Philippine Electricity Market Corporation

MINUTES OF THE 92nd MEETING OF THE RULES CHANGE COMMITTEE Regular Meeting No. 2014-11	
Meeting Date& Time:	10 September 2014
Meeting Venue:	9th Floor PEMC Training Rooms 2&3

Attendance List

In-Attendance	Not In-Attendance
Committee Members: Rowena Cristina L. Guevara --Chairperson/ Independent Maila Lourdes G. De Castro –Independent Ambrocio R. Rosales --System Operator --NGCP Joselyn D. Carabuena --Generation -- PSALM Jose Ferlino P. Raymundo --Generation -- SMC Global Theo Cruz Sunico -- Generation -- 1590 EC Jose P. Santos --Distribution –INEC Isidro E. Cacho, Jr. -- Market Operator --PEMC **Alternate Members:** Ryan Morales - MERALCO	Ciprinilo C. Meneses --Distribution, MERALCO Sulpicio C. Lagarde, Jr. --Distribution – CENECO Francisco L. R. Castro, Jr. -- Independent Concepcion I. Tanglao --Independent Gilbert A. Pagobo -- Distribution – MECO Lorreto H. Rivera --Supply --TPEC
PEMC – Market Assessment Group (MAG): Geraldine A. Rodriguez Romellen C. Salazar	
Others: (MO/ SO/ DOE/ ERC Representatives): Ferdinand B. Binondo - DOE Caryl Miriam Y. Lopez-Mateo - PEMC-Legal	

There being a quorum, Chairperson Dr. Rowena Cristina L. Guevara called the meeting to order at around 9:30 AM.

I. AGENDA:

The Proposed Agenda for the 90th RCC Meeting was approved as amended.

II. REVIEW, CORRECTION AND APPROVAL OF THE MINUTES OF THE 91stTH RCC MEETING

Noting that the 92nd RCC Meeting is a Special Meeting to discuss the MRU matter only, the review of the minutes of the 91st Meeting was set for the next Regular meeting scheduled for October 2014.

III. BUSINESS ARISING FROM THE PREVIOUS MEETING

1. **Proposed Amendments to the WESM Rules and Various Market Manuals relative to the Management of Must-Run Units (MRU)–Comments from PIPPA, APC, SNAP and PEMC**

   - **Proposed Amendments to the WESM Manual on the Management of Must-Run Units**

Relative to the RCC's agreement, in its September 3 meeting, on the language for certain provisions of the Proposed Amendments to the WESM Manual on the Management of Must Run Units, the Secretariat raised some concerns and requested clarifications from the RCC. With reference to the Secretariat's email, the RCC provided clarifications to the concerns raised by the Secretariat and agreed as follows:

Proposed Provisions/ Previous RCC Agreements	**Secretariat's Comments/ Concerns**	**RCC Clarifications/ Final Agreement**
Section 1 Introduction XXX WESM Rules clause 3.5.13.1, as amended, permits the System Operator, ~~**to direct**~~ **in coordination with** the Market Operator, to impose constraints on the power flow, ~~**demand,**~~ energy generation of a specific facility in the Grid to address **system security and reliability of the Grid.** ~~**, among other things, the need to dispatch generating units to comply with systems, regulatory and commercial test requirements.**~~ **On the other hand,** ~~**R**~~relaxation of constraints on power flows, ~~**demand,**~~ energy generation and reserves may also be implemented ~~**if**~~ **by** the Market Operator ~~**is if it is**~~ unable to generate a feasible dispatch schedule. For this purpose, ~~**the System Operator, in consultation with**~~ the Market Operator, in consultation with the System Operator, is directed to develop the criteria and procedures for dispatch of generating units that are required to run as a result of the imposition or relaxation of constraints.	The Secretariat noted that the proposed provision on the MRU Manual, as previously discussed and agreed upon, is not consistent with the relevant provision in the WESM Rules where it states that "the System Operator, in consultation with the MO and the Trading Participants, may introduce xxx" and not "the MO in consultation with the SO xxx." The Secretariat then suggested adopting the changes for the WESM Rules, for consistency.	The RCC initially agreed on the Secretariat's suggestion to adopt changes in the WESM Rules based on revisions made to the MRU Manual for consistency. However, upon review of the relevant portion of the WESM Rules relative to the MRU changes made, specifically on the relaxation of constraints, it was noted that the provisions on the MRU Manual should instead be aligned with the changes made by the RCC to Clause 3.5.13.1 of the WESM Rules. In the RCC's discussions, it was recommended that since it is the System Operator that imposes the constraints, it is only logical that the System Operator (and not the Market Operator) should be the one to relax said constraints. Mr. Rosales expressed his strong objection on the suggestion. However, with a vote of 6-1, it was agreed to revise the proposed

		provision to indicate that the SO may relax constraints.
Section 4.1 Must-Run Unit (MRU) – a generating unit identified **and instructed, on real time or scheduled basis, by the *System Operator*** *(SO)* to **either a) be come** on-line, **or b) provide additional energy** on a particular *Trading Interval* **but the dispatch of which is said to be Out of Merit, to** ~~augment the Ancillary Services and maintain the~~ address ~~to address~~ *System Security* requirements. ~~**and other considerations as provided in this manual.**~~ **For clarity, MRU shall be utilized only after the *System Operator* has exhausted all available *Ancillary Services*. MRUs are classified as follows:** **4.1.1 Scheduled MRU – MRU designated by the System Operator before the trading interval and included in the RTD schedule through the imposition of Security Limit as defined in the WESM Dispatch Protocol Manual.** **4.1.2 Real Time MRU – MRU designated by the System Operator during the trading interval.** **A Non-Exhaustive List of Criteria for the Designation of MRU is listed in Appendix A.**	The Secretariat requested the RCC's confirmation on the previously agreed definition of "Must-Run Unit."	The RCC confirmed its previous agreement on the definition of "Must-Run Unit."
Section 4.2 **Must-Stop Unit (MSU) – a generating unit identified and instructed by the System Operator to reduce the provision of energy due to its non-compliance of the Dispatch Schedule to address or prevent possible threat to the System Security requirements of the Grid.**	The Secretariat requested the RCC's confirmation on the previously agreed definition of "Must-Stop Unit."	The RCC confirmed its previous agreement on the definition of "Must-Stop Unit."
Section 4.3	The Secretariat requested the RCC's	The RCC agreed to revise the definition of "Displaced

Displaced Generator- a generating unit identified and instructed by the System Operator in an out of merit dispatch to reduce the provision of energy specified in its RTD instruction exclusively caused by excess generation due to non-compliance of generators to dispatch instructions and use of reactive support reserve.	confirmation on the previously agreed definition of "Displaced Generator."	Generator" as follows: ***"a generation unit identified and instructed by the System Operator in an out of merit dispatch to reduce the provisions of energy specified in its RTD instruction exclusively caused by excess generation due to non-compliance of other generators to dispatch instruction."*** The RCC inserted the word "other" to clarify and put emphasis that the reason for having a Displaced Generator is the non-compliance of other generators.
Section 4.4 **Out of Merit Dispatch- Dispatch instructions issued by the SO that is not in accordance with the WMOT to address System Security.**	The Secretariat requested the RCC's confirmation on the previously agreed definition of "Out of Merit Dispatch."	The RCC confirmed its previous agreement on the definition of "Out of Merit Dispatch."
Section 5.3 **5.3 The System Operator shall issue re-dispatch instructions to generators to constrain-on (i.e. increase the output in excess of RTD or from shutdown to be on-line or) or to constrain-off (i.e. decrease the output to Pmin or from on-line to be shutdown) with due consideration to power quality, reliability and security of the grid. ~~Re-dispatch shall be in accordance with the contingency plan prepared by System Operator.~~**	The RCC previously agreed to review relevant provisions in the Billing and Settlement Manual regarding the settlement of MSU and Displaced Generators.	Mr. Cacho expressed that upon checking with the PEMC-Billing and Settlement Department, there are no issues on the proposed provisions relative to the provisions of the Billing and Settlement Manual. Thus, the RCC agreed to retain the provision as previously discussed.
Section 5.5 The System Operator shall be responsible for monitoring and submitting the necessary information **in the Dispatch Discrepancy Report** to the Market Operator for purposes of	The Secretariat inquired if it is it the intent of the RCC to still include the listed data requirements or merely refer to the Dispatch Discrepancy Report. It was noted	The RCC confirmed that Annex B should be deleted as it is no longer necessary with the proposed provision under Section 5.5, as previously discussed and agreed upon. Section 5.5 already provides the list of

