain current actual loading unless otherwise</u>		
Cond ition	Status of Actual Dispatch	Expected Response																		
<u>Freq uenc y is 59.7 Hz or lower</u>	<u>If ramping down, or current actual loading is higher than <i>dispatch schedule</i></u>	<u><i>Generating unit</i> should stop ramping down and maintain current actual loading unless otherwise instructed by the</u>																		
Cond ition	Status of Actual Dispatc h	Expected Response																		
<u>Freq uenc y is 59.7 Hz or lower</u>	<u>If ramping down, or current actual loading is higher than <i>dispatc h</i></u>	<u><i>Generatin g unit</i> should stop ramping down and maintain current actual loading unless otherwise</u>																		

Title	Clause	Provision	Proposed Amendment			Rationale	Comments	Proposed Wording based on Comments			Proponent's Response	RCC Agreement
					<u>System Operator</u>				<u>schedul</u> <u>e</u>	<u>instructed by the System Operator</u>		
				<u>If ramping up, or current actual loading is lower than dispatch schedule</u>	<u>Generating unit should continue to ramp up to its dispatch schedule unless otherwise instructed by the System Operator</u>				<u>If ramping up, or current actual loading is lower than dispatch schedule</u> <u>h</u> <u>schedul</u> <u>e</u>	<u>Generatin g unit should continue to ramp up to its dispatch schedule unless otherwise instructed by the System Operator</u>		
			<u>b. Once the grid frequency goes up to 60 Hz after coming off from a state in Section 11.4.4 (a), then the Trading Participants shall resume to dispatch its generating units to meet its dispatch schedule.</u>					<u>b. Once the grid frequency reaches the threshold of normalcy coming from a state in Section 11.4.4 (a),</u>				

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement															
			<p><u>c. When the <i>grid frequency</i> reaches 60.3 Hz or higher, the <i>Trading Participants</i> shall operate based on the following conditions:</u></p> <table><tr><th><u>Condi tion</u></th><th><u>Status of Actual Dispatc h</u></th><th><u>Expecte d Respons e</u></th></tr><tr><td><u>Frequ ency is 60.3 Hz or high er</u></td><td><u>If ramping down, or current actual loading is higher than <i>dispatc h schedul e</i></u></td><td><u>Generati ng unit should continue to ramp down to its <i>dispatch schedul e</i> unless otherwis e instructe d by the <i>System Operator</i></u></td></tr><tr><td></td><td><u>If ramping</u></td><td><u>Generat or</u></td></tr></table>	<u>Condi tion</u>	<u>Status of Actual Dispatc h</u>	<u>Expecte d Respons e</u>	<u>Frequ ency is 60.3 Hz or high er</u>	<u>If ramping down, or current actual loading is higher than <i>dispatc h schedul e</i></u>	<u>Generati ng unit should continue to ramp down to its <i>dispatch schedul e</i> unless otherwis e instructe d by the <i>System Operator</i></u>		<u>If ramping</u>	<u>Generat or</u>			<p><u>the <i>Trading Participants</i> shall resume <i>compliance to its dispatch schedule, or as otherwise instructed by the System Operator.</i></u></p> <p><u>c. When the <i>grid frequency</i> rises to 60.3 Hz or higher, the <i>Trading Participants</i> shall operate based on the following conditions:</u></p> <table><tr><th><u>Con ditio n</u></th><th><u>Status of Actual Dispatc h</u></th><th><u>Expected Respons e</u></th></tr><tr><td><u>Fre que ncy is 60.3 Hz or high er</u></td><td><u>If ramping down, or current actual loading is higher than <i>dispatc</i></u></td><td><u>Generati ng unit should continue to ramp down to its <i>dispatch schedule</i> unless otherwis</u></td></tr></table>	<u>Con ditio n</u>	<u>Status of Actual Dispatc h</u>	<u>Expected Respons e</u>	<u>Fre que ncy is 60.3 Hz or high er</u>	<u>If ramping down, or current actual loading is higher than <i>dispatc</i></u>	<u>Generati ng unit should continue to ramp down to its <i>dispatch schedule</i> unless otherwis</u>		
<u>Condi tion</u>	<u>Status of Actual Dispatc h</u>	<u>Expecte d Respons e</u>																					
<u>Frequ ency is 60.3 Hz or high er</u>	<u>If ramping down, or current actual loading is higher than <i>dispatc h schedul e</i></u>	<u>Generati ng unit should continue to ramp down to its <i>dispatch schedul e</i> unless otherwis e instructe d by the <i>System Operator</i></u>																					
	<u>If ramping</u>	<u>Generat or</u>																					
<u>Con ditio n</u>	<u>Status of Actual Dispatc h</u>	<u>Expected Respons e</u>																					
<u>Fre que ncy is 60.3 Hz or high er</u>	<u>If ramping down, or current actual loading is higher than <i>dispatc</i></u>	<u>Generati ng unit should continue to ramp down to its <i>dispatch schedule</i> unless otherwis</u>																					

Title	Clause	Provision	Proposed Amendment			Rationale	Comments	Proposed Wording based on Comments			Proponent's Response	RCC Agreement
				<u>up, or current actual loading is lower than dispatch schedule</u>	<u>should stop ramping up and maintain current actual loading unless otherwise instructed by the System Operator</u>				<u>h schedule</u>	<u>e instructed by the System Operator</u>		
								<u>If ramping up, or current actual loading is lower than dispatch schedule</u>	<u>Generator should stop ramping up and maintain current actual loading unless otherwise instructed by the System Operator</u>			
			<u>d. Once the grid frequency comes down to 60 Hz after coming off from a state in Section 11.4.4 (c), then the Trading Participants shall resume to dispatch its generating units to meet its dispatch schedule.</u>					<u>d. Once the grid frequency reaches the threshold of normalcy coming from a state in Section 11.4.4 (c), then the Trading Participants shall resume compliance to</u>				

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
						<u>its dispatch schedule, or as otherwise instructed by the System Operator.</u>		
DISPATCH OF MUST AND PRIORITY DISPATCH GENERATING UNITS	11.5	11.5.2 If, in real-time, the available <i>generation</i> from a <i>Must dispatch generating unit</i> differs from the available <i>generation</i> assumed in the <i>dispatch schedule</i> provided to the <i>System Operator</i> , the <i>System Operator</i> shall allow the <i>Must dispatch generating unit</i> to generate at its <i>maximum available output</i> , and, if all available <i>secondary reserves</i> are exhausted during a <i>dispatch interval</i> , shall adjust the <i>dispatch</i> of other <i>generating units</i> to compensate as required in accordance with re-dispatch process in this Section.	11.5.2 If, in real-time, the available <i>generation</i> from a <i>Must dispatch generating unit</i> differs from the available <i>generation</i> assumed in the <i>dispatch schedule</i> provided to the <i>System Operator</i> , the <i>System Operator</i> shall allow the <i>Must dispatch generating unit</i> to generate at its <i>maximum available output</i> , and, if all available <i>secondary</i> <i>regulating</i> reserves are exhausted during a <i>dispatch interval</i> , shall adjust the <i>dispatch</i> of other <i>generating units</i> to compensate as required in accordance with re-dispatch process in this Section.	To harmonize with DOE DC2019-12-0018 (regulating, contingency, dispatchable)				Adopted
COMMUNICATING AND REPORTING OF DISPATCH SCHEDULE	11.8	11.8.1 The <i>real-time dispatch</i> targets shall be communicated by the <i>Market Operator</i> to the <i>Trading Participants</i> through the <i>MPI</i> . The <i>WMOT</i> generated for a <i>dispatch interval</i> shall be published in	11.8.1 The <i>real-time dispatch</i> targets shall be communicated by the <i>Market Operator</i> to the <i>Trading Participants</i> through the <i>MPI</i> . The <i>WMOT</i> generated for a <i>dispatch interval</i> shall be published in accordance with	Proposed to provide option for automated dispatching. Also revised dispatch				Adopted

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
S AND INSTRUCTI ONS		accordance with Section 10.7.2 of this Dispatch Protocol. Redispatch instructions shall be communicated by the <i>System Operator</i> to the <i>Trading Participants</i> through their respective power plant operators.	Section 10.7.2 of this Dispatch Protocol. <u>Dispatch instructions through the AGC facilities shall be communicated by the System Operator through the available communication link with the power plant operator.</u> Redispatch instructions shall be communicated by the <i>System Operator</i> to the <i>Trading Participants</i> through their respective power plant operators.	deviation reports to dispatch instruction reports.				
		11.8.2 The <i>System Operator</i> shall maintain the communication facilities it needs for communicating with <i>Trading Participants</i> which may include telephones, fax, email, web pages and other means of communications. 11.8.3 XXX	11.8.2 The <i>System Operator</i> shall maintain the communication facilities it needs for communicating with <i>Trading Participants</i> which may include telephones, fax, email, web pages, <u>facilities for AGC,</u> and other means of communications. 11.8.3 XXX					Adopted
		11.8.4 All <i>dispatch instructions</i> issued by the <i>System Operator</i>	11.8.4 All <i>dispatch instructions</i> issued by the <i>System Operator</i> , ₁					Adopted

