MEETING MINUTES

Subject/Purpose : 234th RCC (Regular) Meeting
Date & Time : 16 August 2024, 9:00 AM to 3:00 PM
Venue : Online via Microsoft Teams
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ATTENDEES

	Name	Designation/Position	Department/ Company
1.	Jesusito G. Morallos	Chairperson, Independent	RCC
2.	Rachel Angela P. Anosan	Member, Independent	RCC
3.	Jose Roderick F. Fernando	Member, Independent	RCC
4.	Jordan Rel C. Orillaza	Member, Independent	RCC
5.	Cherry A. Javier	Member (Principal), Generation Sector	RCC
6.	Dixie Anthony R. Banzon	Member (Principal), Generation Sector	RCC
7.	Carlito C. Claudio	Member (Principal), Generation Sector	RCC
8.	Michelle S. Tuazon	Member (Alternate), Generation Sector	RCC
9.	Nelson M. Dela Cruz	Member (Principal), Distribution Sector	RCC
10.	Virgilio C. Fortich, Jr.	Member (Principal), Distribution Sector	RCC
11.	Russel S. Alabado	Member (Principal), Distribution Sector	RCC
12.	Manual Luis Zagala	Member (Alternate), Distribution Sector	RCC
13.	Darwin T. Daymiel	Member (Alternate), Distribution Sector	RCC
14.	Gian Karla C. Gutierrez	Member (Principal), Supply Sector	RCC
15.	Isidro E. Cacho, Jr.	Member (Principal), Market Operator	RCC
16.	Kristoffer Monico S. Ng	Member (Alternate), Market Operator	RCC
17.	John Paulo O. Castro	DOE Observer	DOE
18.	Chrizmah Joy D. Quinones	DOE Observer	DOE
19.	Jane May M. Mea	DOE Observer	DOE
20.	Divine Gayle C. Cruz	Secretariat	PEMC
21.	John Eisendel M. Labay	Secretariat	PEMC
22.	Mary Rose L. Bisnar	Secretariat	PEMC
23.	Elvin Hayes E. Nidea	President and WESM Governance Officer	PEMC
24.	Andrea J. Mendiola	Chief Legal Officer	PEMC
25.	Ma. Hazel M. Gubaton-Lopez	Chief Enforcement and Compliance Officer	PEMC
26.	Bienvenido C. Mendoza, Jr.	Chief Market Assessment Officer	PEMC
27.	Cedric Xian Mico L. Uy	Office of the President and WESM Governance Officer	PEMC
28.	Ervin John Mikel D. Hilado	Legal	PEMC
29.	Gabriel R. Marmeto	Enforcement and Compliance Office (ECO)	PEMC
30.	Kassandra Fleur Alaine D. Domingo	Enforcement and Compliance Office (ECO)	PEMC
31.	Paolo C. Alegre	Enforcement and Compliance Office (ECO)	PEMC
32.	Darlene C. Dublar	Enforcement and Compliance Office (ECO)	PEMC

