MINUTES OF THE 68TH MEETING OF THE RULES CHANGE COMMITTEE

Date	:	14 November 2012
Time	:	9:00 A.M.
Venue	:	PEM Board Room 18th Floor, Robinsons-Equitable Tower Ortigas Center, Pasig City

MEMBERS PRESENT:

Rowena Cristina L. Guevara	-	Chairperson/Independent – UP
Epictetus E. Patalinghug	-	Independent – UP
Francisco L.R. Castro Jr.	-	Independent – Tensaiken Consulting
Maila Lourdes G. de Castro	-	Independent – Unitel Productions, Inc.
Cherry Aquino-Javier	-	Generation Sector – AES
Cynthia R. Encarnacion	-	Generation Sector – NPC
Liberty Z. Dumlao	-	Generation Sector – PSALM
Ralph T. Crisologo	-	Generation Sector – SNAP
Ciprinilo C. Meneses	-	Distribution Sector – MERALCO
Jose P. Santos	-	Distribution Sector – INEC
Conrado D. Pecjo	-	Supply Sector – Angeles Power, Inc.
Raul Joseph G. Seludo	-	System Operator – NGCP

MEMBERS NOT PRESENT:

Augusto D. Sarmiento	-	Distribution Sector – DECORP
Sulpicio C. Lagarde Jr.	-	Distribution Sector – CENECO
Robinson P. Descanzo	-	Market Operator – PEMC

ALTERNATE MEMBER PRESENT:

Isidro E. Cacho	-	Market Operator – PEMC

OBSERVER PRESENT:

Isabelo Joseph P. Tomas II	-	ERC

OTHERS PRESENT:

Ermelindo R. Bugaoisan, Jr.	-	System Operator – NGCP
Ma. Loreto B. Moya	-	DOE

SECRETARIAT

Geraldine A. Rodriguez	-	PEMC – MAG
Shalom Grace A. Tomas-Llamzon	-	PEMC – MAG

After determining the presence of a quorum, the 68th RCC meeting was called to order by Chairperson Dr. Rowena Cristina L. Guevara at about 9:10 A.M.

1. **Adoption of the Proposed Agenda**

   The Proposed Agenda for the 68th RCC Meeting was approved, as presented.

2. **Review, Correction and Approval of the Minutes of the 67th RCC Meeting**

   The Minutes of the 67th RCC Meeting was approved, as presented.

3. Business Arising from the Previous Meeting

A. Review of Pmin and Must-Offer Rules

- **NGCP-System Operations (SO) Recommendation on the Supply Margin Threshold Level**

Using the data presented by the Market Operator (MO) on supply margins during the RCC's 66th Meeting, Mr. Raul Seludo presented the SO's recommendation on the Supply Margin Threshold Level, reiterating its original position *to maintain the status quo of existing rules* but proposed the following conditions if the cancellation of offers is to be allowed:

- To allow withdrawal if the supply margin is more than 30%;
- After withdrawal of qualified plants, the resulting Supply Margin should not be below 30%;
- The computation should be regional;
- The plant that could be allowed to withdraw should have the capability to synchronize to the grid before start of Peak Hours;
- Withdrawal should be **allowed only during OFF Peak** time; and
- More simulations should be done by Market Operator to see if this tighter supply margin would result in any price increase.

Mr. Edward Olmedo then presented the MO's evaluation, in support of the 30% supply margin threshold level being recommended by the SO but further proposed to both consider not only regional but system-wide computation of the 30% supply margin threshold level.

Dr. Guevara drew the group's attention to the key findings of PA Consulting on Pmin as it relates to the "must offer" rule, which formed the basis for the review of the RCC of the matter, and which thereafter triggered RCC's review of related provisions, as follows.

- "*The Rules and Procedures around mandatory dispatching of generators at their Pmin level causes generators to be non-compliant with the "must-offer" rule (Rule 3.5.5.1). Furthermore, it is inconsistent with the principles of economically efficient dispatch and promoting competition.*"

Responding to the above presentations, the Generation Sector representatives expressed their non-agreement with the proposed 30%, for the following reasons:

- The original proposal allowing the cancellation of offers at >10% supply margin is already the result of several discussions made by the RCC subcommittee which initially delved on other issues such as the introduction of secondary Pmin, among others, in response to the audit findings by PA Consulting.

