


MINUTES OF THE 88th MEETING OF THE RULES CHANGE COMMITTEE

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| Meeting Date & Time: | 04 June 2014 – 09:00 AM to 12:00 PM |
| Meeting Venue: | PEMC, 9th Floor, Training Rooms 2 & 3, Robinsons Equitable Tower, Ortigas Center, Pasig City |
| Attendance List | |
| In-Attendance | Not In-Attendance |
| Rules Change Committee Members | |
| Rowena Cristina L. Guevara --Chairperson/ Independent --UP Francisco L. R. Castro, Jr. --Independent--Tensaiken Consulting Maila Lourdes G. De Castro --Independent Concepcion I. Tanglao --Independent Ambrocio R. Rosales --System Operator --NGCP Joselyn D. Carabuena --Generation -- PSALM Jose Ferlino P. Raymundo --Generation -- SMC Global Jose P. Santos --Distribution --INEC Gilbert A. Pagobo -- Distribution --MECO Lorreto H. Rivera --Supply --TPEC Sulpicio C. Lagarde, Jr. --Distribution --CENECO Isidro E. Cacho, Jr. -- Market Operator --PEMC | Theo Cruz Sunico -- Generation -- 1590 EC Ciprinilo C. Meneses -- Distribution, MERALCO |
| Rules Change Committee Alternate Members | |
| Atty. Beatriz C. Alazas --Generation -- PSALM | |
| PEMC – Market Assessment Group (MAG) | |
| Geraldine A. Rodriguez Divine Gayle C. Cruz | |
| PEMC – Legal | |
| Ma. Lourdes S. Sabundayao- Andres Caryl Miriam Lopez-Mateo | |
| PEMC - TOD | |
| Marcial J. Jimenez | |
| ERC Observer(s) | |



DOE Observer(s)
Ferdinand B. Binondo

Others Present

Atty. Mark Actub - NGCP
Ms. Cherry Javier - Aboitiz Power Corporation
Ms. Catherine Bringas – 1590 EC

There being a quorum, Chairperson Dr. Rowena Cristina L. Guevara called the meeting to order at 9:00 AM.

1. Adoption of the Proposed Agenda

The Proposed Agenda for the 88th RCC Meeting was approved as presented. The updates regarding the RCC's presentations before the PEM Board during the 30 May 2014 Board Meeting was tackled at the beginning of the meeting.

2. Reading of the Minutes of Meeting

o **Minutes of the 87th RCC Meeting**

The RCC reviewed the 87th RCC Minutes, and upon motion duly made and seconded, approved the same as presented.

3. Business Arising from the Previous Meeting

➤ **Updates on the Results of the PEM Board Meeting**

The Committee decided to take up the updates from the PEM Board meeting before proceeding with the simulation results on stand-by capacity.

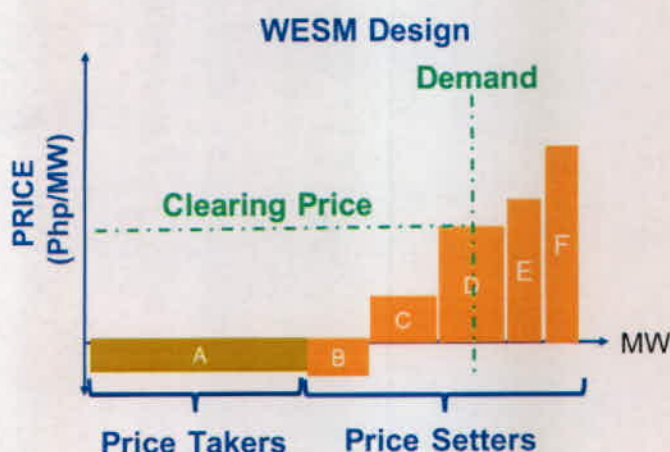
Mr. Ambrocio R. Rosales updated the other RCC Members about his presentation during the PEM Board Meeting on 30 May 2014 as regards Global Business Power Corporation's (GBPC) proposed amendments to the WESM Rules and the Dispatch Protocol Manual on the Nomination of Stand-by Capacity. He stated that during the presentation, he recapped the salient points of the proposal and laid out the RCC's comments as well as its recommendation for PEMC to conduct a simulation on Stand-by Capacity. Mr. Rosales reported further that, as a result of the meeting, the Board concurred with the RCC's recommendation and also directed the Committee to come up with enhancements to the proposal to make it feasible. Said action of the Board was also documented through a memorandum from the Office of the Corporate Secretary addressed to the RCC. In addition, the Secretariat presented the comments from independent PEM Board Member, Mr. Antonio A. Ver, on the proposal.



