

<b>MINUTES OF RULES CHANGE COMMITTEE</b> <b>115<sup>th</sup> Regular Meeting (No. 2016-08)</b>	
<b>Meeting Date &amp; Time:</b>	01 June 2016, 9:00 AM to 5:16 PM
<b>Meeting Venue:</b>	19/F Conference Room, Robinsons Equitable Tower, Ortigas Center, Pasig City
Attendance List	
In-Attendance	Not In-Attendance
<b>Rules Change Committee</b>  <b>Principal Members:</b>  Francisco Leodegario R. Castro, Jr., - Independent Concepcion I. Tanglao – Independent Allan C. Nerves–Independent Joselyn D. Carabuena -- Generation (PSALM) Jose Ferlino P. Raymundo – Generation (SMC Global) Theo Cruz Sunico -- Generation (1590 EC) Ciprinilo C. Meneses – Distribution (MERALCO) Jose P. Santos –Distribution (INEC) Ludovico D. Lim – Distribution (ANTECO) Lorreto H. Rivera --Supply (TPEC) Ambrocio R. Rosales --System Operator (NGCP) Isidro E. Cacho, Jr. -- Market Operator (PEMC)  <b>Alternate Member:</b>  Juanito Tolentino – Distribution (MECO)	Maila Lourdes G. de Castro, Chairperson-- Independent Gilbert A. Pagobo – Distribution (MECO)
<b>PEMC – Market Assessment Group (MAG)</b>  Elaine D. Gonzales Geraldine A. Rodriguez Ma. Delia B. Arenos Karen A. Varquez Divine Gayle C. Cruz Aldjon Kenneth M. Yap	



**PEMC – Legal**

Atty. Caryl Miriam Lopez-Mateo

Atty. Sheryll M. Dy

**PEMC – Finance**

Mary Anne T. Santiago

Victoria S. Cariño

**PEMC – BSMD**

Renato B. Afurong

Richard Glenn C. Araullo

Yhardlee D. Centeno

**PEMC – CPC**

Julius Eleazar A. Bunyi

Clares Loren C. Jalocon

**PEMC – TOD**

Marcial Brummel J. Jimenez

**DOE Observer(s)**

Ferdinand B. Binondo

Lorelie Baguio-Moya

**Others:**

Emmanuel M. Sotomil – NGCP

- 1 There being a quorum, Mr. Francisco L.R. Castro, Jr., in the absence of Chairperson Atty. Maila  
2 Lourdes G. de Castro, commenced with the meeting at approximately 9:00 AM.  
3  
4 The RCC reviewed the proposed agenda and subsequently approved the same as presented.  
5  
6  
7 **I. Review of the Minutes of the Previous Meeting**  
8  
9 The RCC reviewed the draft minutes of the 113<sup>th</sup> and 114<sup>th</sup> Meetings held on 27 and 28 April  
10 2016, respectively, and approved the same as presented.  
11  
12

**II. Matters Arising from the Previous Meeting****2.1. Revised Proposed Amendments to the Dispatch Protocol Manual Issue 11.0 (Proposed Issue 12) on Dispatch Tolerance Standards and Co-generation Systems (from RCC)**

The RCC finalized its counter-proposal in line with the inclusion of the provisions on the dispatch tolerance standards and the co-generation facilities. The said proposal was commented on by the following: the Technical Committee, the Market Surveillance Committee, DOE, MERALCO and SNAP.

The RCC adopted some suggested clarificatory enhancements as well as the proposed revisions on the definition of maximum available capacity and a separate definition of technical constraint. As for the dispatch tolerance standards, the body agreed to adopt its original proposed levels, +1.5% or -3% of the dispatch target or +/-1MW, whichever is higher, despite SNAP's comment to retain the current levels, since this matter was already deliberated and agreed upon by the body during its 109<sup>th</sup> meeting on 03 February 2016.

The Proposed Amendments to the Dispatch Protocol Manual Issue 11.0 was approved, as revised, and shall be endorsed to the PEM Board. This proposed Issue 12 of the said Manual already integrates various proposed amendments from PEMC (on addressing audit findings and preferential dispatch), the Technical Committee (on market intervention) and the RCC (on dispatch tolerance standards and co-generation systems).

**Agreement/ Action Plans:**

The Secretariat shall finalize the subject proposal based on the agreements of the RCC, for endorsement to the PEM Board.

**2.2. PEMC's Proposed Amendments to the WESM Rules regarding Bilateral Contract Quantity (BCQ) Declaration and Line Rental Calculation (continuation of deliberations)****Agreement/ Action Plans:**

Deferred; to be discussed in the next scheduled meeting





**2.3. APC's Proposed Amendment to the WESM Rules and the Billing and Settlement Manual Issue 3.0**

Ms. Jocelyn Carabuena initiated the discussion on PSALM's comments and proposed revisions to Aboitiz Power Corporation's (APC) Proposed Amendment to the WESM Rules and the Billing and Settlement Manual Issue 3.0 related to the contents of the preliminary and final statements and issuance of documents upon payment. Ms. Carabuena explained that PSALM's proposal recommends that a computation be provided segregating the details of the sales and purchases of the WESM Member, and other relevant data for the pertinent billing period in the Final Statement for purposes of filing. This is so that the BIR can properly identify WESM revenues and expenses for VAT computation.

Mr. Cacho replied that in so far as the segregation of the details of the sales and purchases is concerned, the same is also already being done since the said segregation is already in its cover letter to its Final Statement.

Ms. Mary Anne T. Santiago from PEMC-Finance informed the RCC that PEMC has already submitted a new format of the billing statement/invoice to the BIR and is currently awaiting BIR's approval of the same.

Mr. Cacho also informed the RCC that to facilitate among other things, the billing processes, PEMC is developing the Account Management System (AMS) which shall hopefully be completed this December 2016.

In consideration of the above, the RCC agreed to hold in abeyance its decision on the matter pending the resolution of the BIR of PEMC's proposed invoice format.

<b>Agreement/ Action Plans:</b>
The RCC agreed to defer the endorsement of the subject proposal to the PEM Board pending the BIR's approval of PEMC's proposed invoice format.

**2.4. APC's Proposed Amendment to the WESM Rules and Manuals on Management of Must-Run and Must-Stop Units (MRU-MSU Manual) and Administered Price Determination Methodology (APDM Manual)**

Ms. Carabuena initiated the discussions on PSALM's proposed revisions to APC's proposed amendments to the WESM Rules and WESM Manuals on MRU-MSU and APDM regarding the disclosure of settlement information to affected WESM net sellers.



MRU-MSU Manual				
Original Provision	APC Proposal	PSALM Proposal	RCC Discussions/ Agreements (01 June 2016)	RCC-Approved (01 June 2016)
<p>Section 9.3.2</p> <p>A Trading Participant which has complied with dispatch instructions as MRU may be entitled to additional compensation.</p> <p>x x x</p> <p>The additional compensation will not be more than the aggregate of the above costs x x x</p> <p>The affected Trading Participant will submit to the Market Operator a claim for additional compensation with supporting documents justifying the requested additional compensation</p>	<p>Section 9.3.2</p> <p>A Trading Participant which has complied with dispatch instructions as MRU may be entitled to additional compensation. x x x</p> <p>The additional compensation will not be more than the aggregate of the above costs x x x</p> <p>The affected Trading Participant will submit to the Market Operator a claim for additional compensation with supporting documents justifying the requested additional compensation. <u>The claim for additional compensation shall be filed within two (2) billing periods from the time the affected Trading Participant complied with dispatch instructions as MRU. Any claims not filed within such period shall be deemed waived.</u></p>	<p>Section 9.3.2</p> <p>A Trading Participant which has complied with dispatch instructions as MRU may be entitled to additional compensation. x x x</p> <p>The additional compensation will not be more than the aggregate of the above costs x x x</p> <p>The affected Trading Participant will submit to the Market Operator a claim for additional compensation with supporting documents justifying the requested additional compensation. <u>The claim for additional compensation, together with supporting documents, shall be filed within two (2) billing periods from the time the affected Trading Participant complied with dispatch instructions as MRU. Any claims not filed within such period shall be deemed waived</u></p> <p>A checklist of supporting documents should be provided</p>	<p>On Section 9.3.2 of the MRU-MSU Manual presented in the table above, Ms. Carabuena reasoned that extending the timeline for submitting claims for additional compensation into six (6) billing periods from APC's proposed two (2) billing periods will give PSALM ample time to secure and validate from their IPPs and Operation and Maintenance Contractors the complete documents and technical data needed to support their claims. Also, PSALM's suggestion for PEMC to provide a checklist of documents would ensure the completeness of submission and efficiency of processing the settlement of claims. Lastly, Ms. Carabuena explained that PSALM is not amenable to the proviso to waive any claims if such is not filed within the proposed 6-month timeline because, being a government agency, the Commission on Audit may eventually question them if it finds that there are additional compensation not settled.</p>	<p>Section 9.3.2</p> <p>A Trading Participant which has complied with dispatch instructions as MRU may be entitled to additional compensation.</p> <p>x x x</p> <p>The additional compensation will not be more than the aggregate of the above costs x x x</p> <p>The affected Trading Participant will submit to the Market Operator a claim for additional compensation with supporting documents justifying the requested additional compensation. <u>The claim for additional compensation, together with supporting documents, shall be filed not later than one (1) year from the time the affected Trading Participant complied with dispatch instructions as MRU. Any claims not filed within such period shall be deemed waived.</u></p>



MRU-MSU Manual				
Original Provision	APC Proposal	PSALM Proposal	RCC Discussions/ Agreements (01 June 2016)	RCC-Approved (01 June 2016)
		by PEMC to ensure completeness of submitted documents.	<p>Mr. Cacho stated that the MO has no issues with PSALM's proposed timeline, but also expressed that the sooner the claims are filed, the better it is for PEMC and the Trading Participants. Currently, there is no timeline being imposed as there are still claims as far as two years ago that remain unsettled. Prescribing a timeline is therefore necessary. Answering Mr. Castro's question on how long the MO can process the claims, Mr. Cacho answered that PEMC can already reflect the additional compensation in the next billing period after a claim has been filed with complete justifying documents and data. As for the checklist of documents needed to support the claims, Mr. Cacho said that this will be coordinated with PEMC's Billing, Settlement and Metering Department.</p> <p>Agreeing with Mr. Cacho, Ms. Lorreto H. Rivera stated that from the supplier's perspective, the shorter the timeline is, the better it is for them since collecting</p>	<p><u>A checklist of supporting documents shall be provided by the Market Operator to ensure completeness of submitted documents.</u></p> <p>xxx</p>

MRU-MSU Manual				
Original Provision	APC Proposal	PSALM Proposal	RCC Discussions/ Agreements (01 June 2016)	RCC-Approved (01 June 2016)
			<p>payments would be easier. Suppliers only need thirty (30) days to switch customers. Collecting additional payments incurred from the past 6 months would be more difficult as customers may already have different suppliers by that time. Private generators are only given within a month to submit supporting data, so the 2-month period originally proposed by APC is doable.</p> <p>Mr. Ludovico Lim stated that from the DUs' point-of-view, the longer the timeline is, the higher is the possibility that pass-on charges to the consumers would be larger or would come in bulk if they receive additional charges from, say, the previous 6 months. Mr. Lim added that a shorter timeline for submitting additional compensation claims will be more reflective of the prevailing prices that should be paid by the consumers. In support to Mr. Lim's comments, Mr. Ciprinillo C. Meneses added that allowing a longer filing period tends to create a misalignment between the prevailing fuel costs and the price of</p>	

MRU-MSU Manual			
Original Provision	APC Proposal	PSALM Proposal	RCC Discussions/ Agreements (01 June 2016)
			<p>electricity paid by the consumers, which will make the public question the DUs' charges.</p> <p>Mr. Jose Ferlino Raymundo raised that a shorter period should not be problem for the generators since almost the same set of generators are being called as MRU every now and then, which means that the same generators already know the necessary documents for filing additional compensation. Ms. Carabuena, however, explained that there is a difference with the IPPs, since they are contracted. She added that it is not generally defined what the variable costs of these generators are.</p> <p>Ms Carabuena expressed that if TPs will be allowed to file their claims for additional compensation even without submitting complete supporting documents, then PSALM might be agreeable to a shorter filing period of two (2) months as APC suggested. However, this will defeat the purpose of the proposal, which is to facilitate fast and efficient</p>
			RCC-Approved (01 June 2016)



MRU-MSU Manual				
Original Provision	APC Proposal	PSALM Proposal	RCC Discussions/ Agreements (01 June 2016)	RCC-Approved (01 June 2016)
			<p>settlement of claims, since the MO would not be able to have basis in assessing whether a TP will be entitled for additional compensation or not. She added that this is why PSALM recommended a longer timeline for submitting complete supporting documents and data to lessen the back and forth exchanges between the MO and the TPs.</p> <p>On the other hand, Mr. Ambrocio R. Rosales raised that the MO may need to provide a set of criteria on the kinds of documents and data it needs to properly assess whether claims for additional compensation are valid or not. A set of standards agreed upon by both the MO and the TPs will shorten the time it takes for the latter to determine the documents and data that they are required to submit. However, Mr. Castro commented that there are no clear-cut data requirements since, as earlier explained by Ms. Carabuena, situations vary and generators may operate under unique circumstances, at least in the case of those under PSALM.</p>	

MRU-MSU Manual				
Original Provision	APC Proposal	PSALM Proposal	RCC Discussions/ Agreements (01 June 2016)	RCC-Approved (01 June 2016)
			<p>Mr. Cachó also added that the requirements for claims are set by the pertinent ERC guidelines which specify that only variable and fuel costs can be recovered.</p> <p>Mr. Castro and Ms. Concepcion I. Tanglao then stated that if a prescriptive timeline is implemented, then there should also be a provision expressing that additional compensation shall be waived if a Trading Participant cannot submit its claims within said period. Otherwise, the implementation of a timeline will be meaningless and the provision will not be enforceable. With the exception of Ms. Carabuena, the reason for which she explained earlier, the body agreed that there must be a waiver that will serve as a kind of penalty for generators that would miss the deadline. However, Ms. Carabuena stated that if a TP is not able to submit within the timeline, then it will be considered as non-compliant with the WESM Rules and applicable Market Manual and shall be penalized for it. Hence, waiving the additional</p>	



MRU-MSU Manual				
Original Provision	APC Proposal	PSALM Proposal	RCC Discussions/ Agreements (01 June 2016)	RCC-Approved (01 June 2016)
			<p>compensation will already be too drastic. To this, Mr. Raymundo responded that penalties are usually imposed for non-compliances in the "must-offer rule" and Real-Time Dispatch schedules and not for violations of this nature. Therefore, adding a waiver is just appropriate.</p> <p>Mr. Castro then asked the body if retaining the original provision, which does not prescribe any timeline, should still be on the table. Mr. Raymundo and Ms. Rivera objected stating that a timeline would increase the efficiency in the market.</p> <p>With due consideration to the concerns of PSALM that prescribing a timeline of 6 months with a waiver would be too restrictive for its situation, the RCC agreed to extend the timeline to one (1) year but with a waiver, as suggested by Mr. Rosales.</p>	
	<u>The Market Operator shall have fourteen (14) calendar days from receipt of the</u>		<p>The RCC continued to discuss the rest of Section 9.3.2 of the MRU-MSU Manual as proposed by APC,</p>	Specific wording to be coordinated and drafted with PEMC-Finance.