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
		to <i>Trading Participants</i> shall be recorded through operator logs. The <i>System Operator</i> shall include this information in the dispatch deviation report, in accordance with Section 14.4.	<u>including those provided through the facilities for AGC,</u> to <i>Trading Participants</i> shall be recorded through operator logs. The <i>System Operator</i> shall include this information in the dispatch deviation <u>instruction</u> report, in accordance with Section 14.4.					
		11.8.5 Dispatch deviation reports submitted by the System Operator to the Market Operator shall be used for purposes of surveillance, audit, and market settlements.	11.8.5 Dispatch deviation <u>instruction</u> reports submitted by the System Operator to the Market Operator shall be used for purposes of surveillance, audit, and market settlements.					Adopted
START-UP AND SHUTDOWN OF GENERATING UNITS	13.2.2	Consistent with its obligations pertaining to real-time dispatch scheduling and implementation, the <i>System Operator</i> shall ensure: a. Continuous and timely submission and updating of the outage schedules, <i>overriding constraint</i> limits of generating units to the <i>Market Operator</i> ; b. XXX	Consistent with its obligations pertaining to real-time dispatch scheduling and implementation, the <i>System Operator</i> shall ensure: a. Continuous and timely submission and updating of the outage schedules, <i>overriding constraint</i> limits of generating units to the <i>Market Operator</i> ; b. XXX	For consistency with self-commitment and dispatch principles under the EWDO				Adopted

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
		c. XXX	c. XXX					
General Procedures	13.3	13.3.4 The <i>dispatch scheduling</i> of the <i>generating unit</i> that will <i>start-up</i> or <i>shutdown</i> shall be managed through its <i>market offers</i> submitted within the <i>WESM timetable</i> . The <i>Trading Participant</i> shall submit <i>offers</i> for the <i>dispatch interval</i> during which the unit is to <i>startup</i> or <i>shutdown</i> and make adjustments to its <i>offers</i> , as appropriate.	13.3.4 The <i>dispatch scheduling</i> of the <i>generating unit</i> that will <i>start-up</i> or <i>shutdown</i> shall be managed through its <i>market offers</i> submitted within the <i>WESM timetable</i> . The <i>Trading Participant</i> shall submit <u>market offers or nominations</u> for the <i>dispatch interval</i> during which the unit is to <i>startup</i> or <i>shutdown</i> and make adjustments to its <u>market offers or nominations</u> , as appropriate.	For consistency with self-commitment and dispatch principles under the EWDO and provide options especially applicable to generating units with fast-start capability				Adopted
		(NEW)	<u>13.3.5 Consistent with the provisions in the WESM Manual on the Market Network Model Development and Maintenance - Criteria and Procedure, the status of generating units shall be based on their registered availability in the market network model.</u>					Adopted

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
Start-up of a Generating Unit	13.4	13.4.1 Off-line units will not be included in the <i>dispatch scheduling</i> process. Thus, the <i>generating unit</i> must then be synchronized to the <i>grid</i> prior to the execution of the <i>real-time dispatch</i> run consistent with the <i>WESM timetable</i> .	13.4.1 Off-line units will not be included in the <i>dispatch scheduling</i> process. Thus, the <i>A generating unit</i> must then be synchronized to the <i>grid</i> <u>have market offers or nominations</u> prior to the execution of the <i>real-time dispatch</i> run consistent with the <i>WESM timetable</i> .	For consistency with self-commitment and dispatch principles under the EWDO				Adopted
		13.4.2 The <i>System Operator</i> shall update the <i>outage schedule of generators</i> to remove the <i>generating unit</i> cleared to <i>start-up</i> from the <i>outage list</i> . Submission shall be in accordance with the <i>WESM timetable</i> . If the <i>start-up</i> will be deferred, the <i>System Operator</i> shall update the <i>outage schedule</i> accordingly and in accordance with the <i>WESM timetable</i> for submission of <i>outage schedules</i> .	13.4.2 The System Operator shall update the outage schedule of generators to remove the generating unit cleared to start-up from the outage list. Submission shall be in accordance with the WESM timetable. If the <i>start-up</i> will be deferred, the <i>System Operator</i> shall update the <i>outage schedule</i> accordingly and in accordance with the <i>WESM timetable</i> for submission of <i>outage schedules</i>.					Adopted
		(NEW)	<u>13.4.3 If the start-up will be deferred, the System Operator shall update the outage schedule accordingly and in</u>					Adopted

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
			<u>accordance with the WESM timetable for submission of outage schedules.</u>					
		13.4.3 XXX 13.4.4 XXX	13.4. 34 XXX 13.4. 45 XXX	Re-numbered				Adopted
Shutdown of a Generating Unit	13.5	13.5.3 The <i>Trading Participant</i> shall update its <i>offers</i> for the <i>dispatch intervals</i> covered in the <i>shutdown</i> sequence.	13.5.3 The <i>Trading Participant</i> shall update its <u><i>market offers or nominations</i></u> for the <i>dispatch intervals</i> covered in the <i>shutdown</i> sequence.	To clarify that Trading participants also required to update their nominations.				Adopted
		13.5.4 Once the <i>generating unit</i> has completely <i>shut down</i> , the relevant <i>Trading Participant</i> shall cancel its daily <i>offer</i> profile for the affected <i>trading day</i> .	13.5.4 Once the <i>generating unit</i> has completely <i>shut down</i> , the relevant <i>Trading Participant</i> shall cancel its daily <i>market offer or nomination</i> profile for the affected <i>trading day</i> .					
Post-dispatch Data and Operation Reports	14.1	Background After each dispatch interval, the System Operator is required under WESM Rules Clause 3.8.2 to advise the Market Operator of the	Background After each dispatch interval, the System Operator is required under WESM Rules Clause 3.8.2 to advise the Market Operator of the occurrence of,	Reflect proposed change to Dispatch Instruction Report to cover all				Adopted

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
		occurrence of, among other information, dispatch deviations, load shedding, network constraints, binding security constraints and operational irregularities.	among other information, dispatch deviations instructions , load shedding, network constraints, binding security constraints and operational irregularities.	instructions issued by SO instead of deviations only				
Post-dispatch Reports and Information	14.4.2	Dispatch Deviation Report. For each trading day, the System Operator shall submit a report to the Market Operator, on a weekly basis, containing deviation to actual dispatch from the RTD schedule. The Dispatch Deviation Report shall contain, among others, the following information: a. Covered period (start time and end time) b. Resource name c. Reason for Deviation: <ul style="list-style-type: none">• Utilized for ancillary services• Testing Requirement• Re-dispatch of constrain-on and constrain-off generating units• Designation of must-run units	Dispatch Deviation Report. Dispatch Instruction Report. <u>On a weekly basis,</u> For each trading day, the System Operator shall submit a report to the Market Operator, on a weekly basis, containing <u>their dispatch instructions that includes, but are not limited to, generator re-dispatch (e.g. constrain-on generation, constrain-off generation, must-run generation), MW output schedule during market intervention or market suspension, and, as necessary, commands via the automatic generation control,</u> deviation to actual dispatch from the RTD schedule. The Dispatch Deviation Instruction Report shall contain, among others, the following information:	Change to Dispatch Instruction Report to only cover instructions issued by SO. Added proposed changes to format also.				Adopted

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
		d. Short description of the issue being addressed (e.g. frequency breached x Hz)	<p>a. Covered period (start time and end time) <u>Date and Time of Incident</u></p> <p>b. Resource name</p> <p>c. Reason for Deviation</p> <p><u>Dispatch Instruction:</u></p> <ul style="list-style-type: none">• Utilized for ancillary services• Testing Requirement• Re-dispatch of constrain-on and constrain-off generating units• Designation of must-run units• <u>Limitation on <i>must dispatch generating units</i></u>• <u>Market Intervention or Market Suspension</u> <p>d. Short description of the issue being addressed (e.g. frequency breached x Hz)</p> <p><u>e. Type of Dispatch Instruction</u></p> <p><u>f. Target MW value instructed</u></p>					
Post-dispatch Reports and Information	14.4.5	Report on Must-run Units. In accordance with WESM Rules Clause 3.5.13.1, the System Operator shall submit a report	Report on Must-run Units. In accordance with WESM Rules Clause 3.5.13.1, the System Operator shall submit a report	To indicate that information on				Adopted