MRU and MSU settlement. **The Market Operator shall publish the same information in the WESM website after one week.** **All information related to the use and designation of MRUs and MSUs should be published for transparency. Dispatch Discrepancy Report shall contain the following information as the minimum:** • **Trading Date and interval concerned** • **Time the MRU/MSU instruction was issued** • **Criteria used for the designation of the MRU/MSU** • **Short description of the issue being addressed (e.g. frequency breached X Hz)** • **Specific instruction given to the generator** • **Loading of scheduled Ancillary Services** • **Etc.**	that the Annex B, which was deleted by the RCC, contains some information requested that are not included in the list in the agreed provision.	minimum information required for publication. The RCC agreed to revise the provision to further reduce the list, as follows: Xxx • **Trading Date and interval concerned** • **Criteria used for the designation of the MRU/MSU** • **Short description of the issue being addressed (e.g. frequency breached X Hz)** • **Loading of scheduled Ancillary Services**
	The Secretariat requested for confirmation if indeed the name of the report referred to in the Section is "Dispatch Discrepancy Report."	Mr. Rosales confirmed that the title of its report in the context of Section 5.5 is "Dispatch Discrepancy Report." The RCC commented however that the more appropriate title for the report being referred to in this section is "Dispatch Deviation Report" rather than "Dispatch Discrepancy Report" and thus agreed to revise the provision accordingly. The System Operator was likewise requested to make the corresponding change in the title of its report. This was noted by the System Operator.
With proposed changes made to Section 6.2, following are to be done next as previously agreed by the RCC: • security-related should be part of MRU Manual • non-security related should be part of Over-riding constraints in the Dispatch Protocol Manual • Plants on Commercial testing should be price-takers, but settlement of	The Secretariat inquired, given the changes made to Section 6.2 and the agreements made thereafter, if corresponding changes in relevant sections of the Dispatch Protocol Manual, Billing and	The RCC agreed to make separate submissions for the necessary changes to relevant WESM Manuals and provisions of the WESM Rules relative to the non-security related criteria for MRU (it can be noted that the RCC already agreed that MRU is supposed to address only the security-

which should be clearly defined and incorporated in the WESM Manuals • Propose Rules changes on the duration of testing of plants	Settlement Manual, and WESM Rules should already be proposed as part of the submissions relative to MRU, or should it be considered as separate submissions.	related concerns) as these were deleted as part of the criteria for MRU in the RCC's proposal. The RCC agreed to later formulate the necessary changes in this regard. The RCC requested to be reminded by the Secretariat later on of this agreement/ assignment.
Section 8 (relative to the DOE's directive to account MRUs under the NGCP's Ancillary Service)	The Secretariat recalled the SO's response to said directive, as raised by Mr. Rosales in a previous RCC meeting, that the NGCP shall await the directive from the DOE directly to the NGCP in this regard.	On this note, the RCC called the attention of the DOE observer, Mr. Ferdinand Binondo, on the letter supposedly to be sent by the DOE to NGCP directing the NGCP to account the MRU as part of its ancillary procurement. This was noted by Mr. Binondo.
Section 8.1 The Generating unit/s identified and **instructed** by the System Operator ~~**to run**~~ as MRU **or MS**U ~~**either on real-time or scheduled basis,**~~ shall be based on the security assessment conducted by the System Operator.	The Secretariat noted that the RCC agreed to carry SNAP's proposed provisions, with minor edits (use of "instructed" instead of "designated"). However, it can be noted that the definition of MSU has already been revised by the RCC. Thus, the Secretariat suggested for review again of the agreed provision.	The RCC agreed to revise the provision, as follows: **"The Generating unit/s identified and instructed by the System Operator as MRUs or tagged as MSUs or Displaced Generators shall be based on the security assessment conducted by the System Operator. The MRU plants utilized by the System Operator shall be reported to the Market Operator for MRU settlement."**
Section 8.3 (flow chart)	The Secretariat requested review and confirmation on the adoption of the flow chart as suggested by PEMC. *(see attached flowchart)*	The RCC agreed to adopt the flow chart as proposed by PEMC, with very minor revisions as discussed. The RCC agreed to revise the "Perform Real-Time Dispatch Run" to "Perform Real-Time Dispatch Schedule" by the Market Operator as in the current practice.

[redacted]

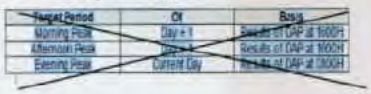
Section 10.1 Displaced Generator Amount = (EAQ-MQ-0.03EAQ)*EPP EPP, EAQ and MQ of the Displaced -Generator/s Section 10.2	The Secretariat noted that based on previous RCC agreement, the revised formula shall be consulted with the PEMC-Billing and Settlement Department to check for the impact of such change.	As informed by Mr. Cacho, the PEMC-BSMD has no issues relative to the formula agreed upon by the RCC, which information was noted by the RCC. It was also recalled that as discussed previously, the settlement of compensation for the Displaced generator shall be done through WESM.
Appendix B (for deletion)	The RCC noted that the Appendix B was deleted based on RCC's agreement on Section 5.5.	The RCC confirmed deletion of Appendix B.

- **Proposed Amendments to the WESM Rules in relation to Must-Run Units**

The RCC deliberated on the proposed provisions on the WESM Rules as previously agreed upon, with consideration to the comments received from various parties. Below are the discussions and agreements relative to the Proposal.

RCC Proposed Amendment (As of September 10)	Discussions/Remarks
APPENDIX A.3 OUTAGE SCHEDULING	
3. RESPONSIBILITIES **3.1. Trading Participant** The Trading Participant shall comply with the timely submission of outage schedule requests to the System Operator in accordance with the WESM Timetable **and PGC 6.4.1.3. The outage schedule request must be forwarded to the System Operator at least seven (7) days prior to the actual Shutdown or** ~~**The Trading Participant shall submit to the System Operator a three year/long-term outage plan and annual maintenance outage plan of their Generating Units as required in the Grid Operation and Maintenance Program of the Grid Code.**~~	Mr. Jose Ferlino Raymundo explained that it is the outage schedule request that is being forwarded by the Trading Participant to the System Operator. Noting the explanation, the RCC agreed to carry SNAP's proposal, inserting the word "request" in the proposed provision by the RCC.
3.3. System Operator The System Operator shall be responsible in the approval and implementation of the outage schedule. ~~**The System Operator shall submit to the Market**~~	The RCC retained its previously agreed proposal.

RCC Proposed Amendment (As of September 10)	Discussions/Remarks
~~Operator impending outage requests and approved outage schedules of the facilities of Trading Participants in accordance with the WESM Timetable.~~	
3.4 Market Operator • The Market Operator shall include the ~~impending outage requests and~~ approved outage schedules submitted by the System Operator in the Pre- Dispatch Market Projections and Real Time Dispatch Schedules.	The RCC retained its previously agreed proposal.
4. PROCEDURE **4.1. Outage Schedule Criteria** The outage schedules that shall be submitted by the System Operator to the Market Operator shall include the following: • Generating Units • Transmission Lines • Substation Equipment The System Operator shall submit to the Market Operator **the Maintenance Schedule to ~~impending outage requests in order for the said outages to be included in the Pre-Dispatch Market Projections and~~** come up with a price assessment of the outage. Only the approved outage schedules by the System Operator shall be utilized for Day-Ahead Market Projection (DAP) and (Hour-Ahead) Real Time Dispatch Schedule (RTD).	The RCC retained its previously agreed proposal.
4.3. Schedule of Submission The outage schedule shall be submitted by the System Operator to the Market Operator prior to the execution of the aforementioned processes which are as follows: | Process	Study Horizon	Execution Frequency	Schedules Resolution	Number of Study Points | |---|---|---|---|---| | WAP | 7 days ahead | Daily at 9:00a.m. | 1 hour | 168 (=7x24) | | DAP | 1 day ahead | Every 4 Hourly | 1 hour | 56-24-16 | | RTD | 65-mins ahead (10-mins ahead) | Hourly (every 5 minutes) | 1 hour (5 min-plot) | 1 | **The System Operator shall submit the approved outage schedules to the Market Operator in a format specified in Attachment A.4.**	The RCC retained its previously agreed proposal.