MRU-MSU Manual				
Original Provision	APC Proposal	PSALM Proposal	RCC Discussions/ Agreements (01 June 2016)	RCC-Approved (01 June 2016)
	<p>complete supporting documents after filing of the claim for Additional Compensation to decide on the validity thereof, provided that if the 14<sup>th</sup> day falls on a Saturday, Sunday or any legal non-working holiday, the said deadline is moved to the next applicable calendar day. Any claim not decided within fourteen (14) calendar days shall be deemed approved and shall be allocated and billed by the Market Operator to the Customers in the immediately succeeding billing period. Claims approved shall be allocated and billed by the Market Operator to the Customers in the immediately succeeding billing period provided that the approval of the claim is made before the issuance of the Final Statement. Otherwise, the claim shall be billed to the Customers in the next succeeding billing period.</p>		<p>specifically regarding the timeline that should be given to PEMC to act on a claim given the supporting documents. Mr. Cacho explained that provided that the submission of complete documents is made five (5) days before the issuance of the Final Statement, the same can already be included in that statement. Otherwise, the additional compensation can be reflected in the next settlement period. For the specific wording on this portion, the RCC Secretariat was asked to coordinate with PEMC on the same, together with the non-exhaustive list of required documents to be provided by PEMC to Trading Participants.</p>	



MRU-MSU Manual				
Original Provision	APC Proposal	PSALM Proposal	RCC Discussions/ Agreements (01 June 2016)	RCC-Approved (01 June 2016)
<p>Section 9.4</p> <p>Allocation of MRU Settlement Amounts to Customer</p> <p>The amount to be allocated to each Customer will be the Total Settlement Amounts in each grid, either Luzon or all MRUs, including the amount paid as additional compensation, pro-rated to the Customers either with Luzon grid or Visayas grid based on their metered quantities.</p>	<p>Section 9.4</p> <p>Allocation of MRU Settlement Amounts and <b>Additional Compensation</b> to Customer</p> <p>The amount to be allocated to each Customer will be the Total Settlement Amounts in each grid, either Luzon or Visayas for all MRUs, including the amount paid as additional compensation, pro-rated to the Customers either with Luzon grid or Visayas grid based on their metered quantities.</p> <p><b>For the months of September to December, the Market Operator shall provide the Customers a notice with the estimated amount of additional compensation within one (1) billing period after a generation unit is required to run. Provided, that for the month of December, it is sufficient that the Market Operator's notice include only the estimated amount of additional compensation as of every particular year end.</b></p>	<p>None</p>	<p>Mr. Cacho explained that the MO disagrees with APC's proposal for PEMC to provide an estimated amount of additional compensation within one (1) billing period after a generation unit is required to run, because PEMC cannot forecast the prices or costs to be attributed as additional compensation.</p> <p>The RCC agreed therefore to retain the original provision.</p>	<p>Section 9.4</p> <p>Allocation of MRU Settlement Amounts to Customer</p> <p>The amount to be allocated to each Customer will be the Total Settlement Amounts in each grid, either Luzon or Visayas for all MRUs, including the amount paid as additional compensation, pro-rated to the Customers either with Luzon grid or Visayas grid based on their metered quantities.</p>

*See*

75 The deliberations on the APDM Manual are summarized in the table below:

APDM Manual				
Original Provision	APC Proposal	PSALM Proposal	RCC Discussion/ Agreements (01 Jun 2016)	RCC-Approved (01 June 2016)
Section 4.2.3.3  The affected Trading Participant will submit to the Market Operator a claim for additional compensation with supporting documents justifying the requested additional compensation. The claim should be made not later than two weeks from the resumption of market operation.	Section 4.2.3.3  The affected Trading Participant will submit to the Market Operator a claim for additional compensation with supporting documents justifying the requested additional compensation. The claim should be made not later than two weeks from the resumption of market operation. <u>Claims not filed within such period shall be deemed waived.</u>	<i>Propose to retain the original provision</i>	Mr. Raymundo suggested to revise APC's proposal to reflect that TP's claims for additional compensation should be filed not later than two (2) weeks from the end of the billing period, rather than after market operations have resumed. This is because the required data could not be available within that time. The RCC agreed and revised the provision to read:  <i>The affected Trading Participant will submit to the Market Operator a claim for additional compensation with supporting documents justifying the requested additional compensation. The claim should be made not later than two—weeks from—the resumption of market operation—fourteen (14) working days from the end of the billing period. Claims not filed within such period shall be deemed waived.</i>	Section 4.2.3.3  The affected Trading Participant will submit to the Market Operator a claim for additional compensation with supporting documents justifying the requested additional compensation. The claim should be made not later than <b>fourteen (14) working days from the end of the billing period. Claims not filed within such period shall be deemed waived.</b>
4.2.3.4 Compensation  Additional	4.2.3.4 Compensation  Additional	None	Mr. Cacho stated that the MO has no problem with the proposed timeline. Mr. Mary Anne T.	4.2.3.4 Additional Compensation  The Market Operator will inform



APDM Manual				
Original Provision	APC Proposal	PSALM Proposal	RCC Discussion/ Agreements (01 Jun 2016)	RCC-Approved (01 June 2016)
The Market Operator will inform the requesting Trading Participant of the approval or disapproval of the claim within two (2) weeks from receipt of the complete documents from the Trading Participant.	The Market Operator will inform the requesting Trading Participant of the approval or disapproval of the claim within two (2) weeks from receipt of the complete documents from the Trading Participant. <u>Any claim not decided within two (2) weeks shall be deemed approved and shall be allocated and billed in the immediately succeeding billing period.</u>		<p>Santiago also clarified that the two-week period will not commence if the TP has yet to submit complete documents. Mr. Cacho also agreed for PEMC to provide a non-exhaustive list of supporting documents as guide for TPs in their submission.</p> <p>The RCC agreed to adopt the proposal, as revised:</p> <p><i>The Market Operator will inform the requesting Trading Participant of the approval or disapproval of the claim within <del>two (2) weeks</del> <u>14 working days</u> from receipt of the complete documents from the Trading Participant. <u>Any claim not decided within two (2) weeks 14 working days shall be deemed approved and shall be allocated and billed in the immediately succeeding billing period.</u></i></p>	the requesting Trading Participant of the approval or disapproval of the claim within <u>fourteen (14) working days</u> from receipt of the complete documents from the Trading Participant. <u>Any claim not decided within fourteen (14) working days shall be deemed approved and shall be allocated and billed in the immediately succeeding billing period.</u>
Section 4.2.3.6 If the Market Operator determines that the additional compensation is warranted, it will allocate the same among Customers in proportion to their transactions based on metered quantities for the	Section 4.2.3.6 If the Market Operator determines that the additional compensation is warranted, it will allocate the same among Customers in proportion to the volume of their transactions based on	None	The proposal of APC requiring PEMC to provide customers with a notice with the estimated amount of additional amount of additional compensation claimed by the affected Trading Participant for dispatch instructions complied with for the month of December, was	Section 4.2.3.6 If the Market Operator determines that the additional compensation is warranted, it will allocate the same among Customers in proportion to the volume of their transactions based on metered quantities for the relevant trading interval. The



APDM Manual			
Original Provision	APC Proposal	PSALM Proposal	RCC Discussion/ Agreements (01 Jun 2016)
relevant trading interval. The additional compensation will be collected and paid following the usual billing and settlements procedure.	metered quantities for the relevant trading interval. The additional compensation will be collected and paid following the usual billing and settlements procedure. <u>For dispatch instructions complied with for the month of December, the Market Operator shall provide the Customers a notice with the estimated amount of additional compensation claimed by the affected Trading Participant as of every year end.</u>		RCC-Approved (01 June 2016) additional compensation will be collected and paid following the usual billing and settlements procedure.

**Agreement/ Action Plans:**

- The RCC adopted a one-year period within which generators will be allowed to file their claims for additional compensation if tapped to run as an MRU. Claims not filed within said period will be deemed waived.
- The RCC adopted a 14-working day period from the end of the billing month within which generators may file their claims for additional compensation if a generator is tapped to run during market suspension/intervention. Claims not filed within said period will be deemed waived.
- The RCC adopted a 14-working day period within which the Market Operator shall decide on the validity of claims for additional compensation if a generator is tapped to run during market suspension/intervention, provided that it has submitted complete documents.
- The RCC approved the Proposed Amendments to the MRU-MSU Manual and APDM Manual, as revised, for finalization of the Secretariat.



**2.5. PEMC's Proposed Amendments to various Manuals regarding Preferential Dispatch:**

The RCC commenced with its discussion of PEMC's proposed amendments to the various WESM Market Manuals on preferential dispatch and gave due course to the comments received from the following: DOE, MERALCO, Technical Committee and APC.

Mr. Clares Loren Jalocon facilitated the discussion on the proposed amendments to the WESM Market Manuals in line with the amendments promulgated in the WESM Rules. He also discussed the responses from PEMC to the comments received from involved entities. During the discussion, Mr. Castro inquired if there will be substantial changes on the provisions from PEMC's responses. Mr. Jalocon answered that revisions made as agreed to by PEMC were just for clarity.

Detailed discussions on the proposed amendments to the various manuals are found in Annex A of this minutes.

**2.6. DUs' Proposed Amendment to the WESM Metering Manual regarding SSLA**

The RCC commenced with its discussion of the DUs' proposed amendment to the WESM Metering Manual regarding the SSLA relative to the comments received from DOE, PEMC, APC, MERALCO, PhilRECA and SNAP.

Mr. Lim initiated the discussion on the Distribution Utilities' proposal to amend the WESM Metering Manual in line with the Site-Specific Loss Adjustments. Mr. Lim explained that this proposal is intended mainly for the DUs whose metering point is far from the market trading node (MTN) which results to approximately a 3-5% site specific loss, which a DU cannot recover if the DU is already within its systems loss cap. Moreover since the said loss is not part of the distribution systems loss, the DU is left with an unrecoverable generation charge, mostly attributable to the SSLA. Since the assets connecting the MTN to the Customer's metering point are not owned by the DU, said DU cannot remedy the site-specific losses. Mr. Renato Afurong and Mr. Cacho explained that the DUs' recommendation would entail inefficiencies and distortions to the settlement in the market since it would entail adjusting three market values (i.e., ex-ante price, ex-post price and ex-ante quantity) instead of the current computation where only the metered quantity is adjusted. A typical Customer MTN has more than one metering point mapped to it. The number of metering points mapped to an MTN means three times the number of adjusted market values. Additional steps in computation will also be necessary to ensure that the EAP, EPP and EAQ will be accurately reflected in the metering point. Moreover, modifying the formula would require the approval of the ERC.



The DOE agreed with PEMC-MO's comment as the current calculation is more transparent in accounting for SSLA. Mr. Ferdinand B. Binondo stated that the long-term solution to address this issue is to have the MTN and the customers' metering point be co-located.

Recognizing the DUs' concerns, Mr. Afurong stated that PEMC can just provide a certification on the DU's raw meter data and adjusted meter data, upon request of the DU. In response, Mr. Lim agreed to the issuance by PEMC of such a certification and also said that such data should already be included in the power bill so that the DUs can use the same to justify their filing of over/under recovery to the ERC. He mentioned that in the current power bill, only the node quantity is indicated, which is used by the DUs in arriving at their Average Generation Rate (AGR). With the raw meter data already specified, the SSLA could then be properly accounted in their AGR.

In view of the comments received and the discussion on the matter, the RCC disapproved the DUs' proposal. To address the concerns of the DUs, Mr. Afurong agreed to provide the DUs concerned a certification on their raw meter data and adjusted meter data and will coordinate with the Settlements unit if such data can be included in the power bill. The RCC tasked Mr. Lim, as DU representative, to echo the agreements reached in the meeting with the concerned distribution utilities.

<b>Agreement/ Action Plans:</b>
a) PEMC-MO agreed to issue certification of a DU's raw meter data and adjusted meter data, upon request of the concerned DU. b) With the agreement between PEMC and the DU representatives, the RCC disapproved the DUs' proposal.



## **2.7. PEMC's Proposed Amendments to the WESM Manual on Management of Net Settlement Surplus**

<b>Agreement/ Action Plans:</b>
Deferred; to be discussed in the next scheduled meeting

## **2.8. PEMC's Proposed Amendments to the WESM Metering Manual regarding MSP Performance**

Mr. Afurong led the discussion on PEMC's Proposed Amendments to the WESM Metering Manual in relation to Metering Service Provider (MSP) Performance rating, with consolidated comments received from the Technical Committee (TC) and MERALCO. In relation to





139 MERALCO's comments, Mr. Afurong expressed his agreement to some of MERALCO's  
140 comments but stated that, since the proposal of MERALCO relates mostly to the Retail MSPs,  
141 MERALCO should submit its proposed changes to the Retail Metering Manual which also  
142 includes Retail MSP performance rating. With respect to the TC's comments on the said  
143 proposal, Mr. Afurong agreed on all proposed revisions of the TC except for its proposed  
144 deletion of the formula for the computation of a score related to the submission of approved  
145 documentations for energized metering installations (MI) over the total new MIs for the month.  
146 The TC deems that the submission of said documents should be an all or nothing requirement.  
147 Mr. Afurong stated that this new criteria about new metering installation compliances, which  
148 requires MSPs to register the metering facility and submit the required documents for new  
149 MIs for the month, rates the compliance per MI energized and he deems that it would be unfair  
150 to the MSP to rate it at zero when it is unable to submit even one requirement for an MI  
151 energized.

152 Mr. Rosales, together with Mr. Emmanuel M. Sotomil from the Metering Services Department  
153 of the NGCP-SO, asked the RCC's permission to defer the final deliberation of the said  
154 amendments to the next scheduled meeting in order for NGCP to finalize and formally submit  
155 NGCP's comments and suggestions on the proposed amendments. However, Mr. Sotomil  
156 stated, as NGCP-SO's general comment to the proposal, that certain new criteria for rating  
157 MSP performance might be unfair to the MSP since it is actually the Trading Participants who  
158 are responsible for registering meters in the market according to the WESM Rules. Also, the  
159 provision of metering services requires the coordination of TPs with the MSPs. Mr. Sotomil  
160 raised that certain proposed criteria impose responsibility to the MSPs that might not be  
161 entirely appropriate since certain responsibilities are dependent on the coordination or  
162 engagement of the TPs. Mr. Sotomil stated that some criteria might need to be re-visited or  
163 modified, the details for which will be included in the formal submission of their comments.

164 Considering that NGCP-SO is the largest MSP, the RCC gave the NGCP two weeks to finalize  
165 and submit their comments. Final deliberations on the subject proposal was deferred for the  
166 next scheduled RCC meeting.

**Agreement/ Action Plans:**

- a) The RCC gave NGCP-SO two weeks to formally submit its comments to the subject proposal.
- b) Deliberation on the proposal was deferred for the next RCC meeting.



**III. New Business****3.1. Technical Committee's Proposed Amendments to the Guidelines Governing the Composition of PEM Committees**

The Secretariat informed the RCC that the Technical Committee (TC) proposes to revise its method for arriving at decisions from majority voting into consensus approval. As Ms. Rodriguez explained, the members of the TC believes that majority voting is not applicable to them since they should have the same understanding on matters of technical nature. She added that though other governance committees also deliberate on technical issues, it is only expected for their members to have disagreements in their roles as either independent members or sector representatives.

Aside from the above, the TC also recommended enhancements to some provisions of the manual.

There being no objection from the body, the proposal was approved for posting to seek comments from interested market participants.

**Agreement/ Action Plans:**

The RCC approved the proposal, as presented, for posting in the market website to solicit comments from market participants.

**3.2. Proposed Amendments to the following related to WESM Design Enhancements:**

- a) Price Determination Methodology**
- b) WESM Manual on Constraint Violation Coefficient**

Mr. Marcial Brummel J. Jimenez and Mr. Julius Eleazar A. Bunyi from the WESM Design Study-Technical Working Group (WDS-TWG) presented the details of the PEMC's proposal related to the implementation of WESM design enhancements and operations. It aims to merge several market manuals into two (2) market manuals: the proposed Price Determination Methodology (PDM) Manual and the Constraint Violation Coefficient (CVC) manual.

The proposed PDM aims to consolidate pricing and settlement provisions and equations into one manual which will supersede and deem obsolete relevant manuals, namely:

- (a) Procedure for Determining Ex-Post Nodal Energy Prices (EPNEP), Issue 2
- (b) Methodology for Determining Pricing Errors and Price Substitution Due to Congestion for Energy Transactions in the WESM (PSM), Issue 4



- (c) Administered Price Determination Methodology (APDM), Issue 5  
(d) Segregation of Line Rental Trading Amounts (SLRTA), Issue 1  
(e) Net Settlement Surplus (NSS), Issue 2  
(f) Management of Must-run and Must-stop Units (MRU), Issue 6

On the other hand, the amendments to the CVC Manual aim to consolidate provisions on CVC and market pricing re-runs.

