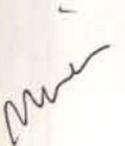


**MINUTES OF THE 103<sup>rd</sup> MEETING OF THE RULES CHANGE COMMITTEE  
Regular Meeting No. 2015-08**

<b>Meeting Date &amp; Time:</b>	05 August 2015
<b>Meeting Venue:</b>	9th Floor PEMC Training Rooms 2&3
<b>Attendance List</b>	
<b>In Attendance</b>	<b>Not In Attendance</b>
<p><b>Principal Members:</b>            Maila Lourdes G. de Castro, Chairperson-- Independent            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 Power)            Theo Cruz Sunico -- Generation (1590 EC)            Ciprinilo C. Meneses --Distribution (MERALCO)            Jose P. Santos--Distribution (INEC)            Ludovico D. Lim– Distribution (ANTECO)            Ambrocio R. Rosales --System Operator (NGCP)            Isidro E. Cacho -- Market Operator (PEMC)</p> <p><b>Alternate Member:</b>            Ernesto Padillo, Jr.--Supply (TPEC)            Errwil R. Bugaoisan –System Operator (NGCP)</p>	<p>Gilbert A. Pagobo – Distribution (MECO)            Lorreto H. Rivera --Supply (TPEC)</p>
<p><b>PEMC</b>            Chrysanthus S. Heruela – MAG (Secretariat)            Geraldine A. Rodriguez – MAG (Secretariat)            Romellen C. Salazar – MAG (Secretariat)            Caryl Miriam Y. Lopez -- Legal            Edward I. Olmedo – TOD            Marcial J. Jimenez –TOD            Clares Jalocon – CPC            Jonathan dela Vina – CPC            Phillip Adviento –CPC</p>	
<p><b>Others: (DOE/ ERC Observers/Other Resource Persons):</b>            Ferdinand B. Binondo – DOE            Lorelei Moya –DOE            Nelson Canlas –ERC            Pablito Enriquez –Petron            Mark Tristan Caparas –Petron            Cheryll M. Valenzuela-Mendoza –Petron            Gerald Santayana – Petron            Michael Angelo Viray –Petron            Andrew San Juan- Petron</p>	

- 1
- 2 There being a quorum, Chairperson Atty. Maila Lourdes de Castro called the meeting to
- 3 order at around 9:00 AM.
- 4



5  
6 **I. AGENDA:**  
7

8 The Proposed Agenda for the 103<sup>rd</sup> RCC Meeting was approved, as amended.  
9

10  
11 **II. REVIEW, CORRECTION AND APPROVAL OF THE MINUTES OF THE 102<sup>nd</sup> RCC**  
12 **MEETING**  
13

14 The RCC reviewed the Minutes of the 102<sup>nd</sup> RCC Meeting held on 01 July 2015 and approved  
15 the same as presented.  
16

17  
18 **III. BUSINESS ARISING FROM THE PREVIOUS MEETING**  
19

20  
21 **1. Proposed Amendments to the Administered Price Determination Methodology**  
22 **Manual: Updates from PIPPA**  
23

24 Mr. Jose Ferlino Raymundo apprised the RCC of the latest updates, as indicated in PIPPA's  
25 letter to the RCC, regarding PIPPA's Proposed Amendments to the Administered Price  
26 Determination Methodology Manual (APDM) on the nominated price (NP). In said letter,  
27 PIPPA stated that equating NP with the ERC-approved Power Supply Agreement (PSA)  
28 rate, as previously suggested by the RCC, is inconsistent both with the WESM objectives as  
29 well as the ERC's guiding principles in establishing the APDM Manual. Thus, PIPPA  
30 proposed formula, as follows:  
31

32 Administered Price = Average Nodal Price or AZRP  
33

34 In cases where the AP is not sufficient to cover the costs incurred in complying with the  
35 dispatch instructions during market intervention or market suspension, PIPPA proposed to  
36 use the following formula:  
37

38 
$$\frac{\text{ERC Rate} \times 100 \text{ Load Factor}}{\text{ERC Rate} \times \text{Actual Capacity Factor}}$$
  
39  
40

41 Mr. Raymundo informed the RCC, however, that errors were found in the above proposed  
42 formula as it did not conform to the intention as stated by PIPPA. In this regard, Mr.  
43 Raymundo stated that a new formula was submitted to PIPPA for consideration. While  
44 awaiting PIPPA's response to his proposal, Mr. Raymundo requested that further  
45 discussions on the matter be deferred.  
46

47 Atty. de Castro thanked Mr. Raymundo for the updates on the proposal and stated that the  
48 RCC will defer the discussions on the matter until a revised proposal, with the correct  
49 formula, is formally submitted by PIPPA to the RCC.  
50

51 Meanwhile, the RCC agreed to write a letter to PIPPA acknowledging receipt of PIPPA's  
52 letter and informing PIPPA that the letter was discussed by the RCC during its meeting. Atty.  
53 de Castro further instructed that the letter indicate that given the updates provided and the  
54 request from Mr. Raymundo, the RCC has deferred further discussions on the matter until a  
55 revised proposal is resubmitted by PIPPA.  
56

57  
58 **2. Proposed Amendments to the WESM Rules on the Submission of Standing**  
59 **Offers: Updates During the Board Review Committee/PEM Board**  
60

61 Mr. Isidro Cacho provided updates on the result of the presentation of the RCC's Proposed  
62 Amendments to the WESM Rules on the Submission of Standing Offers during the Board  
63 Review Committee (BRC) meeting held on 20 July 2015. Mr. Cacho informed the RCC that  
64 the proposal was remanded to the RCC, with instructions to ensure that the proposal is  
65 consistent with the DOE Circular on the guidelines for the implementation of preferential  
66 dispatch, and likewise, for the RCC to incorporate in its proposal the on-going proposal  
67 being deliberated upon by the RCC regarding the Amendments to the WESM Rules on the  
68 implementation of preferential dispatch and fit-all collection implementation, which was  
69 submitted to the RCC by PEMC.  
70

71 For the benefit of the newly-appointed RCC members, Mr. Cacho explained that in essence,  
72 the RCC's proposal is for standing offers to apply until updated or revised by the Participant,  
73 to ensure that there will always be standing offers in the market, which is important  
74 particularly for the System Operator's planning for reserve requirements. Mr. Cacho  
75 explained that given the limitations of the current facility of the Market Management System  
76 (MMS), participants are required to set an expiry date when submitting their standing offers.  
77 Thus, to facilitate the implementation of the changes, the RCC agreed that once the rules  
78 amendments are approved, as a transitory mechanism, the Market Operator shall issue an  
79 advisory to participants to set their standing offers sometime in December 2018, as the  
80 commercial operations of the new MMS is expected to commence in 2017.  
81

82 The RCC noted the information from Mr. Cacho. Since there were no changes instructed by  
83 the BRC in relation to the Proposal, Atty. de Castro requested the Secretariat to include the  
84 same in the submission of the RCC on the Proposal relating to preferential dispatch, once  
85 this gets approved by the Committee.  
86

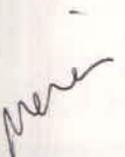
87 Atty. de Castro thanked Mr. Cacho for providing the BRC updates.  
88  
89

90 **3. Proposed Amendments to the WESM Rules on Preferential Dispatch and Fit-All**  
91 **Collection Implementation: Comments of DOE, WESM Technical Committee,**  
92 **PIPPA, APC, Northwind, and SACASOL**  
93