- Based on the MO-SO data, the supply margin of >30% during peak hours occur in less than 1% of the time or only about 41 hours in a year, making the cancellation of offers almost not feasible for power plants.

- SO's recommendation points more to the issue of reliability rather than the audit findings of PA Consulting on the mandatory/forced dispatch of plants at Pmin which causes them to be non-compliant with the must-offer-rule. Mr.

Crisologo emphasized that the grid's requirement on reliability is supposed to be supported through the SO's contracted ancillary services. He pointed-out that at present, the SO has not contracted enough ancillary service to efficiently comply with the requirements on grid reliability under the PGC.

- On the MO's presentation which assumed that the cancellation of offers shall be applicable to all plants, it was clarified by Mr. Crisologo that the proposal was never intended for all plants but was conceptualized with only the more expensive/oil-based plants- particularly Malaya DPP and Limay CCGT- in mind as "priorities", since these are the same plants which at present, are not technically capable to rigidly comply with the must-offer-rule. Ms. Javier supported the argument by saying that the cancellation of offers is not applicable to most plants, such as base load plants, since most of their load requirements are almost fully contracted. She explained that a review of the offer trend/pattern of the generators with the WESM would confirm its constancy. Additionally, Ms. Javier pointed-out that Malaya DPP and Limay CCGT cannot just change their Pmin because these are technical in nature.

- To require the expensive plants to run (with their Pmin at 130MW) only to comply with the >30% supply margins as recommended by SO is impractical and will not solve the current issue of the expensive oil-based plants opting to cancel their offers even at the risk of being non-compliant, because in reality, for that hour, it is not economically feasible for them to run their plants.

- It is possible that the government (which still operates Malaya through PSALM), will subsidize the loss incurred in running the plant through the imposition of Universal Charge (UC) with the end-consumers.

- Responding to the comment of Mr. Meneses that the interests of the consumers and the generators are diametrically opposed and this being so, the RCC should be able to strike a compromise, Ms. Javier pointed-out that the basic concept of the EPIRA is to promote competition and efficiency in order to bring down the price of electricity. She stated that in the long run, it is the end-consumers who will suffer if there is no policy in-place which can support and sustain the investments of the generators.

Mr. Castro expressed the view that allowing power plants to withdraw offers is not necessarily the solution to the audit findings. He opined that the solution should be aligned towards ensuring that there is sufficient reserves, as earlier discussed by the generator sector.

Mr. Seludo for his part clarified that the NGCP is currently engaged in several ongoing negotiations for the contracting of ancillary services.

Mr. Seludo further discussed that the RCC may also consider crafting a policy which will single-out Malaya DPP since the plant has been operational even before the WESM and it is clear that its technical specifications (12-hours of start-up) cannot respond efficiently to current market rules. On the basis of attracting private investments into Malaya, Mr. Seludo stated that it might be possible to craft rules which are case-specific to Malaya.

Ms. Javier clarified that the original proposal submitted by the generators is already responsive to the observation of Mr. Seludo, since the criteria provided therein would only point to Malaya DPP and Limay CCGT, having specified that the cancellation can

only be allowed with "*the generation units that are the most expensive units following the MOT results of 1200H DAP*".

The RCC then voted (7-3 with 2 abstentions) to adopt as an RCC proposal the original proposed rules change from the generator sector representatives which would allow the cancellation of offers by the most expensive units only when the total generation offers is 10% above the demand for the trading hour. Further, the RCC correspondingly agreed to post the proposed amendments in the public information website to solicit comments from market participants and other interested parties.

B. Proposed Further Amendments to the WESM Dispatch Protocol Manual regarding Re-Dispatch Procedures based on the WESM Merit Order Table

The body took cognizance of the comments submitted by the MSC, TC and MERALCO on the subject proposal as posted in the WESM website. It was noted that the comments were received by the Secretariat on 08 October 2012, which is the 30th day (i.e. the last day for the submission of comments) of the RCC's posting of the proposal in the WESM website.