The following is a summary of the proposed changes with the corresponding affected manuals and rationales:

Current Design/ Rules/ Implementation	Proposed Changes	Affected Manuals	Rationale
Current title of Market Manual: Constraint Violation Coefficients	Proposed new title of Market Manual: Constraint Violation Coefficients and Pricing Re-Runs	CVC	To include the processes for automatic pricing re-runs and manual pricing re-runs
Provides values and priorities of CVCs	Provides changes in the values and priorities of CVCs.	CVC	Considers the modelling of DU networks in the MNM and the imminent implementation of the WESM Reserve Market
Constraint violations result to pricing errors; manual market re-runs	Automatic management of constraint violations and market re-runs.  Shortage pricing at the offer price cap for under-generation and excess pricing at the offer price floor for over-generation.	PDM, CVC, PEN-MRR	To produce prices in real-time based on relaxation of constraints with non-zero violation variables, reducing the high frequency of pricing errors
Manual market re-runs  PEN-MRR process is provided under the PEN-MRR Manual.	PENs and manual re-runs are only for instances of bad input-data.  Provisions for manual pricing re-runs are provided under the CVC Manual, as revised.  Abolition of the PEN-MRR Manual.	PDM, CVC, PEN-MRR	Expedite determination of prices during pricing errors  Consolidate rules for pricing re-runs in one Market Manual



Current Design/ Rules/ Implementation	Proposed Changes	Affected Manuals	Rationale
Generation energy AP is computed based on ex-post price and metered quantity.	Generation energy AP is computed based on nodal energy dispatch prices and schedules. Added formula for determining AP when node is newly modelled based on GWAP of other generators. Also includes AP for reserves based on the schedule weighted average of the reserve prices for each reserve category of the 4 most recent similar trading day and similar dispatch intervals that have not been administered.	APDM	Timely provision of administered prices.  Formula for new nodes is in compliance with the ERC's direction during the APDM hearing
Customer settlement amounts are based on the allocation of total generation payments for intervals under market suspension or intervention.	Customer energy AP is computed based on nodal energy dispatch prices and schedules.	APDM	Same as above.
Determination of import and export amounts use EPP and MQ Determination of adjustment to non-administered region use EPP and MQ	Use GWAP of non-administered region (instead of EPP) and snapshot of HVDC flow (instead of MQ)	APDM	Generalize reference price in non-administered region
MRUs are paid based on the Generation Price Index (GPI) and, subject to approval, are able to claim additional compensation.	MRUs, including constrained-on generators, are price-takers and, subject to approval, are able to claim additional compensation.	MRU	To ensure that units are compensated for providing energy to ensure system security and reliability.
MRU quantity is based on total metered quantity of that generating unit minus the higher between the Ex-ante Quantity and the bilateral contract quantity (BCQ) declared for that unit	MRU quantity is based on total metered quantity of that generating unit minus the BCQ declared for that unit	MRU	Consistent with the reduction of dispatch intervals to 5-minutes.
Calculation of settlement amount every hour (trading	Calculation of settlement amount every hour (settlement interval) based on the weighted-MW (RTD)	PDM	Consistent with the ex-ante only pricing.



Current Design/ Rules/ Implementation	Proposed Changes	Affected Manuals	Rationale
interval) based on ex-ante and ex-post prices.	average of the 5-minute nodal dispatch prices.		
Settlements include line rental amounts for bilateral contract quantities	Formulas do not include calculation of line rental	PDM	To reflect the actual cost of electricity purchased and sold in the WESM by netting out the equivalent settlement amount of bilateral contracts based on the agreed reference market price from the gross settlement amount of each trading participant.
Formula for determining total trading and settlement amounts are implied in the PDM and documented in internal business procedures.	Added formula in Market Manual for determining total trading and settlement amounts (concept not changed)	PDM	For transparency and clarity
Allocation does not consider contract declarations.	Allocation considers contract declarations and is referenced to the minimum loss and congestion payments	NSS	To shift the allocation of NSS to trading participants that paid more due to congestion.

211 There being no objection from the RCC, the same was approved for posting to solicit  
212 comments from WESM participants. For the body to have a better appreciation of the  
213 proposed amendments to the PDM, the WDS-TWG was requested to present a sample  
214 settlement calculation in the next RCC meeting in July 2016.

**Agreement/ Action Plans:**


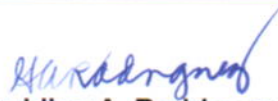

- a) The RCC approved the proposal, as presented, for posting in the market website to solicit comments from market participants.
- b) The proponents shall present a sample settlement calculation in relation to the proposed amendments to the Price Determination Methodology in the next RCC meeting in July 2016.

**IV. Next Meeting**

The next RCC meeting was set on **06 July 2016 at 9:00 AM.**

**V. Adjournment**

There being no other matter to be discussed, the meeting was adjourned at 5:16 PM.

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







Approved by:  
RULES CHANGE COMMITTEE

**Maila Lourdes G. de Castro**  
Chairperson  
Independent

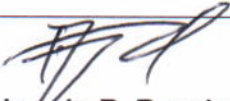
Members:

  
**Concepcion I. Tanglao**  
Independent

  
**Francisco L.R. Castro, Jr.**  
Independent

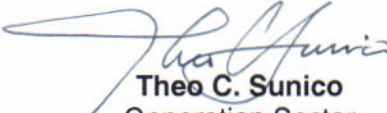
  
**Allan C. Nerves**  
Independent

**Isidro E. Cacho, Jr.**  
Market Operator  
Philippine Electricity Market Corporation  
(PEMC)

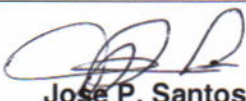
  
**Ambrosio R. Rosales**  
Transmission Sector  
National Grid Corporation of the Philippines  
(NGCP)


**Joselyn D. Carabuena**  
Generation Sector  
Power Sector Assets and Liabilities Management  
Corporation (PSALM)

**Jose Ferlino P. Raymundo**  
Generation Sector  
SMC Global

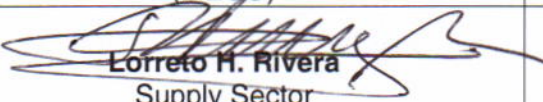
  
**Theo C. Sunico**  
Generation Sector  
Vivant Corporation

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

  
**Jose P. Santos**  
Distribution Sector (EC)  
Ilocos Norte Electric Cooperative, Inc.  
(INEC)

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

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

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

### Proposed Amendments to the WESM Market Manuals on Preferential Dispatch

#### I. Billing and Settlement Manual Issue 4.0

Title	Section	Provision	Proposed Amendment	Rationale	DOE	MERALCO	RCC Discussion/ Agreements (01 June 2016)
Definitions	2.1		<b><u>Re-number 2.1.12-2.1.32 to 2.1.13-2.1.33</u></b>	Maintain alphabetical ordering of defined terms.	<i>Acceptable</i>		
Definitions	2.1.12	(Inserted)	<b><u>2.1.12 FIT All Administrator. The National Transmission Corporation as administrator of the FIT-All Fund, as designated in Resolution No. 16, Series of 2012, amending the FIT Rules.</u></b>	Define the FIT-All administrator, which would be referred to in proposed provisions	<i>Acceptable</i>	<p>2.1.12 FIT All Administrator. The National Transmission Corporation as administrator of the FIT-All Fund, as designated in Resolution No. <b>165</b>, Series of 2012, amending the FIT Rules.</p> <p><i>It is provided in the aforequoted that the ERC Resolution that mentioned the designation of the FIT All Administrator is Resolution No. 16, Series of 2012. Notably however, Resolution No. 16, Series of 2012 pertains to the “Transitory Rules for the Implementation of Open Access and Retail Competition”. It is ERC Resolution No. 15, Series of 2012 that pertains to the amendment of the FIT Rules. Thus, to avoid confusion on the basis of the designation of</i></p>	RCC adopted MERALCO’s comment to reference the correct ERC Resolution.

*For clarity, comments and rationales are written in italicized format.*



Title	Section	Provision	Proposed Amendment	Rationale	DOE	MERALCO	RCC Discussion/ Agreements (01 June 2016)
						<i>the FIT All Administrator, the reference Resolution should be revised.</i>  <i>To correct the referencing for the designation of FIT All Administrator.</i>	
Responsibilities – Market Operator	3.1.1		<b><u>Re-number 3.1.1(b)-(f) to 3.1.1(c)-(g)</u></b>	Maintain order of responsibilities with the proposed provision	<i>Acceptable</i>		
Responsibilities – Market Operator	3.1.1(b)	(Inserted)	<b><u>3.1.1(b) Provision of copies of the final and revised statements and supporting data of generation companies with FIT-eligible generating units to the FIT All Administrator;</u></b>	Establish the basis for issuing settlement statements of FIT-eligible generating units to the FIT All Administrator  Comment: Suggest changing the term “issuance” to “provision of copies” to clarify that FIT-All Administrator is not required to act upon the settlement statements but to use it as basis of disbursement of amount due to FIT-eligible generating units.	<i>Acceptable</i>		
Procedures – Issuance of Final Statements	4.2.2(c) (new)	(Blank)	<b><u>No later than eighteen (18) days after the end of each billing period, the Market Operator shall provide the FIT All Administrator with the final statements and supporting data of generation companies with FIT Eligible Generating Units<sup>7</sup>.</u></b>	Provide the timeline for the issuance of settlement statement to the FIT-All Administrator	<i>Acceptable, but the footnote seems unnecessary.</i>		For clarity and in consideration of the DOE’s comments, the RCC agreed to integrate the footnote in the proposed provision itself.

*For clarity, comments and rationales are written in italicized format.*

Title	Section	Provision	Proposed Amendment	Rationale	DOE	MERALCO	RCC Discussion/ Agreements (01 June 2016)
			<sup>7</sup> <b>WESM Rules Clause 5.3.2 (k)</b>				
Procedures – Payment by Trading Participant	5.3.1(a)	Each WESM Member shall pay to the Market Operator in cleared funds, the settlement amount (if any) stated to be payable to the Market Operator by that WESM member in that WESM member's final statement no later than 3.00 pm on the twenty-fifth day of the calendar month following the billing period, whether or not the WESM member disputes, or continues to dispute, the amount payable.  If the twenty-fifth (25th) day of the calendar month following the billing period falls on a Non-Working Day, the payment due date shall be moved to the next immediate Working Day .	<b>Subject to Section 5.3.4</b> , each WESM Member shall pay to the Market Operator in cleared funds, the settlement amount (if any) stated to be payable to the Market Operator by that WESM member in that WESM member's final statement no later than 3.00 pm on the twenty-fifth day of the calendar month following the billing period, whether or not the WESM member disputes, or continues to dispute, the amount payable.  If the twenty-fifth (25th) day of the calendar month following the billing period falls on a Non-Working Day, the payment due date shall be moved to the next immediate Working Day .	Indicate that there are separate procedures for FIT-eligible generating units, which would be provided in Section 5.3.1(e)	<i>Acceptable</i>	<i>The aforequoted set of Rationale pointed out particular Sections in the Billing and Settlement Manual Issue 4.0, but said Sections were not stated in said issue of said Manual. In this regard we would like to be clarified if said Sections would be developed and be included in the proposed amendment of this Manual.</i>	The RCC adopted the original proposed provisions.
Procedures – Payment to Trading Participants	5.3.2	The Market Operator shall pay to each WESM Member in cleared funds the settlement amount (if any) stated to be payable in that WESM member's final statement on the following Working Day after the Market Operator is to be paid under Section 5.3.1 of this	<b>Subject to Section 5.3.4</b> , the Market Operator shall pay to each WESM Member in cleared funds the settlement amount (if any) stated to be payable in that WESM member's final statement on the following Working Day after the Market Operator is to be paid under Section 5.3.1 of this Manual, and in	Indicate that there are separate procedures for FIT-eligible generating units, which would be provided in Section 5.3.2(b)	<i>Acceptable</i>	<i>Same as 5.3.1 (a)</i>	The RCC adopted the original proposed provisions.

*For clarity, comments and rationales are written in italicized format.*



Title	Section	Provision	Proposed Amendment	Rationale	DOE	MERALCO	RCC Discussion/ Agreements (01 June 2016)
		Manual, and in accordance with the schedule set in the Appendix A of this Manual.	accordance with the schedule set in the Appendix A of this Manual.				
Procedures – Payment of Adjustment	5.3.3(a)	Each WESM Member shall pay to the Market Operator in cleared funds the net amount (if any) stated to be payable by that WESM member in the revised statement issued to it under Section 4.2.4of this Manual, no later than the time and date specified by the Market Operator pursuant to Section 4.2.4(c)of this Manual .	<b><u>Subject to Section 5.3.4, each</u></b> WESM Member shall pay to the Market Operator in cleared funds the net amount (if any) stated to be payable by that WESM member in the revised statement issued to it under Section 4.2.4of this Manual, no later than the time and date specified by the Market Operator pursuant to Section 4.2.4(c) of this Manual.	Indicate that there are separate procedures for FIT-eligible generating units, which would be provided in Section 5.3.3(c)	<i>Acceptable</i>	<i>Same as 5.3.1 (a)</i>	The RCC adopted the original proposed provisions.
Procedures – Payment of Adjustment	5.3.3(b)	The Market Operator shall pay to each WESM Member in cleared funds the net amount (if any) stated to be payable to that WESM member in the revised statement issued to it under Section 4.2.4of this Manual, on the following Working Day on which the Market Operator is to be paid under Section a)of this Manual.	<b><u>Subject to Section 5.3.4, the</u></b> Market Operator shall pay to each WESM Member in cleared funds the net amount (if any) stated to be payable to that WESM member in the revised statement issued to it under Section 4.2.4of this Manual, on the following Working Day on which the Market Operator is to be paid under Section 5.3.3(a) of this Manual.	Indicate that there are separate procedures for FIT-eligible generating units, which would be provided in Section 5.3.3(d)	<i>Acceptable</i>	<i>Same as 5.3.1 (a)</i>	The RCC adopted the original proposed provisions.
Heading	5.3.4 (new)	(Blank)	<b><u>Payment Procedures for FIT-Eligible Generating Units</u></b>	New section to provide the procedures for FIT-eligible generating units.			The RCC adopted the original proposed provisions.
Payment Procedures for	5.3.4(a) (new)	(Blank)	<b><u>An aggregated settlement amount of all FIT-eligible generating units shall</u></b>	Specify that all receivables and payables of all FIT-eligible	<i>Acceptable</i>		The RCC adopted the original proposed provisions.

*For clarity, comments and rationales are written in italicized format.*

Title	Section	Provision	Proposed Amendment	Rationale	DOE	MERALCO	RCC Discussion/ Agreements (01 June 2016)
FIT-Eligible Generating Units			<u>be calculated by aggregating all settlement amounts of all FIT-eligible generating units for that billing period.</u>	generating units are aggregated by the Market Operator before remitting to the FIT All Administrator.			
Payment Procedures for FIT-Eligible Generating Units	5.3.4(b) (new)	(Blank)	<u>The Market Operator shall pay to the FIT All Administrator in cleared funds the aggregated settlement amount as calculated in accordance with Section 5.3.4(a) on the following Working Day after the Market Operator is to be paid under Section 5.3.1 of this Manual, and in accordance with the schedule set in the Appendix A of this Manual.</u>	Specify that receivables of FIT-eligible generating units shall be paid to the FIT All Administrator	<i>Acceptable</i>		The RCC adopted the original proposed provisions.
Payment Procedures for FIT-Eligible Generating Units	5.3.4(c) (new)	(Blank)	<u>In the event that the aggregated settlement amount of all FIT-Eligible Generating Units indicate a settlement amount payable to the Market Operator, the said aggregated settlement amount, plus interest calculated in accordance with Section 6.2.1(e), shall be offset from the amount payable to the FIT-All administrator in succeeding payment due dates following the issuance of the final settlement statement until the same is fully paid.</u>	Indicate that any outstanding net payable by FIT-eligible generating in final statements units would be offset to receivables in succeeding payment due dates with applicable interest	<i>Acceptable</i>		The RCC adopted the original proposed provisions.
Payment Procedures for	5.3.4(d) (new)	(Blank)	<u>If a revised statement is issued in accordance with Section 4.2.4, the aggregated settlement amounts for</u>	Indicate that any outstanding net payable by FIT-eligible generating in revised statements units would	<i>Acceptable</i>		The RCC adopted the original proposed provisions.