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33.	Christian Francis O. Belen	Enforcement and Compliance Office (ECO)	PEMC
34.	Jace A. Tesaluna	Enforcement and Compliance Office (ECO)	PEMC
35.	Vince Luigi B. Maliwanag	Enforcement and Compliance Office (ECO)	PEMC
36.	Mark Anthony C. Andrada	Enforcement and Compliance Office (ECO)	PEMC
37.	Nylle Gregory P. Bague	Enforcement and Compliance Office (ECO)	PEMC
38.	Gabriel Macky A. Cadang	Enforcement and Compliance Office (ECO)	PEMC
39.	Carl Angelo B. Dela Cruz	Enforcement and Compliance Office (ECO)	PEMC
40.	Dianne Kate C. Langit	Enforcement and Compliance Office (ECO)	PEMC
41.	Anthony Jose P. Asprer	Enforcement and Compliance Office (ECO)	PEMC
42.	Ma. Pauline S. Figueroa	Enforcement and Compliance Office (ECO)	PEMC
43.	Angelica G. Alejan	Enforcement and Compliance Office (ECO)	PEMC
44.	Gabbor M. Dichoso	Enforcement and Compliance Office (ECO)	PEMC
45.	Jeffrey B. Torejo	Enforcement and Compliance Office (ECO)	PEMC
46.	Alyssa Isabella R. Punzalan	Enforcement and Compliance Office (ECO)	PEMC
47.	Rayan J. Ganabe	Enforcement and Compliance Office	PEMC
48.	Aldjon Kenneth M. Yap	Market Assessment Group (MAG)	PEMC
49.	Aldrin W. Reyes	Market Assessment Group (MAG)	PEMC
50.	Ira Lee P. Corectico	Market Assessment Group (MAG)	PEMC
51.	Kevin John Y. Dela Cuesta	Market Assessment Group (MAG)	PEMC
52.	Leo John A. Juguilon	Market Assessment Group (MAG)	PEMC
53.	Lilibeth Grace L. Vetus-Magtalas	Proponent	IEMOP
54.	Edmin S. Arellano	Proponent	IEMOP
55.	Melvin A. Jaurigue	Proponent	IEMOP
56.	Ryan Gabriel T. Duldulao	Proponent	IEMOP
57.	Justine Kylie V. Zaguirre	Proponent	IEMOP
58.	Kenneth Franz Quieta	Proponent	IEMOP
59.	Luis Alfonso U. Ramos	Proponent	IEMOP
60.	Naomi Therese B. Legaspi	Proponent	IEMOP
61.	John Harold R. Yuzon	Proponent	IEMOP
62.	Nina Jojie B. Briones	Proponent	IEMOP
63.	Mell Marc S. Serrano	Proponent	IEMOP
64.	Edsel Y. Evasco	Proponent	IEMOP
65.	Arthur P. Pintado	Proponent	IEMOP

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	Name	Designation/Position	Department/ Company
66.	Roel B. Calano	Proponent	GNPK
67.	Nicole Alezandria Y. Nethercott	Proponent	GNPK
68.	Anna Valdez-Escudero	Proponent	GNPK
69.	Fransilyn Mae V. Porras	Proponent	GNPK
70.	Mario R. Pangilinan	Commenter – Technical Committee	WGC
71.	Daniel H. Valeriano, Jr.	Commenter – Technical Committee	WGC
72.	Dennis L. Enciso	Commenter – Technical Committee	WGC
73.	Danilo C. Bagtasos	Commenter – Technical Committee	WGC
74.	Wilbert Rey D. Tarnate	Commenter – Technical Committee	WGC
75.	Jayson A. Francisco	Commenter – Aboitiz Power Corporation	APC
76.	Glynn Andy O. Gayman	Commenter – Aboitiz Power Corporation	APC
77.	Shara Landicho	Commenter – SN Aboitiz Power	SNAP
78.	Ricardo A. Dagle	Resource Person	NGCP
79.	Jeizllie P. Merin	Resource Person	NGCP
80.	Rico T. Espinosa	Resource Person	NGCP
81.	Raul T. Juegos, Sr.	Resource Person	NGCP
82.	Jose Steve V. Daque	Resource Person	NGCP
83.	Christian J. Del Rosario	Resource Person	NGCP
84.	Leo E. Bugarin	Resource Person	NGCP
85.	June C. Pascual	Resource Person	NGCP
86.	Joselito C. Quilala	Resource Person	NGCP
87.	Jeselle A. Zafra	Resource Person	NGCP
88.	Rodrigo B. Dacanay, Jr.	Resource Person	NGCP

1.0 Call to Order

The meeting was called to order at 9:04 AM.

2.0 Determination of Quorum

The quorum was determined with twelve (12) principal and four (4) alternate members present. Three (3) DOE Observers were also present in the meeting.

3.0 Adoption of Agenda

The RCC adopted the revised proposed agenda and the proposed sequence of the agenda, prioritizing the following agenda items as presented by Ms. Mary Rose L. Bisnar (Secretariat):

1. Ageda 6.1: *Proposed Urgent Amendment to the Ancillary Services Monitoring Manual and Penalty Manual*
2. Agenda 6.2: *Proposed Urgent Amendment regarding Terms of Office of WESM Governance Committee*

4.0 Draft Minutes of Previous Meeting

- Draft Minutes of 233rd RCC (Regular) Meeting, 19 July 2024

Ms. Bisnar presented the draft minutes of the 233rd RCC (Regular) Meeting which was sent to the RCC on 31 July 2024. She informed the body that there were no comments received to the draft.