RCC Proposed Amendment (As of September 10)	Discussions/Remarks
APPENDIX A.4 CONTINGENCY PLANNING	
~~**4.3 Assessment of Contingency for the Real Time Dispatch**~~ ~~**The System Operator shall perform contingency planning for the morning and afternoon for the Day Ahead Market and the evening peak of the current day. Hereunder is the timetable in the preparation of a contingency plan for the aforementioned periods:**~~ 	The RCC retained its previously agreed proposal.
4.3 4.4 Submission of Contingency List The System Operator shall submit a contingency list to the Market Operator in the format specified in Section 4.2. A contingency list shall be submitted by the **System Operator** for the following processes of the Market Operator: • Pre-Dispatch Market Projections • Real Time Dispatch The contingency list shall be submitted to the Market Operator prior to the execution of the aforementioned processes which are as follows: The submitted contingency list is not an incremental update of the previous data rather it is a complete replacement (re-definition) of the data.	The RCC retained its previously agreed proposal.
APPENDIX A.5 **PRE-DISPATCH MARKET PROJECTION**	
4.2.8. Security Limits Security Limits are often used to reflect system stability limits and they vary under different system conditions. Security Limits as described in this document covers generator operating limits and transmission branch group limits:	The RCC retained its previously agreed proposal.

Process	Study Horizon	Execution Frequency	Schedules Resolution	Number of Study Time Points
WAP	7 days ahead	Daily at 9:30a.m.	1 hour	168 (=7x24)
DAP	1 day ahead	Every 4 Hours	1 hour	36-24-16
RTD	65-mins ahead	Hourly	1 hour	1

RCC Proposed Amendment (As of September 10)	Discussions/Remarks
• Generator operating limits (Pmin, Pmax) may vary based on different plant and system conditions. Some generators are required to produce no less than certain amount of output for **Ssystem Security and Rr**eliability reasons. Some generators are required to restrain their output due to stability considerations. Generating units nominated by the System Operator as a "Must Run Unit" falls in this category. Refer to the WESM ~~**Criteria for**~~ **Manual on the Management of** Must-Run **and Must Stop** Units for more details. • A transmission branch group defines one or more transmission lines. Branch group limits usually reflect system stability constraints. A branch group limit means the sum of power flow on the group of transmission lines shall not exceed the limit. • HVDC transmission limits may vary constraining power transmission from one region to another. The HVDC limits are modeled.	
APPENDIX A.6 **REAL TIME DISPATCH SCHEDULE**	
4. PROCEDURE **4.1. Market Dispatch Optimization Model (MDOM)** The **Market Dispatch Optimization Model** determines the optimal dispatch schedule for each of the trading interval**s** based on market bids/ offers received by the Market Operator subject to the different constraints imposed in line with the physical limitations of the assets of the Network Service Providers and generation assets. The Real Time Dispatch utilizes the **Market Dispatch Optimization Model** to calculate the following: • The dispatch schedules and nodal prices (Ex-ante) of all facilities connected to the Grid in the next trading interval (RTD) • The resulting nodal prices (Ex-post) based on the actual dispatch of facilities for a particular trading interval (RTX) For the **Real**-Time **Dispatch**, the dispatch schedule is the target loading level in MW for each scheduled generating unit or scheduled load and for each reserve facility ~~**for the**~~ **from the start until the** end of a trading interval. **The Generators shall ramp-up or ramp-down linearly to**	Mr. Theo Sunico discussed the comments of PIPPA. It was noted from PIPPA's comments that the dispatch schedule provided to generators should already be considered binding, such that dispatch instructions from the System Operator should matter only when there are changes to the schedule previously given to the generator. Mr. Sunico commented that moving forward with shorter trading intervals (i.e. 5- or 15-minute interval), it would be impossible for the System Operator to call all the generators and confirmation by the System Operator of the dispatch schedule is deemed not feasible. Mr. Raymundo likewise commented that the reason the generators' ramp rate is not linear (where there is over- or under-generation) is most of the time because of late instruction/information from the System Operator. Relative to the comments above, Mr. Cacho opined that confirmation by the

[redacted]

RCC Proposed Amendment (As of September 10)	Discussions/Remarks
their target loading level. Deviations from these target loading levels will be measured in terms of MWHr subject to the compliance with the dispatch tolerance standards. Refer to WESM Price Determination Methodology (PDM) for the other details of the M**arket** D**ispatch** O**ptimization** M**odel**.	System Operator is still necessary. He likewise recalled that the RCC already agreed previously that Participants should still seek clearance from the System Operator prior to dispatch. Mr. Raymundo commented that because of the System Operator's frequent intervention on the ramping of generators, where generators are sometime called to ramp down, it becomes difficult for generators to comply with linear ramping requirements. He recognized, however, that the System Operator assured that it will report the instances where the System Operator deviated from the dispatch schedule. He added that the deviation is mostly caused by the long trading interval of one hour. Following the discussions and noting the comments of both the generators and Mr. Cacho, Dr. Guevara suggested to accept the proposal, as previously agreed by the RCC on the requirement for confirmation by the System Operator, meanwhile that the market implements the one-hour trading interval. She further suggested that the generators propose revisions as discussed, once the market has moved to shorter trading intervals. Based on suggestions given by Dr. Guevara, the RCC agreed to retain the RCC proposal.
4.2.4. Outage Schedules The outage schedule is used for **~~decommissioning (or commissioning)~~ scheduled planned outage** of network elements **such as ~~like~~** generators, **~~and~~** transmission lines **and equipment**. A more detailed discussion of outage schedules is contained in the Outage Scheduling Procedure.	The RCC retained its previously agreed proposal.
4.2.5. System Reserve Requirements System reserve requirements are **the level of reserve requirements in accordance with the latest Ancillary Services Procurement Plan and the Philippine Grid Code. ~~system demands for~~**	The RCC retained its previously agreed proposal.

RCC Proposed Amendment (As of September 10)	Discussions/Remarks
~~regulation reserve, contingency reserve and other relevant types of reserves. They are determined based on system loading, maximum generator tripping and other considerations.~~ The System reserve requirements for the Pre-Dispatch Market Projections are as follows: Xxx	

4.4 Over-Riding Constraints
 	
The MMS provides a functionality that allows the Market Operator to make adjustments in the Operating Constraints of the **Market Dispatch Optimization Model**. for a particular Trading Interval. Such adjustments or overriding constraints in the **Market Dispatch Optimization Model** is imposed by the Market Operator upon the recommendation of the System Operator through **a database interchange program between the Market Operator and System Operator** ~~**System Advisory.**~~
 	
Imposition of Overriding Constraints in the **Market Dispatch Optimization Model** include ~~**among others**~~ the following:
 	
• **Security Limits;**
  • ~~**Nomination of**~~ Must-Run Units (MRU)
  • Emergency de-rating/ outage of specific transmission lines;
  • ~~**Additional reserve requirements**~~
  • ~~**Generating unit limitations**~~
  • Other types as may be recommended by the System Operator
 	
• **Non Security Limits:**
  • **Regulatory and Commercial Testing**
  • **Generating unit limitations**
	The RCC retained its previously agreed proposal.

APPENDIX A.7 DISPATCH IMPLEMENTATION	
1. PURPOSE This document discusses the procedure ~~**in**~~ **for** the implementation of **the** ~~**a**~~ **Real Time** Dispatch Schedule and the **WESM** Merit Order Table (**W**MOT). The WESM-Merit Order Table for purposes of dispatch protocol under the WESM is defined based on the Grid Code with an addition of unscheduled generating units based on price offers; the MOT is based on a single market. ~~**during Real Time by the System Operato**~~r.	The RCC noted that all references to Merit Order Table (MOT) in the Manual should be changed to WESM Merit Order Table (WMOT). Mr. Raymundo inquired on how to use the WMOT. Dr. Guevara expressed that the Manual states provisions on how to make the MOT but nothing is said on how it is used.