Mr. Isidro E. Cacho subsequently updated the Committee of the Board's approval of the proposal to replace the Dispute Resolution Administrator with the Enforcement and Compliance Officer as the one to undertake investigations of infractions related to meter data and metering facilities. He continued to inform the RCC that during the internal review and discussion of the proposal however, a question arose whether investigations of meter tampering is still within the responsibility of the Market Operator (i.e. PEMC), or should be left for the ERC to handle. Mr. Cacho stated that a proposal from PEMC shall be drafted in order to address the issue, which will then be coursed through the RCC.

➤ **Proposal for Amendments to the WESM Rules and a New Market Manual for the inclusion of Stand-by Capacity**

Mr. Marcial J. Jimenez presented the simulation results of the implementation of the proposed stand-by capacity, as requested by the RCC during the 87th RCC meeting. He began with a conceptual illustration of the proposal, comparing the current practice in the market with that of the scenario where plants are allowed to offer their capacities on stand-by. From the presentation, the following graphs provide representations of the WESM as designed, per current practice, and once the proposal is implemented:



Price Takers

Pmin, MRU, Non-Scheduled, Security Limited, Ramp Limited

Price Setters

Scheduled Generators with offer in the Market

fc

Current Practice



- ☐ Must Offer Rule
- ☐ Imposition of Offer Cap
- ☐ Plants that don't want to be dispatched offer their capacity at the Offer Cap Price

Proposal



- ☐ Must Offer Rule
- ☐ Imposition of Offer Cap
- ☐ Plants that don't want to be dispatched offer their capacity at the Offer Cap Price

Mr. Jimenez proceeded to recap the salient points of the proposal, summarized below:

- ✓ Payment for Providers of Stand-By Capacities
 - ❖ Metered Quantity multiplied by Ex-post Clearing Price or Stand-by Capacity Price (pay as bid), whichever is higher

Signature

- ✓ Redefinition of Maximum Available Capacity to exclude Stand-By Capacity; Portion of Pmax may be offered as Stand-By Capacity while the rest to Energy Market
- ✓ Stand-By Capacities will be offered through an internet interface. One Price and One Quantity.
- ✓ MO to create the Stand-By MOT based on offer that will be submitted to SO
- ✓ Stand-By Price may be changed daily or monthly. MO to set the deadline for the submission of Stand-By Offer
- ✓ Generators will submit to SO their registered ramp rate curves for basis of dispatch
- ✓ Proposed to be applied during Off-Peak Hours (Optional to be applied on all intervals)
- ✓ Proposed to be applied on peaking plants (Oil / Hydro Plants)