The draft minutes was approved by the RCC, as submitted, and shall be routed via Adobe Sign for final approval and e-signature.

5.0 Matters Arising from Previous Meeting

5.1 Proposed General Amendments to the WESM Rules and WESM Manual on Procedures for Changes to the WESM Rules, Retail Rules and Market Manuals (ORCP-WR-WM-24-01/RCC Resolution No. 24-04)

- Presenter/s: Mr. John Eisendel M. Labay (Secretariat)
- Action Requested: For discussion
- Material/s: Annex A

Proceedings:

Mr. John Eisendel M. Labay (Secretariat) provided an update on the endorsement of the proposal to the PEM Board on 31 July 2024. He informed the body about the PEM Board directives, as follows:

1. Endorsement to the Board Legal Committee (BLC) for further discussion.
2. For further study, taking into consideration the provisions of the EPIRA regarding "joint" promulgation (by the DOE and electric power industry participants) of the rules and the suggestion to add "provisionally" in the approved urgent amendment so that the affected parties know that the urgent amendment is still for the approval of the DOE and could be subject to further changes.

Per PEM Board's directive, Mr. Labay said that the proposal was endorsed to the BLC on 05 August 2024. However, the schedule for the BLC's deliberation of the proposal has yet to be determined.

Agreement:

The RCC noted the updates.

5.2 Proposed General Amendments to the WESM Rules regarding Must-Offer Rule

- Presenter/s: Ms. Nicole Alezandria Y. Nethercott (GN Power Kauswagan Ltd.,)

- Action Requested: For discussion and approval
- Material/s: Annex B

Proceedings:

The Proposed Amendment to the WESM Rules and WESM Manual on Dispatch Protocol regarding Must-Offer Rule was posted in the PEMC Website on 26 June 2024 to solicit comments from the WESM Participants, stakeholders, and other interested parties which ended on 06 August 2024. During the commenting period, the proposal received comments from the following:

1. Philippine Electricity Market Corporation (PEMC)
2. Independent Electricity Market Operator of the Philippines (IEMOP)
3. WESM Governance Committee – Technical Committee (TC)
4. WESM Governance Committee – Market Surveillance Committee (MSC)
5. Millenium Energy Inc./Panasia Energy Inc. (MEI-PEI)
6. Aboitiz Power Corporation (APC)
7. SN Aboitiz Power Group (SNAP)

Ms. Nicole Alezandria Y. Nethercott (GNPK) discussed GNPK's response to the comments. Below are the highlights of the discussion:

- General Comments
  In reference to GNPK's response to MSC comments, Mr. Jesusito G. Morallos (Chairperson) asked Ms. Nethercott if GNPK would change the proposed amendment from retroactive to prospective. She responded that GNPK did not think it was necessary to revise the proposed amendment, as they already have considered to be prospective.

- Comments to the proposed amendment on Clause 3.5.11.5 of the WESM Rules
  Mr. Mark Anthony Andrada (PEMC-ECO) inquired with GNPK regarding the following:
  1. How will a trading participant know if its generating unit will be dispatched below its minimum stable load (Pmin), given that the participant submits its offer before the market optimization?
  2. How will the trading participant be aware of the proposed constraints (such as flame loss and continued steam by-pass) if they have not yet occurred?

  Mr. Andrada added that the Enforcement and Compliance Office is concerned about the proposed amendment that seek to include the flame loss and continued steam by-pass resulting from continuously operating below the Pmin of the generating unit. Based on ECO's experience in monitoring the Must-Offer Rule (MOR), Mr. Andrada pointed out that Pmin is only part of the generation offer profile, which means that it could only be one block of the trading participant's offer. In order to prevent being scheduled below the Pmin, the trading participant needs to effectively manage its offer by not submitting bids that are lower than the generating unit's Pmin.