RCC Proposed Amendment (As of September 10)	Discussions/Remarks
	Mr. Cacho stated that the point of SNAP's comment, the way he understood it, was that there is no procedure in the Manual on the use of constrain-on and -off. He added that based on the definition, as long as the generator is in the Merit Order Table, the System Operator may use that plant in any order regardless of its offer price. He, thus, suggested, addressing the generators' concerns by including a provision in the Manual on the use of the WESM Merit Order Table under dispatch implementation. To respond to the generators; concerns, the RCC agreed to incorporate under the Section on System Operator's Responsibilities (Section 3.3 of the Manual) the responsibility to follow the ranking in the WESM Merit Order Table during re-dispatch.
2. SCOPE This procedure shall cover all activities to be undertaken by the System Operator in implementing the **rReal tTime dDispatch ~~(RTD)~~** schedule to **Ttrading Ppparticipants** during real time for Grids covered by the WESM.	The RCC retained its previously agreed proposal,
3. RESPONSIBILITIES **3.1 System Operator** • The System Operator shall be responsible in the preparation, **~~execution~~**, **real-time implementation** and monitoring **of the** compliance **to the of** dispatch instructions issued to the Trading Participants **~~during real time~~** in accordance with the WESM timetable. **Any deviation from the Dispatch Schedule at the end of the trading interval shall be properly logged and recorded by the System Operator.** • The System Operator shall be responsible in **~~assuring~~ ensuring** the security and reliability of the grid at all times in compliance with the provisions of the System Security and Reliability Guidelines • **The System Operator shall endeavour to follow the ranking in the WESM Merit Order Table in**	The RCC agreed to revise this section on the additional bullet defining the System Operator's responsibility to follow the ranking in the WESM Merit Order Table during re-dispatch, based on discussions relative to Appendix A.7 Section 1. It was also agreed to retain Trading Participants in bullet 1 based on Mr. Raymundo's comment that dispatch instructions are also issued to Trading Participants and not just to Generators. He stated that Trading Participants is more appropriate to be used in this provision since it covers all. In relation to the discussions, Mr. Morales inquired if the proposal would likewise address the issues on Interruptible Load Program (ILP). He expressed that the proposal may affect the procedure for

RCC Proposed Amendment (As of September 10)	Discussions/Remarks
re-dispatching generators.	ILP. In response to Mr. Morales, Dr. Guevara stated that the same is not part of the RCC proposal. Noting the comment of Mr. Morales, Dr. Guevara invited the DUs to make the necessary corresponding proposal relative to ILP.
3.2. Market Operator The Market Operator shall submit to the System Operator the Real Time Dispatch Schedule ~~**(RTD)**~~ **including the WESM Merit Order Table on an hourly basis and** ~~**MOT for the next trading interval**~~ in accordance with the WESM Timetable.	The RCC retained its previously agreed proposal, with minor revision to change reference to WESM Merit Order Table.
4. PROCEDURE **4.1. Dispatch Schedule** ~~**and MOT**~~ ~~**This Section is composed of the following steps for the preparation of Dispatch Schedule and MOT: 1. Determination of Dispatch Schedule; 2. Determination of MOT; 3. Submission to SO; 4. Review by SO; and 5: Re-Dispatch Schedule.**~~ **The Market Operator calculates the Hour-Ahead Real Time Dispatch Schedule using the Market Dispatch Optimization Model and calculates the WESM Merit Order Table from the results of the Market Dispatch Optimization Model. The Dispatch Schedule contains the Target MW Loading of all Trading Participants at the end of the Trading Interval. The Dispatch Schedule shall be submitted to the System Operator for its implementation in the next Trading Interval.**	The RCC retained its previously agreed proposal.
4.1.1. Target Loading Level ~~**Determination of Dispatch Schedule**~~ ~~**The Market Operator determines the RTD Schedule using the MDOM and using the most recent information provided by the System Operator (refer to Real Time Dispatch Procedure). The Dispatch Schedule contains the Target MW Loading of all Trading Participants at the end of the Trading Interval.**~~ **The Dispatch Schedule shall contain the target**	The RCC retained its previously agreed proposal.

RCC Proposed Amendment (As of September 10)	Discussions/Remarks
loading levels to be achieved in MW considered at the end of that trading interval. **Generators who are dispatched shall comply with a linear ramp rate over the Trading Interval. Generators shall be monitored for compliance with the Dispatch Tolerance standards and the required linear ramp rate. This is to ensure that the target loading for each Trading Participant shall be within the dispatch tolerance standards in MW and the linear ramping in MWHr from the start until the end of that Trading Interval.**	
4.1.2 Determination of WESM Merit Order Table In accordance with Attachment D.1.	The RCC changed the reference to WESM Merit Order Table and to make global change based on this agreement.
4.1.3. Submission of Dispatch Schedule and WESM Merit Order Table The Dispatch Schedule and **WESM Merit Order Table** shall be submitted to the System Operator for its implementation in the next Trading Interval. The **Market Management System** format of the Dispatch Schedule is shown in Attachment A.1. The Market Operator shall further convert the Dispatch Schedule and **WESM Merit Order Table** into a format understandable to the System Operator. The process however, shall not provide delay in the Dispatch Schedule submission and shall comply with the time requirements as provided in the WESM Timetable.	The RCC retained its previously agreed proposal, with minor revision to change reference to WESM Merit Order Table.
4.1.4 Review of Dispatch Schedule The System Operator shall review the Dispatch Schedule submitted by the Market Operator in the allotted period provided in the WESM Timetable. **The System Operator shall subject the Dispatch Schedule to its final screening prior to its dispatch implementation. If upon review and the dispatch schedule would not address the security and reliability of the grid, the System Operator may intervene and shall take the necessary actions to prevent an impending threat in the system.**	The RCC retained its previously agreed proposal.
4.1.5 Re-Dispatch Process The following Re-dispatch process shall be followed by the **System Operator** and Market Operator:	The RCC retained its previously agreed proposal.

[redacted]

RCC Proposed Amendment (As of September 10)	Discussions/Remarks
1. XXX 2. XXX 3. ~~In cases of normal market conditions and there is an increase or decrease in system demand or there are forecast errors within the trading interval, SO shall follow Section 4.2 of Appendix A.7 of this Manual.~~ In cases where the Market Operator shall initiate an advisory to the System Operator for Market Intervention for the next interval in the absence of Real-Time Dispatch Schedule, the System Operator shall have authority to come-up with a re-dispatch schedule for the next Trading Interval. The System Operator may opt to use the previous Real Time Dispatch or the latest Day Ahead Projection (DAP) schedule or may come up with their own dispatch schedule to be able to determine the dispatch targets of Trading Participants for that trading interval. System Operator shall submit Intervention report to the Market Operator indicating the actual dispatch of each Trading Participants for every Trading Intervals.	
4.1.5.1 Re-Dispatch Process Based on WESM Merit Order Table When there is a need for the System Operator to re-dispatch generating units, the following shall be followed: a. Instruct generators to ramp-up (or ramp-down) following the WESM Merit Order Table. If the incremental MW as instructed by SO exceeds the block quantity in the WMOT, the excess quantity shall be settled in accordance with the Manual on the Management of Must-Run Unit and Must-Stop Unit . b. When the issue being addressed falls under the criteria for the designation of Must Run/Must Stop Units, the System Operator shall issue Must Run/Must Stop Units dispatch instruction. c. Once the issue being addressed in (a) or (b) is resolved, issue re-dispatch instruction to MRU/MSU to go back to the RTD schedule for	The RCC carried the SNAP's comments, with revisions, noting the earlier discussions on the use of the WMOT. In relation to the payment of MRU, it was clarified that only the excess quantity that was run as MRU that should be paid at MRU price and not the entire block provided by the generator.

RCC Proposed Amendment (As of September 10)	Discussions/Remarks
the current interval.	
4.1.5.1.1 Designation of Must-Run Unit to Address System Voltage Requirement a. **SO determines the need for Reactive Power Support (RPS) and identifies the generating unit/plant that can satisfy or address the problem.** b. **Inform the generating unit/plant that it will be designated as Must-Run Unit. The duration of the Must-Run Unit designation as well as the target MW loading shall also be communicated to the generating unit/plant.** c. **Submit security limits to Market Operator containing the hourly loading of the Must-Run Unit.**	The RCC carried the SNAP's comments, with revisions,
4.2 Dispatch Instructions ~~**The Trading Participants upon receipt of RTD shall communicate and seek clearance from System Operator the target loading levels for each trading interval. The System Operator shall issue dispatch instruction as required.**~~ **The System Operator shall communicate the target loading levels to Trading Participants for each trading interval prior to the commencement of that Trading Interval in accordance with the timetable and consistent with the Grid Code (WESM Rules Clause 3.8.3).** **If a Trading Participant does not receive a dispatch instruction from the System Operator at the start of a Trading Interval, this means that it shall maintain the same target loading for the Trading Interval.** All dispatch instructions issued by the System Operator to Trading Participants shall be recorded thru Operator Logs and will be forwarded to **Market Operator** for purposes of surveillance, audit, and settlement. The **WESM Merit Order Table** shall be maintained up to date by the **Market Operator** and be made accessible in the website to all market participants. **The Dispatch Instruction issued by the System**	The RCC noted that the point of the comments of the generators is related to the need for confirmation from System Operator prior to dispatch, which concerns were already addressed based on previous discussions and agreements. The RCC agreed to revise its proposal to clarify that the Dispatch Instruction issued by the System Operator shall take precedence over the Dispatch Schedule provided by the Market Operator.