Dr. Guevara requested Mr. Meneses to discuss the observations raised by MERALCO. He responded by clarifying that he was not involved with the submission made by his company on the proposal.

The RCC then agreed as follows:

- To await the result of the DOE's ongoing review of the submitted RCC-proposed amendments to the Dispatch Protocol Manual Issue 6.0, and the Management of Must Run Units Manual Issue 4.0 which revised the definition of the Merit Order Table (MOT) and the manner of its implementation and the mechanism on Must Stop Units (MSUs) respectively, before it proceeds with the discussion on the further proposed amendments.

- To task the following RCC members to review the comments on the proposed further amendments and to prepare the same for discussion upon the DOE's issuance of the result of its ongoing review, as cited above:

  - Mr. Castro and Mr. Santos-MSC Comments;
  - Mr. Meneses and Mr. Crisologo-TC Comments; and
  - Atty. Dumlao and Atty. De Castro-MERALCO Comments.

- To instruct the Secretariat to draft the corresponding replies, in order to update the MSC, TC and MERALCO on the action taken up by the RCC on the matter.

Mr. Crisologo commented that it may be more practical if Mr. Meneses, the sectoral representative for the DUs, will be able provide the status update to MERALCO regarding the rules change process and status of proposals. Dr. Guevara noted this observation and further stated that RCC members are supposed to report ongoing RCC matters to their respective sectors.

C. Proposed Amendments to the Registration and Settlement Provisions of the WESM Rules

The RCC noted that a Resolution adopting the proposal, as revised, was already passed and correspondingly signed by the Committee during its 68th Meeting held on 03 October 2012. However, giving due course to the comment submitted by MERALCO which was received by the Secretariat on 08 October 2012, the body took cognizance of the submitted comments and re-opened the discussion on the proposal.

Deliberating upon the comments submitted by MERALCO, the RCC then unanimously agreed that:

- The objective for the proposed removal of the 7-day prior notice is to avoid the delay in the issuance of the Final Statement;

- The proposed deletion of the 7-day notice does not in any way preclude the trading participants (TPs) from correcting any error in the Final Statement, considering that the present Rules provide for the mechanism which allows TPs to further correct their Statements within one year from its issuance.

- A trading participant can directly contest an issued-Final Statement without the need for a third party to intervene.

The RCC then instructed the Secretariat to draft the reply to MERALCO on the subject. Dr. Guevara clarified that to write a reply directly to MERALCO through its RCC representative will simplify the process instead of posting in the WESM website the result of the RCC discussion, which will then open-up the possibility of MERALCO submitting further comments on the same.

After its discussion on the matter, the RCC affirmed its 03 October 2012 agreements on the proposed amendments, and to endorse the same to the PEM Board for approval.

D. Review of the Rules Change Manual in Response to the Governance Process Review Audit Observation

The body similarly took cognizance of the comment submitted by MERALCO on the subject proposal and noted that the same was received by the Secretariat on 08 October 2012, which is the 30th day of the RCC's posting of the proposal in the WESM website.

On MERALCO's suggestion to harmonize the proposed Section 10 with the definition of "publish" in Section 2 of the Manual, the RCC affirmed its previous agreement on the subject that both provisions merely clarified the following instances when publication in newspaper/s is required, which are as follows: (a) as may be deemed necessary by the PEM Board, amendments will have to be published in at least two (2) newspapers of general circulation *(Section 2)*; and (b) advisories on amendments which shall be published in one (1) newspaper of general circulation *(Section 10);*

The RCC then agreed to endorse the following rules change proposal to the PEM Board:

Section 10. Publication

"Subject to Section 7.4, consolidated amendments shall be published on a monthly basis in the WESM website. Advisories on amendments as embodied in DOE Circulars shall be published in one (1) newspaper of general circulation **upon instruction by the DOE**."