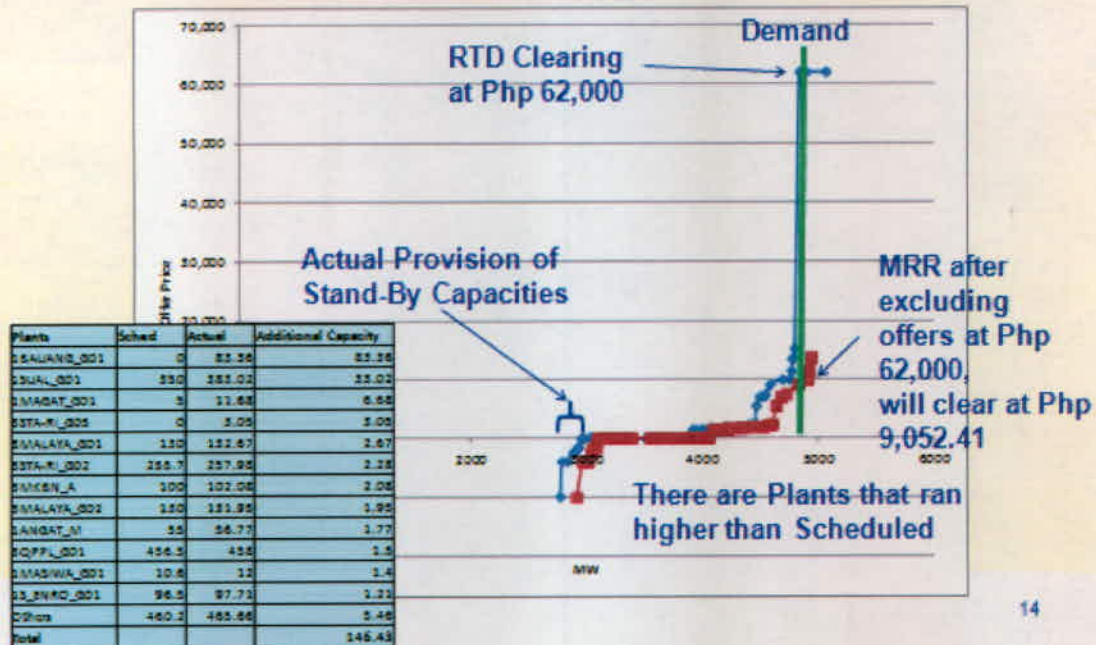
Continuing with his presentation, Mr. Jimenez explained that because certain capacities will be allowed to be nominated as stand-by and therefore will not be offered in the market, there will be under-generation condition as a result. During these conditions, Pricing Error Notices (PENs) will be issued, which necessitates that a Market Re-run be performed in the ex-post run. Per procedure during under-generation conditions, the actual schedules of the generators that ran higher than their schedules will thus be reflected in the re-run.

He explained that PEMC-TOD used actual data from the November to December 2013 period in the simulation. The first part of the simulation focused on the proposal's effect on the clearing prices. For this purpose, 08 December 2013 H03 off-peak sample trading interval was used, when the Real-Time Dispatch was cleared at PhP 62,000. Once the plants which offered at the Offer Price Cap were removed and considered to be nominated as Stand-by Capacity, the market clearing price decreased from PhP 62,000/MW to PhP 9,052.41/MW.



Stand-By Capacity

Sample Interval: December 8, 2013 H03



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The second part of the simulation showed the proposal's effect on the occurrence of under-generation. The entire November to December 2013 billing period was used as basis, since high dispatches of oil plants were recorded for this period. The simulation employed various scenarios on the percentage of oil and hydro plant capacities that were assumed to be offered on stand-by capacity during the sample period. The number of occurrences of under-generation were then determined. The results are summarized below:

| Percent of Capacities Offered on Stand-by | Count of Under Generation | |
|---|---------------------------|---------------------------|
| | 24-Hour | Off-Peak (2300H to 1000H) |
| Original | 202 | 31 |
| 50% Oil | 429 | 65 |
| 100% Oil | 513 | 97 |
| 25% Hydro; All Oil | 551 | 110 |
| 50% Hydro; All Oil | 594 | 123 |



Noting the results of both parts of the simulation, PEMC-TOD concluded the following:

- a) On the Effect on Clearing Prices: Assuming there will be no changes in the trading behaviour of the participants and that stand-by capacities are only those plants offering at the offer cap, the clearing prices will generally go down.
- b) On Under-generation: There will be more frequent occurrence of artificial under generation condition when stand-by plants will not offer in the market.