  Ms. Nethercott responded that GNPK assesses the market condition based on the following factors: (1) the previous intervals: the trading participant was scheduled below its Pmin even if their offer is within the Pmin level of the generating unit due to low demand. Being scheduled below the Pmin level despite offering within the Pmin is influenced by the tie breaking offer concept, wherein the scheduled capacity will be divided to the generating facilities with the

same offer price, (2) Day-Ahead Projection (DAP): published in the Market Participants Interface (MPI) to predict and assess whether the same trend will occur in the succeeding interval.

In reference to Ms. Nethercott's response, Mr. Andrada asked if GNPK concurs that the solution to address the situation of being scheduled below the Pmin is through managing the submission of generation offer. Ms. Nethercott confirmed this.

Mr. Andrada also asked whether there is a way that the trading participant could ensure that they will be scheduled below Pmin prior to market optimization. If so and considering the proposed amendment in Clause 3.5.11.5 of the WESM Rules, what would be the offer strategy of the Trading Participants? Ms. Nethercott reiterated that the Trading Participant will need to consider the DAP published in MPI in projecting the market trends. She added that Trading Participant shall offer a lower price to ensure that their generating unit will be scheduled on its Pmin level.

In addition to Mr. Andrada's comment, Mr. Morallos pointed out that the criteria under Clause 3.5.11.5 of the WESM Rules are objective (e.g. status of generator, ramp rate) while the "generator technical constraint", as proposed on item b of the same clause, is subjective. He expressed the importance of differentiating the criteria to be objective.

Mr. Roel B. Calano (GNPK) confirmed that the Trading Participants can manage its offer. If a generating unit is scheduled below the minimum operating level (Pmin), it could be due to external factors or system conditions such as low demand, changes in generation offers from hydropower plants, or limitations of the MVIP. These factors are beyond the control of the Trading Participants during market offers. When the generating unit is scheduled below the Pmin, then the generating facility will opt to bypass the steam to maintain the stability of the generating unit, which is not healthy for the plant if done continuously.

Mr. Morallos emphasized that items a and b of Clause 3.5.11.5 of the WESM rules (e.g., status of generator, ramp rate) are under the control of generating facility while low demand, changes in generation offer of the Hydropower Plants are external factors which do not align with the criteria specified in the clause. He highlighted that these external factors are speculative.

Mr. Calano stated that the status of the generator and ramp rate are typically under the control of the generating facility, controlling ramp rate can be challenging due to certain conditions. He agreed with Mr. Morallos that external factors such as low demand and changes in generation offers of the Hydropower Plants cannot be controlled by the Trading Participants. However, he disagreed with the notion that these factors are speculative because (1) the Trading Participants can observe the market trends and load profiles through the published DAP in MPI, and (2) the historical demand of Luzon, Visayas, and Mindanao is publicly available.

Mr. Morallos said that if demand, which is beyond the generator's control, begins to influence market offers leading to fluctuation in projections, it would be a reactionary response.

Mr. Andrada stressed that they agree to the comments of the Technical Committee (see Annex B for the comments) which states that the coverage of the generator technical constraints is permanent in nature based on its definition (e.g., resource constraints). But the proposed amendment intends to include the flame loss and continued steam by-pass the effects of which

are temporary in nature and would not affect the available capacity of the generating unit. While resource constraints such as water elevation and diversion requirements for the hydropower plants and unavailability of fuel resource for the biomass powerplant could affect the available capacity of the plant.

Mr. Andrada asked GNPK whether the 'flame loss and continued steam by-pass resulting in operating below the Pmin', as proposed in the definition of 'generator technical constraints', affects the available capacity of the plant.

Mr. Calano explained that 'flame loss' is a mechanical term that refers to the condition that the flame is not stable, which can cause generating unit to trip if the flame cannot be sustained this condition cannot be easily resolved since the generating unit must be restarted to re-establish the necessary pressure. He also explained 'steam bypass' is the condition wherein the mechanical energy is converted to electrical energy during low load level. Repeated and cyclic occurrence of the need for steam bypass makes the plant becomes unstable.