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
		to the Market Operator identifying all the generating units designated as must-run units within the trading day, as well as information necessary for the proper settlement of such generating units.	<u>information</u> to the Market Operator identifying all the generating units designated as must-run units within the trading day, as well as information necessary for the proper settlement of such generating units. <u>Such information shall be included in the Dispatch Instruction Report.</u>	designation of MRUs shall be included in the Dispatch Instruction Report				
Post-dispatch Reports and Information	14.4.7	(NEW)	<u>14.4.7 Each generation company shall validate all the data in the Dispatch Instruction Report as published by the Market Operator in the market information website. Any discrepancy in these reports shall be reported by the generation company to the Market Operator within two (2) weeks after the Market Operator's publication of these reports. Failure by the generation company to report to the Market Operator any discrepancy within the period defined herein shall render the data in the report as final.</u>	To include provision that discrepancies should be reported within two weeks.				Adopted <u>14.4.7 Each generation company shall validate all the data in the Dispatch Instruction Report as published by the Market Operator in the market information website. Any discrepancy in these reports shall be reported by the</u>

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
								<u><i>generation company to the Market Operator within two (2) weeks after the Market Operator's publication of these reports. Failure by the generation company to report to the Market Operator any discrepancy within the period defined herein shall render the data in the report as final.</i></u>
Post-dispatch Reports and Information	14.4.8	(NEW)	<u>14.4.8 Within two (2) working days from receipt of a report, the Market Operator shall request the System Operator to validate a reported discrepancy by a generator.</u>	Provide the Market Operator time to consolidate and transmit discrepancy				Adopted

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
				report to the SO				
Post-dispatch Reports and Information	14.4.9	(NEW)	<u>14.4.9 The System Operator shall perform reconciliation with the generation company and provide the results of its validation of the reported discrepancies within two 7 working days from the receipt of the request from the Market Operator. If the Market Operator has not received any validation within the prescribed timeline, the published data from the Dispatch Instruction Report shall be maintained. If the generation company claims additional compensation related to the reported discrepancies that were not validated within the prescribed timeline, the generation company may subject the said claim under the WESM dispute resolution process.</u>	<p>To include ERC directive* on SO reconciliation timeline and impact of non-submission by SO of validation within the prescribed timeline.</p> <p>* Section 4.4.1.1.3 of ERC Decision dated 29 August 2020 on ERC Case No. 2017-042RC</p>	<p>TC:</p> <p>IEMOP shall only submit to SO for validation those qualified as valid discrepancies based on IEMOP's assessment</p> <p>SPC/SIPC</p> <p>Market Operator should be aware on the reconciliation efforts by the System Operator with the generation company by facilitating/attending meetings/virtual meetings during</p>	<p>SPC/SIPC</p> <p><u>14.4.9 The System Operator shall perform reconciliation with the generation company and provide the results of its validation of the reported discrepancies within two (2) weeks from the receipt of the request from the Market Operator. The Market Operator is enjoined to be aware on the reconciliation efforts by the System Operator with the generation</u></p>	<p>TC: IEMOP is obligated to submit all discrepancies raised by TPs to SO for validation, regardless if the said discrepancy conflicts with SO's report. Suggest to instead write a process for discrepancy validation in the DP so that MO-SO process being mentioned is documented.</p> <p>SPC/SIPC: Suggest to retain, except</p>	<p>Adopted</p> <p>MO to provide additional revision to IDC Manual</p>

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
					the reconciliation effort or other activities as suitable. Whenever there are changes on the published Dispatch Instruction Report as resulted by the reconciliation efforts by the System Operator with the generation company, the Market Operator should give market advisory to all Trading participants thru market information channels (i.e. info@iemop.ph, etc.) that Revised	<u>company by facilitating/attending meetings/virtual meetings during the reconciliation effort or other activities as suitable. Whenever there are changes on the published Dispatch Instruction Report as resulted by the reconciliation efforts by the System Operator with the generation company, the Market Operator should give market advisory to all Trading participants thru market information channels (i.e. info@iemop.ph, etc.) that Revised Dispatch Instruction Report for particular date/week is already posted in the Market Operator's public website. If the Market Operator has not received any validation within the prescribed timeline, the published data from the Dispatch Instruction Report shall be</u>	on the timeline of two weeks. Suggest to revise this to within seven (7) working days as prescribed in DOE DC2021-03-0006.	

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
					Dispatch Instruction Report for particular date/week is already posted in the Market Operator's public website.	<u>maintained. If the <i>generation company</i> claims additional compensation related to the reported discrepancies that were not validated within the prescribed timeline for <i>generation company</i>, the <i>generation company</i> may subject the said claim under the WESM dispute resolution process.</u>		
Determination of Reserve Requirements	15.4.2	The level of <i>reserve</i> requirement for secondary <i>reserve</i> service shall be based on the latest issuances on the procurement of <i>ancillary services</i> by the <i>ERC</i> , and shall be used as reference by the <i>Market Operator</i> for the <i>market projections</i> and <i>real-time dispatch schedule</i> .	The level of <i>reserve</i> requirement for secondary <i>regulating</i> <i>reserve</i> service shall be based on the latest issuances on the procurement of <i>ancillary services</i> by the <i>ERC</i> , and shall be used as reference by the <i>Market Operator</i> for the <i>market projections</i> and <i>real-time dispatch schedule</i> .	To harmonize with DOE DC2019-12-0018 (regulating, contingency, dispatchable)	TC: Shall be consistent with the definitions in the PGC.		Same comment as above	Adopted
Determination of Reserve Requirements	15.4.3	For <i>primary</i> <i>reserve</i> service and <i>tertiary</i> <i>reserve</i> , the <i>System Operator</i> shall determine the level of <i>reserve</i> requirement in accordance with the latest issuances on the procurement of <i>ancillary services</i> by the <i>ERC</i> .	For primary <i>contingency</i> <i>reserve</i> service and tertiary <i>dispatchable</i> <i>reserve</i> , the <i>System Operator</i> shall determine the level of <i>reserve</i> requirement in accordance with the latest issuances on the	To harmonize with DOE DC2019-12-0018 (regulating, contingency, dispatchable)	TC: Shall be consistent with the definitions in the PGC.		Same comment as above	Adopted

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
			procurement of <i>ancillary services</i> by the <i>ERC</i> .					
Management of Must-Run Units	17.5.1	17.5 Reporting and Publication Each generator shall validate all the data related to MRU contained in the Dispatch Deviation Report as published by the Market Operator in the Market information website. Any discrepancy in these reports shall be reported by the Generator to the Market Operator within two weeks after the Market Operator's publication of these reports. Failure by the Generator to report to the Market Operator any discrepancy within the period defined herein shall render the MRU data relative to the Generator final.	17.5 Reporting and Publication Each generator shall validate all the data related to MRU contained in the Dispatch Deviation Report as published by the Market Operator in the Market information website. Any discrepancy in these reports shall be reported by the Generator to the Market Operator within two weeks after the Market Operator's publication of these reports. Failure by the Generator to report to the Market Operator any discrepancy within the period defined herein shall render the MRU data relative to the Generator final.	Suggest to delete given the proposed integration of MRU reporting to the Dispatch Instruction Report.	PEMC: The deletion of this section conflicts with DOE Circular No. DC2021-03-0006 published on 13 May 2021 which inserts Sections 17.5.2 and 17.5.3, as follows: <i>17.5.2 Within two (2) working days from receipt of a reported discrepancy related to must-run unit, the Market Operator shall request the System Operator, copy furnished the</i>		PEMC: This is being removed since this is already part of the Dispatch Instruction Report. Hence, that section should instead be made consistent with DOE DC2021-03-0006.	Adopted IEMOP's proposal

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
					<i>concerned generator, to validate a reported discrepancy by a generator.</i> <i>17.5.3 The System Operator shall provide the results of its validation of the reported discrepancies within seven (7) working days from receipt of the request from the Market Operator. If the Market Operator has not received any validation within the prescribed timeline, the Market Operator shall consider</i>			

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
					<p><i>the submitted discrepancies by the Generator as valid.</i></p> <p>Suggest to reconcile, as applicable:</p> <ol style="list-style-type: none">DOE's Section 17.5.2 with the proposed Section 14.4.8, andDOE's Section 17.5.3 with the proposed Section 14.4.9.			