RCC Proposed Amendment (As of September 10)	Discussions/Remarks
Operator shall take precedence over the Dispatch Schedule issued by the Market Operator.	
4.2.1.2 MVAR Requirements The System Operator shall have discretion in the issuance of Dispatch Instructions involving the dispatch of reactive power of Ancillary Services Providers (Voltage Control) and other voltage correction equipment.	The RCC agreed that instead of deleting the Section as it previously proposed, the Section should be retained based on previous agreement to retain reactive power support as condition for selection of MRU. Mr. Sunico emphasized that the generators propose to retain this to limit the use of reactive power support only to generators that are accepted by the NGCP as Ancillary Service Provider. He pointed out that there are some generators that do not have generation power absorption capability. It was noted by Dr, Guevara that the RCC will have to review the agreed provisions once the reserve market is implemented. In relation to the agreement to retain the provision, Mr. Cacho inquired on how the power plants with and without the capability for reactive power support will be determined. Mr. Sunico responded that the determination should be the responsibility of the System Operator since it is the one that certifies generators as Ancillary Service Provider, and and such, it should know which plants are capable and which are not capable to provide reactive power support. Mr. Cacho opined that given the agreements, the System Operator should be able to predict which areas may experience low voltage, and thus, be able to engage into contracts with Ancillary Service Providers in those areas to address the low voltage requirements. Following the discussions, the RCC agreed to retain the original provision Section 4.2.1.2.
4.2.2 Communicating Dispatch Instructions	The RCC retained its previously agreed

[redacted]

RCC Proposed Amendment (As of September 10)	Discussions/Remarks
The System Operator **and/or Trading Participants** shall put-up necessary facilities to communicate Dispatch Instructions to Trading Participants re: Telephone, Fax, E-mail, Web Page, etc. All exchanges of information between the System Operator, Market Operator, and Trading Participants shall be recorded for purposes of audit and surveillance.	proposal.
4.3 Compliance With Dispatch Instructions • The System Operator shall continuously monitor the compliance of trading participants to issued Dispatch Instructions. Any deviation from the issued Dispatch Instructions shall be recorded for purposes of settlement, surveillance, and post audit. • Compliance of Ancillary Services Providers to their scheduled dispatch shall be in accordance with the WESM Ancillary Services Compliance Monitoring document. • Each registered trading participant shall assure that each of its registered facilities complies with dispatch instructions subject to the provisions of the Grid and Distribution Codes and the WESM Rules. • Trading Participants shall see to it that their facilities operate within the Dispatch Tolerance limits **from the start until the end of the Trading Interval** and standards prescribed by the System Operator. • A registered trading participant that expects its registered facility, to operate in a manner that, for any reason, differs materially from the System Operators dispatch instructions shall so notify the System Operator as soon as possible. • If failure by a registered facility, to comply with a dispatch instruction and endangers electricity system reliability, the System Operator shall declare the registered facility to be non-conforming and shall take any actions allowed by the Philippine Grid and Distribution Codes and the WESM Rules. • The **System Operator** shall log and report to the Market Operators all dispatch instructions they provided the Trading Participant which deviated from Real-Time Dispatch. The Market Operator shall validate such deviations and determine the proper compensation for such.	The RCC noted that the revisions made to Section 4.2 already address the concern of the generators. The Section already added the following provision to clarify that the SO's dispatch instructions take precedence over the MO's dispatch schedule. ***Section 4.2*** ***XXX*** ***The Dispatch Instruction issued by the System Operator shall take precedence over the Dispatch Schedule issued by the Market Operator.*** The RCC thus agreed to retain the original provision, with minor revision on bullet 4, as previously agreed by the RCC: xxx • Trading Participants shall see to it that their facilities operate within the Dispatch Tolerance limits **from the start until the end of the Trading Interval** and standards prescribed by the System Operator. xxx
APPENDIX A.9 POST DISPATCH REPORT	
4.3. Other Significant Events in the Previous Trading Hour	The RCC retained its previously agreed proposal.

[redacted]

RCC Proposed Amendment (As of September 10)	Discussions/Remarks
4.3.1. Post-Dispatch Requirements of Market Operator from the System Operator (WESM Rules **Clause** 3.8.2.2) a) Situations in which it became necessary for dispatch instructions to deviate from the **Real-Time Dispatch** Schedule and **WESM Merit Order Table** determined by the Market Operator during the trading interval; b) Load shedding or other directions issued by the System Operator during the trading interval; c) Significant **~~I~~incidents** in which **~~contingency~~** reserve was called upon during the trading interval; d) Network constraints which affected dispatch during the trading interval; e) Binding security constraints **such as Real-time Must-Run Unit or scheduled Must-Run Unit** which affected **the** dispatch **schedule** during the trading interval. f) Operational irregularities arising during the trading interval including but not limited to any circumstances in which there was prima facie evidence of a failure to follow dispatch instructions. **This includes the affected generators caused by Must-Stop Unit plants as tagged by the System Operator.**	
4.3.2. Security Constraints Violation The System Operator shall notify the Market Operator on the details of security limits violations which will have significant impact on the **grid** **~~market prices~~**. The security limits violations shall be based on a defined contingency planning criteria **~~submitted by TRANSCO to the ERC~~** **of the System Operator in accordance with the Philippine Grid Code**.	The RCC acknowledged that the System Operator has no information on market prices. Mr. Cacho likewise stated that the System Operator performs contingency planning on a daily basis. Noting the above, the RCC agreed to retain the original provision, with revisions.
4.3.~~3~~2. Dispatch Violations and Non-Compliance In addition to constraints violation, the System Operator shall also provide/notify the Market Operators regarding participants not complying with dispatch instructions or deviating from their dispatch schedule for the Trading Interval.	The RCC retained its previously agreed proposal.
4.3.~~4~~3. Contingency and Emergency Actions Actions taken by the System Operator in response to contingencies or emergencies that occur in the system	The RCC adopted the SNAP's proposal to specify the timeline relative to the proposal, and thus, agreed to revise the proposal accordingly.

[redacted]

RCC Proposed Amendment (As of September 10)	Discussions/Remarks
within the Trading Interval shall also be reported to the Market Operator. The System Operator shall furnish the Market Operator with the **Significant Incident Report** ~~**Disturbance Report**~~ **within one (1) hour upon occurrence of a significant event** which ~~**details**~~ **provides preliminary information on the nature and cause of the events.** ~~**cause and reasons for such actions**~~ **If the emergency is still in effect when the report is due, estimated time of resolution should also be included, if available.**.	
4.3.~~5~~4. Market Suspension and Intervention In the event of market suspension or intervention, Market Operator provides a detailed account of events which led to the suspension or intervention, including the actions taken towards the resumption of trading. The report shall also state if the price cap was administered by ERC for purposes of settlements. **This report shall be provided to the Market Participants, the Department of Energy, the Energy Regulatory Commission, and the PEM Board in ten (10) business days.**	The RCC agreed to revise the proposal to include provision of the report to the DOE, the ERC, and the PEM Board in 10 days from the declaration of market suspension or intervention. The report is likewise to be published in the WESM website.

- **Proposed Amendments to the WESM Manual on Dispatch Protocol in relation to Must-Run Units**

The RCC deliberated on the proposed provisions on the WESM Rules as previously agreed, with consideration to the comments received from various parties. Below are the discussions and agreements relative to the Proposal.