E. Proposed Changes to the WESM Rules on the Reduction of the Minimum Offer Block Size from 5MW to 1MW

Dr. Guevara re-opened the discussion on the reduction of the minimum offer block size as instructed by the PEM Board Review Committee, reverting to the original proposed amendment submitted by PEMC which proposed to reduce the offer block size from 5MW to 1MW only.

Mindful of the reservations expressed by the SO even before the proposal was submitted to the PEM Board, Dr. Guevara requested the SO to submit its comment on the issue.

Mr. Seludo at this juncture clarified that in previous RCC deliberations, the SO's feedback is that it is capable of monitoring the 1MW minimum block size in its SCADA. However, owing to the recent MO-SO Coordination Meeting where it was expressed by SO engineers that there might be some technical issues to consider, i.e. dispatch tolerance limits and MW per hertz requirement, should the offer block size be reduced to 1MW, Mr. Seludo stated that he will have to clarify the matter with his SO colleagues before he can finally submit the SO's position/recommendation. He clarified, however, that from his viewpoint, the technical issue may come from the increase of the number of competing generators, since competition will be expanded to include those operating below 5MW. Mr. Seludo pointed-out that at present, unscheduled generators are not required to install SCADA in their systems.

The SO then committed to submit its comment on the proposal through email within a week following the RCC 69th Meeting.

F. Review on Ramp Rate/Consideration of Shorter Trading Period (as reflected in the 2012 RCC Workplan)

- **PEMC Comments in its 03 September 2012 Memorandum to RCC**

Dr. Guevara opened the discussion on ramp rates and recalled the RCC's intent to require the generators to submit their ramp-up and ramp-down rates, showing the change in MW versus time. She then presented the discussion paper annexed to the letter of PEMC President Ocampo to the RCC on the subject, stating that PEMC is amenable to RCC's suggestion and to additionally require the submission of minimum ramp rates upon registration since at present, it is only the maximum ramp rates which serve as the validation criteria in the processing of the ramp rate offers of generators.

Dr. Guevara clarified that the objective of the study on ramp rates is to help the MO to make better projections and to provide accurate information which can help guide the SO in its dispatch of plants.

The following were the observations raised during the discussion:

- Dr. Guevara pointed-out that the MO should be able to clearly define the information which will be required from the generators.

- Dr. Guevara also requested the representatives of the generation sector to consult with their sector on the ramp rate information which they can actually declare. For the MO's part, it was made clear by Mr. Cacho that the information requested are the minimum and maximum ramp-up and ramp down rates in all of the 5 break points.

- Dr. Guevara expressed the view that threshold levels should also be provided, considering that a very wide range will not help the MO to make better projections.

- Ms. Javier clarified that the requested interval of break points addresses two processes: one is during the bidding/submission of offers, when generators will be required to declare its maximum-minimum break points and second, during actual dispatch, when generators will be required to ramp-up and down within their declared MW range.

- Mr. Cacho explained that at present, generators are required to submit their maximum ramp up and ramp down rates. The proposal seeks to require the submission of the minimum and maximum ramp rates with MW ranges.
- Mr. Cacho also explained that the proposal points to the market impact of a generator's calculation of its target MW schedule since as it is in actual runs, the declared endpoint may not actually be the same endpoint, as initially declared. Mr. Crisologo countered the said explanation by saying that a generator is guided by its RTD schedule and it will naturally move-up to reach its target MW level. Dr. Guevara then made clear that the case pointed-out by Mr. Crisologo is precisely the reason why there was no requirement on minimum ramping, since the generators would naturally want to reach its RTD schedule. She added that the maximum ramping information is necessary to help guide the SO in its calculation relevant to the dispatch of plants.

After the RCC's lengthy deliberation on the matter, the RCC agreed to write a letter addressed to President Ocampo, requesting for the revision of the Discussion Paper submitted by PEMC in order to make clear the requirements being requested from the generators on their ramp rates, by incorporating the following revisions:

- To convert into a "pricewise linear function", the sample of the ramp rate capability curve of a power plant as shown in Figure 1;

- To correct Table 1 by referring to "interval of break points" in its column 1 instead of only "break points", in order to make clear that the values indicated therein refer to MW ranges;

- To correct the use of dependent and independent variables in the table/figure, since the "x" axis should plot the independent variable (MW) and the "y" axis should plot the dependent variable (time); and

- To clarify the instances when offers will be "invalidated", considering that the same may actually relate to compliance issues.