Mr. Dixie Anthony R. Banzon (Generation) explained that flame loss and steam bypass are reactions of the generating facility to protect the generating unit from operating below the Pmin. If these events continuously occur, the generating unit will trip immediately and have to be restarted. Considering that the start-up rate of the Coal Powerplant is longer than other powerplants, the generating unit will be disconnected from the system and unlike other powerplants such as Biomass and Hydropower, operating below the Pmin is critical for the Coal Powerplant.

Mr. Banzon expressed that the proposed amendment suggests not offering its generating capacity when the generating unit is consistently scheduled to operate below its Pmin, especially if the generating facility has multiple generating units, as is the case with GNPK.

Mr. Andrada acknowledged the explanation given but wanted further clarity on how the Trading Participant would be informed that they will be scheduled below Pmin, and what the expected offer quantity of the Trading Participants would be. He also asked whether the Trading Participants would submit its offer capacity based on its projection using the DAP, and if the proposed amendment would allow generating facilities to (1) submit zero offers, or (2) to shut down based on the projection.

In response, Mr. Calano emphasized that the Trading Participant would know that they will be scheduled due below Pmin based on the DAP. He added that the Trading Participant could use the historical data and DAP to know the trend of the market. Since the market has been operating since 2006, he added that the trading participants have the sufficient data to predict the market trend. He explained that the proposed amendment intends to allow/accept the reason of the Trading Participants to shut down its generating units rather than operate below the Pmin in multiple intervals.

Mr. Jordan Rel C. Orillaza (Independent) asked whether there are comments from other Coal Powerplants that supported GNPK's proposed amendments. He suggested that a rules change may be in order if other Coal Powerplants are experiencing the same.

Mr. Morallos suggested that this could be further discussed in a caucus meeting.

Agreements:

The RCC agreed to hold a caucus to further discuss the proposal.

Attendees (from the RCC Members, Proponents and Commenters), date and time shall be determined after the meeting.

6.0 New Business

6.1 Proposed Urgent Amendments to the Ancillary Services Monitoring Manual and Penalty Manual

- Presenter/s: Ms. Kassandra Fleur Alaine D. Domingo (PEMC-ECO); Mr. Paolo C. Alegre (PEMC-ECO); and Mr. John Eisendel M. Labay (Secretariat)
- Action Requested: For deliberation and approval
- Material/s: Annex C

Proceedings:

Mr. Labay presented the discussion paper of the revised proposed amendment, noting that further discussion with the System Operator (SO) and additional comments from the Market Operator (MO) had led to the revision.

Ms. Kassandra Fleur Alaine D. Domingo (PEMC-ECO) led the presentation of the proposed urgent amendment. She outlined the timeline for the Reserve Market, highlighting the commercial operations on 26 January and suspension on 26 March 2024. She informed the body that ECO developed a Reserve Compliance Standard Monitoring tool during the first quarter (Q1) to second quarter (Q2) of 2024. ECO conducted simulations using the actual data of Ancillary Services Providers (ASP) and held a series of coordination meetings with both the SO and the MO. Based on the results of the simulations, PEMC-ECO, the SO, and the MO agreed that there are gaps and inconsistencies in some provisions on the approved Ancillary Services Monitoring Manual Issue No. 1, which need further revisions in order to arrive at a correct and more reasonable and objective determination or measures for the Response Time, Accuracy, and Sustainability metrics for a specific type of reserve and mode of operations.

On August 13, 2024, ECO submitted an urgent amendment to the RCC to address issues during the simulations. Ms. Domingo explained that the urgency of the proposed amendment is to establish a legal basis for issuing the Preliminary Billing Settlement on 01 September 2024, for the billing period of 05 August 2024 to 25 August 2024. She stated that ECO's monitoring will be based on the proposed revised formula during the billing period, as using the incorrect formula per ASM Manual Issue No. 1 will produce erroneous results and will be submitted to the Market Operator by 28 August 2024. Furthermore, this will be the basis for the MO in issuing the Preliminary Billing Settlement with adjustments by 01 September 2024. She also emphasized that if the urgent proposal is not approved, there will be a delay in the Reserve Trading Amount (RTA) Adjustment until it is revised (as a general amendment).