Proposed Revision	RCC Discussions/Agreement
3.13.14.3 **The *Market Operator* shall develop and implement, subject to approval by the ERC, the appropriate pricing and settlement methodology for compensation of trading participants whose generating units are designated as Must-Run Units, and the corresponding recovery mechanism for the same.**	
3.5.13 Over-riding Constraints 3.5.13.1 Subject to clause 3.5.13.3, the *System* ***oO****perator* may require the *Market Operator* to impose constraints on the power flow, ~~**demand**~~, energy generation of a specific facility in the Grid to address system security threat, to mitigate the effects of a system emergency, or to address the need to dispatch generating units to comply with	

Proposed Revision	RCC Discussions/Agreement
systems, regulatory and commercial tests requirements. The *System ~~o~~Operator* may also relax existing constraints or system requirements on power flows, **~~demand~~**, energy generation and reserves if the *Market Operator* is unable to produce a feasible dispatch schedule. The *System operator*, in consultation with the *Market Operator* and the *Trading Participants*, shall develop the criteria and procedures for dispatch of generating units that are required to run as a result of the imposition or relaxation of constraints stated in the preceding paragraph, and the manner for compensating said	
3.8.2 Responsibilities of the System Oeperator 3.8.2.1 During each *trading interval*, the *System **Oe**perator* shall use its reasonable endeavors to: (a) Implement the *dispatch* targets determined by the *Market Operator*, (b) Maintain *system security* consistent with the requirements of the *Grid Code;* (c) Implement *load shedding*, if necessary, as provided by clause 3.9; and (d) **Dispatch constrain-on or constrain-off generators or must-run units if all available frequency regulation and contingency reserves are exhausted during a *trading interval*. The *System Operator* may also dispatch generators as must-run units in specific grid areas which have become isolated from the rest of the grid and in which the *Market Operator* cannot determine the generator schedules.** **(e) In relation to (d) above, the *System Operator* shall incorporate to its Ancillary Service Procurement Plan *Must-Run Units* as an additional type of Ancillary Service. For this purpose, the criteria and procedures developed under 3.5.13 shall be revised accordingly.** **(f) (d)** Intervene, where necessary, as provided by clauses 6.3 and 6.5.	
3.8.2.2 After each *trading interval*, in accordance with the *timetable*, the *System **Oe**perator* shall advise the *Market Operator* of: (a) Situations in which it became necessary for dispatch instructions to deviate from the dispatch targets determined by the *Market Operator* during the *trading interval* **which may include the dispatch of the *constrain-on or constraint-off generators or Must-Run Units*** ; (b) *Load shedding* or other directions issued by the	

Proposed Revision	RCC Discussions/Agreement
System ***Oo****perator* during the *trading interval*; (c) Significant incidents in which *contingency reserve* was called upon during the *trading interval*; (d) *Network constraints* which affected *dispatch* during the *trading interval;* (e) Binding security constraints which affected dispatch during the trading interval; and (f) Operational irregularities arising during the trading interval including but not limited to any circumstances in which there was prima facie evidence of a failure to follow dispatch instructions. **The *System Operator* shall likewise provide a dispatch deviation report to the *Market Operator*, in accordance with the *timetable*, detailing among others the circumstances and dispatch levels of units that were constrained-on or constrained-off or put on must-run during a *trading interval.***	
3.8.6 Deviations from the Ramp Rate If *Trading Participants* in some part of the *power system* deviate in aggregate from the assumed *linear ramp rate* for any reason or as a result of any cause including the initiation of *load shedding* under clause 3.9.3, these deviations shall be dealt with by the *System* ***Oo****perator*, utilizing the *reserves*, or other *ancillary services* scheduled to deal with such circumstances, in accordance with clause 3.3. ***Trading Participants*** **are required to comply with linear ramping in any trading interval; otherwise, the *Market Operator* or the *System Operator* shall report the generator to the Market Surveillance Committee.**	
3.8.8 Sanctions of Trading Participants Any *Trading Participant* who consistently fails to use its reasonable endeavours to act in accordance with *dispatch* instructions issued under clause 3.8.3, or who breaches the *dispatch tolerance* standards *published* under clause 3.8.7.2, may be liable of a sanction imposed under clause 7.2. ***Trading Participants*** **that are not compliant to the dispatch schedule or linear ramping assumptions that have been identified by the System Operator to cause the constraining-off of other generating units shall compensate the Displaced Generator or Generators subject to the mechanism set forth in the Manual on the Management of Must-Run and Must Stop Units.**	
3.9.8 Management Procedures for Excess Generation	

[redacted]

Proposed Revision	RCC Discussions/Agreement
3.9.8.1 Should either the *dispatch optimization*, or any *market projection*, indicate *excess generation* at any *node*, the *Market Operator* shall advise the *System* ~~**O**~~**o***perator* that it may be necessary to require some *generating systems* to shut down.	
3.9.8.2 Where necessary to shut down *generating systems* under clause 3.9.8.1, the *System* ~~**O**~~**o***perator* and the *Market Operator* shall manage all aspects of *dispatch* and pricing in accordance with the procedures to be developed by the *System* ~~**O**~~**o***perator* and the *Market Operator*, in consultation with WESM Participants, and subject to approval by the *PEM Board*. **The procedures shall also take into account the occurrence of excess generation during a *trading interval* when the *System Operator* has exhausted its *Ancillary Services* to address the excess generation.**	
3.9.8.3 During a *trading interval*, if excess generation is imminent or is detected in the *power system* by the *System Operator* in accordance with the *Grid Code* and it is established that the excess generation is being caused by a *generating system* that is not following its dispatch schedule or observing a linear ramp rate, then the *generation company* representing the *generating system* in the market may be liable of a sanction imposed under clause 7.2. The *generation company* representing the *generating system* that is not following its *dispatch schedule* or observing linear ramp rate, however, shall compensate other *generation system* that has been constrained-off by the System Operator. Such conditions shall also be considered in the procedures to be developed under clause 3.9.8.2.	
6.2.1.2 *Intervention* is warranted when ~~**the**~~ **a** grid **or portion of the grid** is in extreme state condition emergency as established in the Grid Code arising from: (a) An emergency; (b) A threat to system security; or (c) An event of force majeure;	
6.7.2 Force majeure event Events of *force majeure shall include:* (1) Major network trouble that caused partial or system-wide blackout; (2) Market system hardware or software failure that makes it impossible to receive or process market offer/bid information or **produce market schedules due to erroneous real-time status input data or** dispatch the system in accordance with the *WESM*	

Proposed Revision	RCC Discussions/Agreement
Rules; and (3) Any other event, circumstance or occurrence in nature of, or similar in effect to any of the foregoing.	
Must-Run Unit (MRU) – a generating unit identified and instructed, on real time or scheduled basis, by the *System Operator (SO)* to either a) come on-line, or b) provide additional energy on a particular *Trading Interval* but the dispatch of which is said to be Out of Merit, to address *System Security* requirements. For clarity, MRU shall be utilized only after the *System Operator* has exhausted all available *Ancillary Services.* MRUs are classified as follows: a. **Scheduled MRU – MRU designated by the System Operator before the trading interval and included in the RTD schedule through the imposition of Security Limit as defined in the WESM Dispatch Protocol Manual.** b. **Real Time MRU – MRU designated by the System Operator within a trading interval**	
Must-Stop Unit (MSU) – a generating unit identified and instructed by the System Operator to reduce the provision of energy due to its non-compliance of the Dispatch Schedule to address or prevent possible threat to the System Security requirements of the Grid.	
Constrain-on. In respect of a *generating unit*, the output of that *generating unit* is ~~limited above the level to which it would otherwise have been dispatched by the *Market Operator* on the basis of its *energy offer*~~ **re-dispatched by the System Operator above its Real-Time Dispatch schedule in accordance with the WESM Merit Order Table.**	
Constrain-off. In respect of a generating unit the output of that *generating unit is* ~~limited below the level to which it would otherwise have been dispatched by the *Market Operator* on the basis of its *energy offer*~~ **re-dispatched by the System Operator below its Real-Time Dispatch schedule in accordance with the WESM Merit Order Table.**	
Displaced Generator- a generating unit identified and instructed by the SO in an out-of-merit dispatch to reduce the provision of energy specified in its RTD instruction exclusively caused by excess generation due to non-compliance of generators to dispatch	

Proposed Revision	RCC Discussions/Agreement
instructions and use of reactive support reserve.	
Out-of-Merit Dispatch- Dispatch instructions issued by the SO that is not in accordance with the WMOT to address System Security.	
WESM Merit Order Table (WMOT) – for purposes of dispatch protocol under the WESM, defined based on the Grid Code with an addition of unscheduled generating units arranged based on price offers; the WMOT is based on a single market.	

- **Proposed Amendments to the WESM Manual on System Security and Reliability Guidelines**

While the WESM Manual on System Security and Reliability Guidelines was previously mapped and identified as one of the affected Manuals by the Proposed Amendments to the Must-Run Units, the RCC agreed to no longer submit the same as part of the submission for the MRU. It was deemed by the RCC that the Proposed Amendments to the WESM Manual of System Security and Reliability Guidelines entail re-definition of terms which are no longer consistent with the definitions under the Philippine Grid Code. It was also noted that said proposal is not directly affected by the MRU proposal, and thus, may be submitted as a separate proposal later on after further review on the matter.

- **Proposed Amendments to the WESM Manual on Administered Price Determination Methodology**

The RCC deliberated on the proposed amendments to the WESM Manual on Administered Price Determination Methodology and gave due course on the comments received relative to the proposal. Below are the discussions and agreements relative to the Proposal.