94 Mr. Jonathan dela Vina of PEMC-Corporate Planning and Communications (CPC) presented  
95 the comments received relative to the above proposal, and the PEMC's response to all these  
96 comments. (Please refer to Annex A for the RCC's discussions for the documentation of the  
97 approved proposal).  
98

99 After due deliberations and in consideration of the comments gathered and discussed by the  
100 RCC, the RCC approved the Proposed Amendments to the WESM Rules on Preferential  
101 Dispatch and Fit-All Collection Implementation, with the incorporation of the RCC's Proposal  
102 in relation to standing offers, and likewise agreed on its endorsement to the PEM Board.  
103

104 Atty. de Castro thanked Mr. dela Vina for providing PEMC's inputs in the course of the  
105 RCC's deliberations on the matter.  
106  
107



108 **4. Proposed Amendments to the Dispatch Protocol Manual: Presentation of the**  
109 **revised proposal based on RCC discussions and instructions to MO**  
110

111 Mr. Edward Olmedo presented the revised Proposal for Amendments to the Dispatch  
112 Protocol Manual based on the RCC's instructions to the Market Operator in the meeting held  
113 on 08 April 2015.  
114

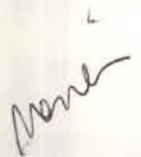
115 As a background, Mr. Olmedo stated that the proposal was first submitted by PEMC in  
116 December 2014 and was presented for approval for publication in the succeeding RCC  
117 meeting. The RCC agreed to incorporate in the proposal the provision that plants on  
118 commissioning and testing shall be settled as price takers. The proposal was approved for  
119 posting to solicit comments from participants. In response to the call for comments, written  
120 submissions were received from several parties. In the course of the RCC's deliberations  
121 and given the various concerns raised regarding the proposal, the MO was instructed to  
122 revise the proposal accordingly, based on the RCC's discussions in its meeting of April  
123 2015. Among the revisions to be made were as follows: a) to reflect in the proposal the  
124 current manual version, Issue 11; and b) to include a section/provision detailing the use of  
125 the WESM merit order table (MOT). Mr. Olmedo explained that while PEMC was crafting the  
126 Proposal in 2014 based on the prevailing issue of the Manual at that time which was then  
127 Issue 9, it was overtaken by several approvals on amendments to the Manual, including  
128 those relating to the reserve market (urgent and general amendments) and the MRU-related  
129 amendments.  
130

131 Based on the RCC's instructions above, the proposal was revised by the MO as the  
132 proposed Dispatch Protocol Manual Issue 12. Since major revisions were made on the  
133 original proposal, and the Manual was revised in terms of structure to conform to the new  
134 format of market manuals being implemented by PEMC, it was deemed appropriate to have  
135 another round of publications for transparency. Moreover, instead of the usual RCC matrix  
136 detailing the "from - to" provisions of the proposal and given the many changes and the  
137 difficulty of reflecting these changes into a matrix form, the entire Proposed Issue 12 of the  
138 Dispatch Protocol Manual should be published instead.  
139

140 The revised proposal reflects, among others, the following:  
141

- 142 a) new format for the market manual;
- 143 b) deletion of appendices and incorporation of the same as major sections in the manual;
- 144 c) provision of references in the WESM rules for the obligations stated in the manual;
- 145 d) a new section for the WESM timetable;
- 146 e) new market operations procedures;
- 147 f) omission of references to the bilateral contract quantity (BCQ);
- 148 g) reports on the cancellation of bids and offers;
- 149 h) a section for all the System Operator's inputs, including the overriding constraints;
- 150 i) other procedures such as SO review of the RTD; and
- 151 j) MO publication requirements.

152  
153 Moreover, the proposal already incorporates the provisions regarding the dispatch  
154 implementation on MRU and MSU, as well as the clarification on the regional MOT. Finally,  
155 the proposal incorporates the procedure for start-up and shut-down generating units, which  
156 is currently reflected in a separate manual. Once the proposal is approved, the MO will  
157 propose the deletion of the existing Manual on Start-up and Shut-down Generating units.  
158



159 Atty. de Castro thanked Mr. Olmedo for the presentation and stated that since the matter  
 160 was already previously discussed, the RCC will no longer request Mr. Olmedo to explain the  
 161 proposal/proposed provisions line by line.  
 162

163 For the purpose of reviewing the entire document, the RCC requested to be furnished a  
 164 copy of the proposed Dispatch Protocol Manual Issue 12, which will be published by the  
 165 RCC.  
 166

167 On motion duly made and seconded, the proposed Dispatch Protocol Manual Issue 12 was  
 168 approved for posting to solicit comments of participants.  
 169  
 170

171 **5. Proposed Amendments to the MRU-MSU Manual on the Settlement by MSUs of**  
 172 **Displaced Generators: Presentation by MERALCO of an alternative formula to**  
 173 **consider the injection of variable renewable energy (RE) sources**  
 174

175 Mr. Ciprinilo Meneses started off by presenting the visual concept of the MSU and the  
 176 Displaced Generator, with the MSU being the generator injecting the “unwanted” energy and  
 177 not following the SO instructions, the effect of which is the curtailment of some energy that  
 178 the Displaced Generator should have been capable of delivering.  
 179

180 Below are the highlights of the alternative Proposal that Mr. Meneses presented.  
 181

182 **Case 1: No RE Generators Involved**  
 183  
 184  
 185



186  
 187

*None*

**I. Differential Energy Computation**

		EAQ for Interval 1100H (MWh)	MQ for Interval 1100H (MWh)	Differential Energy (MWh)	
DG	GEN 1	90.00	83.00	(7.00)	<== energy to be compensated
MSU	GEN 2	52.50	60.00	7.50	<== energy to be penalized
	Subtotal	142.50	143.00	0.50	(energy unloaded by regulating plant)

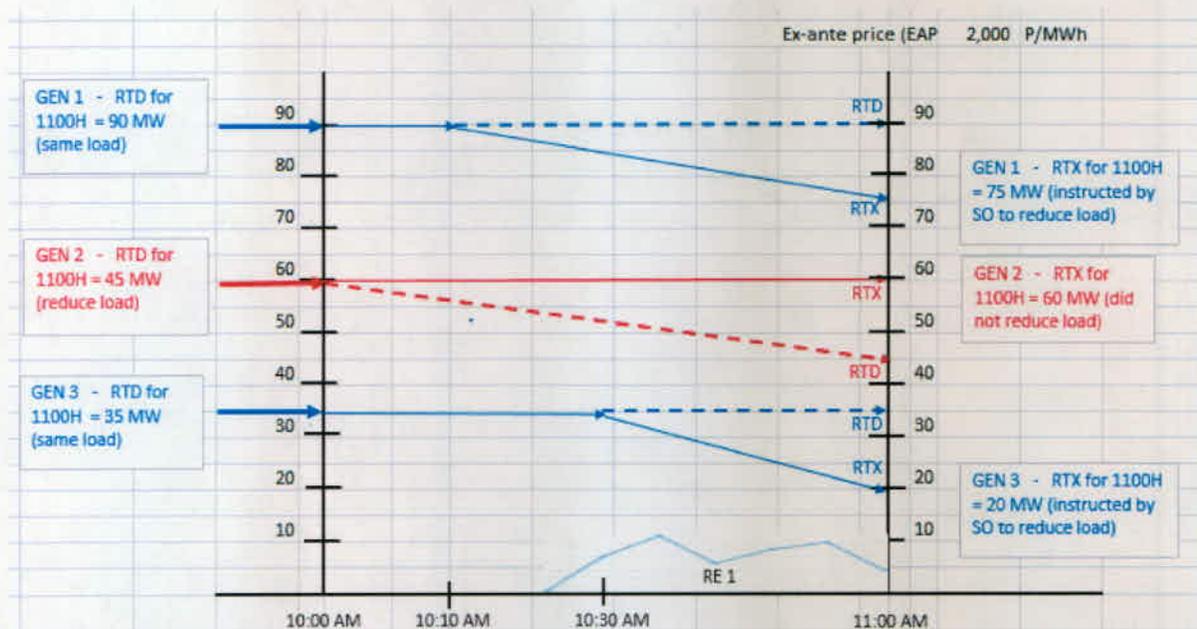
Note: the "pasaway" energy of 7.50 MWh roughly matches the "pasunod" energy of 7.00 MWh.