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
					Also request IEMOP to confirm whether the proposed Dispatch Report and corresponding processing already covers Sections 17.5.2 and 17.5.3.			
Managing Excess Generation for the Next Day	18.3	18.3.1 There is an impending <i>excess generation</i> when the resulting price in the <i>day-ahead projection</i> run is equivalent to the offer floor price and the aggregate unscheduled Technical Pmin of generating units with floor price offers is greater than or equal to the <i>secondary reserve</i> requirement.	18.3.1 There is an impending <i>excess generation</i> when the resulting price in the <i>day-ahead projection</i> run is equivalent to the offer floor price and the aggregate unscheduled Technical Pmin of generating units with floor price offers is greater than or equal to the secondary <i>regulating</i> reserve requirement.	To harmonize with DOE DC2019-12-0018 (regulating, contingency, dispatchable)	TC: Shall be consistent with the definitions in the PGC.		Same comment as above	Adopted
Emergency Procedures	20.4	Emergency Procedures during Overload	<i>[See Appendix A for changes to Emergency Procedures during Overload flowchart]</i>	Proposed for refinements in the				Adopted

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement												
				process flow from SO																
Content Structure of <i>Real-time dispatch Results for the System Operator</i>	Appendix D	XXX 1. <i>Real-time dispatch schedules</i> <table><thead><tr><th>Column Name</th><th>Description</th></tr></thead><tbody><tr><td>END_TIME</td><td>XXX</td></tr><tr><td>REFERENCE_NAME</td><td>Concatenates the Resource Name and the market product. The following lists the market products available. 1. "EN" for energy 2. "RU" for Regulation raise/upward 3. "RD" for Regulation lower/downward</td></tr></tbody></table>	Column Name	Description	END_TIME	XXX	REFERENCE_NAME	Concatenates the Resource Name and the market product. The following lists the market products available. 1. "EN" for energy 2. "RU" for Regulation raise/upward 3. "RD" for Regulation lower/downward	XXX a. <i>Real-time dispatch schedules</i> <table><thead><tr><th>Column Name</th><th>Description</th></tr></thead><tbody><tr><td>END_TIME</td><td>XXX</td></tr><tr><td>REFERENCE_NAME</td><td>Concatenates the Resource Name and the market product. The following lists the market products available. 1. "EN" for energy 2. "RU" for Regulation raise/upward 3. "RD" for Regulation lower/downward 4. "FR" for Fast Contingency Raise</td></tr></tbody></table>	Column Name	Description	END_TIME	XXX	REFERENCE_NAME	Concatenates the Resource Name and the market product. The following lists the market products available. 1. "EN" for energy 2. "RU" for Regulation raise/upward 3. "RD" for Regulation lower/downward 4. "FR" for Fast Contingency Raise	To harmonize with DOE DC2019-12-0018 (regulating, contingency, dispatchable)				Adopted
Column Name	Description																			
END_TIME	XXX																			
REFERENCE_NAME	Concatenates the Resource Name and the market product. The following lists the market products available. 1. "EN" for energy 2. "RU" for Regulation raise/upward 3. "RD" for Regulation lower/downward																			
Column Name	Description																			
END_TIME	XXX																			
REFERENCE_NAME	Concatenates the Resource Name and the market product. The following lists the market products available. 1. "EN" for energy 2. "RU" for Regulation raise/upward 3. "RD" for Regulation lower/downward 4. "FR" for Fast Contingency Raise																			

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
		4. "FR" for Fast Contingency Raise 5. "FL" for Fast Contingency Lower 6. "SR" for Slow Contingency Raise 7. "SL" for Slow Contingency Lower 8. "DR" for Delayed Contingency Raise 9. "DL" for Delayed Contingency Lower MW XXX XXX	<u>(Contingency Reserve)</u> 5. "FL" for Fast Contingency Lower 6. "SR" for Slow Contingency Raise 7. "SL" for Slow Contingency Lower 8. "DR" for Delayed Contingency Raise <u>(Dispatchable Reserve)</u> 9. "DL" for Delayed Contingency Lower MW XXX XXX					

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement																				
		<div>10. Market Requirements</div> <table><tr><th>Column Name</th><th>Description</th></tr><tr><td>START_TIME</td><td>Start Time of the Dispatch interval</td></tr><tr><td>END_TIME</td><td>End/Target Time of the Dispatch interval</td></tr><tr><td>RUN_TYPE</td><td>Describes the type of market run, which is RTD</td></tr><tr><td>MKT_PRODUCT</td><td>Describes type of requirement</td></tr></table>	Column Name	Description	START_TIME	Start Time of the Dispatch interval	END_TIME	End/Target Time of the Dispatch interval	RUN_TYPE	Describes the type of market run, which is RTD	MKT_PRODUCT	Describes type of requirement	<div>b. Market Requirements</div> <table><tr><th>Column Name</th><th>Description</th></tr><tr><td>START_TIME</td><td>Start Time of the Dispatch interval</td></tr><tr><td>END_TIME</td><td>End/Target Time of the Dispatch interval</td></tr><tr><td>RUN_TYPE</td><td>Describes the type of market run, which is RTD</td></tr><tr><td>MKT_PRODUCT</td><td>Describes type of requirement</td></tr></table> <div>10. "EN" for energy</div> <div>11. "RU" for Regulation raise/upward</div> <div>12. "RD" for Regulation lower/downward</div> <div>13. "FR" for Fast Contingency</div>	Column Name	Description	START_TIME	Start Time of the Dispatch interval	END_TIME	End/Target Time of the Dispatch interval	RUN_TYPE	Describes the type of market run, which is RTD	MKT_PRODUCT	Describes type of requirement					
Column Name	Description																											
START_TIME	Start Time of the Dispatch interval																											
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Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent’s Response	RCC Agreement
		Regulation lower/dow nward 14. “FR” for Fast Contingen cy Raise 15. “FL” for Fast Contingen cy Lower 16. “SR” for Slow Contingen cy Raise 17. “SL” for Slow Contingen cy Lower 18. “DR” for Delayed Contingen cy Raise 19. “DL” for Delayed	Raise <u>(Contingenc y Reserve)</u> 14. “FL” for Fast Contingency Lower 15. “SR” for Slow Contingency Raise 16. “SL” for Slow Contingency Lower 17. “DR” for Delayed Contingency Raise <u>(Dispatchabl e Reserve)</u> 18. “DL” for Delayed Contingency Lower					

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
		Contingen cy Lower REGION XXX _ID REQ_M XXX W XXX	REGION XXX _ID REQ_M XXX W XXX					
Content Structure of SO Inputs to the <i>Market Projections</i> and <i>Real-time dispatch</i>	Appendix E	XXX f. Reserve Requirement Column Name Description SCHEDU LE_TYP E Refers to the MMS' COP Schedule Type for Reserve Requirement. The following are the available schedule types for reserves. 1. RegulationL owerReserv e	XXX f. Reserve Requirement Column Name Description SCHEDULE _TYPE Refers to the MMS' COP Schedule Type for Reserve Requirement. The following are the available schedule types for reserves. 9. RegulationLo werReserve	To harmonize with DOE DC2019-12-0018 (regulating, contingency, dispatchable)				Adopted

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Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
		<div>2. RegulationR aiseReserve</div> <div>3. FastConting encyLowerR eserve</div> <div>4. FastConting encyRaiseR eserve</div> <div>5. SlowConting encyLowerR eserve</div> <div>6. SlowConting encyRaiseR eserve</div> <div>7. DelayedCon tingencyLow erReserve</div> <div>8. DelayedCon tingencyRai seReserve</div> <div>VERSION _ID TARGET _TIME MW</div> <div>XXX</div> <div>XXX</div> <div>XXX</div> <div>XXX</div>	<div>10. RegulationRa iseReserve</div> <div>11. FastContinge ncyLowerRes erve</div> <div>12. FastContinge ncyRaiseRes erve</div> <div><u>(Contingenc y Reserve)</u></div> <div>13. SlowContinge ncyLowerRes erve</div> <div>14. SlowContinge ncyRaiseRes erve</div> <div>15. DelayedConti ngencyLower Reserve</div> <div>16. DelayedConti ngencyRaise Reserve</div> <div><u>(Dispatchabl e Reserve)</u></div> <div>VERSION</div> <div>XXX</div> <div>OBJECT_ID</div> <div>XXX</div> <div>TARGET_TI</div> <div>XXX</div> <div>ME</div>					

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
			MW XXX					
		(New)	<u>Appendix G. Details of Dispatch Instructions Using Automatic Generation Control</u> <i>[See AttachmentB]</i>	Proposed to provide option for automated dispatching				