*For clarity, comments and rationales are written in italicized format.*

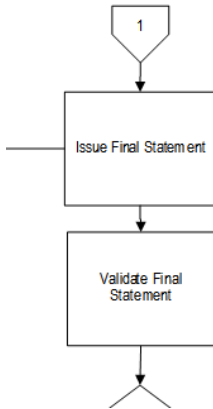
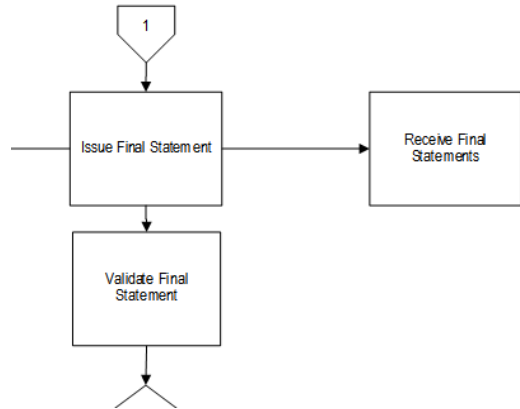


Title	Section	Provision	Proposed Amendment	Rationale	DOE	MERALCO	RCC Discussion/ Agreements (01 June 2016)
FIT-Eligible Generating Units			<b><u>FIT-eligible generating units shall be calculated. If it results to an amount payable to the Market Operator, the amount due shall be offset from the amount payable to the FIT-All administrator in succeeding payment due dates following the issuance of the revised settlement statements until the same is fully paid. If it results to an amount payable by the Market Operator, the FIT All Administrator shall be paid in cleared funds on the following Working Day after the Market Operator is to be paid under Section 4.2.4(c) of this Manual.</u></b>	be offset to receivables in succeeding payment due dates with applicable interest			
Amendments	9.1.1	9.1.1 Any amendments to this Manual shall be approved by the PEM Board.			9.1.1 Any amendments to this Manual shall be approved by the PEM Board, <b><u>following the procedures for changes to Market Manual set out in the WESM Rules and in the relevant Market Manual.</u></b>		The RCC adopted DOE's proposed revisions. It was also agreed to indicate similar Amendments, and Publication and Effectivity provisions in all other Manuals.
Publication And Effectivity	9.1.2	9.1.2 Upon approval by the PEM Board, this Manual shall take effect immediately or on such later date as the PEM Board determines, in accordance with the provisions in the Manual of Procedures for Changes to the WESM Rules.			9.1.2 <b><u>This Market Manual, as it may be amended from time to time, shall be published in the market information website maintained by the Market Operator.</u></b>		

*For clarity, comments and rationales are written in italicized format.*

Title	Section	Provision	Proposed Amendment	Rationale	DOE	MERALCO	RCC Discussion/ Agreements (01 June 2016)
					<p><del>Upon approval by the PEM Board, this Manual shall take effect immediately or on such later date as the PEM Board determines, in accordance with the provisions in the Manual of Procedures for Changes to the WESM Rules.</del></p> <p><b><u>This Market Manual or any amendments thereto shall become effective upon approval of the DOE in accordance with the WESM Rules Clause 8.6.4 The date of effectivity shall be indicated in this document.</u></b></p> <p><i>For consistency with the WESM Rules.</i></p>		
Billing and Settlement Timetable	Section 10	Issuance of Drawdown Notice – As soon as practicable, after	Issuance of Drawdown Notice – As soon as practicable, <u>after</u>	Clerical correction	<i>Acceptable</i>		The RCC adopted the original proposed provisions. .



Title	Section	Provision	Proposed Amendment	Rationale	DOE	MERALCO	RCC Discussion/ Agreements (01 June 2016)
Issuance of Final & Revised Statement Flowchart	Appendix C	<div>WESM-BS-003 Effective Date: 09 July 2015</div> <p><b>MARKET OPERATOR</b></p> 	<div>WESM-BS-004 Effective Date: 09 July 2015</div> <p><b>MARKET OPERATOR</b> <b>FIT ALL ADMINISTRATOR</b></p> 	Include the provision of final statements of FIT-eligible generating units to the FIT All Administrator	Acceptable		The RCC adopted the original proposed provisions.

**II. Management Procedure on Excess Generation Issue 2.0**

Title	Section	Provision	Proposed Amendment	Rationale	DOE	RCC Discussion/ Agreements (01 June 2016)
Introduction Background	– 1.6	<p>XXX</p> <p>Excess Generation is normally encountered during off-peak condition in the power system. Off-Peak conditions are normally between 0000 hours (12 midnight) and 0800 hours (8 AM) of the day for Luzon. However, excess generation maybe encountered also during peak conditions in the power system if a considerable amount of demand is tripped due to adverse weather condition or abnormal sub-transmission system condition.</p> <p>XXX</p> <p>To provide a transparent and level playing field for all generators, should it really be necessary to shut down a generator, during imminent and existing excess generation condition, the MO will provide a generator merit order to the SO based on the offered price of their first block offer used in the last DAP run prior to the interval</p>	<p>XXX</p> <p>Excess Generation is normally encountered during off-peak condition in the power system <b>and during holidays</b> Off-Peak conditions are normally between 0000 hours (12 midnight) and 0800 hours (8 AM) of the day for Luzon. However, excess generation maybe encountered also during peak conditions in the power system if a considerable amount of demand is tripped due to adverse weather condition or abnormal sub-transmission system condition.</p> <p>XXX</p> <p>To provide a transparent and level playing field for all generators, should it really be necessary to shut down a generator, during imminent and existing excess generation condition, the MO will provide a <del>generator merit order</del> <b>WESM Merit Order Table</b> to the SO based on <del>the offered price of their first block offer used in</del> the last DAP run prior to the interval with possible and indicated excess generation condition.</p>	<p>Cite additional instances when excess generation may be encountered</p> <p>To include the priority order to be established in the merit order as prescribed in the DOE DC2015-03-0001</p>	<i>Acceptable</i>	RCC adopted all proposed amendments for this Manual.

*For clarity, comments and rationales are written in italicized format.*



Title	Section	Provision	Proposed Amendment	Rationale	DOE	RCC Discussion/ Agreements (01 June 2016)
		with possible and indicated excess generation condition.				
Criteria and Pre-Conditions for impending and existing Excess Generation	4.5	The system or regional generation level is approaching the Regulating reserve requirement band of the minimum generating limit (Pmin) of synchronized generators.	The system or regional generation level is approaching the <del>Regulating reserve requirement band of the aggregated</del> minimum generating limit (Pmin) of synchronized generators.	Reflect operational practice	<i>Acceptable</i>	
Criteria and Pre-Conditions for impending and existing Excess Generation	4.6	(new)	<b><u>Projected outputs from must-dispatch and priority dispatch generating units, and nominations of loading level from non-scheduled generating units that have been submitted by Trading Participants and received by the Market Operator in accordance with the WESM timetable.</u></b>	To add the projected output and nominations from non-scheduled and preferential dispatch generating units	<i>Acceptable</i>	
Real-Time Dispatch (with Excess Generation Intervals)	6.2.1	If excess generation is encountered in the real-time dispatch, then the System Operator 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 scheduled regulating reserve has been depleted (i.e. at Pmin) and the grid frequency breached the 60.3Hz.	If excess generation is encountered in the real-time dispatch, then the System Operator 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 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	Reflect hierarchy of generating units when restricting output in accordance with WESM Rules Clause 3.6.1.8	<i>Acceptable</i>	

*For clarity, comments and rationales are written in italicized format.*

Title	Section	Provision	Proposed Amendment	Rationale	DOE	RCC Discussion/ Agreements (01 June 2016)
		<p>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:</p> <p>a. “Constrain-off” generator/s with fast ramp rate.</p> <p>b. Effect shutdown of generator/s under test.</p> <p>c. Effect shutdown of generator/s with fast start capability.</p> <p>d. Require gas turbine generator/s at combined cycle to operate at simple cycle mode.</p> <p>e. Require coal fired thermal power plants to operate on oil support mode.</p> <p>f. Require generator/s to operate on house load.</p>	<p>actions, in the order of priority, shall be followed until the frequency returns to normal:</p> <p>a. “Constrain-off” generator/s with fast ramp rate.</p> <p>b. Effect shutdown of generator/s under test.</p> <p>c. Effect shutdown of generator/s with fast start capability.</p> <p><b><u>d. Effect shutdown of non-scheduled generating units.</u></b></p> <p><b><u>e. Effect shutdown of priority dispatch generating units.</u></b></p> <p><b><u>f. Effect shutdown of must dispatch generating units.</u></b></p> <p>g. Require gas turbine generator/s at combined cycle to operate at simple cycle mode.</p> <p>h. Require coal fired thermal power plants to operate on oil support mode.</p> <p>i. Require generator/s to operate on house load.</p>			
Real-Time Dispatch (with Excess Generation Intervals)	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	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	Clarify condition for remote-tripping generating units tagged as Must Stop Unit	<i>Acceptable</i>	

*For clarity, comments and rationales are written in italicized format.*



Title	Section	Provision	Proposed Amendment	Rationale	DOE	RCC Discussion/ Agreements (01 June 2016)
		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 the 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 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 the 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 <del>the high risk is at stake that would eventually affect the security and</del> reliability of the grid <u>is at stake</u> .			
Provision for Non-Reliability Must Run Dispatch Auction	9.0	The WESM Rules at present has no provision for any auctioning process to be applied for managing excess generation. In this regard, the following will be taken into consideration by the WESM: 9.1 The MO and SO will coordinate with the Market Surveillance Committee in assessing the following:	<del>The WESM Rules at present has no provision for any auctioning process to be applied for managing excess generation. In this regard, the following will be taken into consideration by the WESM: 9.1 The MO and SO will coordinate with the Market Surveillance Committee in assessing the following:</del>	Remove provision not necessary for the manual	<i>Agree</i>	

*For clarity, comments and rationales are written in italicized format.*

Title	Section	Provision	Proposed Amendment	Rationale	DOE	RCC Discussion/ Agreements (01 June 2016)
		<p>9.1.1 Occurrence of trading intervals with excess generation.</p> <p>9.1.2 Impact of occurrence of excess generation to Trading Participants and the application of the above procedures to mitigate excess generation condition.</p> <p>9.1.3 Nomination of generating plants for reliability must-run.</p> <p>9.1.4 Applicability of Dispatch Auction for generating plants not declared as reliability must run for periods where there is imminent threat of excess generation.</p> <p>9.2 The assessment will make recommendation as to the feasibility and viability of incorporating Must Run Dispatch Auction in the WESM.</p>	<p><del>9.1.1 Occurrence of trading intervals with excess generation.</del></p> <p><del>9.1.2 Impact of occurrence of excess generation to Trading Participants and the application of the above procedures to mitigate excess generation condition.</del></p> <p><del>9.1.3 Nomination of generating plants for reliability must-run.</del></p> <p><del>9.1.4 Applicability of Dispatch Auction for generating plants not declared as reliability must run for periods where there is imminent threat of excess generation.</del></p> <p><del>9.2 The assessment will make recommendation as to the feasibility and viability of incorporating Must Run Dispatch Auction in the WESM.</del></p>			
Amendments  Publication And Effectivity	NEW				<p><b><u>AMENDMENTS</u></b></p> <p><b><u>Any amendments to this Manual shall be approved by the PEM Board, following the procedures for changes to Market Manual set out in the WESM</u></b></p>	The RCC adopted DOE's proposed provisions for clarity and consistency with the WESM Rules.

*For clarity, comments and rationales are written in italicized format.*



Title	Section	Provision	Proposed Amendment	Rationale	DOE	RCC Discussion/ Agreements (01 June 2016)
					<p><u>Rules and in the relevant Market Manual.</u></p> <p><u>PUBLICATION AND EFFECTIVITY</u></p> <p><u>This Market Manual, as it may be amended from time to time, shall be published in the market information website maintained by the Market Operator.</u></p> <p><u>This Market Manual or any amendments thereto shall become effective upon approval of the DOE in accordance with the WESM Rules Clause 8.6.4 The date of effectivity shall be indicated in this document.</u></p> <p><i>For clarity and consistency with the WESM Rules.</i></p>	

*For clarity, comments and rationales are written in italicized format.*

**III. Procedure for Determining Ex-Post Nodal Energy Prices Issue 2.0**

Title	Section	Provision	Proposed Amendment	Rationale	DOE	RCC Discussion/ Agreements (01 June 2016)
Definition of Terms	2.0	<p>XXX</p> <p>Market Offer - A generation offer for a particular trading interval of a particular trading day in the current market horizon, whether formed from a standing offer in accordance with WESM Rules clause 3.5.10 or revised by the relevant trading participant in accordance with WESM Rules clause 3.5.11.</p> <p>XXX</p> <p>Outage Schedules - Schedule for shutting down or de-rating of generation and transmission facilities.</p> <p>XXX</p>	<p>XXX</p> <p>Market Offer - A generation offer for a particular trading interval of a particular trading day in the current market horizon, whether formed from a standing offer in accordance with WESM Rules clause 3.5.10 or revised by the relevant trading participant in accordance with WESM Rules clause 3.5.11.</p> <p><b><u>Must Dispatch Generating Unit - A generating unit or group of generating units connected at a common connection point that is intermittent renewable energy resource-based, whether or not under the Feed-in Tariff system, such as wind, solar, run-of-river hydro or ocean energy with the corresponding DOE certification in accordance with WESM Rules clause 2.3.1.5.</u></b></p> <p>XXX</p> <p>Outage Schedules - Schedule for shutting down or de-rating of generation and transmission facilities.</p>	To reflect the changes associated with the revision of the Rules with respect to the Must Dispatch and Priority Dispatch	<i>Acceptable</i>	RCC adopted all proposed amendments for this Manual.

*For clarity, comments and rationales are written in italicized format.*



Title	Section	Provision	Proposed Amendment	Rationale	DOE	RCC Discussion/ Agreements (01 June 2016)
			<p><b><u>Priority Dispatch Generating Unit - A generating unit or group of generating units connected at a common connection point that uses biomass as fuel that is under the FIT system, with the corresponding Feed-In Tariff Certificate of Compliance in accordance with WESM Rules clause 2.3.1.6.</u></b></p> <p>XXX</p>			
Real Time Dispatch Process	4.0	<p>XXX</p> <p>The RTX or Ex-Post process uses the same offers and bid that are submitted by the trading participants for the ex-ante dispatch process of each trading interval; the latest EMS snapshot to determine system configuration and state (generation and load levels) and any updated system condition and requirements as provided by the SO on any relevant over-riding constraints in the power system. However, the RTX process uses the actual load as determined from the power system snapshot instead of the LDP load forecast.</p>	<p>XXX</p> <p>The RTX or Ex-Post process uses the same offers and bid that are submitted by the trading participants for the ex-ante dispatch process of each trading interval; the latest EMS snapshot to determine <b><u>the schedule of must dispatch generating units, priority dispatch generating units and non-scheduled generating units,</u></b> system configuration and state (generation and load levels) and any updated system condition and requirements as provided by the SO on any relevant over-riding constraints in the power system. However, the RTX process uses the actual load as determined from the</p>	To reflect that the ex-post shall consider the actual dispatch of must dispatch and priority dispatch generating units instead of their nominations	<i>Acceptable</i>	

*For clarity, comments and rationales are written in italicized format.*

Title	Section	Provision	Proposed Amendment	Rationale	DOE	RCC Discussion/ Agreements (01 June 2016)
		XXX	power system snapshot instead of the LDP load forecast.  XXX			
AMENDMENTS  PUBLICATION AND EFFECTIVITY		NEW			<b><u>AMENDMENTS</u></b>  <b><u>Any amendments to this Manual shall be approved by the PEM Board, following the procedures for changes to Market Manual set out in the WESM Rules and in the relevant Market Manual.</u></b>  <b><u>PUBLICATION AND EFFECTIVITY</u></b>  <b><u>This Market Manual, as it may be amended from time to time, shall be published in the market information website maintained by the Market Operator.</u></b>  <b><u>This Market Manual or any amendments thereto shall become effective upon approval of the DOE in accordance with the WESM Rules Clause 8.6.4 The date of effectivity shall be indicated in this document.</u></b>  <i>For clarity and consistency with the WESM Rules.</i>	RCC adopted DOE's proposed provisions for clarity and consistency with the WESM Rules.