RCC Proposal	RCC Discussions/Agreements (September 10, 2014)
3. BACKGROUND Under the WESM Rules, the administered price shall be used for settlement in cases where there is intervention in the market by the System Operator or where the market is suspended by the ERC (WESM Rule 6.2.3 and 6.8.3.1). The administered price applies when the Market Operator is not able to generate or determine the price for energy for **a grid or island grid for** any given trading interval that intervention or suspension is in effect.	The RCC noted that based on SNAP's comments, an islanded region pertains technically to either Luzon or Visayas, and that even a portion of either Luzon or Visayas can be islanded as well. It was also noted that there is no definition in the Manual or WESM Rules on the "portion of a grid." Thus, the RCC agreed to adopt SNAP's comment to refer to "an island grid" instead of "a portion of

RCC Proposal	RCC Discussions/Agreements (September 10, 2014)
	a grid," and to reflect the same in the relevant sections of the RCC proposal.
3.1 Conditions for Market Intervention Market intervention by the System Operator is permitted in clause 6.2.1.2 of the WESM Rules when ~~the~~ **a** grid **or island grid** is in extreme state condition arising from (a) an emergency (b) a threat to system security or (c) an event of force majeure.	See agreement on Section 3.
3.1 Conditions for Market Intervention xxx Force majeure event is defined in Section 6.7.1 of the WESM Rules as the occurrence in a trading interval of an event or events not within the reasonable control, directly or indirectly, of the Market Operator and the WESM member, to the extent that such event, despite the exercise of the reasonable diligence, cannot be or be caused to be prevented, or removed and has resulted in a reduction in the normal capacity of part or all of the power transmission system during the trading interval and such reduction is likely to materially affect the operation of the spot market or materially threaten system security. Included in the list of force majeure events enumerated in clause 6.7.2 of the WESM Rules are: a) major network trouble that caused partial or system-wide blackout, b) market system hardware or software failure that makes it impossible to receive or process market offer/bid information or **produce market schedules due to erroneous real-time status input data or** dispatch the system in accordance with the WESM Rules and c) any other event, circumstance or occurrence in nature of, or similar in effect to any of the foregoing.	See agreement on Section 3.
4.2.7 Application of Market Intervention During Grid Islanding	
4.2.7.1 Where market intervention is declared in an island grid ("grid islanding), the administered prices determined according to this Manual shall be applied only to the generators in the island grid where the intervention was declared. The resulting generator trading amounts will be allocated amongst the customers in that island grid.	See agreement on Section 3.

[redacted]

RCC Proposal	RCC Discussions/Agreements (September 10, 2014)
4.2.7.2 Where market intervention is declared in an island grid, and the generator in that island grid has a bilateral contract quantity with the customer in the part of the grid or region without market intervention, the administered prices determined according to this Manual shall be applied only to the suppliers Ex-Ante price while the Location Marginal Price (LMP) will be the basis for the Ex-Ante price of the customer.	See agreement on Section 3. It was clarified that Mr. Cacho that payment is done through the WESM even during Market Intervention or Suspension when Administered Price is applied. He noted that the proposal is different from the current practice where normal market settlement is applied during these instances. Given the proposed amendment, it will be the administered price that is to be applied to the Customer. He also stated that line rental will still be applied for generators that have bilateral contracts outside of the island grid. Noting the above, the RCC agreed to retain the previously agreed proposed provision, with minor revision replacing "portion of a grid" with "island grid."
4.2.7.3 Where market intervention is declared in an island grid, and the customer in that island grid has a bilateral contract quantity with the supplier in the part of the grid or region without market intervention, no line rental amount is computed since the allocated settlement amount is inclusive of line rental.	

- **Proposed Amendments to the WESM Manual on the Management of Procedure for Excess Generation**

The RCC deliberated on the proposed amendments to the WESM Manual on the Management of Procedure for Excess Generation. Below are the discussions and agreements relative to the Proposal.

RCC Proposed Amendment	Rationale

RCC Proposed Amendment	Rationale
Section 1.6 **The WESM Rules require that** ~~**As per WESM Rules (Section 3.9.8 and 10.4.16),**~~ the MO and SO, in consultation with *WESM Participants*, ~~**and subject to approval by the *PEM Board*, will each develop and *publish* the procedures which they plan to shall**~~ adopt **procedures regarding** ~~with respect to the~~ management of all aspects of *dispatch* and pricing should it be necessary to shut down *generating systems* in the event the *dispatch optimization*, or any *market projection*, indicate *excess generation* at any *node*. ~~**prior to the *spot market commencement date*.**~~	The RCC retained its previously agreed proposed amendment.
~~**2.3 "Must Run Units" – is required by the power system for reliability reasons regardless if there is excess generation or not. Generating units which are designated to run during excess generation consistent with the criteria developed by the MO and SO.**~~	The RCC retained its previously agreed proposed amendment.
2.1 Constrain-off. In respect of a generating unit the output of that *generating unit is* limited below the level to which it would otherwise have been dispatched by the *Market Operator* on the basis of its *energy offer*	The RCC revised the provision to be consistent with the definition proposed for the WESM Rules and MRU Manual, as previously discussed and agreed.
2.5 Must-Stop Unit (MSU) –a generating unit identified and instructed by the System Operator to reduce the provision of energy due to its non-compliance of the Dispatch Schedule to address or prevent possible threat to the System Security requirements of the Grid.	The RCC revised the provision to be consistent with the definition proposed for the WESM Rules and MRU Manual, as previously discussed and agreed.
2.6 ~~**2.5**~~ Over Riding Constraints – constraints imposed in the *Market Dispatch Optimization Model* by the *Market Operator*, ~~**at the recommendation of**~~ **in coordination with** the *System Operator*, with the intention of over-riding the effect of a *Trading Participant*'s offers or demand bids in accordance with ~~**WR**~~ **WESM Rules** clause 3.5.13.	The RCC retained its previously agreed proposed amendment.
5.1 The System Operator will: **5.1.2.** Coordinate with **the Market Operator** and provide necessary information which will be utilized in the ~~**calculation of the**~~ **hour-ahead** *Dispatch Schedule* to mitigate or arrest possible *excess generation* condition **as** ~~**encountered**~~ **indicated** in the **day-ahead** ~~**market**~~ projection**s schedule prepared by the Market**	The RCC retained its previously agreed proposed amendment.

[redacted]

RCC Proposed Amendment	Rationale
Operator.	
~~5.1.3. Elect reliability Must-Run Units based on the *Must-Run Criteria* approved by the PEM Board.~~ Coordinate with the Market Operator for the imposition of over-riding constraint limit for a certain generating unit/s that would be required not to be shutdown since it will be still needed during the peak period in case possible excess generation exists during off-peak period.	The RCC retained its previously agreed proposed amendment.
~~5.1.4 Issue excess generation alert to the Trading Participants and MO of the imminent threat to system security and reliability during real-time dispatch.~~	The RCC retained its previously agreed proposed amendment.
5.1.5 Implement Emergency Procedures and provide instructions to generating systems not elected as must-run to shut down, as maybe necessary, based on the System Security and Reliability Guidelines and ~~offer~~ WESM Merit Order Table (WMOT) provided by the Market Operator.	The RCC retained its previously agreed proposed amendment, with minor revisions on the reference to the WMOT.
5.2 The Market Operator will: xxx 5.2.4. Prepare offer based on WESM ~~M~~merit ~~O~~order Table and submit to the System Operator on an hourly basis ~~as basis for shutting down generators during off-peak condition.~~ This will be the reference of the System Operator issuance of dispatch instruction whenever the generating unit/s will be constrained-on or if necessary, the System Operator may opt to shutdown the generators during off-peak condition or whenever there is a loss of large loads that resulted in excess generation.	The RCC retained its previously agreed proposed amendment.
5.4. In case of excess generation, the Generators shall be responsible for executing the dispatch instructions from the System Operator when required to constrain-off (i.e. decrease the output to Pmin or from on-line to be shutdown) with due consideration to power quality, reliability and security of the grid.	The RCC retained its previously agreed proposed amendment.
6.1 Occurrence of Excess generation condition in the Day-Ahead Projection	The RCC retained its previously agreed proposed amendment.