The proposed amendment is summarized as follows:

Changes	Objectives
1. Correction and Clarity on some formula/criteria	To ensure appropriate, correct and complete measures for determining the “Response Time”, “Response Accuracy”, and

Changes	Objectives
	"Sustainability" metrics in the Reserve Compliance Standards (RCS).
2. Streamlining the monitoring functions of MO and ECO	To provide clarity in the roles of MO, SO, and ECO regarding the data provision, flagging, determination, and reporting of breach.
3. Breach determination and averaging horizon	To ensure a more balance breach determination of the RCS by changing the horizon of the averaging from monthly to hourly for determining compliance with Response Accuracy and Response Time.
4. Clarity on the basis for Request for Reassessment	To address the gap between the process for adjusting the Reserve Trading Amount and for the filing of the Request for Reassessment with Notice of Claim.
5. Harmonization of Penalty for Breach of ROCC	To harmonize the penalty mechanisms between the ASM Manual and the Penalty Manual as regards the Reserve Offer Capacity Compliance (ROCC).

Before the approval of the proposed amendment as an urgent amendment, Mr. Morallos pointed out that the urgency of the proposal is based on the resumption of the reserve market set to take effect on 05 August 2024 and the implementation of the ASM Manual. He said that the proposed amendment means to; (1) address the impact of the incorrect formula on the ASM Manual Issue No. 1, (i.e., dispatchable reserve formula, measures for determining the metrics in RCS), (2) revise administrative structure, (3) resolve the conflict concerning the discrepancy on the penalty amount, and (4) harmonizes the penalty mechanism. He also emphasized that the urgency of the proposal is based on the need to have legal basis for the issuance of the preliminary billing settlement with adjustment.

As the proposed amendment satisfies the criteria set out in the WESM Rules Clause 8.4.1.1 item (a) sub-item (iii) which states that *"the proposed amendment requires immediate action to avoid, reduce risk of or mitigate the unintended adverse effect of a WESM Rules (or any its amendments) or a provision in a Market Manual",* Ms. Cherry A. Javier (Generation) moved the motion to certify the proposed amendment as an urgent amendment which was duly seconded by Mr. Banzon.

The line-by-line presentation of the proposed amendment was discussed by Mr. Paolo C. Alegre (PEMC-ECO).

In Section 3.1.1 of the ASM Manual, Mr. Orillaza asked whether market data will be provided to PEMC by the SO or the MO. In response, Mr. Alegre explained that, based on the current protocol (data exchange protocol of PEMC and IEMOP), the market data will be obtained from the SO and processed by the MO. Subsequently, the MO will provide the data to PEMC. However, the ASM Manual states that PEMC can directly obtain such data from the SO, provided that PEMC complies with the SO's requirements in data exchange. For now, PEMC will be obtaining the data from the MO through the data exchange protocol.

Regarding Section 3.4.1 item (c) of the ASM Manual, Mr. Orillaza suggested changing "speed

droop" to "speed droop characteristics". Mr. Alegre agreed to the suggestion and confirmed that the term will be revised in affected Sections 3.4.1, 5.2.1, and 5.8 of the ASM Manual.

On the monitoring of the sustainability, Mr. Orillaza asked the resolution of the monitoring (e.g. it monitors in every second, or in every five (5) minutes interval) and who is managing the monitoring tool for the RCS. Mr. Alegre clarified that the monitoring occurs every second and is managed by the ECO. He also mentioned that the sample data used in the simulation have a per second resolution.

Referring to the data provided by the SO to MO and MO to ECO, Mr. Orillaza inquired whether the ECO would determine the number of breaches or if it would be handled through post-processing by the SO and MO. Mr. Alegre explained that for the purpose of uniformity the only post-processing involved is the naming convention in the Market Management System (MMS), but generally, the market data obtained by ECO from MO are raw. He also mentioned that at present, ECO is using an interim Compliance Monitoring and Assessment (CMA) tool and will later transition to Phase 2, where the exchanges of flagging of breaches and justifications will be done through a web interface. This system will be subject to audit.