*For clarity, comments and rationales are written in italicized format.*

**IV. Market Operator Information Disclosure and Confidentiality Manual Issue 3.0**

Title	Section	Provision	Proposed Amendment	Rationale	DOE	RCC Discussions/ Agreements (01 June 2016)																
Confidential or Protected Information – Information considered confidential	4.3	XXX  k) Information on real-time system condition contained in advisories and notices received by the Market Operator from the System Operator.  This list is a non-exhaustive list.	XXX  k) Information on real-time system condition contained in advisories and notices received by the Market Operator from the System Operator;  <u><b>l) Projected Output provided by trading participants in respect of their Must Dispatch Generating Units or Priority Dispatch Generating Units that are identifiable to that trading participant; and</b></u> <u><b>m) nomination of loading levels for non-scheduled generating units.</b></u>  This list is a non-exhaustive list.	Included the submission of must, priority, and non-scheduled generating units for clarity	Acceptable	RCC adopted all proposed amendments for this Manual.																
Confidential or Protected 4.5.Expiration of confidentiality	4.5	The following information will lose their confidentiality classification after the expiration of the following periods – <table><tr><th>Information</th><th>Expiry Period</th></tr><tr><td>Bids and offers identifiable to a trading participants, including any and all information</td><td>seven (7) days after the relevant trading day</td></tr></table>	Information	Expiry Period	Bids and offers identifiable to a trading participants, including any and all information	seven (7) days after the relevant trading day	The following information will lose their confidentiality classification after the expiration of the following periods – <table><tr><th>Information</th><th>Expiry Period</th></tr><tr><td>Bids and offers identifiable to a trading participants, including any and all information contained in the bids</td><td>Seven (7) days after the relevant trading day</td></tr></table>	Information	Expiry Period	Bids and offers identifiable to a trading participants, including any and all information contained in the bids	Seven (7) days after the relevant trading day	Added expiry periods for the confidentiality of the submissions of must, priority, and non-scheduled generating units <table><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table>									Acceptable	
Information	Expiry Period																					
Bids and offers identifiable to a trading participants, including any and all information	seven (7) days after the relevant trading day																					
Information	Expiry Period																					
Bids and offers identifiable to a trading participants, including any and all information contained in the bids	Seven (7) days after the relevant trading day																					

*For clarity, comments and rationales are written in italicized format.*



Title	Section	Provision		Proposed Amendment				Rationale			DOE		RCC Discussions/ Agreements (01 June 2016)
		contained in the bids and offers submissions of the relevant market participant		and offers submissions of the relevant market participant									
		Hourly energy or reserve dispatch schedules and dispatch instructions identifiable to a trading participant, and the dispatch schedules of must run units	One (1) day after the relevant trading day <sup>1</sup>	Hourly energy or reserve dispatch schedules and dispatch instructions identifiable to a trading participant, and the dispatch schedules of must run units	One (1) day after the relevant trading day <sup>2</sup>								
		Security limits and contingency limitations imposed by the System Operator and which are submitted to the Market Operator, including but not limited to instructions issued to generating units designated as must run units, and to system advisories	One (1) day after the relevant trading day	Security limits and contingency limitations imposed by the System Operator and which are submitted to the Market Operator, including but not limited to instructions issued to generating units designated as must run units, and to system advisories	One (1) day after the relevant trading day								
		From time to time, the PEM Board may declare certain confidential information as having lost its confidentiality status.		<b><u>Projected output provided by trading participants in respect of their Must Dispatch Generating Units or Priority Dispatch Generating Units that are</u></b>	<b><u>One (1) day after the relevant trading day</u></b>								

<sup>1</sup> WESM Rules clause 3.11.1.3

<sup>2</sup> WESM Rules clause 3.11.1.3

*For clarity, comments and rationales are written in italicized format.*

Title	Section	Provision	Proposed Amendment		Rationale		DOE	RCC Discussions/ Agreements (01 June 2016)
			<u>identifiable to that trading participant</u>					
			<u>The nomination of loading levels for non-scheduled generating units identifiable to a Trading Participant.</u>	<u>One (1) day after the relevant trading day</u>				
			From time to time, the PEM Board may declare certain confidential information as having lost its confidentiality status.					
Market Information Catalogue	Appendices		<i>Note: Add the following rows –</i>  <i>After Hour-Ahead, Day-Ahead and Week-Ahead Demand Forecast and Reserve requirement</i>  Category: Energy Forecast and Reserve Information Specific Information: VRE Aggregated Generation Forecast Information/Data Source: System Operator Classification: Public Recipient: Public Means of Provision: WESM website Publication Timeline: Daily		Included the submission of must, priority, and non-scheduled generating units for clarity			

*For clarity, comments and rationales are written in italicized format.*

Title	Section	Provision	Proposed Amendment	Rationale	DOE	RCC Discussions/ Agreements (01 June 2016)
			<p><i>After Energy and reserve offers and demand bids including all information contained in the submitted offers</i></p> <p>Category: Generation Offers and Demand Bids            Specific Information: Projected Output of Must Dispatch and Priority Dispatch generating units            Information/Data Source: Market Participants            Classification: Confidential with expiration (Confidentiality expires after a day)            Recipient: Prior to expiration of confidentiality: data owner and exceptions under WESM Rules 5.3.2; Public after expiration            Means of Provision: Electronic or printed copies on request; WESM website            Publication Timeline: N/A; Updated Daily (after expiration of confidentiality)</p> <p>Category: Generation Offers and Demand Bids            Specific Information: Nominated loading levels of non-scheduled generating units            Information/Data Source: Market Participants</p>			

*For clarity, comments and rationales are written in italicized format.*



Title	Section	Provision	Proposed Amendment	Rationale	DOE	RCC Discussions/ Agreements (01 June 2016)
			<p>Classification: Confidential with expiration (Confidentiality expires after a day)</p> <p>Recipient: Prior to expiration of confidentiality: data owner and exceptions under WESM Rules 5.3.2; Public after expiration</p> <p>Means of Provision: Electronic or printed copies on request; WESM website</p> <p>Publication Timeline: N/A; Updated Daily (after expiration of confidentiality)</p>			
Amendments  Publication And Effectivity	NEW				<p><b><u>AMENDMENTS</u></b></p> <p><b><u>Any amendments to this Manual shall be approved by the PEM Board, following the procedures for changes to Market Manual set out in the WESM Rules and in the relevant Market Manual.</u></b></p> <p><b><u>PUBLICATION AND EFFECTIVITY</u></b></p> <p><b><u>This Market Manual, as it may be amended from time to time, shall be published in the market information website maintained by the Market Operator.</u></b></p>	RCC adopted DOE's proposed provisions for clarity and consistency with the WESM Rules.

Title	Section	Provision	Proposed Amendment	Rationale	DOE	RCC Discussions/ Agreements (01 June 2016)
					<p><u>This Market Manual or any amendments thereto shall become effective upon approval of the DOE in accordance with the WESM Rules Clause 8.6.4 The date of effectivity shall be indicated in this document.</u></p> <p><i>For clarity and consistency with the WESM Rules.</i></p>	

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**V. Load Forecasting Methodology Issue 2.0**

Title	Section	Provision	Proposed Amendment	Rationale	DOE	RCC Discussion/ Agreements (01 June 2016)
Introduction Background	– 1.1.2 (d)	Furthermore, WESM Rules Clause 3.5.4.2 states that each net load forecast shall be prepared in such a way as to represent the net load to be met by scheduled generation, including losses occurring outside the system represented by the market network model, but excluding any scheduled load, and less non-scheduled generation, and generation from new and renewable energy (NRE) generating units with intermittent energy resource.	Furthermore, WESM Rules Clause 3.5.4.2 states that each net load forecast shall be prepared in such a way as to represent the net load to be met by scheduled <u>generation generating units, must dispatch generating units, priority dispatch generating units, and non-scheduled generating units,</u> including losses occurring outside the system represented by the market network model, but excluding any scheduled load, <u>and less non-scheduled generation, and generation from new and renewable energy (NRE) generating units with intermittent energy resource.</u>	Based on the recently approved revision to the WESM Rules Clause 3.5.4.2	<i>Acceptable</i>	RCC adopted all proposed amendments for this Manual.
Net Load Forecasts	6.1.3	The base load values shall consider the contributions from non-scheduled generation and generation from NRE generating units with intermittent energy resource.	The base load values shall consider the contributions from non-scheduled generation, and <u>must dispatch and priority dispatch generation from NRE generating units with intermittent energy resource.</u>	To consider the re-classification of NRE generating units to must dispatch and priority dispatch generating units	<i>Acceptable</i>	
Amendments To This Manual  Publication And Effectivity	10.1  10.2	10.1. Any amendment to, or revision to this Manual shall be approved by the PEM Board.  10.2. Upon approval of the PEM Board, this Manual shall take effect fifteen (15) days from its			10.1. AMENDMENTS TO THIS MANUAL  <u>Any amendments to this Manual shall be approved by the PEM Board, following the procedures for changes to Market Manual set out in the WESM Rules and in the relevant Market Manual.</u>	

*For clarity, comments and rationales are written in italicized format.*



Title	Section	Provision	Proposed Amendment	Rationale	DOE	RCC Discussion/ Agreements (01 June 2016)
		publication, or such later date as the PEM Board determines, in accordance			<p>10.2. PUBLICATION AND EFFECTIVITY</p> <p><b><u>This Market Manual, as it may be amended from time to time, shall be published in the market information website maintained by the Market Operator.</u></b></p> <p><b><u>This Market Manual or any amendments thereto shall become effective upon approval of the DOE in accordance with the WESM Rules Clause 8.6.4 The date of effectivity shall be indicated in this document.</u></b></p> <p><i>For consistency with the WESM Rules.</i></p>	RCC adopted DOE's proposed provisions for clarity and consistency with the WESM Rules.

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**VI.     Metering Standards and Procedures Issue 10.0**

Title		Section	Provision	Proposed Amendment	Rationale	DOE	MERALCO	RCC Discussion/ Agreements (01 June 2016)
Interface and Data Flow		6.4.3 (new)	(Blank)	<b><u>The Metering Services Provider shall submit the metering data in meter data exchange format or any other secured format as required by the Market Operator.</u></b>	Specify that metering data may be provided in a different secured data format besides meter data exchange format	<i>Acceptable</i>	<p>“The Metering Services Provider shall submit the metering data in <b><u>industry-standard format and shall ensure secured transfer of data. meter data exchange format or any other secured format as required by the Market Operator.</u></b>”</p> <p><i>Industry-standard format will ensure the meter data can be processed by both Market Operator and the MSPs and their respective data management systems can be integrated (B2B). The proposed wording also decouples data format from data security.</i></p> <p><i>The proposed wording ensures compatibility and data security.</i></p>	<p>Mr. Cacho explained that the meter data exchange format is already considered an industry-standard format. Using the term “industry-standard” is actually more generic.</p> <p>As for MERALCO’s proposed deletion of the phrase, “or any other secured format as required by the MO”, Atty. Lopez-Mateo countered that it would be impractical for the MO to adjust to whatever format the MSPs submit the metering data. The RCC agreed that the metering data submitted should be in a format that the MO will be able to process.</p> <p>The RCC hence adopted the original proposal.</p>
Amendments  Publication And Effectivity		NEW				<b><u>AMENDMENTS</u></b>  <b><u>Any amendments to this Manual shall be approved by the PEM Board, following the procedures for changes to Market Manual set out in the</u></b>		<p>RCC adopted DOE’s proposed provisions for clarity and consistency with the WESM Rules.</p>

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Title	Section	Provision	Proposed Amendment	Rationale	DOE	MERALCO	RCC Discussion/ Agreements (01 June 2016)
					<p><u>WESM Rules and in the relevant Market Manual.</u></p> <p><u>PUBLICATION AND EFFECTIVITY</u></p> <p><u>This Market Manual, as it may be amended from time to time, shall be published in the market information website maintained by the Market Operator.</u></p> <p><u>This Market Manual or any amendments thereto shall become effective upon approval of the DOE in accordance with the WESM Rules Clause 8.6.4 The date of effectivity shall be indicated in this document.</u></p> <p><i>For clarity and consistency with the WESM Rules.</i></p>		

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**VII. Registration, Suspension and De-Registration Criteria and Procedures Issue 2.0**

Title	Section	Provision	Proposed Amendment	Rationale	DOE	RCC Discussion/ Agreements (01 June 2016)
Classification of generating units	Chapter II, 2.5.4.1.a	<p>An Applicant wishing to register as Generation Company shall, upon application, classify each of the generating unit or group of generating units which form part of the generation system it owns or operates or controls or from which it otherwise sources electricity as either –</p> <p>XXX</p> <p>NRE Generating Unit with intermittent energy resource for unit/s connected to a common connection point whose energy resource is location-specific and has natural variability that renders its output inherently controllable. However, the Generation Company may also elect to have such unit/s classified as scheduled generating units.</p>	<p>An Applicant wishing to register as <i>Generation Company</i> shall, upon application, classify each of the generating unit or group of generating units which form part of the generation system it owns or operates or controls or from which it otherwise sources electricity as either –</p> <p>XXX</p> <p><del><b>NRE Generating Unit with intermittent energy resource for unit/s connected to a common connection point whose energy resource is location-specific and has natural variability that renders its output inherently controllable. However, the Generation Company may also elect to have such unit/s classified as scheduled generating units.</b></del></p> <p><b><u>A must dispatch generating unit for a generating unit or group of generating units connected at a common connection point that is intermittent renewable energy resource-based, whether or not under the Feed-in Tariff system, such as wind, solar, run-of-river hydro or ocean energy with the corresponding</u></b></p>	The purpose of this change is to align the taxonomy of renewable generating resources with the changes in the WESM Rules.	<i>Acceptable</i>	RCC adopted all proposed amendments for this Manual.

*For clarity, comments and rationales are written in italicized format.*

Title	Section	Provision	Proposed Amendment	Rationale	DOE	RCC Discussion/ Agreements (01 June 2016)
			<p><u><b>DOE certification. However, the Generation Company may also elect to have such unit/s classified as scheduled generating unit/s or non-scheduled generating unit/s subject to this Section.</b></u></p> <p><u><b>A priority dispatch generating unit for a generating unit or group of generating units connected at a common connection point that uses biomass as fuel, that is under the Feed-in Tariff system, with the corresponding Feed-in Tariff Certificate of Compliance issued by the ERC.</b></u></p> <p><u><b>However, the Generation Company may also elect to have such unit/s classified as scheduled generating unit/s or non-scheduled generating unit/s subject to this Section.</b></u></p>			
Classification of generating units	Chapter II, 2.5.4.1.c	The Market Operator shall approve the classification of a generating unit/s as either non-scheduled or NRE generating unit, subject to prevailing relevant rules, regulations and issuances. An Applicant may appeal the decision of the Market Operator to the PEM Board.	The Market Operator shall approve the classification of a generating unit/s as either <u><b>a non-scheduled generating unit or a must dispatch generating unit or a priority dispatch generating unit</b></u> , subject to prevailing relevant rules, regulations and issuances. An Applicant may appeal the decision of the Market Operator to the PEM Board.	The purpose of this change is to align the taxonomy of renewable generating resources with the changes in the WESM Rules	Acceptable	

*For clarity, comments and rationales are written in italicized format.*

Title	Section	Provision	Proposed Amendment	Rationale	DOE	RCC Discussion/ Agreements (01 June 2016)
Dispatch tolerances	Chapter II, 2.5.4.3.	Prior to application, a Generation Company may seek a ruling from the System Operator with respect to dispatch tolerances to be applied for the generating unit/s it intends to be classified as scheduled generating unit/s. The System Operator may also make a ruling upon endorsement by the Market Operator of the application. The System Operator may, at any time, review any ruling it has made in the light of further information or experience. A Generation Company may appeal the ruling issued by the System Operator to the PEM Board.	Prior to application, a <i>Generation Company</i> may seek a ruling from the <i>System Operator</i> with respect to <i>dispatch tolerances</i> to be applied for the generating unit/s it intends to be classified as <i>scheduled generating unit/s</i> <b><u>or priority dispatch generating unit/s.</u></b> The <i>System Operator</i> may also make a ruling upon endorsement by the <i>Market Operator</i> of the application. The <i>System Operator</i> may, at any time, review any ruling it has made in the light of further information or experience. A <i>Generation Company</i> may appeal the ruling issued by the <i>System Operator</i> to the <i>PEM Board</i> .	To align classification in Registration Manual of generating units requiring dispatch tolerances.	<i>Acceptable</i>	
Reclassification of generating units	Chapter III, 3.3.2.1.	The Trading Participant under whom a generating unit is registered in the WESM may request for the reclassification of such unit (i.e., scheduled, non-scheduled or NRE) by submitting to the Market Operator a request in writing supported by documents and information as would enable the Market Operator to evaluate the request .	The <i>Trading Participant</i> under whom a <i>generating unit</i> is registered in the <i>WESM</i> may request for the reclassification of such unit (i.e., <i>scheduled, non-scheduled, <b><u>must dispatch or priority dispatch</u></b></i> ) by submitting to the <i>Market Operator</i> a request in writing supported by documents and information as would enable the <i>Market Operator</i> to evaluate the request.	To align the classification of generating units with the WESM Rules taxonomy.	<i>Acceptable</i>	
Amendments	1.5.2.	1.5.2. Amendments			1.5.2. Amendments	

*For clarity, comments and rationales are written in italicized format.*



Title	Section	Provision	Proposed Amendment	Rationale	DOE	RCC Discussion/ Agreements (01 June 2016)
EFFECTIVITY AND PUBLICATION	1.6.	<p>Amendments to this Manual shall be submitted to the WESM Rules Change Committee and shall be acted upon pursuant to Chapter 8 of the WESM Rules and relevant market manuals.</p> <p>1.6. EFFECTIVITY AND PUBLICATION This Manual shall take effect upon approval by</p>			<p><b><u>Any amendments to this Manual shall be approved by the PEM Board, following the procedures for changes to Market Manual set out in the WESM Rules and in the relevant Market Manual.</u></b></p> <p>1.6. EFFECTIVITY AND PUBLICATION</p> <p><b><u>This Market Manual, as it may be amended from time to time, shall be published in the market information website maintained by the Market Operator.</u></b></p> <p><b><u>This Market Manual or any amendments thereto shall become effective upon approval of the DOE in accordance with the WESM Rules Clause 8.6.4 The date of effectivity shall be indicated in this document.</u></b></p> <p><i>For clarity and consistency with the WESM Rules.</i></p>	RCC adopted DOE's proposed provisions for clarity and consistency with the WESM Rules.