Having considered the presentation, some members of the Committee clarified some points, as follows:

- ✓ Since plants whose stand-by capacities were dispatched may be paid with either the price of their bids or the Market Clearing Price (MCP), whichever is higher, Ms. Joselyn D. Carabuena inquired what MCP was being referred to in these situations. Mr. Jimenez clarified that the MCP in such cases will be the ex-post price, since there is under-generation condition in this situation and a Market Re-run should be performed, per procedure.
- ✓ Taking off from the previous question, Ms. Lorreto H. Rivera asked if re-inserting stand-by capacities in the Merit Order Table (MOT) in the Market Re-run would affect the MCP. Mr. Jimenez stated that dispatching the stand-by capacities would still affect the ex-post clearing price since re-inserting them in the MOT will bump off the plants from the MOT whose price should have cleared the market if the stand-by capacities were not re-inserted.
- ✓ Mr. Cacho asked what if the stand-by capacity actually dispatched is larger than what was scheduled. Mr. Jimenez responded that the plant which cleared the price during RTD might be pushed off the stack during Market Re-run once the stand-by capacities were re-inserted. As a result, such plant will be paid lower than the MCP that it should have set during RTD.

Ms. Cherry Javier responded that the stand-by capacity in the given scenario should have the same effect with the dispatch of a Must-Run Unit (MRU), only the settlement scheme used will be pay-as-bid. As with the effect of the MRUs, the price paid to the other plants could be potentially lower. But unlike the MRU, which essentially did not follow the Must-Offer Rule (MOR), stand-by capacities could still be seen by the System Operator, the Market Operator, or the DOE but will still not affect the MCP.

- ✓ Ms. Carabuena asked when the Stand-by MOT will actually be used. Ms. Javier responded that the Stand-by MOT is supposed be used after the scheduled MOT and then those 'unscheduled but offered' were exhausted. She added that MRUs have different criteria when it should be used, specifically to ensure system security and reliability, which address another issue different from the Stand-by Capacity. Mr.



Rosales concurred that the Stand-by Capacity deals with under-generation not caused by stability or technical issues, but due to supply shortage.

- ✓ Mr. Rosales commented that he understands that one intention of the proposal is to avoid violating the MOR when plants do not want to offer in the market. He maintains that if the concern is to remain in compliance with the MOR, then putting capacities on stand-by is just the same with the existing regime of having 'offers but not dispatched' list. But he reiterated that the major question that should be answered is why there was under-generation during off-peak periods, as what happened in November-December 2013, which resulted to the dispatch of expensive plants. Although there is still on-going investigations on this, he stated the possibility that the cause is the withholding of capacity of some plants, thereby the occurrence of an artificial under-generation. If this holds true, then the proposal does not address the issue. In addition, based from the simulation results, increased occurrences of under-generation would not be a good signal in the market. He then subsequently added that the root cause of the problem should be identified first before a solution can be applied.
- ✓ Mr. Sulpicio C. Lagarde, Jr. suggested using data during normal circumstances and not those during extreme or outlier periods, as with November-December 2013, for the simulation. Ms. Javier responded that the Stand-by Capacity should have no effect under normal conditions since plants bidding at the offer cap, essentially plants that would offer on stand-by, will not be needed.
- ✓ Atty. Caryl Miriam Lopez-Mateo stated that although prices have the potential to go high when there is under-generation, this should not be necessarily considered as sending the 'wrong' signal to the market because pursuant to the law of supply and demand, suppliers should be incentivized to produce during conditions of scarcity. She added that in other markets, cost recovery mechanisms are in place so that suppliers can recover not just their fuel costs but their capital costs as well. As regards the merits of the proposal, Atty. Lopez-Mateo stated that separating the supply into different MOTs would essentially erode the economic optimization model of the market. She also noted that generators bidding high do not necessarily mean participation in anti-competitive behaviour, because if it is proven that a plant does not want to be dispatched due to technical issues, then its bidding high is a valid outcome. She concluded that the main consideration should be to come up with a solution that will not be excessive to the consumers and will mitigate unilateral exercise of market power.