Given that the market data are raw and monitored every second, Mr. Morallos inquired about the MMS's capability to process and monitor the data. Mr. Alegre confirmed that the market data can indeed be processed. For instance, in GCM, all data is provided in a .csv file and the interim tool will process the data based on the parameters provided in the ASM Manual. There are other data that would set apart the flagging of breach of Contingency Reserve (CR) or Regulating Reserve (RR). As for Dispatchable Reserve (DR), breaching will be determined based on the dispatch instruction report received by the ECO daily. It was also mentioned that the ECO has not yet incorporated the Active Power Frequency Control (APFC), but measures for the GCM will also apply to the Battery Energy Storage System (BESS).

On Section 5.6.1 of ASM Manual, Mr. Orillaza asked whether response accuracy rates outside the range of 80% to 120% would be considered a breach. In response, Mr. Alegre explained that 120% is not the maximum allowable response accuracy rate, but rather a cap for averaging purposes. He clarified that there are response accuracy rates greater than 120% that can still be beneficial in the grid system. According to the SO, the ASP will only be flagged if the average response accuracy rate falls below 80% or exceeds 120%.

Mr. Orillaza commented that the response accuracy rate ranges from 80%-120% is somewhat arbitrary. He asked the basis of setting the average response accuracy rate into 80%-120% and if this could be revised in the future. Mr. Alegre responded that the 80% average response accuracy rate is currently the practice of the SO and could be subject to revision. He also added that ECO will conduct studies on the matter.

On Section 5.6.2 of the ASM Manual, Mr. Orillaza suggested correcting the syntax of the formula of the Actual MW Response by removing the "slash" to avoid confusion. The "slash" could be interpreted as mathematical operation and as part of the formula. Mr. Alegre agreed to the suggestion and presented the proposed revised formula which as follows:

A reserve facility's response accuracy via GCM shall be calculated as follows.

$$Response\ Accuracy = \frac{Actual\ MW\ Response\ Capacity}{Expected\ MW\ Response\ Capacity}\ x\ 100\%$$

a. When System Frequency falls below the lower deadband:

Actual MW Response Capacity

= Highest Actual MW Output – MW Output Prior to Frequency-Driven Event

Where: The Highest Actual MW Output is the value obtained 20 seconds after the Lowest frequency that occurred during the Frequency-Driven Event

Frequency Change

= Frequency Prior to Frequency-Driven Event - Lowest Frequency During Frequency-Driven Event

Frequency Prior to Frequency-Driven Event

= Nominal Frequency - Dead band Setting

b. When System Frequency breaches the upper deadband:

Actual MW Response Capacity

= Lowest Actual MW Output – MW Output Prior to Frequency-Driven Event

Where: The Lowest Actual MW Output is the value obtained 20 seconds after the highest frequency that occurred during the Frequency-Driven Event

Frequency Change

= Frequency Prior to Frequency-Driven Event - Highest Frequency During Frequency-Driven Event

xxx

Mr. Orillaza suggested inserting a footnote in the rules stating that the rate (e.g., 80% to 120% for the average response accuracy rate, 90% to 130% for actual generation rate) set out in the proposed amendment are based on the SO's practices and parameters and are subject to revision once the SO changes its practices and parameters. Mr. Alegre agreed with the suggestion.

Mr. Carlito C. Claudio (Generation) supported that these parameters are the qualification criteria imposed by the SO during testing certification for the ASP.

In addition to Mr. Orillaza's suggestion, Ms. Divine Gayle C. Cruz (Secretariat) requested SO to provide the documents that they are using as the basis for imposing the said parameters as soon as possible.

On Section 7.2.2 of the ASM Manual, Ms. Javier stated that the submission schedule for the RCS monitoring report was discussed during the meeting with the Philippine Independent

Power Producers Association (PIPPA). According to Ms. Javier, PIPPA suggested moving the submission of the RCS monitoring report from the current billing period to the next billing period. This change would allow the ASP to adequately review and respond to any non-compliance notices.

Ms. Ma. Hazel Gubaton-Lopez (PEMC-ECO) stated that ECO received similar comments from ASP and SO and is amenable to move the submission of the RCS monitoring report by one (1) month. She said that moving the submission of the RCS monitoring report will be beneficial to the ASP and ECO, providing ECO with enough time to submit a comprehensive assessment. She also mentioned that this issue was raised during the meeting with SO and MO. However, there is a concern on the effect of the proposed timeline to the deduction of penalty.