VIII. Guidelines on Significant Variations In and Between Trading Intervals Issue 2.0

Title	Section	Provision	Proposed Amendment	Rationale	DOE	RCC Discussion/ Agreements (01 June 2016)
Guidelines and Criteria – Monitoring Criteria	4.1.1	XXX  g) Customer Load Forecast	XXX  g) Customer Load Forecast  <b><u>h) Nomination of loading levels from non-scheduled generating units</u></b>  <b><u>i) Projected outputs from must-dispatch and priority dispatch generating units</u></b>	To consider the nominations and projected output from non-scheduled and preferential dispatch generating units	<i>Acceptable</i>	RCC adopted all proposed amendments for this Manual.
Amendments To This Manual  Publication And Effectivity		5.1 Any amendment to, or revision to this Manual shall be approved by the PEM Board.  5.2 Upon approval of the PEM Board, this Market Manual shall take effect fifteen (15) days from its publication, or such later date as the PEM Board determines, in accordance with the provisions in the Manual of Procedures for Changes to the WESM Rules.			5.1 AMENDMENTS TO THIS MANUAL  <b><u>Any amendments to this Manual shall be approved by the PEM Board, following the procedures for changes to Market Manual set out in the WESM Rules and in the relevant Market Manual.</u></b>  5.2 PUBLICATION AND EFFECTIVITY  <b><u>This Market Manual, as it may be amended from time to time, shall be published in the market information website maintained by the Market Operator.</u></b>  <b><u>This Market Manual or any amendments thereto shall become effective upon approval</u></b>	RCC adopted DOE's proposed provisions for clarity and consistency with the WESM Rules.

*For clarity, comments and rationales are written in italicized format.*

Title	Section	Provision	Proposed Amendment	Rationale	DOE	RCC Discussion/ Agreements (01 June 2016)
					<u>of the DOE in accordance with the WESM Rules Clause 8.6.4 The date of effectivity shall be indicated in this document.</u>  <i>For consistency with the WESM Rules.</i>	

*For clarity, comments and rationales are written in italicized format.*

**IX. Forecast Accuracy Standards for Must Dispatch Generating Units Issue 1.0**

Title	Section	Original Provision	Proposed Amendment	DOE	MERALCO	APC	TC	RCC Discussion/ Agreements (01 June 2016)
		(Proposed new Market Manual)						
Background	1.1.2		Consistent with the Grid Code, the WESM Rules also require must dispatch generating units to comply with forecast accuracy standards in respect of their projected output.	<i>Acceptable</i>	Consistent with the Grid Code <b>and ERC Resolution No. 7, Series of 2013</b> , the WESM Rules also require must dispatch generating units to comply with forecast accuracy standards in respect of their projected outputs.  <i>We recommend that the Manual be also aligned with ERC Resolution No. 7, Series of 2013</i>			RCC adopted the original proposed provision since, as explained by PEMC, referencing the PGC alone would already include ERC Resolution No. 7, Series of 2013.
Background	1.1.3		1.1.3 A <i>Trading Participant</i> who fails to meet the requisite forecast accuracy standards in respect of <i>projected outputs</i> for a <i>must dispatch generating unit</i> may be liable for sanctions imposed under Clause 7.2 of the <i>WESM Rules</i> .			<del>1.1.3 A <i>Trading Participant</i> who fails to meet the requisite forecast accuracy standards in respect of projected outputs for a must dispatch generating unit may be liable for sanctions imposed under Clause 7.2 of the WESM Rules</del>  <i>The liability to sanctions is already stated in the WESM Rules. Why does it have to</i>		RCC adopted the original proposed provision since, as explained by PEMC, the entire Section is intended to summarize the relevant Clauses in the WESM Rules that serve as basis of the Manual.

*For clarity, comments and rationales are written in italicized format.*



Title	Section	Original Provision	Proposed Amendment	DOE	MERALCO	APC	TC	RCC Discussion/ Agreements (01 June 2016)
						<i>be repeated several times? We propose to delete such provision.</i>		
Purpose	1.2.1		This <i>Market Manual</i> shall establish the forecast accuracy standards that <i>must dispatch generating units</i> are required to comply with.	<i>Acceptable</i>	<p>This <i>Market Manual</i> shall establish the forecast accuracy standards that <i>must dispatch generating units <b>and the System Operator</b></i> are required to comply with.</p> <p><i>ERC Resolution No. 7, Series of 2013 “A Resolution Adopting and Approving Addendum to Amendment No. 1 of the Philippine Grid Code (PGC), Establishing the Connection and Operational Requirements for Variable Renewable Energy (VRE) Generating Facilities” provides that the System Operator is responsible for producing and submitting to the Market Operator a <b>VRE Aggregated Generation Forecast</b> that shall cover at least 24 hours and be updated at least one</i></p>			<p>RCC adopted the original proposed provision. PEMC stated that the proposed Forecast Accuracy Standards Manual only intends to apply to the generators as contemplated in Section 6(c) of DOE DC2015-03-001. Also, Mr. Cacho stated that the responsibility of the SO for providing VRE Aggregated Generation Forecast is already clearly stated in the ERC Resolution No. 7, Series of 2013 so including it in this proposed WESM Manual is not necessary.</p>

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Title	Section	Original Provision	Proposed Amendment	DOE	MERALCO	APC	TC	RCC Discussion/ Agreements (01 June 2016)																															
					<p>every trading period. The resolution likewise imposes forecast accuracy standards on the System Operator’s VRE Aggregated Generation Forecast, as shown below.</p> <table><tr><td>Required performance</td><td colspan="2">First and second year after software commitment</td><td>Third a years s commi</td></tr><tr><td>Periodicity of updates</td><td colspan="2">1 hour</td><td></td></tr><tr><td>Forecasting periods</td><td colspan="2">1 hour</td><td></td></tr><tr><td rowspan="2">Forecasting ranges</td><td colspan="3">Short Term forecasts [0 to 4</td></tr><tr><td colspan="3">Medium Term forecasts [4 to advance]</td></tr><tr><td>Forecasting errors<sup>7)</sup></td><td>Mean Absolute Error</td><td>PerC<sub>95</sub> Error</td><td>Me Absc Err</td></tr><tr><td>Short Term forecast (0 to 4 hours)</td><td>&lt; 10%</td><td>15%</td><td>&lt; 1</td></tr><tr><td>Medium Term forecast (4 to 36 hours)</td><td>&lt; 25%</td><td>35%</td><td>&lt; 20</td></tr></table> <p><sup>7)</sup> Calculated over a complete calendar year Table 4: Required Performance of VRE Generation Forecas</p> <p>The required forecast standards for the System Operator’s VRE Aggregated Generation Forecast are distinct from those imposed on must dispatch generating units.</p> <p>For consistency with ERC Resolution No. 7, Series of 2013</p>	Required performance	First and second year after software commitment		Third a years s commi	Periodicity of updates	1 hour			Forecasting periods	1 hour			Forecasting ranges	Short Term forecasts [0 to 4			Medium Term forecasts [4 to advance]			Forecasting errors <sup>7)</sup>	Mean Absolute Error	PerC <sub>95</sub> Error	Me Absc Err	Short Term forecast (0 to 4 hours)	< 10%	15%	< 1	Medium Term forecast (4 to 36 hours)	< 25%	35%	< 20			
Required performance	First and second year after software commitment		Third a years s commi																																				
Periodicity of updates	1 hour																																						
Forecasting periods	1 hour																																						
Forecasting ranges	Short Term forecasts [0 to 4																																						
	Medium Term forecasts [4 to advance]																																						
Forecasting errors <sup>7)</sup>	Mean Absolute Error	PerC <sub>95</sub> Error	Me Absc Err																																				
Short Term forecast (0 to 4 hours)	< 10%	15%	< 1																																				
Medium Term forecast (4 to 36 hours)	< 25%	35%	< 20																																				
Glossary	1.3.1		This <i>Market Manual</i> only provides the standards and procedures for <i>must dispatch generating units</i>		This <i>Market Manual</i> only provides the standards and procedures for <i>must</i>			RCC adopted the original proposed provision. PEMC																															

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Title	Section	Original Provision	Proposed Amendment	DOE	MERALCO	APC	TC	RCC Discussion/ Agreements (01 June 2016)
			registered in the <i>WESM <b><u>and the System Operator.</u></b></i>		<i>dispatch generating units registered in the WESM <b><u>and the System Operator.</u></b></i>  <i>Please see our comments on 1.2.1</i>  <i>For consistency with ERC Resolution No. 7, Series of 2013</i>			stated that the proposed Forecast Accuracy Standards Manual only intends to apply to the generators as contemplated in Section 6(c) of DOE DC2015-03-001.
	1.3.2		This Market Manual covers the implementation of the forecast accuracy standards. This Market Manual will not cover the methodology for determining the forecast accuracy standards.	<del>This Market Manual covers the implementation of the forecast accuracy standards. This Market Manual will not cover the methodology for determining the forecast accuracy standards.</del>				In response to the DOE's comment, PEMC clarified that the scope of the proposed Manual is only limited to the monitoring of generators' compliance to the forecast accuracy standards and does not cover how such standards were established. Except for run-of-river hydro technology, the standards indicated in the Manual were adopted from the Grid Code. Mr. Jalocon explained that, to address this, PEMC has submitted additional standards for run-of-river hydro so that the entity who has the authority to establish or amend the standards may adopt them. Given the intended scope, Mr. Binondo suggested to change

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Title	Section	Original Provision	Proposed Amendment	DOE	MERALCO	APC	TC	RCC Discussion/ Agreements (01 June 2016)
								<p>the title of the proposed Manual to accurately reflect its contents. Atty. Lopez-Mateo also recommended retaining just the first sentence the provision for the purposes of describing the scope of the Manual. Mr. Binondo agreed as there is a possibility that PEMC might eventually establish the performance standards of renewable energy generators.</p> <p>The RCC adopted the proposed provision as revised and agreed to change the title to <i>“Procedures for the Monitoring of Forecast Accuracy Standards of Must-Dispatch Generating Units”</i>.</p>
	1.3.3		This Market Manual will not cover the approval and revision process of the forecast accuracy standards.	<i>Suggest that this Manual should cover the adoption process of the said forecast accuracy standards</i>				As suggested by Mr. Binondo, the RCC agreed to delete this provision and be silent on the topic since PEMC might in the future approve and revise the forecast accuracy standards.
Glossary	2.1.2 (i)		Percentile 95 of the forecasting error. The value (in %) not exceeding 95% of the forecast percentage errors of the must		i) Percentile 95 of the forecasting error. The value (in %) not exceeding <b><u>such that at</u></b>			Although MERALCO's proposed revision of the definition is more precise, PEMC stated that the original

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Title	Section	Original Provision	Proposed Amendment	DOE	MERALCO	APC	TC	RCC Discussion/ Agreements (01 June 2016)
			dispatch generating unit during a certain period		<p><b><u>most</u></b> 95% of the <i>forecast percentage errors</i> of the <i>must dispatch generating unit</i> during a certain period <b><u>are less than this value and at most 5% are greater</u></b></p> <p><i>We respectfully recommend a more precise definition for Percentile 95 of the forecasting error.</i></p> <p><i>For precision in the interpretation of the definition</i></p>			definition is actually adopted from the Grid Code. However, since Section 6, Appendix A of the Manual provides a sample calculation expounding the term “ <i>Percentile 95 of the forecasting error</i> ”, the RCC agreed to retain the original definition and just reference Section 6, Appendix A.
MARKET OPERATOR	3.1.2		The Market Operator shall report to the PEM Board and DOE the compliance of each must dispatch generating unit to the forecast accuracy standards in this Market Manual with respect to its projected outputs.	<i>Acceptable</i>	<p>3.1.2 The <i>Market Operator</i> shall report to the <i>PEM Board</i> and <i>DOE</i> the compliance of each <i>must dispatch generating unit</i> to the forecast accuracy standards in this <i>Market Manual</i> with respect to its <i>projected outputs</i>. <b><u>Furthermore, the Market Operator shall make available a</u></b></p>			The RCC accepted MERALCO’s proposal.

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					<p><b><u>copy of said report in the WESM website.</u></b></p> <p><i>It is deemed that the aforequoted report of the Market Operator to the PEM Board and DOE on the compliance of must dispatch generating unit to the forecast accuracy standards should also be provided to all WESM Participants in order for them to be informed on the compliance of those generating units that are compliant with said Market Manual. Furthermore, it would promote transparency and help achieving greater operation and economic efficiency.</i></p> <p><i>Hence, it is suggested that said provision further state that said reports be published in the WESM website.</i></p> <p><i>To inform all WESM Participants on the compliance status of</i></p>			

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Title	Section	Original Provision	Proposed Amendment	DOE	MERALCO	APC	TC	RCC Discussion/ Agreements (01 June 2016)
					<i>each must dispatch generating unit.</i>			
Responsibility of the System Operator	3.2.1		The System Operator shall advise the Market Operator of any output restrictions imposed by the System Operator on must dispatch generating units in accordance with the WESM Rules.	Acceptable	<p><b><u>3.2.1 The System Operator shall submit to the Market Operator a VRE Aggregated Generation Forecast for each interconnected system it operators. These forecasts shall cover at least 24 hours and they will be updated with the periodicity the System Operator considers suitable but, at least, once every trading period as indicated in the WESM Rules.</u></b></p> <p><b><u>3.2.2 The System Operator shall comply with forecast accuracy standards in this Market Manual, consistent with relevant ERC rules and regulations, in respect of the VRE Aggregated Generation Forecast.</u></b></p>			<p>Mr. Castro inquired if MERALCO's proposed revisions, which basically impose the SO with the responsibility to submit a VRE Aggregate Generation Forecast, are actually implementable on the part of the MO. Mr. Cacho responded that the SO's submission of said Forecast is already embodied in the Grid Code and the pertinent ERC Resolution, compliance to which would require the SO to acquire appropriate facilities which they have yet to accomplish. Moreover, Atty. Lopez-Mateo stated that DOE DC2015-03-0001, which contains the directive for the MO to draft this Manual, only requires the monitoring of the compliance of RE generators, not of the SO.</p> <p>Since the SO's submission of the VRE Aggregated Generation Forecast is already in the Grid Code, Ms. Tanglao</p>

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Title	Section	Original Provision	Proposed Amendment	DOE	MERALCO	APC	TC	RCC Discussion/ Agreements (01 June 2016)
					<p>3.2.4<del>3</del> The System Operator shall advise the Market Operator of any output restrictions imposed by the System Operator on must dispatch generating units in accordance with the WESM Rules.</p> <p><i>The System Operator should also be required to comply with scheduling and dispatch responsibilities provided in ERC Resolution No. 7, Series of 2013. These include:</i></p> <ol style="list-style-type: none"> <li><i>Submitting to the Market Operator a VRE Aggregated Generation Forecast that covers at least 24 hours and is updated at least once every trading period</i></li> <li><i>Complying with the defined forecast accuracy standards for VRE Aggregated Generation Forecast</i></li> </ol>			suggested to just include it as reference in the provision.

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Title	Section	Original Provision	Proposed Amendment	DOE	MERALCO	APC	TC	RCC Discussion/ Agreements (01 June 2016)
					<i>For consistency with ERC Resolution No. 7, Series of 2013</i>			
Metering Services Providers	3.4.2		Generation companies shall immediately advise the System Operator and Market Operator of any circumstances which threaten a significant probability of material adverse change in the state of their facilities in any trading interval of any trading day in the current week-ahead market horizon. After the occurrence of the significant event referred to above, the Generation Company shall submit a written report to the Market Operator with supporting data immediately within the following trading day.	Acceptable	3.4.2 <i>Generation companies</i> shall immediately advise the <i>System Operator</i> and <i>Market Operator</i> of any circumstances which threaten a significant probability of material adverse change in the state of their facilities in any trading interval of any trading day in the current <i>week-ahead market horizon</i> . <b><u>In case the generation company is an embedded generator, it shall immediately advise the System Operator, Market Operator, its respective Network Services Provider and Metering Services Provider of the same information mentioned above.</u></b> After the occurrence of the significant event referred			The RCC adopted the original proposed provision since this responsibility of <i>all</i> generators to advise the MO and the SO about certain circumstances described therein has already been covered in other existing manuals, and is therefore already being practiced.