Dr. Guevara also requested the MO to check as to how much percent of time the generators deviate from their declared ramp rates and the corresponding financial impact of the same.

4. New Business

Issues/ Topics Discussed	Remarks	Agreement/ Action Item
A. PEM Board and Board Review Committee (BRC) Meeting Updates	<u>Updates on the BRC Meeting</u> ▪ Mr. Castro informed the RCC of the BRC's recommendation to defer for the next PEM Board Meeting, the RCC proposed agenda on the Dispute Resolution Market Manual (DRMM), in view of the non-availability of DRA Morallos as resource person. Upon consultation with Dr. Guevara, he explained that the RCC agreed with the BRC's recommendation. <u>Updates on the 75th PEM Board Meeting</u> ▪ Ms. Javier informed the RCC of the following actions taken by the PEM Board relative to the RCC's submitted proposals: • Approved the RCC proposed amendment to correct Section 9.8.3 of the Metering Standards and Procedures Manual; and • Confirmed the RCC's rejection of the proposal to remove the newspaper publication requirement on Suspension Notices.	▪ The RCC noted the information provided. ▪ The RCC similarly took note of the information provided.
B. Selection Committee Updates	▪ The Secretariat informed the RCC of the following nominations received by the Selection Committee to date:	▪ The Committee noted the information.

	Nominee	Sector	Company/ Affiliation	Endorsed by
1	Ciprinilo C. Meneses	DU-Private	MERALCO	MERALCO
2	Sebastian Lacson	DU-Private	PEPOA	VECO
3	Jose P. Santos	DU-EC	INEC	INEC
4	Sulpicio C. Lagarde	DU-EC	CENECO	AVEC
5	Cynthia R. Encarnacion	Generator	NPC	NPC
6	Ambrosio R. Rosales Alternate: Ermelindo R. Bugaoisan, Jr.	System Operator	NGCP	NGCP

5. Next Meeting

The RCC was reminded of the schedule of its next meeting (69th RCC Meeting) on 05 December 2012.

6. Adjournment

There being no other matter to be discussed, the meeting was adjourned at 12:35 P.M.

Prepared by:

[redacted]

Shalom Grace A. Tomas-Llamzon
Market Governance Analyst

Reviewed by:

[redacted]

Geraldine A. Rodriguez
Assistant Manager
Market Governance and Administration

Noted by:

[redacted]

Elaine D. Gonzales
Manager
Market Data and Analysis

Approved by:
RULES CHANGE COMMITTEE

[redacted]

Rowena Cristina L. Guevara
Chairperson
Independent
University of the Philippines
(UP)

Members:

[redacted]

Epictetus E. Patalinghug
Independent
University of the Philippines
(UP)

[redacted]

Francisco L.R. Castro, Jr.
Independent
Tensaiken Consulting

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Maila Lourdes G. de Castro
Independent
Unitel Productions, Inc.

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Cherry Aquino-Javier
Generation Sector
AES Philippines
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Cynthia R. Encarnacion
Generation Sector
National Power Corporation
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[redacted]

Liberty Z. Dumlao
Generation Sector
Power Sector Assets and Liabilities Management Corporation (PSALM)

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Ralph [redacted] risologo
Gene[redacted] Sector
SN Aboitiz Power
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Augusto D. Sarmiento
Distribution Sector (PDU)
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(DECORP)

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

[redacted]

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

Sulpicio C. Lagarde Jr.
Distribution Sector (EC)
Central Negros Electric Cooperative, Inc.
(CENECO)

[redacted]

Conrado D. Pecjo
Supply Sector
Angeles Power Inc.