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

Attachment A

Provision	Proposed Amendment	Comments	Proponent's Response	RCC Agreement
<div>20.4.1 Emergency Procedures During Overload</div> <div><pre>graph TD START([START]) --> TRIP[TRIPPING OF TRANSMISSION LINES AND/OR EQUIPMENT TRIPPING] TRIP --> OVERLOAD{OVERLOADING} OVERLOAD -- NO --> TEST[APPLY SINGLE OUTAGE TESTING] OVERLOAD -- YES --> SPS{SPS OPERATED} SPS -- NO --> MANUAL[APPLY MANUAL CORRECTIVE ACTIONS*] SPS -- YES --> NOTIFY[NOTIFY MARKET OPERATOR] NOTIFY --> REPORT[PREPARE SIGNIFICANT INCIDENT REPORT] REPORT --> END([END]) TEST --> THREAT{THREAT IN SYSTEM SECURITY} MANUAL --> THREAT THREAT -- YES --> END THREAT -- NO --> SPS</pre><p>*MANUAL CORRECTIVE INTERVENTIONS</p><ol style="list-style-type: none">1. NETWORK RE CONFIGURATION / SUB-SECTORIZATION / LOAD SHIFTING2. GENERATION RE DISPATCH3. MANUAL LOAD DROPPING4. GENERATOR TRIPPING</div>	<div>20.4.1 Emergency Procedures During Overload</div> <div><pre>graph TD START([START]) --> TRIP[/TRIPPING OF TRANSMISSION EQUIPMENT (LINE/TRANSFORMER)/] TRIP --> OVERLOAD{OVERLOADING} OVERLOAD -- NO --> TEST[APPLY SINGLE OUTAGE (N-1) TESTING] OVERLOAD -- YES --> SPS{SIPS OPERATED} SPS -- NO --> MANUAL[APPLY MANUAL CORRECTIVE ACTIONS*] SPS -- YES --> NOTIFY[NOTIFY MARKET OPERATOR] NOTIFY --> REPORT[PREPARE SIGNIFICANT INCIDENT REPORT] REPORT --> END([END]) TEST --> THREAT{THREAT IN SYSTEM SECURITY} MANUAL --> THREAT THREAT -- YES --> END THREAT -- NO --> SPS</pre><p>*MANUAL CORRECTIVE INTERVENTIONS BY SO</p><ol style="list-style-type: none">1. NETWORK RECONFIGURATION / SUB-SECTORIZATION / LOAD SHIFTING2. GENERATION RE-DISPATCH3. MANUAL LOAD DROPPING4. GENERATOR TRIPPING</div>			

Appendix G

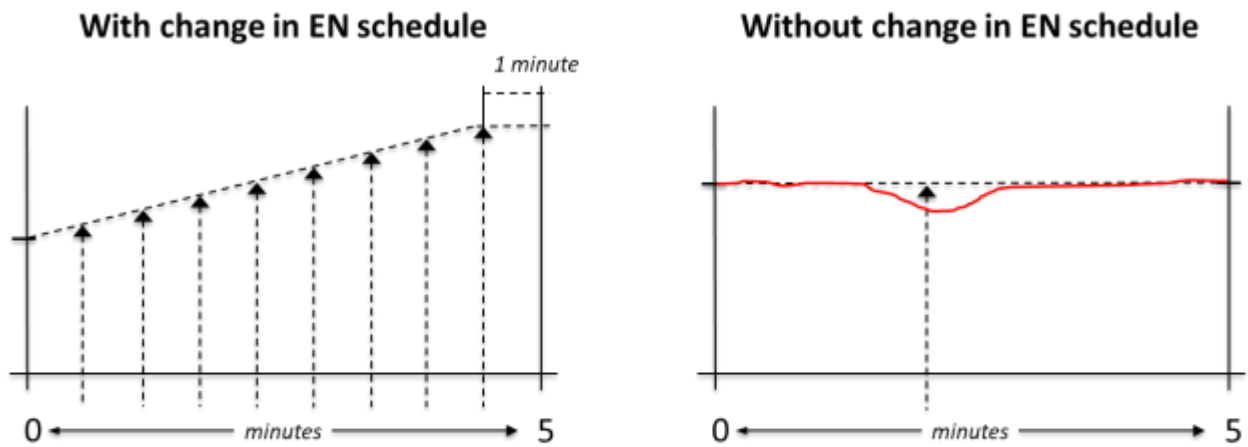
Enhanced AGC System Command Modes

No.	RTD Schedules	Command Mode	Remarks	Lower Limit	Upper Limit	Comments	Proponent's Response	RCC Agreement
1	Energy Only	SCHED – O	Energy only	None		<p>TC:</p> <p><i>General Comment:</i></p> <p><i>Figure below has incorrect time scale: compare the indicated 1 minute with the 5 min span for the x-axis</i></p> <p><i>What do these figures try to convey?</i></p> <p><i>It would be better to show a control diagram showing the command signals and the target output signals for the AGC</i></p>	<p>TC: SO to provide correct diagram.</p>	<p>MO to provide revised diagram</p>

<u>No.</u>	<u>RTD Schedules</u>	<u>Command Mode</u>	<u>Remarks</u>	<u>Lower Limit</u>	<u>Upper Limit</u>	Comments	Proponent's Response	RCC Agreement
<u>2</u>	<u>Contingency Reserve (CR) Only</u>	<u>AUTO – E</u>	<u>Scheduled for Contingency Reserve only</u>	<u>Pmin</u>	<u>Pmin + CR</u>			
<u>3</u>	<u>Energy + Contingency Reserve</u>	<u>SCHED – E</u>	<u>Has energy and contingency reserve schedule</u>	<u>EN</u>	<u>EN + CR</u>			
<u>4</u>	<u>Regulating Reserve (RR)</u>	<u>AUTO – R</u>	<u>Scheduled for regulating reserve only</u>	<u>EN – RR Downward</u>	<u>EN + RR Upward</u>			
<u>5</u>	<u>Energy + Regulating Reserve</u>	<u>SCHED – R</u>	<u>It has energy and regulating reserve schedules. It also has same energy schedules in previous and current dispatch intervals.</u>					
		<u>AUTO – R</u>	<u>It has energy and regulating reserve schedules. It also has different energy schedules in previous and current dispatch intervals.</u>					
<u>6</u>	<u>Dispatchable Reserve (DR) Only</u>	<u>MANUAL</u>	<u>Scheduled for Dispatchable Reserve only</u>	<u>EN – DR Lower</u>	<u>EN + DR Raise</u>			

No.	RTD Schedules	Command Mode	Remarks	Lower Limit	Upper Limit	Comments	Proponent's Response	RCC Agreement
7	Energy + Dispatchable Reserve	SCHED-O	Has energy and dispatchable reserve schedule					

Illustrating AGC Commands Within the 5-minute Dispatch Interval



Command Mode: **SCHED-O**

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

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wordings based on Comments	Proponent's Response	RCC Agreement
					Write general comments here, if any.			
Other Considerations	(New)	(NEW)	<u>2.5.4.7 Modelling of the Generating Unit's Availability</u> <u>Upon registration, Trading Participants shall specify if the availability of its generating unit shall be based on the real-time status of its generator breaker, or on the availability of its market offers.</u>	Proposed requirement for generator modelling where TPs need to specify if generator availability is based entirely on its generator breakers, or on the availability of its market offers.				Adopted

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

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wordings based on Comments	Proponent’s Response	RCC Agreement
					<p>PEMC (general comment):</p> <p>In connection to the proposed amendment in Section 4.5.7, WESM Rules Clause 3.2.1.5 states:</p> <p><i>“Any alteration under Clause 3.2.1.4 shall be implemented in accordance with the established Information and Communications Technology Change Management Process (ICMP) of the Market Operator. The Market Operator shall regularly inform the PEM Board of any changes made to the Market Network Model (As amended by DOE DC No. 2014-08-0016 dated 22 August 2014).”</i></p> <p>WESM Rules Clause 3.2.1.4 refers to the alterations to the market network model. Given this, requesting the proponent to also clarify if:</p> <ul style="list-style-type: none">a. the proposal is in accordance with the ICMP of the Market Operator; andb. the IEMOP intends to also amend WESM Rules Clause 3.2.1.5. <p>Per RCC Resolution 2014-11 which endorsed the amendments to WR Clause 3.2.1.5, the ICMP was described to contain the following details:</p>		<p>Based on IEMOP's approval processes, changes to the MNM does not refer to a change to the MMS. MNM is treated as an input to the MMS, thus, changes to the MNM are covered by the IBP of IEMOP-TOD.</p> <p>We also note that the new features of the MMS allow changes or updates to the MNM as near-to-real-time as possible. Seeking PEM Board approval for any change will defeat this enhanced design. In any case, procedures are in place under the WESM Manual on Market Network Model Development and Maintenance - Criteria and Procedures Issue 4.2 to ensure that the MO will accurately reflect the changes to the MNM. It should also be noted that MO does not exercise discretion in effecting the</p>	