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Title	Section	Original Provision	Proposed Amendment	DOE	MERALCO	APC	TC	RCC Discussion/ Agreements (01 June 2016)
					<p>to above, the <i>Generation Company</i> shall submit a written report to the <i>Market Operator</i> with supporting data immediately within the following trading day.</p> <p><i>It is provided in the aforecited provision that Generation Companies should immediately advise the System Operator and Market Operator of any circumstances that have material adverse change in the state of their facilities. In relation thereto, it is deemed that in the case of those FIT embedded generators, who are directly connected to the distribution system, they should also be required to inform their respective Network Services Provider and Metering Services Provider of any changes that might affect the conditions of the distribution system and</i></p>			

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Title	Section	Original Provision	Proposed Amendment	DOE	MERALCO	APC	TC	RCC Discussion/ Agreements (01 June 2016)																															
					<i>their respective metering equipment.</i>  <i>To notify both the Network Services Provider and Metering Services Provider of the embedded generator of any material adverse change in the state of the facilities of the embedded generators that might have impact on their system and equipment.</i>																																		
STANDARDS	4.1.1		Each must dispatch generating unit shall comply with the following standards with respect to its mean absolute percentage error (MAPE) and percentile 95 of the forecasting error (Perc95) determined in accordance with Section 4.2 and calculated over the period specified in Section 4.1.2: <table><tr><td>Techno logy</td><td colspan="2">Standards</td></tr><tr><td></td><td>MAPE</td><td>Perc95</td></tr><tr><td>Solar</td><td rowspan="2">&lt; 18%</td><td rowspan="2">&lt; 30%</td></tr><tr><td>Wind</td></tr></table>	Techno logy	Standards			MAPE	Perc95	Solar	< 18%	< 30%	Wind	Acceptable	For solar and wind, we respectfully recommend that forecast accuracy standards provided in ERC Resolution No. 7, Series of 2013, be adopted in the proposed Manual. <table><tr><td rowspan="2">Forecasting errors<sup>(7)</sup></td><td colspan="2">First and second year after VRE Generating Facility commitment</td><td>Third years Generation commitment</td></tr><tr><td>Mean Absolute Error</td><td>Perc<sub>95</sub> Error</td><td>MAPE</td></tr><tr><td>Short Term forecast (0 to 4 hours)</td><td>&lt; 18%</td><td>30%</td><td>&lt;</td></tr><tr><td>Medium Term forecast (4 to 36 hours)</td><td>&lt; 30%</td><td>40%</td><td>&lt;</td></tr></table> <sup>(7)</sup> Calculated over a complete calendar year Table 5: Required Performance of VRE Generation Forecasting  <i>The provision is not consistent with table 5 in</i>	Forecasting errors <sup>(7)</sup>	First and second year after VRE Generating Facility commitment		Third years Generation commitment	Mean Absolute Error	Perc <sub>95</sub> Error	MAPE	Short Term forecast (0 to 4 hours)	< 18%	30%	<	Medium Term forecast (4 to 36 hours)	< 30%	40%	<	4.1.1 Each <i>must dispatch generating unit</i> shall comply with the following standards with respect to its <i>mean absolute percentage error (MAPE)</i> and <i>percentile 95 of the forecasting error (Perc95)</i> determined in accordance with Section 4.2 and calculated over the period specified in Section 4.1.2: <table><tr><td>Technol ogy</td><td colspan="2">Standards</td></tr><tr><td></td><td>MAPE</td><td>Perc95</td></tr></table>	Technol ogy	Standards			MAPE	Perc95		Mr. Jalocon explained that the MAPE and Perc95 standards for solar and wind technologies were adopted from the Grid Code. For the run-of-river (ROR) hydro technology for which standards are not in the PGC, the figures were adopted from the study by PEMC submitted to the GMC as recommendation and is pending approval. The following issues were raised during the discussion on the proposed standards:
Techno logy	Standards																																						
	MAPE	Perc95																																					
Solar	< 18%	< 30%																																					
Wind																																							
Forecasting errors <sup>(7)</sup>	First and second year after VRE Generating Facility commitment		Third years Generation commitment																																				
	Mean Absolute Error	Perc <sub>95</sub> Error	MAPE																																				
Short Term forecast (0 to 4 hours)	< 18%	30%	<																																				
Medium Term forecast (4 to 36 hours)	< 30%	40%	<																																				
Technol ogy	Standards																																						
	MAPE	Perc95																																					

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Title	Section	Original Provision	Proposed Amendment			DOE	MERALCO	APC			TC	RCC Discussion/ Agreements (01 June 2016)																																																																																																																																																																																				
			Run of River Hydro	< 8%	< 30%		<p><i>ERC Resolution No. 7, Series of 2013, as shown below.</i></p> <p><i>The proposed forecast accuracy standards does not indicate whether it is for short-term (up to 4 hours) or medium-term (4 to 36 hours) forecasts, as provided in the ERC Resolution. It also does not distinguish between the (i) first two years after commitment, and (ii) the third and subsequent years after. Unlike the ERC Resolution, the proposed forecast accuracy standards does not incentivize improvements in the forecast of must dispatch generating units over time.</i></p> <table><tr><td>Forecasting errors<sup>(*)</sup></td><td colspan="2">First and second year after VRE Generating Facility commitment</td><td>Third years Generation commitment</td></tr><tr><td></td><td>Mean Absolute Error</td><td>Perc<sub>95</sub> Error</td><td>Absolute Error</td></tr><tr><td>Short Term forecast (0 to 4 hours)</td><td>&lt; 18%</td><td>30%</td><td>&lt; 18%</td></tr><tr><td>Medium Term forecast (4 to 36 hours)</td><td>&lt; 30%</td><td>40%</td><td>&lt; 30%</td></tr></table> <p><small><sup>(*)</sup> Calculated over a complete calendar year Table 5: Required Performance of VRE Generation Forecast</small></p>	Forecasting errors <sup>(*)</sup>	First and second year after VRE Generating Facility commitment		Third years Generation commitment		Mean Absolute Error	Perc <sub>95</sub> Error	Absolute Error	Short Term forecast (0 to 4 hours)	< 18%	30%	< 18%	Medium Term forecast (4 to 36 hours)	< 30%	40%	< 30%	<table><tr><td>Solar/Wind</td><td>&lt;18%</td><td>&lt;30%</td></tr><tr><td>Run-of-River Hydro</td><td><b>&lt;12.3%</b></td><td><b>&lt;48.2%</b></td></tr></table> <p><i>We note that the following dispatch deviations were observed by PEMC for the various run-of-river power plants:</i></p> <p><i>For MAPE:</i></p> <table><tr><td>Plant Name</td><td>2006<sup>1</sup></td><td>2007</td><td>2008</td><td>2009</td><td>2010</td><td>2011</td><td>2012</td><td>2013</td><td>2014</td></tr><tr><td>1NIABAL_G01</td><td>2.2%</td><td>0.4%</td><td>3.3%</td><td>9.8%</td><td>1.0%</td><td>2.6%</td><td>2.3%</td><td>1.3%</td><td>0.8%</td></tr><tr><td>1NMHC_G01</td><td>4.6%</td><td>0.4%</td><td>0.4%</td><td>1.9%</td><td>0.7%</td><td>0.6%</td><td>3.0%</td><td>2.4%</td><td>2.4%</td></tr><tr><td>1SLANGN_G01<sup>1</sup></td><td></td><td></td><td></td><td></td><td>2.5%</td><td>1.7%</td><td>0.8%</td><td>1.2%</td><td>1.5%</td></tr><tr><td>3BART_G01</td><td></td><td></td><td></td><td></td><td></td><td>8.6%</td><td>3.4%</td><td>2.6%</td><td>1.5%</td></tr><tr><td>6AMLA_G01<sup>1</sup></td><td></td><td></td><td></td><td></td><td></td><td>1.3%</td><td>0.0%</td><td>0.2%</td><td>0.5%</td></tr><tr><td>7JANOPO_G01<sup>1</sup></td><td></td><td></td><td></td><td></td><td></td><td>10.3%</td><td>12.3%</td><td>8.3%</td><td>8.0%</td></tr><tr><td>7LOBOC_G01<sup>1</sup></td><td></td><td></td><td></td><td></td><td></td><td>3.3%</td><td>6.7%</td><td>4.9%</td><td>3.9%</td></tr></table> <p><i>For Perc95:</i></p> <table><tr><td>Plant Name</td><td>2006<sup>1</sup></td><td>2007</td><td>2008</td><td>2009</td><td>2010</td><td>2011</td><td>2012</td><td>2013</td><td>2014</td></tr><tr><td>1NIABAL_G01</td><td>1.7%</td><td>1.1%</td><td>13.9%</td><td>81.3%</td><td>1.5%</td><td>2.5%</td><td>2.7%</td><td>1.6%</td><td>1.1%</td></tr><tr><td>1NMHC_G01</td><td>17.9%</td><td>1.2%</td><td>1.4%</td><td>1.9%</td><td>3.5%</td><td>2.3%</td><td>20.2%</td><td>10.9%</td><td>11%</td></tr><tr><td>1SLANGN_G01<sup>1</sup></td><td></td><td></td><td></td><td></td><td>11.7%</td><td>4.1%</td><td>2.8%</td><td>4.3%</td><td>7%</td></tr><tr><td>3BART_G01</td><td></td><td></td><td></td><td></td><td></td><td>48.2%</td><td>22.0%</td><td>17.0%</td><td>8%</td></tr><tr><td>6AMLA_G01<sup>1</sup></td><td></td><td></td><td></td><td></td><td></td><td>3.8%</td><td>0.0%</td><td>0.3%</td><td>1%</td></tr><tr><td>7JANOPO_G01<sup>1</sup></td><td></td><td></td><td></td><td></td><td></td><td>36.8%</td><td>36.7%</td><td>36.0%</td><td>35%</td></tr><tr><td>7LOBOC_G01<sup>1</sup></td><td></td><td></td><td></td><td></td><td></td><td>16.8%</td><td>32.8%</td><td>26.5%</td><td>25%</td></tr></table> <p><i>The AP affiliated plants are 1NMHC_G01 for Irisan and 1SLANGN_G01 for Salangan. Both of these plants have lower than the required MAPE and Perc95.</i></p>	Solar/Wind	<18%	<30%	Run-of-River Hydro	<b>&lt;12.3%</b>	<b>&lt;48.2%</b>	Plant Name	2006 <sup>1</sup>	2007	2008	2009	2010	2011	2012	2013	2014	1NIABAL_G01	2.2%	0.4%	3.3%	9.8%	1.0%	2.6%	2.3%	1.3%	0.8%	1NMHC_G01	4.6%	0.4%	0.4%	1.9%	0.7%	0.6%	3.0%	2.4%	2.4%	1SLANGN_G01 <sup>1</sup>					2.5%	1.7%	0.8%	1.2%	1.5%	3BART_G01						8.6%	3.4%	2.6%	1.5%	6AMLA_G01 <sup>1</sup>						1.3%	0.0%	0.2%	0.5%	7JANOPO_G01 <sup>1</sup>						10.3%	12.3%	8.3%	8.0%	7LOBOC_G01 <sup>1</sup>						3.3%	6.7%	4.9%	3.9%	Plant Name	2006 <sup>1</sup>	2007	2008	2009	2010	2011	2012	2013	2014	1NIABAL_G01	1.7%	1.1%	13.9%	81.3%	1.5%	2.5%	2.7%	1.6%	1.1%	1NMHC_G01	17.9%	1.2%	1.4%	1.9%	3.5%	2.3%	20.2%	10.9%	11%	1SLANGN_G01 <sup>1</sup>					11.7%	4.1%	2.8%	4.3%	7%	3BART_G01						48.2%	22.0%	17.0%	8%	6AMLA_G01 <sup>1</sup>						3.8%	0.0%	0.3%	1%	7JANOPO_G01 <sup>1</sup>						36.8%	36.7%	36.0%	35%	7LOBOC_G01 <sup>1</sup>						16.8%	32.8%	26.5%	25%		<p>(a) Atty. Lopez-Mateo stated that the GMC does not recognize ROR as renewable energy since these plants are capable of complying with their RTD schedule (i.e. as scheduled/ conventional generating unit). The RE Law, on the other hand, classifies it as must-dispatch generating unit. This means that the law, in a way, loosens the standards that some eligible ROR plants should comply with, from the current ±3%, once their Certificates of Compliance are converted into must-dispatch generating units.</p> <p>(b) Mr. Binondo stated that the standards being proposed for solar and wind based from the Grid Code are just the minimum requirements of the grid to ensure that the</p>
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					<p><i>We would like to seek clarification on the basis for the forecast accuracy standards for Run-of-River Hydro since it is not included in the ERC Resolution.</i></p> <p><i>Revise forecast accuracy standards for wind and solar for consistency with ERC Resolution No. 7, Series of 2013</i></p> <p><i>Request for clarification on the basis of forecast accuracy standards for run-of-river hydro</i></p>	<p><i>However, please note there are other run-of-river hydro power plants which historically cannot comply with the proposed forecasting standards, according to the tables above. Even though these plants are not affiliated with us, we feel that it should still be our responsibility to raise it as a concern. Upon review, MAPE went as high as 12.3% and Perc95 at 48.2%.</i></p> <p><i>We believe that the run-of-river power plants should not be penalized, but at the same time we are aware that the plant operators should use their best efforts to forecast accurately for a stable and reliable grid and market environment.</i></p> <p><i>Given all of the above concerns, we propose that the threshold be increased to the maximum historical value for the MAPE and Perc95 for the 1<sup>st</sup> year of implementation. Thereafter,</i></p>		<p>power injection of these plants would not threaten the grid's system security. Measuring the performance of renewable plants should be a different matter altogether, implying that the standards imposed to them can be even stricter. Atty. Lopez-Mateo acknowledged this but responded that there is still a transition period of 2 years, after which the standards can be increased.</p> <p>(c) Ms. Tanglao expressed that the RCC might not even be the competent authority to establish the forecast accuracy standards as this is a technical matter. She then inquired who should determine these standards, to which Mr. Binondo answered that, ultimately, it</p>

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						<i>the MO shall review the same and propose amended values to the GMC, if necessary. Even though the values were increased, the run-of-river hydro should still comply with the WESM timetable for the submission of their respective projected output and should still use their best efforts in determining their dispatch.</i>		<p>should be the DOE as the GMC only have recommendatory authority. He added that since this proposed Manual will be promulgated by the DOE and will end up as the policy for renewable energy plants, definite and justifiable standards should therefore be already indicated in the proposed Manual. However, solely referring to the Grid Code as the basis of the standards leaves the proposed standards for ROR plants without approved basis.</p> <p>(d) Mr. Castro emphasized that if the RCC decides to indicate ROR standards, whatever those figures might be, the body should be able to justify these figures should the BRC and the PEM Board request</p>

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Title	Section	Original Provision	Proposed Amendment	DOE	MERALCO	APC	TC	RCC Discussion/ Agreements (01 June 2016)
								<p>how they are arrived at. Atty. Lopez-Mateo responded that the PEMC study, which is the basis of the proposed ROR standards, can stand on its own merits and can be presented if necessary.</p> <p>(e) Mr. Meneses stated that for the sake of being able to issue implementing rules and procedures for preferential dispatch, why not just adopt the standards from solar and wind for ROR as well, with the caveat that these figures for ROR are subject to the confirmation of the ERC or the GMC. He explained that these are the least controversial figures and the RCC would be able to propose a complete set of standards for the interim, instead of leaving the ROR standards blank or</p>

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Title	Section	Original Provision	Proposed Amendment	DOE	MERALCO	APC	TC	RCC Discussion/ Agreements (01 June 2016)													
								<p>indicating &lt;8% and &lt;30% (MAPE and Perc95, respectively) that would reasonably invite further scrutiny.</p> <p>The RCC agreed with Mr. Meneses and revised the table as suggested. The body acknowledged though that the ROR standards are just temporary subject to the approval of the ERC or the GMC.</p>													
					4.1.1 Each <i>must dispatch generating unit</i> shall comply with the following standards with respect to its <i>mean absolute percentage error (MAPE)</i> and <i>percentile 95 of the forecasting error (Perc95)</i> determined in accordance with Section 4.2 and calculated over the period specified in Section 4.1.2:																
					<table><tr><td>Technology</td><td colspan="2">Standards</td></tr><tr><td></td><td>MAPE</td><td>Perc95</td></tr><tr><td>Solar</td><td>&lt; 18%</td><td>&lt; 30%</td></tr><tr><td>Wind</td><td></td><td></td></tr></table>	Technology	Standards			MAPE	Perc95	Solar	< 18%	< 30%	Wind						
Technology	Standards																				
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					Run River Hydro	of	< 8%	< 30%		
					<p><b><u>Note: For the case of ocean energy, the same is still being studied and would be included in the table once the same becomes available.</u></b></p> <p><i>It was proposed that the definition of must dispatch generating unit shall refer to:</i></p> <p><i>“A generating unit or group of generating units connected at a common connection point that is intermittent renewable energy resource-based, whether or not under the Feed-in Tariff system, such as wind, solar, run-of-river hydro or <b><u>ocean energy</u></b> with the corresponding DOE certification in accordance with</i></p>					