RCC Proposed Amendment	Rationale
6.1.1. The M**arket** O**perator** ~~**will shall**~~ verify if there is any ~~**occurrence indication**~~ of ~~**any**~~ *excess generation* in the Day Ahead ~~**Dispatch**~~ Projections (from the ~~**12 noon**~~ **1200H** run and in the succeeding DAP run ~~**thereafter**~~) and ~~**will shall**~~ advise *Trading Participants through* ~~***S**ystem* **Messages***~~ **advisories** ~~**and**~~ **of expected excess generation based on the specified period and shall publish the M**market **R**reports ~~**published**~~ in the WESM website.	
6.1.2. Prior to the **4 PM 1600H** DAP run, the **Market Operator in coordination with the** ~~**the**~~ System Operator ~~**will assess the impact of the projected**~~ **shall agree on the generating unit/s to be retained in case of** excess generation ~~**condition and nominate Must Run Units (MRU) and provide the information to MO as over-riding constraints in the MDOM. The details Over-Riding Constraint will be recorded as provided in WR clause 3.5.13.4.**~~ **identified in the day ahead projection or on real-time condition. The inclusion of over-riding constraint limit as agreed by the Market Operator and the System Operator shall be imposed to ensure that the generating unit/s will be reflected in the dispatch schedule.**	The RCC retained its previously agreed proposed amendment.
6.1.3 The objectives of ~~**nominating MRU's the**~~ **imposition of over-riding constraint limit** in the dispatch scheduling process are as follows: 6.1.3.1 Assure that **S**system **Ss**ecurity is not compromised in the ~~**T**~~**t**rading **i**nterval with **Ee**xcess **Gg**eneration 6.1.3.2 Assure **Aa**dequacy of **Ss**upply in the succeeding ~~**T**~~**t**rading **i**ntervals.	The RCC retained its previously agreed proposed amendment.
6.1.4 Prior to the **4 PM 1600H** DAP run, the *Trading Participants* ~~**will**~~ **shall** consider the projected off-peak system condition and assess their market offers for the periods where imminent and *excess generation* conditions are indicated. **Likewise, the Generators, in coordination with the System Operator, may opt to conduct maintenance activities during the period where excess generation exists as identified by the Market Operator.**	The RCC retained its previously agreed proposed amendment.
6.1.6. The M**arket** O**perator** will confirm and inform the ~~**T P**~~ ***Trading Participants*** and **the** S**ystem** O**perator**, if *excess generation* is indicated in the ~~**4 PM 1600H**~~ DAP run.	The RCC retained its previously agreed proposed amendment.

[redacted]

RCC Proposed Amendment	Rationale
~~6.1.8. Prior to the 8 PM DAP run, the SO may adjust any nomination in the MRU based on their latest and projected system security and supply adequacy assessment of the power system.~~	The RCC retained its previously agreed proposed amendment.
~~6.1.9. The MO will verify in the 2000 hour (8 PM) DAP run if there are still indication of excess generation and continuously coordinate with the SO. The SO may also coordinate with generating plants on the following:~~ ~~6.1.9.1 Minimum stable loading and emergency minimum energy limits.~~ ~~6.1.9.2 Possibility of additional unit maintenance for the periods where there is possible occurrence of excess generation.~~	The RCC retained its previously agreed proposed amendment.
~~6.1.10. The MO will again verify if there are indications of excess generation in the 12 midnight run.~~ ~~6.1.11 MO will prepare an offer-based merit order based on the offers for the 12 midnight DAP run and transmit the information to the SO.~~	The RCC retained its previously agreed proposed amendment.
6.1.12. ~~The SO will finalize a scheduling strategy considering the merit order provided by the MO and taking into account the security of the power system and the supply adequacy for the next peak period.~~	The RCC retained its previously agreed proposed amendment.
~~6.1.13. Based on the scheduling strategy, the SO may ultimately remote- trip a generating plant to mitigate and prevent any over- frequency in the power system.~~	The RCC retained its previously agreed proposed amendment.
6.2 Real-Time Dispatch (with Excess Generation Intervals) **6.2.1.** If excess generation is encountered in the real-time dispatch, then the System Operator ~~will immediately implement its Emergency Procedures.~~shall issue Dispatch Instructions to generators to constrain-off their MW output based on the WESM Merit-Order Table provided by the Market Operator if the	The RCC retained its previously agreed proposed amendment.

RCC Proposed Amendment	Rationale
scheduled regulating reserve has been depleted (i.e. at Pmin) and the grid frequency breached the 60.3Hz. However, if over-frequency exists (i.e. grid frequency is greater than 60.6Hz), the following corrective actions, in the order of priority, shall be followed until the frequency returns to normal; a. "Constrain-off" generator/s with fast ramp rate. b. Effect shutdown of generator/s under test. c. Effect shutdown of generator/s with fast start capability. d. Require gas turbine generator/s at combined cycle to operate at simple cycle mode. e. Require coal fired thermal power plants to operate on oil support mode. f. Require generator/s to operate on house load.	
6.2.2. In such cases where the grid frequency breached the normal range due to excess generation as a result of loss of large load or over supply capacity in real time, the System Operator shall issue dispatch instructions to generators to constrain-off their output to mitigate the effect of the imbalance in supply and demand. However, if the generator/s failed to comply to the dispatch instructions issued by System Operator, the System Operator shall tag the generator as Must Stop Unit and shall report the non-conformance to dispatch instruction to Market Surveillance Committee, Grid Management Committee and the Department of Energy. The System Operator may ultimately remote- trip a certain generating unit tagged as Must Stop Unit if the high risk is at stake that would eventually affect the security and reliability of the grid.	The RCC retained its previously agreed proposed amendment.

Following the above discussion on the Proposed amendments relative to MRU, the RCC passed a Resolution approving the following Proposed Amendments relative to MRUs, and the endorsement of the same to the PEM Board.

- Proposed Amendments to WESM Rules relative to Must-Run Units;
- Proposed Amendments to the WESM Manual on the Management of Must-Run Units; and
- Proposed Amendments to the WESM Manual on Dispatch Protocol relative to MRUs

The RCC likewise approved the Proposed Amendments to the WESM Manuals on Administered Price Determination Methodology and the Management of Procedure for Excess Generation. The RCC passed separate resolutions for these two proposed amendments upon agreement that the same will be endorsed to the PEM Board as separate submissions, being affected Manuals of the Proposed Amendments on the MRUs.

The RCC finally agreed to recant its proposed amendments to the WESM Manual on System Security and Reliability Guidelines, noting that during deliberations on the same, the definition of terms as proposed are no longer consistent with the PGC definition, and thus further review of the same should be undertaken. It was agreed that the proposed amendments will later on be approved but not as part of the MRU submission anymore.

2. Proposed General Amendments to the WESM Manuals on Dispatch Protocol and Constraint Violation Coefficients

The RCC, having no further issues on the proposal, approved the Proposed General Amendments to the WESM Manuals on Dispatch Protocol and Constraint Violation Coefficients, and likewise agreed on the endorsement of said proposed amendments to the PEM Board.

IV. NEXT MEETING

The RCC agreed to meet on October 1 for its next Regular Meeting.

V. ADJOURNMENT

The meeting was adjourned around 4:30 PM.

Prepared By:	Reviewed By:	Noted By:
[redacted]		
Romellen C. Salazar	**Geraldine A. Rodriguez**	**Elaine D. Gonzales**
Analyst *– Market Governance Administration Unit* ***Market Assessment Group***	***Assistant Manager*** *– Market Governance Administration Unit* ***Market Assessment Group***	***Manager*** *– Market Data and Analysis Division* ***Market Assessment Group***

Approved by:
RULES CHANGE COMMITTEE
[redacted]
Rowena Cristina L. Guevara
Chairperson
Independent
University of the Philippines
(UP)

Members:	
[redacted] **Concepcion M. Tanglao** Independent	[redacted] **Francisco L.R. Castro, Jr.** Independent Tensaiken Consulting
[redacted] **Maila Lourdes G. de Castro** Independent	**Lorreto H. Rivera** Supply Sector TeaM (Philippines) Energy Corporation
[redacted] **Jose P. Santos** Distribution Sector (EC) Ilocos Norte Electric Cooperative, Inc. (INEC)	**Ciprinilo C. Meneses** Distribution Sector (PDU) Manila Electric Company (MERALCO)
Sulpicio C. Lagarde Jr. Distribution Sector (EC) Central Negros Electric Cooperative, Inc. (CENECO)	**Gilbert A. Pagobo** Distribution Sector Mactan Electric Company (MECO)
[redacted] **Jose Ferlino P. Raymundo** Generation Sector SMC Global	[redacted] **Joselyn D. Carabuena** Generation Sector Power Sector Assets and Liabilities Management Corporation (PSALM)
[redacted] **Ambrocio R. Rosales** Transmission Sector National Grid Corporation of the Philippines (NGCP)	[redacted] **Theo C. Sunico** Generation Sector 1590 Energy Corporation
[redacted] **Isidro E. Cacho, Jr.** Market Operator Philippine Electricity Market Corporation (PEMC)	