➤ **Comments by NGCP on the Stand-by Capacity Proposal**

Atty. Mark Actub from the NGCP presented the NGCP's letter commenting on the proposal addressed to President Melinda L. Ocampo. Said letter was also transmitted to the RCC beforehand. He expressed that the NGCP disagrees with the proposal because, among others, the "current rules of the WESM including the



existing ASPP already addresses the issue whenever there will be under-generation in the operating environment." He reiterated Mr. Rosales' position that the root cause of the problem should be identified first before moving forward. Atty. Actub requested the RCC to refer to the letter for the details of the comments of the NGCP, for their consideration.

➤ **Comments by PEMC on the Stand-by Capacity Proposal**

Mr. Jimenez thereafter presented the comments of PEMC on the proposed stand-by capacity. He laid out several concerns and impediments pertaining to (1) market design, (2) operational implementation and (3) regulatory considerations in executing the mechanism for Stand-by Capacity.

I. Market Design Issue

☐ Competition

- ❖ Lower supply margin leading to artificial shortage may potentially result to a change of bidding behavior

☐ Optimality of Solution

- ❖ May result to sub-optimal schedules and prices because of netting-out of the stand-by capacities

☐ Uniform (Marginal) pricing

- ❖ Pay-As-Bid Pricing mechanism for Stand-By Capacities runs counter to the uniform pricing mechanism under WESM

☐ Producer's Surplus Incentives

- ❖ No proper price signals for additional investment in supply

☐ System Security and Reliability

- ❖ No SCED on Stand-by MOT

☐ Market Concentration

- ❖ Participants will naturally weigh in which of the two markets will be most profitable to them which will lead to higher market concentration

II. Operational Issues

☐ Qualification of Stand-By Capacities



- ❖ Unclear on which specific type of plant this rules change will apply to.
- ☐ **Dispatch** Protocol for Stand-By Capacities
 - ❖ Delineate the Stand-By capacity to Ancillary Service and MRU Protocols
- ☐ Compliance Monitoring
 - ❖ Complex monitoring for two separate markets,
- ☐ Network Limitations
 - ❖ Thermal Limits & Generator Limits are not considered in Stand-By MOT
- ☐ Manifestation of Under Generation CVC
 - ❖ More PEN, More MRR, less real time pricing
- ☐ IT Enhancement
 - ❖ IT infrastructure needs to be enhanced to accommodate the new venue
- ☐ Software Development
 - ❖ Stand-By MOT should consider the Real-Time Energy Market
 - ❖ Settlement System needs be enhanced

III. Regulatory Considerations

- ☐ Cost Recovery Mechanism
 - ❖ Additional capacities needed but no mention of recovery mechanism
- ☐ Price Determination Methodology
 - ❖ Incorrect economic signals to properly account for the economic impact of losses and constraints in the system
- ☐ Must Offer Rule
 - ❖ Circumvents the MOR since available capacities are proposed to be offered in another venue
- ☐ Secondary Price Cap
 - ❖ Both methodologies are in place to mitigate price spikes
- ☐ Reserve Market



- ❖ Both implementation address supply-demand deficiencies

PEMC also cited possible alternative solutions outside of the proposal, namely:

- ☐ Trading Strategy:
 - ❖ Offer Capacities at Cost to be Dispatched
 - ❖ More frequently scheduled within the offer cap instead of being rarely scheduled at a high price to recover their cost
- ☐ Improve Bilateral Contracting Strategies
 - ❖ Procure power in the least cost manner
 - ❖ Include stand-by capacities
- ☐ Implementation of the Secondary Price Cap
 - ❖ Review of the Parameters and additional Compensation
- ☐ Implementation of the Reserve Market
 - ❖ Pending with the ERC Approval
- ☐ Management of Demand Side Response
 - ❖ incentive mechanism for those facilities that will self generate during tight and supply demand condition

As regards the suggestion for the DUs to review their contracting strategies, Mr. Lagarde expressed that although this solution is well-intentioned, realizing it is a different matter altogether. He mentioned that even if the DUs have already hedged themselves from price volatilities through their various contracts, they still feel the negative effects because of the market procedures in place. He particularly mentioned line rental issues where the DUs can only do so much through their contracting strategies, but are restrained by the existing operational procedures in the market.