**II. Compensation/Penalty Computation**

DG	GEN 1	$(-1) \times (\text{Differential Energy}) \times \text{EAP} =$	7.00	$\times 2,000 =$	14,000.00 Pesos	(Compensation to be given to GEN 1)
MSU	GEN 2	$(-1) \times (\text{Differential Energy}) \times \text{EAP} =$	(7.50)	$\times 2,000 =$	(15,000.00) Pesos	(Penalty to be collected from GEN 2)
	Net Amount				1,000.00 Pesos	(may be added to Settlement Surplus)

A minimal residual amount is expected.

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**Case 2: RE Generators are Involved**


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194

**I. Differential Energy Computation**

		EAQ for Interval 1100H (MWh)	MQ for Interval 1100H (MWh)	Differential Energy (MWh)	
DG	GEN 1	90.00	83.00	(7.00)	<== energy to be compensated
MSU	GEN 2	52.50	60.00	7.50	<== energy to be penalized
DG	GEN 3	35.00	29.00	(6.00)	<== energy to be compensated
	RE 1	-	5.25	5.25	
	Subtotal	177.50	177.25	(0.25)	(energy supplied by regulating plant)

Note: the "pasaway" energy of 7.50 MWh no longer matches the total "pasunod" energy of 13.00 MWh (7.00 + 6.00).

**II. Compensation/Penalty Computation**

DG	GEN 1	$(-1) \times (\text{Differential Energy}) \times \text{EAP} =$	7.00	$\times 2,000 =$	14,000.00 Pesos	(Compensation to be given to GEN 1)
MSU	GEN 2	$(-1) \times (\text{Differential Energy}) \times \text{EAP} =$	(7.50)	$\times 2,000 =$	(15,000.00) Pesos	(Penalty to be collected from GEN 2)
DG	GEN 3	$(-1) \times (\text{Differential Energy}) \times \text{EAP} =$	6.00	$\times 2,000 =$	12,000.00 Pesos	(Compensation to be given GEN 3)
	Net Amount				(1,000.00) Pesos	(may be taken from Settlement Surplus)

A substantial residual amount is expected because of intermittent RE generators.

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In the usual case where REs are not involved, the differential energy for both the MSU and Displaced Generator is computed through the formula MQ-EAQ. To compute for the differential amount, this is multiplied with the ex-ante price (EPP). In the formula, the Displaced Generator amount is matched with the MSU amount, with a minimal residual

203 expected amount. Mr. Meneses stated that although his previous proposal is to add the net  
204 amount between the MSU and Displaced Generator amounts to the Net Settlement Surplus  
205 (NSS), he acknowledges PEMC's explanation that this may not be possible since the NSS is  
206 shared by the Generators and Customers.

207  
208 Moving forward with Case 2 where REs are involved, calculating the differential amount will  
209 yield a huge, non-negligible differential amount due to the energy injected by the RE plant.  
210 As such, the MSU and Displaced Generator amount will no longer match. Mr. Meneses  
211 expressed that this situation can be aggravated in the future when more RE plants start  
212 participating in the market with uncontrollable injection of power in the grid. When that  
213 happens, the amount that can be collected from the MSU will not cover the injection of the  
214 RE plants. The question he posed to the RCC is how to account for the injection of the RE  
215 plants which cause the huge imbalance between the MSU and Displaced Generator  
216 amounts.

217  
218 Following are the comments and discussions in relation to the presentation made by Mr.  
219 Meneses.

- 220
- 221 • Mr. Cacho stated that since the REs are covered by law and the DOE's policy, they  
222 cannot be penalized or cannot be required to compensate the Displaced Generators  
223 for the latter's lost opportunity due to RE's injection of power. Mr. Cacho emphasized  
224 that because REs are prioritized in the hierarchy for dispatch based on the law, then  
225 they should be taken as a given.  
226
  - 227 • Mr. Rosales commented that the primary objective for introducing the concept of  
228 MSU is to be able to identify the non-complying generators with the SO's instructions.  
229 He explained that there may be instances that there are MSUs but without  
230 corresponding Displaced Generators, simply because the reserves have absorbed  
231 the requirements of the grid during real time for small deviations of some plants,  
232 forecast errors, generator tripping, etc. Although no Displaced Generator amount is  
233 to be collected from the MSU, the MSU will be subject to the applicable rules on non-  
234 compliance to dispatch instructions. To be fair to the Displaced Generators when  
235 there are non-complying MSUs, the settlement mechanism was introduced.

236  
237 In terms of the REs, Mr. Rosales explained that they are allowed to inject their  
238 maximum available capacity in the grid, provided that the grid security will not be  
239 jeopardized. Because REs generate power based on acts of nature, they cannot be  
240 tagged as MSUs .

241  
242 Mr. Rosales emphasized that what the proposal tries to address is how to penalize  
243 the non-complying generators or the MSUs. The compensation mechanism was  
244 introduced in cases where there are Displaced Generators due to non-compliance.  
245 He stressed that the amount to be paid to said Displaced Generators shall only be  
246 based on the MSU amount or quantity, without taking into account the RE injection.

- 247
- 248 • Mr. Raymundo agreed on the principle that was explained by Mr. Rosales. However,  
249 Mr. Raymundo was concerned of the difficulty of computing the settlement amounts  
250 considering all the things that were discussed such as the REs, as the actual  
251 displaced in consideration of the RE injection may be larger than what can be  
252 computed as the Displaced Generator amount using the formula. He suggested that  
253 perhaps, to make the computation simpler, limitations on the settlement amount

254 should be set such that the amount due to the Displaced Generator should not be  
255 greater than the amount displaced by the MSU.  
256

257 • Mr. Theo Sunico likewise agreed that the MSU mechanism was introduced primarily  
258 to penalize the non-complying generators and to protect the system. He likewise  
259 agreed that there is an opportunity cost that needs to be compensated on the part of  
260 the Displaced Generators. However, given how the law was crafted, the REs may not  
261 be penalized even if it causes some generators to be displaced, unless the REs fail  
262 to follow the SO's instructions when the Grid is not in the normal state.  
263

264 On the issue of settlement, Mr. Sunico was interested in knowing how the amount to  
265 be collected from the MSUs will be divided amongst the Displaced Generators, when  
266 there is imbalance between the amounts computed for the MSU and Displaced  
267 Generators.  
268