Title	Clause	Provision	Proposed Amendment	Rationale	Comments		Proposed Wordings based on Comments		Proponent's Response	RCC Agreement																			
					<table><tr><td>CHANGE CATEGORY</td><td>CHANGE TYPE</td><td>LEVEL OF PRIORITY</td><td>APPROVING AUTHORITY</td></tr><tr><td rowspan="3">Major</td><td>New</td><td>High</td><td>PEMC Board of Directors</td></tr><tr><td>Maintenance</td><td>High</td><td>President</td></tr><tr><td>New/ Maintenance</td><td>Emergency</td><td>President</td></tr><tr><td>Minor</td><td>New</td><td rowspan="2">-</td><td>IT Steering Committee</td></tr><tr><td>Standard</td><td>Maintenance</td><td>IST Department Head</td></tr></table>	CHANGE CATEGORY	CHANGE TYPE	LEVEL OF PRIORITY	APPROVING AUTHORITY	Major	New	High	PEMC Board of Directors	Maintenance	High	President	New/ Maintenance	Emergency	President	Minor	New	-	IT Steering Committee	Standard	Maintenance	IST Department Head	<p>Is the ICMP of the Market Operator still in accordance with the above-described table? This is to ensure that the proposal is consistent with the related documents pertaining to MNM alterations.</p>	<p>change or update to the MNM.</p> <p>We confirm that we intend to amend that provision. Proposed amendment is to refer to "established business processes" rather than the ICT change process.</p> <p>The information requirement for the PEM Board under the WESM Rules shall be covered by the proposed revision where a monthly report will be provided to the PEM Board, DOE and ERC.</p> <p>WESM Rules Clause 3.2.1.5</p> <p>Except for integration of new regions, other alteration under Clause 3.2.1.4 shall be implemented in accordance with the established <u>Business Processes</u> Information and Communications Technology Change Management Process (ICMP) of the Market Operator. The Market</p>	
CHANGE CATEGORY	CHANGE TYPE	LEVEL OF PRIORITY	APPROVING AUTHORITY																										
Major	New	High	PEMC Board of Directors																										
	Maintenance	High	President																										
	New/ Maintenance	Emergency	President																										
Minor	New	-	IT Steering Committee																										
Standard	Maintenance		IST Department Head																										

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wordings based on Comments	Proponent's Response	RCC Agreement
							Operator shall regularly inform the <i>PEM Board</i> of any changes made to the <i>Market Network Model</i>	
Definitions	2.1.5	(NEW)	<u>2.1.5 Market Resource refers to the objects defined in the Market Network Model to represent generators, battery energy storage systems, pumped-storage units, and loads.</u>	Provide general term used in MNM for all objects representing generators, BESS, pumped-storage units, and loads				Adopted
MNM Components and Modeling	4.4.12	(NEW)	<u>4.4.11 Real-Time Data</u> <u>The System Operator shall provide the following real-time data, each having its respective real-time data quality, to the Market Operator.</u> <u>1. Analog measurements</u>	Proposed addition to document provision of real-time data for the MNM.	TC: Is this different from the System Snapshot Real-Time data? What do we mean by "having its respective real-time data quality"? Why specify "analog" in measurements? How		TC: It is suggested to use real-time data now as prescribed in the DP sections. Each real-time data has an accompanying data quality Suggest to retain for clarify of data.	Adopted IEMOP's proposal

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wordings based on Comments	Proponent’s Response	RCC Agreement
			<p><u>(MW/MVAR) to represent gross generation output and generation net of the station use;</u></p> <p>2. <u>Analog measurements (MW/MVAR) to represent consumption at least at the connection point;</u></p> <p>3. <u>Analog measurements (MW/MVAR) measuring loading at the high-side and low-side of the transformer;</u></p> <p>4. <u>Analog measurements (MW/MVAR) measuring the loading at both ends of an AC line or HVDC link;</u></p>		<p>about we drop such adjective?</p> <p>Why do we ask for both gross generation output and generation net of the station use? Do we intend to validate the station use? Which between these two (gross output or net of station use) is used in the computations?</p> <p>Why do we ask for both the high-side and low-side of the transformer, do we always have measurements at both sides? Do we intend to validate the losses across the transformer? Whichever (hi-side or lo-side) is important could be based on asset boundary (who owns which)</p>		<p>For varying reasons such as: (a) accounting of station use (b) eventual use in the MMS’ state estimation.</p> <p>For varying reasons such as: (a) accounting of station use (b) eventual use in the MMS’ state estimation.</p>	

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wordings based on Comments	Proponent's Response	RCC Agreement
			5. <u>Breaker Status</u> ; 6. <u>Calculated MW Demand per region</u> ; and 7. <u>Power System Frequency per grid (Hz)</u> .		<p>Why do we need the calculated MW demand per region? I suppose we do have nodal demands, anyway.</p> <p>Suggest to remove Calculated Demand since SO has no complete data of the DUs.</p>		<p>For audit purposes to ensure sum of generation is not too far from sum of load. Nodal demand is used for purposes of nodal forecasting.</p> <p>Suggest to retain: Calculated demand per region does not need DU data. This is the sum of generation, +/- import/export. This is already being provided by SO to ensure consistency in the regional demand reference between MO and SO.</p>	
MNM Development Timetable	4.5.4	After the receipt of the official notification from the System Operator, the Market Operator shall initiate the approval process for the MNM uploading to facilitate the implementation of	After the receipt of the official notification from the System Operator, the Market Operator shall <u>start the preparations</u> initiate the approval process for the MNM uploading <u>update</u> to	Revise for clarity of existing process	<p>TC:</p> <p>how about: ... shall commence the revision process.</p>		Suggest to retain. The timetable already provides the necessary details on eventual revision. Revision is already the end result.	

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wordings based on Comments	Proponent's Response	RCC Agreement
		the notified change. Minor changes (such as but not limited to, change in equipment/resources naming conventions, additional bays for future expansions) to the transmission network that has no impact to the market operations may be implemented at a later time.	facilitate the implementation of the notified change. Minor changes (such as but not limited to, change in equipment/resources naming conventions, additional bays for future expansions) to the transmission network that has no impact to the market operations may be implemented at a later time.		"start the preparations" does not evoke a definite state.			
MNM Development Timetable	4.5.6	The table below describes the timeline of activities involved in updating the MNM. The variable "D" stands for the target date of uploading of the new MNM. This date is set by the Market Operator upon its assessment, and is based on energization date or	The table below describes the timeline of activities involved in updating the MNM. The variable "D" stands for the target date of uploading deployment of the new MNM update . This date is set by the Market Operator upon its assessment, and is	Revised for clarity. Also updated MNM Development Timetable to provide more clarity and introduce process improvements				

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wordings based on Comments	Proponent's Response	RCC Agreement
		commissioning date of a new or upgraded facility or equipment. Table 1. MNM Development Timetable	based on <u>in consideration of the</u> energization date or commissioning date of a new or upgraded facility or equipment. Table 1. MNM Development Timetable <i>[See Appendix C for proposed revised Table 1. MNM Development Timetable. Existing Table 1 to be deleted]</i>					
MNM Development Timetable	4.5.7	All MNM revisions uploaded to the production system should be ratified by the PEM Board. Ratification of the said network model shall be done upon completion of the seven-day	All MNM revisions uploaded to the production system should be ratified by the PEM Board. Ratification of the said network model shall be done upon completion of the seven-day	It is proposed that instead of a PEM Board Ratification, monthly MNM updates shall instead be provided.	TC: Are the ERC and DOE equally interested to receive this monthly report? Were they requesting for these? PEMC:	PEMC:	TC: Yes.	