[redacted]

Raul Joseph G. Seludo
Transmission Sector
National Grid Corporation of the Philippines
(NGCP)

[redacted]

Robinson P. Descanzo
Market Operator
Philippine Electricity Market Corporation
(PEMC)

Attachments:

1. SO Recommendations on the Supply Margin Threshold Level
2. MO Evaluation Based on SO's 30% Supply Margin Recommendation
3. PEMC Letter to RCC re Ramp Rates

Wholesale Electricity Spot Market

Simulation of Pmin Options through Supply Margins

14 November 2012

Background

- The Market Operator provided data on the available supply to the RCC on September 2012
- The System Operator provided further analysis on the data, and made some recommendations on possible options for the possible cancellation of offers in response to the issue on Pmin

Wholesale Electricity Spot Market

Supply Margins Data from MO

Wholesale Electricity Spot Market

Introduction

- Supply margin is a measure of the degree of difference of supply against the demand.

$$\text{Supply Margin},\% = \frac{[\text{Supply} - \text{Demand}]}{\text{Demand}} \times 100\%$$

- Since WESM is the central scheduling platform in the Luzon and Visayas grids, it can capture the supply margin in these regions.
- However, these data are only approximations and are therefore accurate in a certain degree since WESM currently caters the energy market only given that the available supply relative to reserves are not yet captured.
- The information contained herein considers the available supply in the market, which is the aggregate MW of energy offers and generation security limits imposed by SO less the generation capacities on outage and generator ramp limitations (if there are any).

Wholesale Electricity Spot Market

Available Supply Margin, % of Time

	PERCENTAGE DISTRIBUTION OF SUPPLY MARGINS, %							
	0 AND BELOW	0 TO 5	5 TO 10	10 TO 20	20 TO 50	50 TO 75	75 TO 100	GREATER THAN 100
System (All Hours)	1.5	8.7	15	26.6	46.8	1.3	0	0
Luzon (All Hours)	7.4	13.8	14.6	27.2	36.2	0.6	0	0
Luzon (1100H to 1500H)	19.4	27.8	19.1	23.4	10	0.2	-	0.2
Visayas (All Hours)	0	0.2	0.6	7.9	51.3	31.8	8	0.1
[illegible]	0.2	1.1	2.4	20.1	74.4	1.7	0.1	-

Wholesale Electricity Spot Market

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Evaluation from NGCP-SO

Wholesale Electricity Spot Market

System Operations

(All Hours based on MO data given last Sept 27)

	Luzon		Visayas		L + V	
below 0%	930	6.71%	6	0.04%	113	0.82%
0 to 4%	1,850	13.35%	26	0.19%	1,186	8.56%
5 to 10%	2,445	17.64%	104	0.75%	2,430	17.53%
11 to 20%	3,773	27.22%	1,236	8.92%	3,675	26.52%
21 to 30%	3,315	23.92%	3,066	22.12%	3,284	23.70%
31 to 50%	1,448	10.45%	3,906	28.18%	2,984	21.53%
51 to 100%	92	0.66%	5,494	39.64%	186	1.34%
above 100%	7	0.05%	21	0.15%	1	0.01%
	13,860	100.00%	13,859	100.00%	13,859	100.00%

Wholesale Electricity Spot Market

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System Operations

(Regular Weekday Peak Period 800H-2200H based on MO data given last Sept 27)

PEAK (8-22)	Luzon		Visayas		L + V	
below 0%	905	11.47%	6	0.08%	111	1.42%
0 to 4%	1,779	22.56%	26	0.33%	1,179	15.08%
5 to 10%	2,248	28.50%	104	1.33%	2,348	30.03%
11 to 20%	2,579	32.70%	1,235	15.75%	3,217	41.14%
21 to 30%	319	4.04%	2,965	37.81%	876	11.20%
31 to 50%	37	0.47%	2,849	36.33%	66	0.84%
51 to 100%	13	0.16%	652	8.32%	21	0.27%
above 100%	7	0.09%	4	0.05%	1	0.01%
	7,887	100.00%	7,841	100.00%	7,819	100.00%