Ms. Rivera commented that most of the alternative solutions given are all beyond PEMC's control, for instance, the need to revisit contracting strategies. She suggested that the solutions and issues raised by PEMC should focus on those that PEMC itself can address, that is, which issues PEMC or the NGCP can provide operational changes to make the Stand- by Capacity work. Mr. Jimenez responded that all the issues can have workable solutions on the part of PEMC, provided that certain elements in the design of the market will not be compromised and, in turn, should be accepted by the participants. Mr. Cacho concurred that there are solutions that could address the issues mentioned in terms of implementation, but the main question is whether the proposal diminishes the original



objective of the WESM, which is a level playing field and competition among the generators if, in essence, another market for stand-by plants (i.e. peaking plants) is established.

At this point, Ms. Javier answered some of the issues that were raised:

- ✓ On the effect to the Price Determination Methodology: There should be no effect on the PDM because no changes will be made to the formula, the constraint and the optimal solution. Only the amount of the energy offers will be affected because a portion of it will be transferred to the Stand-by Capacity.
- ✓ On the 'two separate markets' issue: There would still be a single market because essentially the order of dispatch will come from the same MOT where the most expensive plants will be last in the stack, only that these plants will have a separate window (i.e. stand-by capacity MOT) so as not to affect the MCP.
- ✓ On the optimality of schedule: It should be clarified that the sub-optimal schedule will actually lower the clearing prices, and this is an effect that the generators are willing to accept. Ms. Javier reminded the Committee that the proposal came from the generators themselves and it is an effort from their part to cure the problem of the lack of investments in the industry because of the problems in the market, one of which is the MOR.
- ✓ On the system security and reliability issue: System security and reliability are produced in the MMS only up to the scheduled generators. If this is not applied to unscheduled generators in the MOT, why then should there be a need to put the same consideration for the Stand-by Capacity?
- ✓ On the possibility of generators weighing in on which 'market' is more profitable: There should no difference in the trading behaviour of plants, since they could offer their capacities in both the regular market and in the Stand-by Capacity, but in the Stand-by Capacity, the plants know that they would only be dispatched when the energy market is exhausted.
- ✓ On the different Dispatch Protocol for Stand-by Capacity: The dispatch protocol of Stand-by Capacity should have the same effect as with dispatching energy, because effectively, generators on stand-by is like the unscheduled generators in the regular MOT.

Mr. Gilbert Pagobo noted that based from the comments of PEMC and the NGCP, which he emphasized have the ability to see the issues on a bigger perspective, it seems that the proposal introduces more issues instead of the solution. But he expressed that in the end, the question would be how the proposal would affect the consumers. Mr. Pagobo concluded that the stand-by capacity proposal, though initiated by the proponents with good intentions in mind, does not give the assurance that no other interests would come into play other than those envisioned by GBPC.



With respect to the technical feasibility, Mr. Francisco L.R. Castro, Jr. pointed out that there will always be solutions for the technical issues. He emphasized that the proposal is technically feasible, but the question is whether there is enough resource when it comes to the time and scope it would take to address the operational aspects. He believes that at this point in time, the answer is no.

On the commercial feasibility, Ms. Concepcion I. Tanglao stated that as a consumer, she cannot tell from the foregoing discussions if the proposal would lead to lower electricity prices. She added that there is no assurance that the generators would not change their trading behaviors that would result to lower MCPs based from the simulation.

Taking into consideration the results of the simulation, the comments by PEMC and the NGCP, as well as the comments of the proponent, and the RCC discussions, the Committee, with 12 members present, unanimously voted to disapprove the proposal as it is deemed that the same is not feasible, both technically and commercially.