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wordings based on Comments	Proponent's Response	RCC Agreement
		consistency monitoring.	consistency monitoring. <u>The Market Operator shall prepare a monthly report containing all MNM updates deployed in the production system. This report shall be provided to the DOE, ERC, and the PEM Board, and shall be similarly published in the market information website ten (10) working days after the end of the billing period.</u>	<p>Currently with the Existing MMS, IEMOP updates the MNM by grouping network changes in batches. But given the new features of the New MMS, IEMOP intends to update the MNM per network change, and as near-to-real-time as possible. Given the possible volume of such updates, it is proposed that all of them just be collated for a month, then</p>	<p><i>1. Consistency Monitoring</i></p> <p>The proposed change effectively deletes the completion of the seven-day consistency monitoring performed before the PEM Board's ratification of MNM revisions. May we request IEMOP to clarify how the consistency monitoring procedure will be conducted despite proposed amendments to Section 4.5.7.</p> <p>We note items 8 and 14 of Appendix C. MNM Development Timetable ensuring consistency with the updated network but reporting of the results of functional and technical testing is not specified.</p> <p><i>2. Approval by the PEM Board</i></p>	<p>All MNM revisions uploaded to the production system should be ratified by the PEM Board. Ratification of the said network model shall be done upon completion of the seven-day consistency monitoring.</p> <p><u>The Market Operator shall prepare a monthly report containing all MNM updates deployed in the production system. This report shall be provided to the DOE, ERC, and the PEM Board, and shall be similarly published in the market information website ten (10) working days after the end of the billing period.</u></p> <p><u>The Market Operator shall seek the approval</u></p>	PEMC: Suggest to retain original provision with same reasons given to PEMC's general comments	

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wordings based on Comments	Proponent's Response	RCC Agreement
				be provided to the DOE, ERC, and PEM Board as the official summary report of MNM updates.	As discussed with IEMOP, integration of the new network to the MNM must be approved by the PEM Board. Subsequent updates to the newly integrated network is considered as regular update and need not require PEM Board's approval.	<u>of the PEM Board prior to integration of new network, as described in WESM Rule Clause 3.2.1.2, to the MNM. The result of functional and technical testing for such integration shall also be submitted to the PEM Board. within three (3) calendar days after completion.</u>		
MNM Development Timetable	4.5.8	Additional Considerations in the MNM Development are as follows: a) Network Service Providers shall ensure that they provide ample information regarding their planned activities to the System Operator b) All planned activities should involve proper coordination	Additional Considerations in the MNM Development are as follows: a) Network Service Providers shall ensure that they provide ample information regarding their planned activities to the System Operator b) All planned activities should involve proper	Revised "uploading" to "deployment". Add provision to allow "urgent MNM updates".	TC: moved further" means scheduled earlier or later or both?		TC: Both.	

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wordings based on Comments	Proponent’s Response	RCC Agreement
		between the Market Operator and the System Operator (including affected Trading Participants if necessary). c) The target date of uploading (Day ‘D’) by the Market Operator may be moved further depending on justifiable reasons from either the Market Operator or the System Operator. In such cases, the Market Operator in coordination with the System Operator should decide on the new target date of uploading. d) Should the target uploading of a new MNM issue be cancelled, and then other changes to the MNM were put into	coordination between the Market Operator and the System Operator (including affected Trading Participants if necessary). c) The target date of uploading deployment (Day ‘D’) by the Market Operator may be moved further depending on justifiable reasons from either the Market Operator or the System Operator. In such cases, the Market Operator in coordination with the System Operator should decide on the new target date of uploading deployment . d) Should the target uploading deployment of an					

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wordings based on Comments	Proponent's Response	RCC Agreement
		effect after its cancellation, the System Operator shall notify the Market Operator of its new scheduled energization date seven days prior.	<p>new MNM <u>update</u> issue be cancelled, and then other changes <u>updates</u> to the MNM were put into effect after its cancellation, the System Operator shall notify the Market Operator of its new scheduled energization date seven days prior.</p> <p><u>e) In cases where urgent updates to the MNM are necessary, the Network Service Provider or the System Operator shall provide the necessary technical requirements to update the MNM at least two (2) working days prior to the target energization. Urgent updates do</u></p>					

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wordings based on Comments	Proponent’s Response	RCC Agreement
			<u>not include new market resources.</u>					
Alterations to the Market Network Model	5.1	REAL-TIME MNM CONFIGURATION	REAL-TIME MNM CONFIGURATION <u>DYNAMISM OF MNM USING REAL-TIME DATA</u>	Revised for clarity	TC: "Dynamism" is hardly used in engineering; is it common in laws and rule-making? "Real-time configuration" was not too bad; it implies that the configuration does change.		TC: Suggest to retain.	
Alterations to the Market Network Model	5.1.1	Real time reconfiguration refers to any changes in the MNM reconfiguration of any part of the transmission system that may affect the dispatch within any trading interval. These revisions shall be made automatically to the MNM based on the	Real time reconfiguration refers to any changes in the MNM reconfiguration of any part of the transmission system that may affect the dispatch within any trading interval. The <u>static power system model of the MNM</u> These revisions shall be	Revised for clarity. Also removed source of “EMS” since inputs from SO are provided through their different platforms. To add, item (c) is not part of	TC: What's with "dynamics"? "Dynamically updated" sounds redundant; "updated" should suffice		TC: Suggest to retain.	

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wordings based on Comments	Proponent's Response	RCC Agreement
		inputs and data provided by the System Operator through the EMS. This shall include, but may not be limited to, the following: a) Change in Transmission and Sub-transmission Network topology; b) Line, Generator and Customer Load outage; and c) Reconfiguration as initiated by the System Operator or the Network Service Providers to maintain system security and reliability.	made automatically <u>dynamically updated</u> to the MNM based on the inputs and data provided by the System Operator through the EMS. This shall include, but may not be limited to, the following: a) Change in Transmission and Sub-transmission Network topology <u>with reference to real-time status of breakers and disconnect switches; and</u> b) <u>Scheduled outages of power system equipment (e.g. Lines, Power Transformers, HVDC Links, Generators, and Customer Loads</u> outage); and	the real-time update.				

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wordings based on Comments	Proponent's Response	RCC Agreement
			e) Reconfiguration as initiated by the System Operator or the Network Service Providers to maintain system security and reliability.					
Alterations to the Market Network Model	5.2	NETWORK DEVELOPMENT	NETWORK DEVELOPMENT OF UPDATES TO THE MNM	Revised for clarity.	TC: Do we really intend to "develop updates"?		This refers to the process of MNM development before deployment.	
Network Development	5.2.1	Network development is any reconfiguration of any part of the transmission or sub-transmission system. The Market Operator should be notified as the network development may affect the dispatch and are permanent in nature. This shall include the following: xxxx	<u>The Market Operator shall develop updates to the market network model and power system model in view of Network development</u> is any reconfiguration of any part of the transmission or sub-transmission system. The Market Operator should be notified as the network development may affect the dispatch and are permanent	Revised for clarity.	TC: Why "develop updates"; we do update the market network and power system models, but we don't I don't think we "develop updates".		This refers to the process of MNM development before deployment.	

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wordings based on Comments	Proponent's Response	RCC Agreement
			in nature. This shall include the following: xxxx					
MNM	--	MARKET NETWORK MODEL MAINTENANCE AND PUBLICATION	MARKET NETWORK MODEL MAINTENANCE AND PUBLICATION	Not necessary. Clerical edit.				
Market Network Model Maintenance	5.4.2	The Market Operator shall maintain an electronic copy of the following for all market network model revisions: a) Bus Oriented Single Line Diagram; and b) Breaker Oriented Single Line Diagram c) Network Parameters	The Market Operator shall maintain an electronic copy of the following for all market network model revisions updates : a) Bus-Oriented Single Line Diagram; and b) Breaker-Oriented Single Line Diagram c) Network Technical Parameters	Revised for clarity on how IEMOP maintains the repository for the MNM.				
Alterations to the Market Network Model	5.5	Manner of Publication	Manner of Publication Reporting of MNM Updates	Revise from Publication to Reporting				
Manner of Publication	5.5.1	Any changes or revision initiated by	Any changes or revision initiated by	Propose revision on	TC:		Suggest to retain	

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wordings based on Comments	Proponent's Response	RCC Agreement
		the Market Operator or System Operator shall trigger the publication of the revised and approved MNM.	the Market Operator or System Operator shall trigger the publication of the revised and approved MNM. <u>Within two (2) working days from deployment, the Market Operator shall publish advisory on the MNM updates deployed in the production system.</u>	how IEMOP will report MNM updates. Immediate information shall be published after deployment. Then a summary of the changes will be provided every month.	Key verb here is "publish", why remove the work publication in the section (Sec 5.5) title?			
Manner of Publication	5.5.2	The Market Operator shall regularly publish the relevant updated MNM documents within seven days after the completion of the MNM consistency monitoring in the MMS' production system. Every revision of the MNM shall have the following associated documents	The Market Operator shall regularly publish the relevant updated MNM documents within seven days after the completion of the MNM consistency monitoring in the MMS' production system. Every revision of the MNM shall have the following associated documents					

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wordings based on Comments	Proponent's Response	RCC Agreement
		published in the Market Information Website: a) MNM Revisions Manual; b) Bus-Oriented Single Line Diagram; and c) Information brief	published in the Market Information Website: a) MNM Revisions Manual; b) Bus-Oriented Single Line Diagram; and c) Information brief <u>Consistent with the provisions of Clause 4.5.7 of this Market Manual, the Market Operator shall prepare a monthly report containing all MNM updates deployed in the production system. This report shall be provided to the DOE, ERC, and the PEM Board, and shall be similarly published in the market information website ten (10) working days after</u>					

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wordings based on Comments	Proponent's Response	RCC Agreement
			<p><u>the end of the billing period. At the least, it shall contain the following.</u></p> <p>1. <u>Summary of MNM Updates during the month</u></p> <p>2. <u>Latest Bus-Oriented Single Line Diagram</u></p>					
Generator MTN	6.5.4	(NEW)	<p><u>During the registration of the generator resource, Trading Participants shall specify if its availability shall be based on the real-time status of its generator breaker, or on the availability of its market offers.</u></p>	During the generator modelling, TPs need to specify if generator availability is based entirely on its generator breakers, or on the availability of its market offers.	<p>TC:</p> <p>Why the option; what are the implications for MO for giving the TP those options? Are they equally beneficial or convenient to the MO?</p>		TC: In a 5-minute dispatch interval, we are providing Generator TPs the “option” on how to exercise further the “self-commitment” principle of the WESM. This is also being provided in lieu of the fast-start capability option previously invoked in the Hourly WESM.	
Battery Energy	6.7.4	(NEW)	<p><u>During the registration of the battery energy</u></p>	During the BESS modelling,	TC:		Same response as above.	