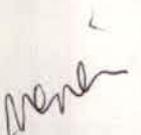
269 In response, Mr. Marcial Jimenez explained that based on MQ, the Displaced  
270 Generator will be settled first, based on calculation of the opportunity loss by the  
271 Displaced Generator, and pro-rated against the total quantity that was displaced by  
272 the MSU. For example, if the displaced quantity is 2MW, this quantity will be  
273 multiplied with the e-post price and pro-rated against the MSU quantity. If it happens  
274 that there are Displaced Generators and the price is zero, then there will be no  
275 amount that will be pro-rated to the MSU. If the Displaced Generator amount is larger  
276 than the MSU quantity, the same concept of pro-rating still applies, where the entire  
277 amount due to the Displaced Generator will be shouldered by the MSU.  
278

279 • Mr. Rosales expressed that with this mechanism, generators shall be compelled to  
280 follow their dispatch instructions, otherwise, all the amount due to the Displaced  
281 Generator will be shouldered by the MSU, including the quantity which is a result of  
282 RE injection. The RCC agreed that indeed Generators should abide by their dispatch  
283 instructions.  
284

285 Ms. Joselyn Carabuena, for her part, was concerned about the situation of one of  
286 their plants, where said plant is frequently being called to constrain-ff simply because  
287 it has relatively fast ramp down rate as compared with other Generators. Since there  
288 is opportunity loss every time that the plant is being asked to constrain-off, Ms.  
289 Carabuena inquired if the problem of being frequently asked to shutdown can be  
290 addressed in the Proposal's settlement mechanism.  
291

292 In response to the above concern, Atty. Caryl Lopez-Mateo expressed her opinion  
293 that perhaps, there will be no lost opportunity if there is proper hedging and better  
294 contractual arrangements between Generators and Distributors. Atty. Mateo  
295 explained that when a Generator is asked to back down, it means that technically,  
296 the system did not need that Generator. On the other hand, if the Generator needed  
297 to deliver on contract, and the VRE comes in, with VREs as price takers, this would  
298 have the effect of a lower marginal cost, and will encourage buying from the market  
299 and selling that through delivery on the Generator's contacts with its Distribution  
300 Utility. In such case, if that is the type of financial arrangement between the parties,  
301 the Generator would have had no opportunity cost that will be lost.  
302

303 Ms. Carabuena acknowledged the point raised by Atty. Mateo. However, she  
304 expressed that her concern is more on clarifying when and how a Generator will be  
305 classified as a Displaced Generator, and at the same time, who will determine that it



306 is indeed displaced, because admittedly, there will be lost opportunity on the part of  
307 the Displaced Generator.  
308

309 To address the concern of Ms. Carabuena, Mr. Rosales stated that the System  
310 Operator is allowed to constrain off Generators in the MOT to address system  
311 security. In such a situation, the SO's consideration is how fast a Generator can  
312 respond to address over-frequency. However, in most instances, once over-  
313 frequency and system security is addressed, the SO immediately restores the output  
314 of the constrained-off Generator. On another aspect, Generators should also  
315 consider that perhaps, the Generator that is frequently asked to constrain-ff may be  
316 the most expensive generator in the merit order that sets the price. Mr. Rosales  
317 explained that a marginal plant will almost always be the first plant that will be asked  
318 to reduce its output, especially when the issue that the SO is trying to address for  
319 constraining-off a plant is over-frequency.  
320

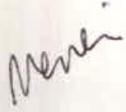
321 • Mr. Ferdinand Binondo clarified that based on the definitions in the Manual, when  
322 there is an MSU, and correspondingly, a Displaced Generator, a Generator will be  
323 classified as a Displaced Generator only if the System Operator asked that  
324 Generator to constrain-off out of merit. However, if the constrain-off plant is based on  
325 the MOT, it will not be considered as a Displaced Generator. Relatedly, on the  
326 concern of Ms. Carabuena in the earlier discussions, Mr. Binondo inquired from the  
327 SO on the amount or percentage that a particular generator should be asked to  
328 reduce when it is asked by the SO to constrain-off due to an MSU.  
329

330 In response, Mr. Rosales stated that the amount to be reduced by a particular  
331 Generator would depend on the requirements of the Grid—it may reduce its output  
332 partially relative to its schedule based on MOT, or shutdown totally.  
333

334 • Ms. Carabuena inquired from SO on how a generator will be called to reduce  
335 its output when the REs come in injecting power in the grid, whether the reduction of  
336 output will be shouldered by the marginal plant or the total energy that needs to be  
337 reduced will be divided equally among all generators in the MOT. Mr. Rosales  
338 responded that the SO's instruction to reduce output will still be based on the ranking  
339 in the MOT.  
340

341 At this point, Atty. de Castro reminded the body that the matter at hand is for the RCC's  
342 decision on whether the proposal by Mr. Meneses or, the previous settlement mechanism  
343 proposed by the RCC, which was presented by Mr. Marcial Jimenez, will be adopted.  
344

345 She summarized that based on discussions, the presentation by Mr. Meneses centers on  
346 looking to be able to balance the situation in terms of penalty and compensation for the MSU  
347 and Displaced Generator, respectively, when the RE comes in. The position of the SO and  
348 the MO is that since the REs are covered by the law and DOE's policy, it accepted as  
349 expressly included in the market operations and should not be made liable for the  
350 opportunity loss on the part of the Displaced Generator. The position of the Generators is  
351 that they should be properly compensated when they are displaced due to the MSU, through  
352 the appropriate settlement mechanism of pro-rating the MSU amount to the Displaced  
353 Generators. The position of PEMC Legal as expressed by Atty. Mateo is that the opportunity  
354 loss can be addressed through proper hedging and better financial contracts between  
355 Generators and DUs.  
356



357 Following the discussions, upon motion duly moved and seconded, the RCC agreed to retain  
 358 the original settlement mechanism previously discussed by the RCC over the proposed  
 359 settlement mechanism presented by Mr. Meneses.

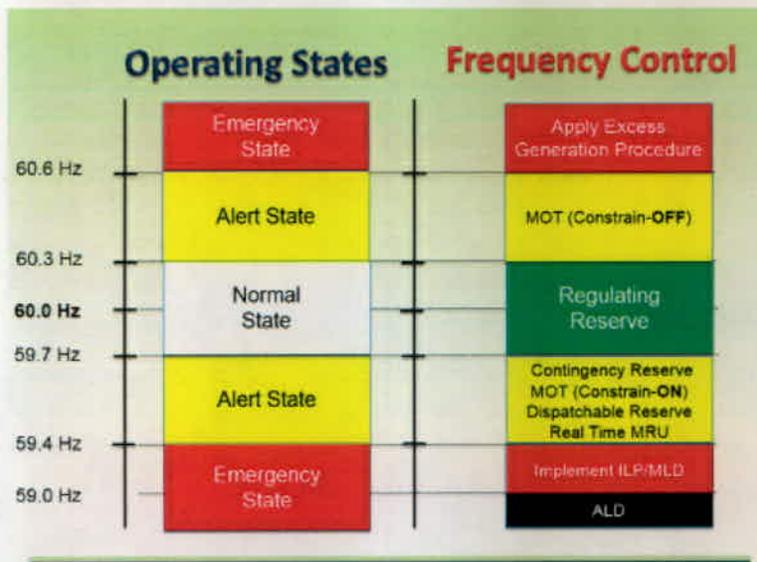
360  
 361 The RCC thereby approved the proposed amendment to the MRU-MSU Manual on the  
 362 Settlement by MSUS of Displaced Generators, and agreed on its endorsement to the PEM  
 363 Board.