In response to the directive of the PEM Board for the Committee to deliberate on recommendations for the enhancement of the proposal, the RCC expressed that the root cause of why peaking plants set the clearing price during off-peak hours should be identified first before the Committee is able to offer suggestions to the Board. Mr. Cacho then suggested, as an addition to the body's recommendation, that the Committee may also review the mechanism or parameters of the secondary price cap. Dr. Rowena Guevara concurred with the addition of said suggestion.

➤ **Proposed Amendments to the Manual on Administered Price Determination Methodology**

Ms. Catherine Bringas from 1590 Energy Corporation presented the proposed amendments to the Manual on Administered Price Determination Methodology, its major points summarized as follows:

- Introduction of a new methodology in determining the administered price that takes into consideration the Nominated Price of the generator, which more prudently reflects the costs incurred in generating electricity.
- The dispatched plant will be compensated by:
 - a) Comparing the maximum between the Average Market Clearing Price (AMCP) and the Average Offer Price (AOP) of the generator.
 - b) The higher of the two prices (AMCP vs. AOP) will then be compared to the Nominated Price (NP) to determine which will be lower (the minimum).
 - c) The minimum will be the administered price for that particular generator node.
- No further claim for additional compensation will be allowed.



- Include in the Manual the provisions to ensure that market operations are restored once triggers for market suspension or market intervention are eliminated.
- Include transactions involving the reserve market.

Ms. Bringas added that in the original formula, it is possible that the generators who ran during market suspension will not recover their costs, and will only be compensated through the additional compensation that they have to apply for which could still take time. Mr. Jose Ferlino Raymundo also expressed that the APDM indicates that the application for additional compensation is only restricted to oil-based plants and only for their variable costs. Based from their experience, they ran a hydro plant when tapped during a period of market suspension, so there was no venue for them to recover their costs at the time. He agreed that there is really a defect with the current formula that the proposal is trying to address.

Dr. Guevara noticed that the proposed formula is similar with that of the MRU. She reminded the RCC that the MRU has specific conditions when it should be used which are different from when a plant is dispatched during market suspension. Ms. Javier admitted that the proposed formula is indeed based from the MRU formula because the proponents wanted to still have a market-based solution to the problem that the proposal aims to address.

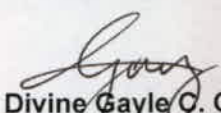
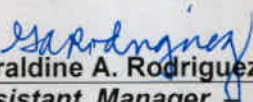
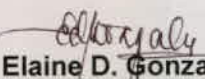
Having noted the preliminary discussions, the Committee approved the publication of the proposal, as presented, to solicit comments from participants and interested parties.

4. Next Meeting

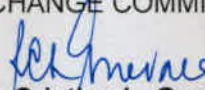
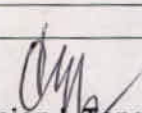
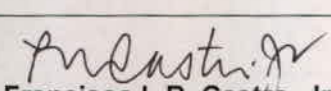
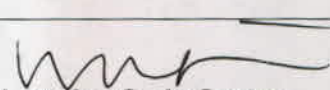
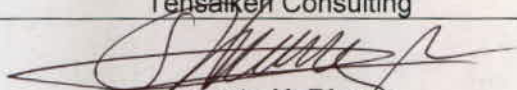
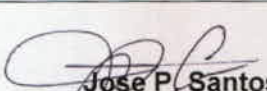
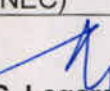

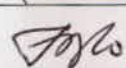
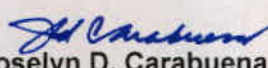
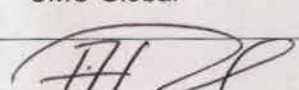
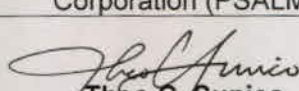
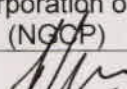
The RCC agreed to hold its next meeting on 02 July 2014.

5. Adjournment

There being no other matter to be discussed, the meeting was adjourned at around 12:00 PM.

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



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