Wholesale Electricity Spot Market

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System Operations

(Regular Weekday Off-Peak Period (2300H-0007H), Week End (Sat & Sun), and Holiday based on MO data given last Sept 27)

OFF PEAK (23-7)	Luzon		Visayas		L + V	
below 0%	25	0.42%	-	0.00%	2	0.03%
0 to 4%	71	1.19%	-	0.00%	7	0.12%
5 to 10%	197	3.30%	-	0.00%	82	1.36%
11 to 20%	1,195	19.99%	1	0.02%	458	7.58%
21 to 30%	2,997	50.14%	101	1.68%	2,409	39.88%
31 to 50%	1,412	23.62%	1,058	17.58%	2,918	48.30%
51 to 100%	80	1.34%	4,842	80.45%	165	2.73%
above 100%	-	0.00%	17	0.28%	-	0.00%
	5,977	100.00%	6,019	100.00%	6,041	100.00%

Wholesale Electricity Spot Market

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- Original SO position
  - To maintain the status quo of existing rules
- Observation/Initial recommendation based on available data given:
  1. To allow withdrawal if the supply margin is more than 30%.
     - This is to ensure that sufficient competition exist in the market.
  2. After withdrawal of qualified plants, the resulting Supply Margin should not be below 30%
  3. The computation should be regional
     - The combined margin is not recommended because of the limitation of the connection between Luzon and Visayas. HVDC transfer is limited to only 440MW and not the whole reserve coming from each region. Moreover, HVDC is not capable of reversing it's direction instantaneously. There is a need to block flow before it could be reversed.

Wholesale Electricity Spot Market

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- Observation/Initial recommendation based on available data given:
  4. The plant that could be allowed to withdraw should have the capability to synchronize to the grid before start of Peak Hours
     - This is due to the fact that the Supply Margin during peak is very much tighter than during Off-Peak
  5. Withdrawal should be **allowed only during OFF Peak** time
     - Regular Days (23:00 - 07:00)
     - Week Ends (Saturday and Sunday)
     - Holidays
  6. More simulations should be done by Market Operator see if this tighter supply margin would result in increase any price increase.

Wholesale Electricity Spot Market

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Evaluations from MO

Wholesale Electricity Spot Market

Issues to be Clarified

- In the cancellation of offers, who should be allowed to withdraw their offers?
  - SO recommends that only plants that are capable of synchronizing to the grid before the start of Peak Hours should be allowed to withdraw
    - ➢ Although this recommendation is aimed at ensuring that most generators are available for peak periods for sufficient supply margin, it does not solve the issue of inflexible plants committing to the market but are paid as "price takers"
    - ➢ How should Inflexible plants operate given that they can cancel only during off-peak but not at peak? And if they offer at peak, they will be automatically scheduled at Pmin, but in order to reach this level, they should run for some hours prior to this period
- How do you qualify plants for withdrawal?
  - If there is more than 30% of supply margin, how should the priority of cancellation work? Who is allowed to withdraw first before re-establishing that there is more than 30% left?

Wholesale Electricity Spot Market

Sample Interval (01 Nov 2012)

Original Supply Margins								
Luzon-Visayas			Luzon			Visayas		
Supply	Demand	Margin	Supply	Demand	Margin	Supply	Demand	Margin
7,543.30	5,797.60	30%	5,966.00	4,739.10	26%	1,577.30	1,058.50	49%

- Only Generators from Visayas will be allowed to cancel offers based on the proposal
- After generators cancelled their offers to allow a supply margin of 30% in Visayas, the following results were observed

Revised Supply Margins After Cancellation								
Luzon-Visayas			Luzon			Visayas		
Supply	Demand	Margin	Supply	Demand	Margin	Supply	Demand	Margin
7,543.30	5,797.60	27%	5,966.00	4,739.10	26%	1,377.50	1,058.50	30%

Wholesale Electricity Spot Market

Sample Interval (01 Nov 2012)