364  
 365 Atty. de Castro thanked Mr. Meneses for his presentation.

366  
 367  
 368 **IV. NEW BUSINESS**

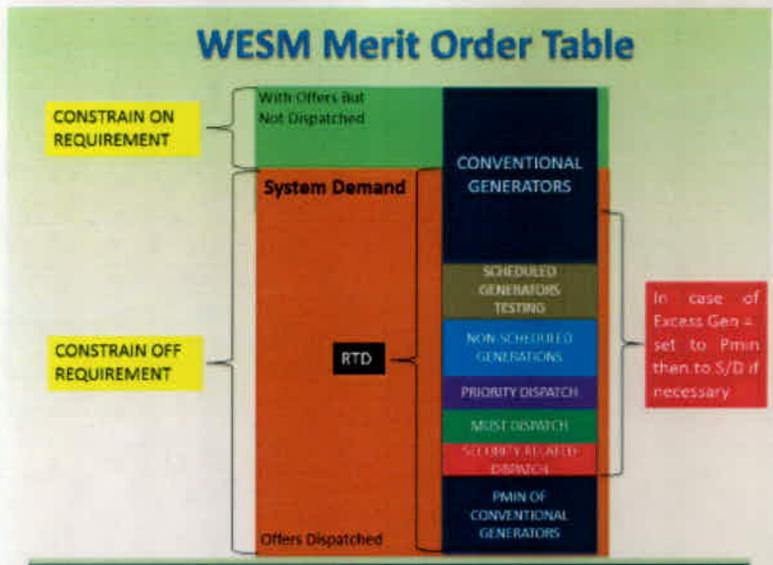
369  
 370 **1. NGCP's Proposed Amendment to WESM Rules and Market Manuals**

371  
 372 Prior to his presentation of NGCP's proposal, Mr. Rosales made a short presentation in  
 373 relation to the current practice of the SO regarding dispatch protocol and frequency control,  
 374 with the following highlights:

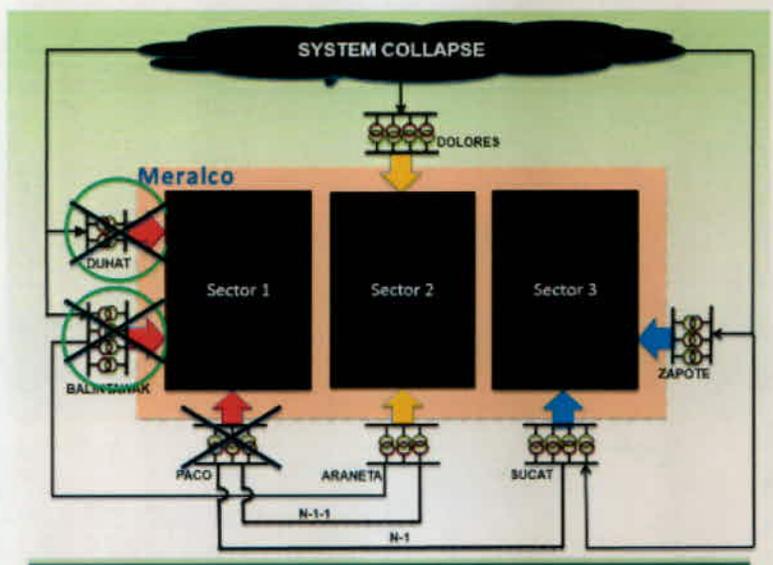


376  
 377  
 378

*Meneses*



379  
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Below are some of the discussions which followed:

- The N-1 is based on the sub-station and not on the line that trips.
- There is currently no downward regulation, but this will be put in place once the reserve market is implemented.
- When one sector of the Luzon grid trips, it can lead to a cascading effect because frequency can go up to its highest, and at the same time, overloading can occur due to the large loads of the other sectors, which can further lead to instability of the generators.
- Since the Visayas grid is a single circuit system, it is not compliant with the N-1 single outage contingency based on the current requirements of the Philippine Grid Code

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399 (PGC). However in the proposed PGC amendments, Visayas is exempted from  
400 compliance with the N-1 since it is not considered as a credible N-1.  
401

402 Mr. Rosales' introductory presentation was followed by a discussion of NGCP's 1<sup>st</sup> of 3  
403 proposals—the Proposed Amendment to the Manual on System Security and Reliability  
404 Guidelines.  
405

406 Below are the comments and discussions relative to the presentation of the Proposal:  
407

- 408 • Upon inquiry from Atty. De Castro, Mr. Rosales clarified that the operating margin  
409 refers to the available capacity of generators, less the forecasted demand.  
410
- 411 • The term "sufficient" as used in Section 5.1 b means that the loss of a generating unit  
412 can be replaced immediately at any time, not necessarily the loss of the largest unit  
413 or the reserve provider. The loss pertains to the loss of any unit synchronized to the  
414 grid.  
415
- 416 • Under Section 5.2, the RCC revised item b, as follows: "b. The operating margin is  
417 not sufficient to replenish sudden loss of a generating unit. The System Operator will  
418 issue a Yellow Alert Notice in such case."  
419
- 420 • Under Section 5.2 e, Atty. De Castro inquired on how the term credible in "credible N-  
421 1" is defined. Mr. Rosales stated that this term is defined in the PGC. But to clarify,  
422 the contingency cannot be predicted in contrast with a disturbance. Thus, if a line is  
423 considered to trip, this can already be considered as a credible N-1.  
424
- 425 • Mr. Meneses inquired if the SO will propose a definition for a white alert which seems  
426 to be an oxymoron. Mr. Rosales expressed that they do not use white alert because  
427 in the first place, alert is issued when the grid is not normal, thus, if it is normal, there  
428 is no alert to be issued. He added that even in the PGC, white alert was not used or  
429 defined.  
430
- 431 • Under Section 5.3, the beginning sentence was revised, as follows for consistency  
432 with the other Sections, as suggested by Mr. Raymundo: **"The grid shall be**  
433 **considered in the Emergency State when any one of the following conditions**  
434 **exists:"**  
435
- 436 • In relation to the discussion on alert state, Mr. Rosales emphasized that based on  
437 ERC Resolution No. 21, after a credible N-1 is determined, it means that there is  
438 already a threat to the security of the grid. In which case, if the SO will not intervene  
439 or take any action, the tripping can cascade and cause a blackout. He clarified,  
440 however, that the same does not apply to Visayas since the Visayas grid is a single  
441 circuit system. He explained further that during normal condition, the consideration of  
442 the Visayas is still as a single circuit that has no N-1. The market, thus, always  
443 provides the schedule for Visayas since there is no market intervention to be  
444 declared.  
445
- 446 • The RCC recommended inserting the phrase **"as defined in the PGC"** for the terms  
447 used in the relevant sections in the Manual Manual/Proposal that are not currently  
448 defined in the Manual, such as Red Alert Notice, credible N-1 contingency, etc.  
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- Under Section 5.2 d, the RCC agreed on the following revisions: “The voltages at all transmission substations are outside the limits of  $0.95pu \pm 5\%$  but still within the thresholds of  $0.90pu$  and  $1.10pu \pm 10\%$ .” The RCC likewise agreed to change other relevant provisions which defines the values of “pu”.
  - Under Section 5.2 e, the following revisions were also agreed upon: “~~There is Critical loading or imminent overloading of transmission lines or substation equipment exists at any given time should a credible N-1 contingency should occur. Thus, the System Operator shall make the necessary manual interventions to restore back the grid operating condition to Normal state.~~” For the last sentence that was deleted, the RCC agreed to include in the relevant clause/s in the Chapter 6 of the WESM Rules pertaining to intervention and suspension.
  - For consistency, the RCC agreed to use N-1 instead of n-1 for all relevant provisions.
  - Dr. Allan Nerves inquired on how critical loading is defined, and whether or not it is quantifiable. Mr. Rosales responded that it is a value between 90% and 100% of the capacity.
  - Under Section 5.3 b, the RCC agreed to delete the same. “~~b. Single Outage Contingency (N-1) Criterion is not met .~~”
  - For purposes of making the proposal consistent with the PGC, Mr. Binondo reminded the proponent that the basis for such consistency should be on the prevailing ERC-approved PGC and not the amended version which has not yet been approved. For instance, Mr. Binondo cited that under the criteria for alert state in the SO’s proposal, “peace and order” was omitted. Mr. Rosales responded that the proposal in general was made consistent with the currently amended PGC, with additional revisions on those provisions that are no longer applicable, and which are proposed to be deleted/replaced in the amendments to the PGC on system security and reliability.
  - In relation to the discussion, Atty. de Castro inquired from the ERC representative on what the estimated timeframe is for the approval of the amendments to the PGC. Mr. Nelson Canlas expressed that he will inquire on the information from the responsible department within the ERC and provide any updates to the RCC. As to the comments of Mr. Binondo, Atty. De Castro agreed that indeed, the SO should consider the prevailing ERC-approved PGC in its proposal for the WESM Rules and market manuals.
  - Dr. Nerves inquired from Mr. Rosales if the term “significant threat” is already defined, and who decides whether or not there is a significant threat in the system.
- Mr. Rosales responded that it is the SO who determines if there is a significant threat in the system, which the SO bases on a simulation it undertakes. He shared that the SO is capable of conducting an online load flow by getting actual snapshots in real time, which the SO uses for offline simulation. Mr. Rosales further explained that the term significant, for purposes of Section 5.4, pertains to the overloading of any equipment and does not pertain to frequency. He clarified that the SO has no capability of determining the probability of when a line would trip. However, the SO would know the impact of a tripping of a line in the grid’s security. Thus, the SO treats such tripping as a threat to security, and if the SO will not act on such threat, once