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wordings based on Comments	Proponent’s Response	RCC Agreement
Storage System			<u>storage system resource. Trading Participants shall specify if its availability shall be based on the real-time status of its connecting breaker, or on the availability of its market offers.</u>	TPs need to specify if generator availability is based entirely on its connecting breakers, or on the availability of its market offers.	Why the option; what are the implications for MO for giving the TP those options? Are they equally beneficial or convenient to the MO?			
Pumped-Storage Unit	6.8.3	(NEW)	<u>During the registration of the pumped-storage unit resource, Trading Participants shall specify if its availability shall be based on the real-time status of its connecting breaker, or on the availability of its market offers.</u>	During the BESS modelling, TPs need to specify if generator availability is based entirely on its connecting breakers, or on the availability of its market offers.	TC: Why the option; what are the implications for MO for giving the TP those options? Are they equally beneficial or convenient to the MO?		Same response as above.	

Appendix C. Proposed MNM Development Timetable

MNM Development Timetable

ITEM	TIMELINE	ACTIVITY	DESCRIPTION	RESPONSIBLE PARTY	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
1	Before D – 9	Generator Trading Participants should provide technical specifications of its facility to the Market Operator	<p>At the very least, the technical requirements indicated in the WESM Market Manual on Registration, Suspension and De-Registration Criteria and Procedures for new <u>generators, battery energy storage systems, or pumped-storage units</u> should be provided.</p> <p>The same requirements are also required when requesting for the re-modelling of facilities (i.e. aggregation of disaggregation of resources).</p>	Generator Trading Participant				
2	Before D – 9	The System Operator should provide technical specifications to the Market	The System Operator should provide the power system topology that reflects the connection of the new load facility.	System Operator	<p>TC:</p> <p>What do we mean by "power system topology"? Are we referring here to</p>		TC: Yes, how all equipment are connected.	

ITEM	TIMELINE	ACTIVITY	DESCRIPTION	RESPONSIBLE PARTY	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
		<u>Operator for new load facilities</u>			which node do we connect the new load, or something else?			
<u>3</u>	<u>Before D – 8</u>	<u>Network Service Providers should provide notice of changes in the Distribution Network</u>	<u>Applicable only for Network Service Providers whose equipment should be included, or are already included, in the Market Network Model</u>	<u>Network Service Providers</u>	<p>TC:</p> <p>As a rule, this should be applicable to all embedded resources.</p> <p>Suggestion to remove: "or are included"</p>		<i>Suggest to retain. To remove necessity of providing info not needed in MNM.</i>	
<u>4</u>	<u>D – 8</u>	<u>Register New Market Resource in the Central Registration and Settlement System (CRSS) and Market Management System (MMS)</u>	<u>Upon receiving the technical requirements for the registration of new market resources, the Market Operator shall register it in the CRSS and MMS at least eight (8) days prior to their target energization.</u>	<u>Market Operator</u>				
<u>5</u>	<u>D – 7</u>	<u>Submit notice of changes to the Grid</u>	<u>The System Operator shall submit a notice of changes to the grid, which includes the following.</u>	<u>System Operator</u>	<p>TC:</p> <p>Timeline shall be set.</p>		<i>TC: Timeline already indicated as D-7</i>	

ITEM	TIMELINE	ACTIVITY	DESCRIPTION	RESPONSIBLE PARTY	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
			<div>1. <u>Power system topology (or diagram) that highlights the changes;</u></div> <div>2. <u>Real-time mapping definitions; and</u></div> <div>3. <u>Technical parameters affected by the change.</u></div>					
6	D – 6	<u>Initiate Preparations for MNM Update</u>	<u>The Market Operator shall make the necessary preparations concerning the MNM update, specifically for network changes that has a material effect to the system operations and market operations as appropriately assessed by the Market Operator. It shall involve the changes as notified by the System Operator, and changes recommended by the Market Operator, where appropriate, including simplifications and alterations to the market network model that</u>	<u>Market Operator</u>	TC: As a rule, "initiate preparations" sounds tentative. "The MO shall... changes recommended by the MO..."? Any reference to the NSP input from item 3 above?		<i>TC: Suggest to replace initiate with Start.</i> <i>This is based on IEMOP's modelling simplifications. IEMOP endeavors to ensure MNM is still consistent with the Grid's current state.</i> <i>It is expected that SO is the</i>	

ITEM	TIMELINE	ACTIVITY	DESCRIPTION	RESPONSIBLE PARTY	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
			<u>maintains: (a) the relationship between the market network model and the transmission network; and (b) consistency with market requirements.</u>				<i>sole NSP that provides data to IEMOP for modelling updates.</i>	
<u>7</u>	<u>Before D – 2</u>	<u>Market Model and Power System Model Update</u>	<u>The <i>Market Operator</i> shall effect changes to the MNM through the updating of the market and power system models recognized by the MMS.</u> <u>The Market Operator may create different “MNM Update Tasks” for such MNM updates. An MNM update task represents a collection of changes in the MNM. Each MNM update task can be deployed separately for production use.</u>	<u><i>Market Operator</i></u>				
<u>8</u>	<u>Before D – 2</u>	<u>Testing of “MNM Update Task”</u>	<u>The <i>Market Operator</i> shall perform functional and technical tests on the updated network model for each MNM task to ensure</u>	<u><i>Market Operator</i></u>				

ITEM	TIMELINE	ACTIVITY	DESCRIPTION	RESPONSIBLE PARTY	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
			<u>its consistency with the updated power system.</u>					
<u>9</u>	<u>Before D -1</u>	<u>Confirm schedule of energization</u>	<u>The System Operator shall inform the Market Operator of the final schedule of energization.</u>	<u>System Operator</u>				
<u>10</u>	<u>On or Before D</u>	<u>Notice of Planned Deployment to the WESM Participants</u>	<u>The Market Operator shall inform the WESM Participants of the planned deployment date for the updating of the MNM in the production system of the MMS</u>	<u>Market Operator</u>	TC: Timeline shall be set.		<i>Already indicated as On or Before D</i>	
<u>11</u>	<u>D</u>	<u>Deployment of MNM Update Task</u>	<u>The Market Operator shall deploy the MNM Update Task in the production system.</u> <u>Should the MNM update task involve changes that are not yet energized, and the updated MNM's power system model is unable to dynamically adapt to its non-energization, then the Market Operator may defer the deployment of the MNM Update Task to a later date.</u>	<u>Market Operator</u>	TC: Timeline shall be set.		<i>Already indicated as D</i>	

ITEM	TIMELINE	ACTIVITY	DESCRIPTION	RESPONSIBLE PARTY	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
12	D	<u>Notice of Post-Deployment to the WESM Participants</u>	<u>The Market Operator shall inform the WESM Participants of the successful deployment of MNM update in the production system of the MMS</u>	<u>Market Operator</u>	TC: Timeline shall be set.		Already indicated as D	
13	D	<u>Provide Updates on Market Model and Power System Model to the System Operator</u>	<u>The Market Operator shall provide the System Operator with relevant information to ensure reliable operation between the two entities. This primarily includes the updated mapping information between the MMS and EMS</u>	<u>Market Operator</u>	TC: Timeline shall be set. Qualify the relevant information		Already indicated as D	
14	D to D+7	<u>Consistency monitoring of the updated MNM</u>	<u>The Market Operator shall continuously monitor the status of the recently updated MNM in the production system for the next seven days</u>	<u>Market Operator</u>				

D. Market Operator Information Disclosure and Confidentiality Manual Issue 5.1

Title	Clause	Provision	Proposed Amendment	Rationale	Comments	Proposed Wording based on Comments	Proponent's Response	RCC Agreement
OTHERS			[See table below]	Consistent with the proposed changes in the WESM DP Section 14.4.2			Please make this provision consistent with the proposal of APC, should the RCC pursue it.	

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