- The original 1400H market run was cleared at a price of PhP 2,102/MWh
- After allowing cancellation of market offers, the market was now cleared PhP 2,170.08/MWh
- Obviously, there was an increase in price because of the lower level of committed generators at Pmin.
- However, the results do not fully guarantee that price increase would be low nor substantial since it will still depend on the behavior of the Trading Participants and the market's dynamics (possible congestions, etc.)
- There are still some generating units that were scheduled at Pmin

Wholesale Electricity Spot Market

Alternatives on Cancellation of Offers

- Cancellation should both consider system-wide and regional supply margins to be above a threshold such as 30%

Wholesale Electricity Spot Market

Observations on Cancellation of Offers

- Cancellation would lead to higher prices if most generating units are allowed to cancel because of the increase in contestable demand (lower price-taker volume)
  - In a sense, cancellation would deplete competition.
- If most generating units are allowed to withdraw, trends may be established that can affect market behavior
  - Some generating units may tend to jack-up their prices to the ceiling price (PhP 62,000/MWh) for them to ensure that they are either paid as such, or not at all. This is beneficial to generators with small contracted quantities

Wholesale Electricity Spot Market

End of Presentation

Wholesale Electricity Spot Market

Philippine Electricity Market Corporation

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MEMORANDUM

To:	**The Rules Change Committee** [redacted] 9/4/2012
Thru:	**Mr. Chrysanthus S. Heruela**
From:	**Pres. Melinda L. Ocampo**
Date:	3 September 2012
Subject:	**RCC Recommendations on the Issues of NGCP-SO Visayas**

We refer to your memorandum dated 15 February 2012 regarding your comments and recommendations on the issues raised by NGCP-SO Visayas. In this regard, please find below our response/inputs:

- **Provision of Real-Time Dispatch Schedule**

  Upon analysis of our IST Department, it was determined that the system handling the file transfer of RTD schedule is already optimized

  On further analysis, PEMC provided System Operator (Luzon and Visayas) separate folders where market results can be fetched, however concurrent access to same source might be causing the locking of file which could possibly contribute to the delay in transmission. With this in mind, we suggest that coordination be established and agreed upon to eliminate file-locked, where each can decide to access the source of data by default either only through EBS or Ortigas.

  Alternately, we are also looking into enabling a provision for System Operator (Luzon and Visayas) to access the MMS (secured) website for them to download/view the RTD schedule 2 minutes before the hour. This, however, would take some time since it would require coordination with ABB and would incur additional cost.

  Given a long term solution, we will ensure to consider this feature with the purchase of the new MMS to permanently address this concern.

  For your information and reference, attached is the presentation material detailing the MO-SO Data Infrastructure, RTD Data Flow, RTD Schedule File Transfer Statistics and actual case of delayed RTD schedules.

- **Registration of Ramp Rates**

  We are amenable with the RCC's recommendation to require all generators to submit a graph/curve of ramp up and ramp down rates, showing the change in MW versus time, as part of the registration requirement. In addition to this, we propose that minimum ramp rates be also required from the generators during registration. Currently, only the maximum ramp rates, which the generators submit during registration, serve as the validation criteria in the processing of the ramp rate offers of a generator.

  Having both the upper and lower boundary for the ramp rates that is validated against the ramp rate capability curve of the generator would ensure that the schedule of a generator is actually within its operational limits. Consequently, the accuracy of the market offers of the generators would be enhanced since deferring from its submitted ramp rate capability curve would result to invalidation.

  Should the abovementioned recommendations be adopted, the following activities are necessary for their implementation:

  1. Modification and amending of Appendix A1 of the WESM Rules ("Information to be Supplied with Offers to Supply and to Buy Electricity") to include maximum ramp up and ramp down rate, minimum ramp up and ramp down rate, and ramp rate capability curve;
  2. Revisions of the pertinent provisions in the WESM Rules to require all generators to strictly comply with the linear ramping; and
  3. Enhancement of the current MMS and inclusion in the design of the new MMS for the implementation of the minimum ramp rate validation.

  We have also attached our detailed discussion on the ramp rate, for your reference.

We hope that you will find the foregoing helpful.

Thank you.

[redacted]

Melinda L. Ocampo
PEMC President