502 the line actually trips this results in essentially another N-1 and, the entire system  
503 could collapse.

504  
505 • Dr. Nerves further inquired if the SO has a record of credible contingencies that are  
506 already classified or identified, to make the SO's judgment more or less justifiable.  
507 Mr. Rosales responded that the SO has a list of N-1 contingencies, which the SO is  
508 capable of ranking according to severity, using the SO's contingency analysis  
509 application. However, as defined in the PGC, he reiterated that the credible N-1  
510 pertains to the tripping of a single line or equipment.

511  
512 • Mr. Binondo commented on the confusion brought about by the use of the terms  
513 related to reserve (contingency, secondary, frequency regulation, primary, etc.). He  
514 suggested that perhaps, the SO should provide in its proposal a matrix showing the  
515 terms used in the original PGC, the changes based on reserve market, and the terms  
516 used in the proposed amended PGC, for better appreciation of the body.

517  
518 • Under Section 5.5 a, Ms. Carabuena inquired on the reason for deleting the provision  
519 "Adequate frequency regulating reserve and contingency reserve shall be available  
520 to stabilize the system and facilitate the restoration to the normal state following a  
521 multiple outage contingency." She commented that her appreciation of said provision  
522 is to mandate the SO to ensure adequate regulation reserve.

523  
524 Mr. Rosales responded that the same is not related to reserve requirement,  
525 explaining that during or following a multiple outage contingency, the SO can no  
526 longer assure that there will still be adequate contingency and regulation reserve,  
527 thus the deletion. He explained further that the deleted provision is anyway captured  
528 in the proposed revision that "**The grid is operating in the Normal state in terms of  
529 reserve requirement when the operating margin is sufficient to replace the loss  
530 of load of the largest synchronized Generating unit.**"

531  
532  
533 Following the discussions, and noting the numerous concerns raised by the body, Atty. de  
534 Castro expressed that the SO may consider revising the proposal to incorporate the inputs  
535 provided by the RCC. In which case, it was also agreed by the RCC to defer further  
536 discussions on the SO proposal in the next RCC meeting, to resume once the SO has  
537 revised its proposal.

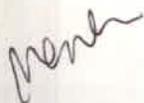
538  
539 The RCC thanked Mr. Rosales for his presentation and the explanations he had provided  
540 during discussions on the matter.

541  
542  
543 **2. Petron's Proposed Amendment to the WESM Rules on Cogeneration**

544  
545 Atty. de Castro acknowledged the presence of representatives from Petron. Mr. Michael  
546 Viray made the presentation relative to Petron's Proposal.

547  
548 Mr. Viray's presentation focused on Petron's current cogeneration situation and in connection  
549 therewith is alleged non-compliance to the Must Offer Rules (MOR) requiring generation units  
550 to offer their maximum available capacity.

551  
552 • Mr. Viray explained that based on the current definitions in the WESM Rules and  
553 Market Manuals, the peculiarities of acogeneration facility is not captured. Moreover,

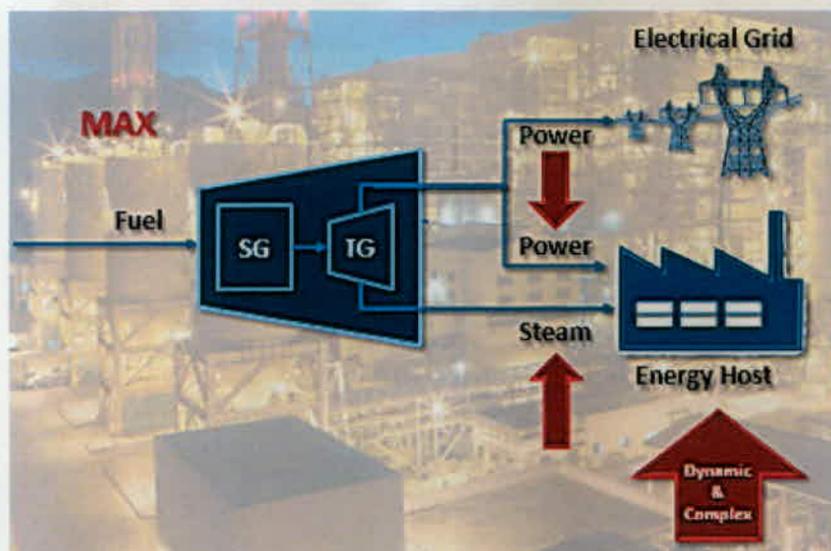


554 said peculiarity cannot be placed anywhere in the currently acceptable constraints in  
 555 computing for the maximum available capacity.