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					<p><i>WESM Rules clause 2.3.1.5.” (Emphasis and underscoring supplied.)</i></p> <p><i>In relation to said definition, it mentioned the ocean energy as part of the FIT. However, the same was not included under the Section 4.1.1 of the proposed Market Manual. If in case the same was not included due to unavailability of said technology and of standards for the same, it is proposed that it be cited in said provision.</i></p> <p><i>To note that ocean energy is still subject to further study.</i></p>			
		NEW			<p><b><u>4.1.2 The System Operator shall comply with the following standards with respect to its MAPE and Perc95 determined in accordance with Section 4.2 and</u></b></p>			<p>The RCC rejected MERALCO’s suggestion as the monitoring of the SO’s compliance is not covered in the DOE Circular DC2015-03-0001.</p>

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Title	Section	Original Provision	Proposed Amendment	DOE	MERALCO	APC	TC	RCC Discussion/ Agreements (01 June 2016)																																						
					<p><b><u>calculated over the period specified in Section 4.1.3:</u></b></p> <table><tr><td>Required performance</td><td colspan="2">First and second year after software commitment</td><td colspan="2">Third and subsequent years after software commitment</td></tr><tr><td>Periodicity of updates</td><td colspan="2">1 hour</td><td colspan="2">1 hour</td></tr><tr><td>Forecasting periods</td><td colspan="2">1 hour</td><td colspan="2">30 minutes</td></tr><tr><td>Forecasting ranges</td><td colspan="4">(Short Term forecasts [0 to 4 hours in advance]) Medium Term forecasts [4 to 36 hours in advance]</td></tr><tr><td>Forecasting errors<sup>7</sup></td><td>advance</td><td>Mean Absolute Error</td><td>Perc95 Error</td><td>Mean Absolute Error</td><td>Perc95 Error</td></tr><tr><td>Short Term forecast (0 to 4 hours)</td><td></td><td>&lt; 10%</td><td>15%</td><td>&lt; 5%</td><td>12%</td></tr><tr><td>Medium Term forecast (4 to 36 hours)</td><td></td><td>&lt; 25%</td><td>35%</td><td>&lt; 20%</td><td>30%</td></tr></table> <p><sup>7</sup> Calculated over a complete calendar year Table 4- Required Performance of WGC Generation Forecast (System Operator)</p> <p><i>Please see our comments on 3.2</i></p>	Required performance	First and second year after software commitment		Third and subsequent years after software commitment		Periodicity of updates	1 hour		1 hour		Forecasting periods	1 hour		30 minutes		Forecasting ranges	(Short Term forecasts [0 to 4 hours in advance]) Medium Term forecasts [4 to 36 hours in advance]				Forecasting errors <sup>7</sup>	advance	Mean Absolute Error	Perc95 Error	Mean Absolute Error	Perc95 Error	Short Term forecast (0 to 4 hours)		< 10%	15%	< 5%	12%	Medium Term forecast (4 to 36 hours)		< 25%	35%	< 20%	30%			
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	4.1.2		The MAPE and Perc95 of each must dispatch generating unit shall be calculated over the period starting on the 26th of December of a year and ending on the 25th of December of the succeeding year.	Acceptable	<p><b>4.1.23</b> The <i>MAPE</i> and <i>Perc95</i> of each <i>must dispatch generating unit</i> shall be calculated over the period starting on the 26th of December of a year and ending on the 25th of December of the succeeding year.</p> <p><i>ERC Resolution No. 7, Series of 2013 specifies that the MAPE should be calculated monthly over a complete calendar year.</i></p>		<p><i>The TC does not pose any objection on the proposed amendments to the said Market Manuals<sup>3</sup> except for the proposed new WESM Manual on Forecast Accuracy Standards for Must Dispatch Generating Units Issue 1.0, particularly with regard to the mean absolute percentage error (MAPE) and percentile 95 of the forecasting error (Perc95).</i></p>	<p>Mr. Cacho explained that the timeline indicated in the provision is just the reckoning period over which the MAPE and Perc95 standards will be computed. Each generating units’ compliance may actually be monitored at shorter regular periods. The RCC hence adopted the proposed provision.</p>																																						

<sup>3</sup>Billing and Settlement Manual Issue 4.0;Dispatch Protocol Manual Issue 11.0;Guidelines on Significant Variations in and between Trading Intervals Issue 2.0;Load Forecasting Methodology Issue 2.0;Management Procedure on Excess Generation Issue 2.0;Market Operator Information Disclosure and Confidentiality Manual Issue 3.0;Metering Standards and Procedures Issue 10.0;Procedure for Determining Ex-Post Nodal Energy Prices Issue 2.0;Registration, Suspension and De-registration Criteria and Procedures Issue 1.0; WESM Manual on Forecast Accuracy Standards for Must Dispatch Generating Units Issue 1.0

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Title	Section	Original Provision	Proposed Amendment	DOE	MERALCO	APC	TC	RCC Discussion/ Agreements (01 June 2016)
					<p><i>We would like to seek clarification if the MAPE and Perc95 will be calculated hourly or monthly, as provided in the ERC Resolution, over the prescribed period.</i></p> <p><i>Re-numbering &amp; request for clarification on the calculation period</i></p>		<p><i>The TC has reservations on the 1-year duration for the calculation of MAPE and Perc95 of each must dispatch generating unit within which compliance of these units will then be ascertained. The TC deems that the one (1) year period within which to assess the compliance to said standards is too long. The TC does not agree with setting the evaluation on an annual basis, since these generating units will only be aware of their non-compliances, if any, after a year. A shorter evaluation period is recommended so that any non-compliances may be addressed by generators as soon as they are informed of their inability to comply with said standards.</i></p> <p><i>The TC however notes that the ERC Resolution No.07, Series of 2013<sup>4</sup> provides that forecasting errors are calculated over a complete calendar year. Though the</i></p>	

<sup>4</sup> ERC Resolution No.07, Series of 2013 A Resolution Adopting and Approving Addendum to Amendment No. 1 of the Philippine Grid Code (PGC), Establishing the Connection and Operational Requirements for Variable reviewable energy (VRE) Generating Facilities



Title	Section	Original Provision	Proposed Amendment	DOE	MERALCO	APC	TC	RCC Discussion/ Agreements (01 June 2016)
							<i>annual calculation was already provided in the Resolution, the TC would like to suggest that the review of the MAPE and Perc95 be conducted more often than annual as provided in above Section.</i>	
	4.1.3		Subject to Section 4.5 of this Market Manual, must dispatch generating units who fail to meet the requisite forecast accuracy standards set out in Section 4.1.1 of this Market Manual may be liable for sanctions imposed under Clause 7.2 of the WESM Rules.	Acceptable	<p>4.1.3<del>4</del> Subject to Section 4.5 of this Market Manual, must dispatch generating units who fail to meet the requisite forecast accuracy standards set out in Section 4.1.1 of this Market Manual may be liable for sanctions imposed under Clause 7.2 of the WESM Rules.</p> <p><i>ERC Resolution No. 7, Series of 2013 directs the System Operator to comply with forecast accuracy standards for the VRE Aggregate Generation Forecast.</i></p> <p><i>We would like to seek clarification on the penalty that may be imposed on the System Operator for non-</i></p>	<p><del>4.1.3 Subject to Section 4.5 of this Market Manual, must dispatch generating units who fail to meet the requisite forecast accuracy standards set out in Section 4.1.1 of this Market Manual may be liable for sanctions imposed under Clause 7.2 of the WESM Rules</del><sup>10</sup>.</p> <p><i>The liability to sanctions is already stated in the WESM Rules. Why does it have to be repeated several times? We propose to delete such provision.</i></p>		<p>The RCC agreed to retain the original proposed provision since the SO's compliance is beyond the scope of this Manual. Also, the ERC Resolution referenced by MERALCO already has the penalty clause covering the SO.</p> <p>In response to the APC's comment on the other hand, the penalties of must dispatch generating units are based from considerations per Section 4.5 of this Manual, other than those provided in the WESM Rules.</p>

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Title	Section	Original Provision	Proposed Amendment	DOE	MERALCO	APC	TC	RCC Discussion/ Agreements (01 June 2016)
					<i>compliance to forecast accuracy standards.</i>  <i>Re-numbering &amp; request for clarification on penalties for non-compliance.</i>			
Forecast Percentage Error	4.2.3		<p>The forecast percentage error for a trading interval of a must dispatch generating unit shall be calculated using the following formula:</p> $FPE_{i,t} = \left  \frac{PQ_{i,t} - MQ_{i,t}}{ICQ_i} \right  \times 100\%$ <p>Where,  <math>FPE_{i,t}</math> forecast percentage error (in %) of must dispatch generating unit i for trading interval t  <math>PQ_{i,t}</math> projected quantity (in MWh) of must dispatch generating unit i for trading interval t calculated in accordance with Section <b>Error!</b></p>	<p><i>Suggest that the denominator of the Forecast Percentage Error should be replaced with the MQ.</i></p>	<p>The forecast percentage error for a trading interval of a must dispatch generating unit shall be calculated using the following formula:</p> $FPE_{i,t} = \left  \frac{PQ_{i,t} - MQ_{i,t}}{MQ_{i,t}} \right  \times$ <p>Where,  - <math>FPE_{i,t}</math> forecast percentage error (in %) of must dispatch generating unit i for trading interval t  - <math>PQ_{i,t}</math> <b>average</b> projected quantity (in MWh) of must dispatch generating unit i for trading interval t calculated in accordance with Section 4.2.4</p>			<p>The RCC agreed to retain the original proposed provision with the explanation given by PEMC in response to comments to revise the formula so as to make MQ the denominator:</p> <p><i>“Using actual values (MWh or MW) has issues when the actual output is zero (result is indeterminate) or very small (result is very large). The same issue has been raised to the GMC and GMC has also deemed that using the installed capacity as the denominator is more appropriate.”</i></p>

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			<p><b>Reference source not found.</b></p> <p>MQ<sub>i,t</sub> <i>metered quantity (in MWh) of must dispatch generating unit i for trading interval t as provided by the Metering Services Provider</i></p> <p>ICQ<sub>i</sub> <i>installed capacity quantity (in MWh) of must dispatch generating unit i calculated by multiplying the installed capacity (in MW) of must dispatch generating unit i provided during registration in the WESM by the duration of a trading interval (in hours)</i></p>		<p>- MQ<sub>i,t</sub> <b>average</b> <i>metered quantity (in MWh) of must dispatch generating unit i for trading interval t as provided by the Metering Services Provider</i></p> <p><del>— ICQ<sub>i</sub> <i>installed capacity quantity (in MWh) of must dispatch generating unit i calculated by multiplying the installed capacity (in MW) of must dispatch generating unit i provided during registration in the WESM by the duration of a trading interval (in hours)</i></del></p> <p><i>We would like to recommend that the formula for forecast percentage error (FPE) be patterned after the Mean Absolute Forecasting Error computation provided in ERC Resolution No. 7, Series of 2013.</i></p> <p><i>The proposed formula for FPE presents the following problems.</i></p>			

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					<p>1) <i>It is inconsistent with the calculation for forecast error provided in ERC Resolution No. 7, Series of 2013.</i></p> <p><i>ERC Resolution No. 7, Series of 2013 provides that the Mean Absolute Forecast Error for projected output of must dispatch generating units be computed accordingly:</i></p> $MAE = \frac{1}{n} \cdot \sum_{t=1}^n \left  \frac{A_t - F_t}{A_t} \right  \cdot 100$ <p><i>Where,</i></p> <ul style="list-style-type: none"><li><i>- A<sub>t</sub> is the actual average value of VRE generation (integrated over one hour) at a particular interval t, [kWh];</i></li><li><i>- F<sub>t</sub> is the forecasted average VRE generation (integrated over one hour) for that particular interval [kWh];</i></li></ul>			

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					<p>- <math>n</math> is the number of observations; and</p> <p>- <math>   </math> represent the absolute value</p> <p><i>In the proposed FPE formula, the difference between projected quantity and metered quantity is evaluated against installed capacity quantity rather than metered quantity. In the context of the forecast error computation in ERC Resolution No. 7, Series of 2013, difference between forecasted average and actual average was not evaluated against actual average but against a different value altogether.</i></p> <p>2) Using installed capacity as the benchmark for forecast performance provides a disadvantage to generating units with lower</p>			

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					<p><i>capacity factors over generating units with higher capacity factors</i></p> <p><i>For better illustration, the following analysis is provided.</i></p> $FPE_{i,t} = \frac{\left  \frac{PQ_{i,t} - MQ_{i,t}}{ICQ_{i,t}} \right }{\left  \frac{P}{IC} \right }$ <p><i>Given two generating units with equal PQ and equal ICQ, the generating unit with lower capacity factor will more often have lower MQ. Consequently, the generating unit with a lower capacity factor will have a lower MQ/ICQ subtrahend and hence, a higher FPE.</i></p> <p><i>For consistency with ERC Resolution No. 7, Series of 2013</i></p>			

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Title	Section	Original Provision	Proposed Amendment	DOE	MERALCO	APC	TC	RCC Discussion/ Agreements (01 June 2016)
	4.2.4		<p>The projected quantity for each trading interval of a must dispatch generating unit shall be calculated using the following formula:</p> $PQ_{i,t} = \frac{IL_{i,t} + PO_{i,t}}{2}$ <p>Where,</p> <p><math>PQ_{i,t}</math> projected quantity (in MWh) of must dispatch generating unit i for trading interval t</p> <p><math>IL_{i,t}</math> initial loading (in MW) of must dispatch generating unit i used during the scheduling process for trading interval t</p> <p><math>PO_{i,t}</math> projected output (in MW) of must dispatch generating unit i used during the scheduling process for trading interval t</p>	<p><i>Clarification:</i></p> <ul style="list-style-type: none"> <li><i>The unit of <math>PQ_{i,t}</math> should be in MW?</i></li> <li><i>Suggest that that the projected quantity should be equivalent to the projected output <math>PO_{i,t}</math> for simplicity</i></li> </ul>				The RCC agreed to retain the original proposed provision.
	4.5.1		A transition period covering the period specified by the DOE shall be implemented.	<i>Suggest to recommend a specific transition period.</i>				The RCC agreed to retain the original proposed provision.

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	4.5.3		Before the end of the transition period, the Market Operator shall submit to the concerned government agency a report on the compliance of must dispatch generating units to the forecast accuracy standards and the proposed forecast accuracy standards to be implemented after the transition period.	<p>Before the end of the transition period, the Market Operator shall submit to the <b>DOE and other</b> concerned government agency a report on the compliance of must dispatch generating units to the forecast accuracy standards <del>and the proposed forecast accuracy standards to be implemented after the transition period.</del></p> <p><i>The standard should be initially benchmark with other jurisdictions.</i></p>				<p><i>The recipient of the report was generalized because it was not clear if it should be submitted to the DOE, ERC or both.</i></p> <p>The RCC agreed to adopt the DOE's suggestion, as revised, providing that compliance reports should be submitted to the DOE and other interested government agencies.</p>
	5.3.1		This Market Manual or any amendments thereto shall become effective fifteen (15) calendar days after its first publication in the market information website. The date of effectivity shall be indicated in this document.	<p>Suggest to revise as follows:</p> <p>This Market Manual or any amendments thereto shall become effective <b>upon approval of the DOE in accordance with the WESM Rules Clause 8.6.4</b> <del>fifteen (15) calendar days after its</del></p>				<p>The RCC agreed to adopt the DOE's revision to be consistent with the WESM Rules.</p>

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Title	Section	Original Provision	Proposed Amendment	DOE	MERALCO	APC	TC	RCC Discussion/ Agreements (01 June 2016)
				<p><del>first publication in the market information website.</del> The date of effectivity shall be indicated in this document.</p> <p><i>For consistency with the WESM Rules Clause 8.6.4</i></p>				

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