556

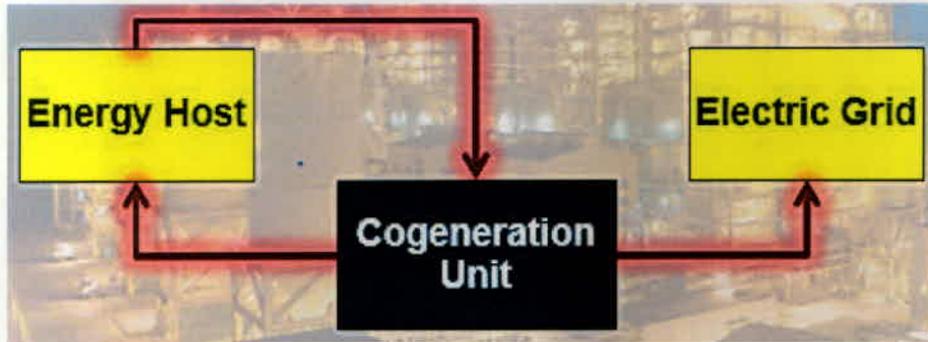
Constraints	Remarks
Technical	Equipment-related failure; ambient temperature
Hydro	Limitation on the water elevation/turbine discharge
Geothermal	Steam quality (chemical composition, condensable and non-condensable gases) Steam pressure and temperature variation Well blockage; and Limitation on steam and brine collection and disposal system

- 557
- 558
- 559 • He further explained that the energy host's steam and power load occur at the end of  
 560 the process, which by itself is not considered as technical constraints  
 561



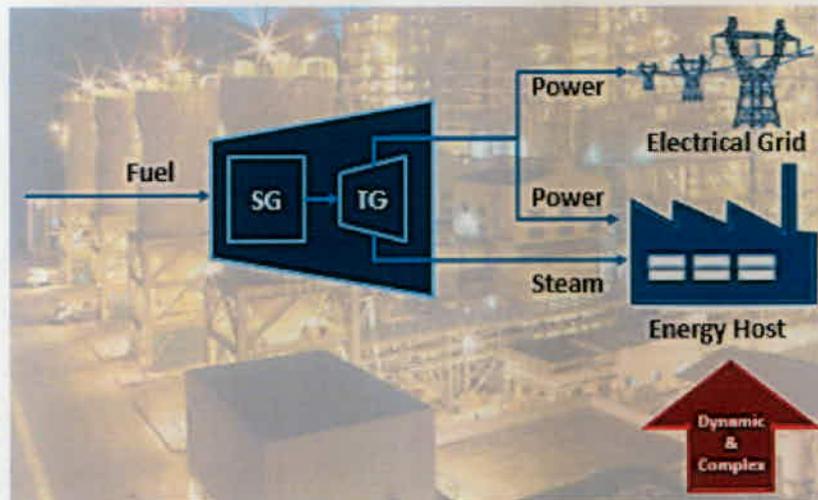
- 562
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- 565 • The cogeneration unit and energy host are interdependent. The only time at which  
 566 the energy host can affect the maximization of the cogeneration unit is when steam  
 567 demand is significantly low, usually occurring when the energy host is on shutdown.  
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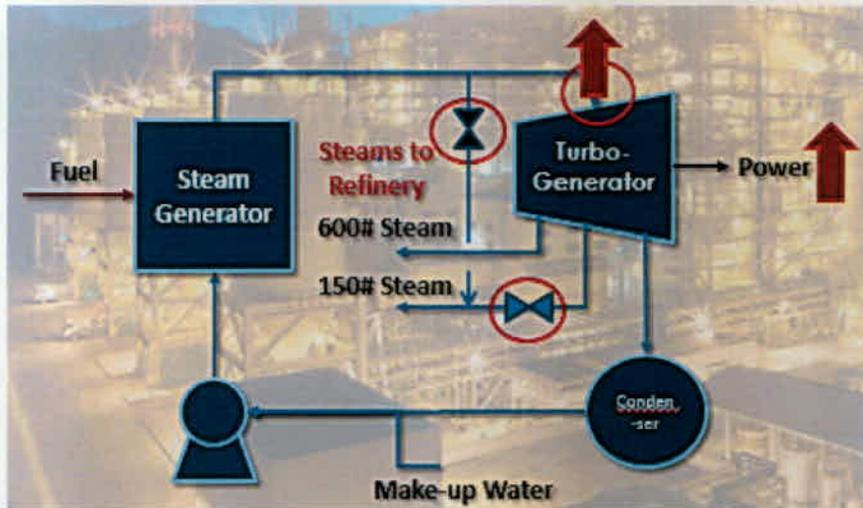
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- Excess power fed to the grid is only a by-product of the need to generate steam and power for the energy host and is an operational necessity. The main purpose of the cogeneration facility is to supply energy and steam to the energy host. Only excess energy will be offered in the grid. Although the registered capacity of the two (2) units of the cogeneration facility is 70MW (or 35MW each unit), most of the time, it can only offer up to 15MW, while there are times that it can offer 0MW, particularly when the energy host is on shutdown. There are even times that the facility imports power that it will supply to its energy host.



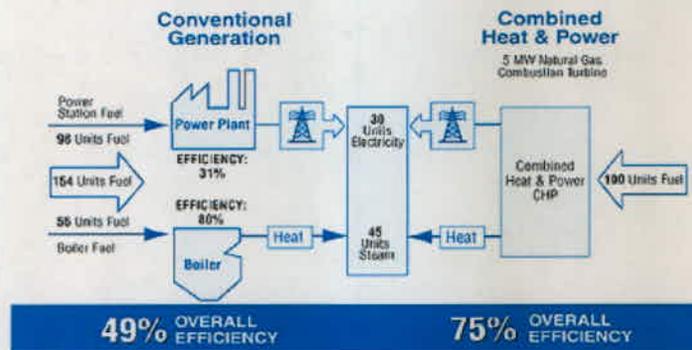
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- Other characteristics of a cogeneration is that it is a highly efficient and environmentally-friendly energy technology.



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- Cogeneration likewise promotes competition as it displaces inefficient technologies in the market.
- Petron's Proposal, therefore, was as follows:

- **Cogeneration Units/System has a peculiar nature difficult to cover in WESM Rules**
  - Designed to supply heat and power to its energy host
- **Proposed Rules Changes:**
  - Need to create a new classification
  - Need to exempt from the "Must Offer Rule" (MOR)
- **Exemption from MOR because:**
  - Excess power is a by product and operational necessity
  - Excess power not intended for profit maximization
  - It promotes energy efficiency, energy self-sufficiency and renewables
  - It promotes competition in the market
  - It helps government towards goal for sustainable development

597

*Merwin*

598

599

600 The following comments and suggestions were given by the RCC:

601

602 • Mr. Cacho suggested that instead of proposing an additional classification of  
603 generating units, Petron may consider either proposing a revision on the definition of  
604 the maximum available capacity, or revisiting and revising, as appropriate, its  
605 registration in the WESM. Mr. Rosales similarly opined that amending the current  
606 classification of generation plants in the Rules is not necessary. He suggested that  
607 Petron can instead get a new COC and register in the market what it can offer in the  
608 market as its maximum available capacity.

609

610 • Mr. Meneses suggested looking into the definition of the non-scheduled generation,  
611 which is based only on the size and not the type of Generation facility. Mr. Meneses  
612 expressed that by making appropriate revisions to the definition of the non-scheduled  
613 generation unit, Petron's cogeneration facility can perhaps get exemption from the  
614 Must-Offer rule.

615

616 • Mr. Chrysanthus Heruela expressed that the proposal emanated from the MSC's  
617 recommendation for Petron to propose the appropriate changes to the Rules that  
618 would capture the peculiarity of the cogeneration facility, having recognized that it is  
619 a separate energy subsector that the market should encourage to grow. Mr. Heruela  
620 stated that such facility is beneficial both in the supply and demand side, and that the  
621 proposal for it to be a new type of generator is to really encourage the development  
622 of cogeneration. However, Mr. Heruela opined that perhaps, Petron should consider  
623 revising other applicable rules that their proposal will affect, and likewise include as  
624 part of their proposal more details in terms of obligations and accountabilities of the  
625 cogeneration facility, if it will be considered as a new plant category.

626 In response to the suggestions above, Atty. Cheryl Mendoza stated that when Petron was  
627 drafting the Proposal, it also considered proposing to change the definition of the maximum  
628 available capacity. However, she expressed that by doing so, Petron felt it will not capture  
629 what they are trying to achieve, which is to highlight the peculiarity of a cogeneration facility.  
630 She further expressed that should the WESM or the RCC require Petron to submit a report  
631 or any additional documents that would support their position, Petron would be very much  
632 willing to discussing that as well, as to what type of reports will be required from their end.

633

634 Following the discussions and having heard Petron's position, the RCC approved the  
635 publication of the proposal, to solicit comments of participants and interested parties.

636

637 Atty. de Castro thanked the representatives from Petron.

638

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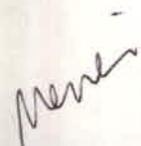
## 640 **V. OTHER MATTERS**

641

### 642 **1. PEM Board Updates**

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644 Ms. Geraldine Rodriguez informed the RCC that the RCC-endorsed proposal for  
645 amendments to the WESM Rules and the Manuals on MRU-MSU and Dispute Resolution in



646 relation to the verification of MRU data, was approved by the PEM Board in its meeting held  
647 on 24 July. The information was duly noted by the RCC.  
648

649

## 650 **2. Schedule of BRC and PEM Board for August 2015**

651

652 Ms. Rodriguez informed the RCC of the schedule of the next BRC and PEM Board meetings  
653 on August 2 and 24, respectively. Ms. Rodriguez thus requested for confirmation for  
654 presenters in both meetings for the presentation of Proposals that were approved and will be  
655 endorsed by the RCC to the PEM Board.  
656

657

## 658 **3. DOE's letter to PIPPA regarding MRU**

659

660 Ms. Rodriguez discussed briefly the contents of the DOE's letter to PIPPA, in response to  
661 the issues raised by PIPPA in relation to MRU.  
662

663

664 In summary, the DOE indicated in the letter, the agreements reached between the DOE and  
665 PIPPA during their discussions, as follows:

666

667 a) Considering that the issue emanated from the use of almost similar terms, ie. "constrained  
668 on" vs. "constrain on," it was agreed for PIPPA to file with the RCC the corresponding rules  
669 change proposal for the adoption of terms other than constrain-on and constrain-off;

670

671 b) DOE to consider PIPPA's concerns on the responsibilities and accountabilities of the SO  
672 in terms of calling power plants as MRUs, automation of SO instructions specifically during  
673 intra-hour and monitoring of ramp-up/ramp-down, among others; and

674

675 c) PIPPA to proactively participate in the ERC hearing on the petition that will be filed by  
PEMC relative to MRU.

676 The information was duly noted by the RCC. Atty. de Castro thanked Ms. Rodriguez for  
677 sharing the updates with the RCC.  
678

679

## 680 **4. DOE's Letter to PEMC regarding Approval of Amendments to the WESM Rules 681 on Rules Change Process**

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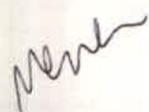
683 Ms. Rodriguez informed the RCC that the DOE already issued its approval on the  
684 amendments to Chapter 8 of the WESM Rules on the Rules Change Process previously  
685 endorsed by the RCC. However, since major revisions were made by the DOE on the  
686 original endorsement by the RCC, the DOE in its letter directed PEMC and the RCC to  
687 coordinate for the necessary manual revisions to harmonize the manual with the approved  
688 WESM Rules amendments.  
689

690

691 Ms. Rodriguez expressed that PEMC will review the manual and revert to the RCC once the  
692 revised proposal has been crafted.

693

694 The information was duly noted by the RCC. Atty. de Castro once again thanked Ms.  
695 Rodriguez for the update she provided, and expressed that the RCC will await PEMC's  
submission of the revised proposal on the relevant market manual.



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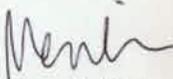
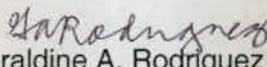
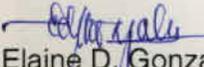
**VI. NEXT MEETING**

The RCC was reminded of the previous agreement to meet on the following dates in the succeeding months of 2015:

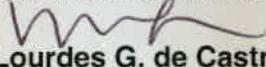
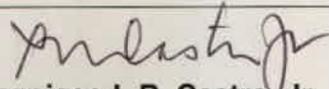
- 104<sup>th</sup> RCC Meeting – 02 September
- 105<sup>th</sup> RCC Meeting – 07 October
- 106<sup>th</sup> RCC Meeting – 04 November
- 107<sup>th</sup> RCC Meeting – 02 December

**VII. ADJOURNMENT**

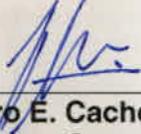
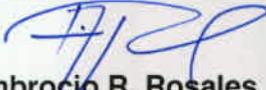
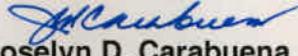
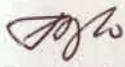
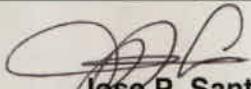
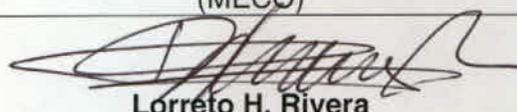
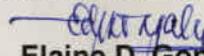
There being no other matters at hand, the meeting was adjourned around 4:30 PM.

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

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Approved by: <b>RULES CHANGE COMMITTEE</b>  <b>Maila Lourdes G. de Castro</b> Chairperson Independent	
Members:	
<b>Concepcion I. Tanglao</b> Independent	 <b>Francisco L.R. Castro, Jr.</b> Independent



 <b>Allan C. Nerves</b> Independent	 <b>Isidro E. Cacho, Jr.</b> Market Operator Philippine Electricity Market Corporation (PEMC)
 <b>Ambrocio R. Rosales</b> Transmission Sector National Grid Corporation of the Philippines (NGCP)	 <b>Joselyn D. Carabuena</b> Generation Sector Power Sector Assets and Liabilities Management Corporation (PSALM)
 <b>Jose Ferlino P. Raymundo</b> Generation Sector SMC Global	<b>Theo C. Sunico</b> Generation Sector Vivant Corporation
 <b>Ciprinilo C. Meneses</b> Distribution Sector (PDU) Manila Electric Company (MERALCO)	 <b>Jose P. Santos</b> Distribution Sector (EC) Ilocos Norte Electric Cooperative, Inc. (INEC)
<b>Gilbert A. Pagobo</b> Distribution Sector Mactan Electric Company (MECO)	<b>Ludovico D. Lim</b> Distribution Sector Antique Electric Cooperative, Inc. (ANTECO)
 <b>Lorreto H. Rivera</b> Supply Sector Team (Philippines) Energy Corporation (TPEC)	Certified True and Correct:  <b>Elaine D. Gonzales</b> ROC Secretary PEMC