> Examples:
> For the billing period 05-25 August, instead of submitting the RCS monitoring report on 28 August, ECO will submit the report on 28 September. As a result, by 01 September, IEMOP will issue the preliminary billing settlement without deducting non-compliance penalties, which would be based on the RCS monitoring report. Consequently, NGCP will pay the ASP with the gross amount.
>
> Another example is when the income of the ASP for the September billing period is Php One (1) million and the ASP has a deductible amount of Php Three (3) million from the August billing period due to non-compliance of the RCS, then the amount that will be reflected on the preliminary billing settlement on 01 October is Php negative Two (-2) million. Therefore, the ASP has to pay NGCP the amount of Php Two (2) million. Based on the discussion with MO and based on the given example, the ASP's deficit amount will be set aside temporarily until there is sufficient amount to deduct the Php negative Two (2) million.

Mr. Edmin S. Arellano (IEMOP) confirmed the statement of Ms. Gubaton-Lopez. He added that IEMOP has no problem on the proposal to move the timeline of the submission of the RCS monitoring report to thirty (30) days.

Considering the comments received, Mr. Alegre presented the revised proposed amendment of Section 7.2.2 of the ASM Manual which read as follows:

> "The ~~*Market Operator* and the *System Operator* shall provide copies of the data and information to the~~ *Enforcement and Compliance Office* ~~which will be used by the latter as basis for the~~ **shall conduct** validation**, verification, and assessment** ~~or confirmation~~ of breach of the *Reserve Conformance* ***Standards*** ~~in accordance with the procedures set out in Section 7.5~~. The *Enforcement and Compliance Office* shall generate monitoring results for **submission to** ~~reconciliation with the results generated by~~ the *Market Operator* **within thirty (30) business days after the end of the covered monitoring period. The *Reserve Conformance Standards* monitoring report shall include the specific intervals, resource unit/s, the type of reserve that is found in breach, and such other relevant information as may be appropriate.**

The *Enforcement and Compliance Office* shall furnish the *System Operator* a copy of the monitoring results for any feedback or confirmation of the results or findings."

Addressing Mr. Orillaza's inquiry, Mr. Alegre responded that the "trading hour" is not defined in the WESM Rules and proposed to use "settlement interval" which is defined, under Clause 3.4.2 of the WESM Rules, to be a period of one (1) hour, commencing on the hour.

Mr. Morallos mentioned that he noticed that the "trading hour" was used in the averaging conditions outlined in the ASM Manual. He asked Mr. Alegre whether the ECO would propose the definition for the "trading hour" or will use the term "settlement interval" which is already defined in the WESM Rules. Mr. Alegre responded that the appropriate term to use is "settlement interval".

Mr. Manual Luis Zagala (Distribution) asked if the average is always taken on the hour, for instance, can the average be taken from 0045H until 0140H of the next hour or it pertains to the settlement hour from 0005H until 0100H of the following hour. Ms. Rachel Angela P. Anosan (Independent) responded that settlement hour is taken always on the hour. She mentioned that for compliance purposes, it is probably measured on the hour rather than on a 60-minute interval. She also suggested using the term "settlement hour" since the proposed amendment refers to the settlement.

Referring to Mr. Zagala's clarification, Mr. Alegre explained that the consideration in the averaging conditions is on the hour from 0005H until the end of that hour. He also mentioned that ECO agreed that this aligns with the settlement interval.

Taking into account the observations and suggestions, Mr. Alegre proposed to change the term "trading hour" to "settlement interval" on Sections 5.3.4, 5.4.5, 5.6.1, 5.6.3 and 5.7.1 of the ASM Manual.

Agreements:

The RCC agreed on the following changes in the proposal:

1. Replace the term "*speed droop*" to "*speed droop characteristics*".
2. Section 5.6.2 of the WESM ASMM (formula on Response Accuracy for facilities on GCM) – Refrain from using 'slash' (e.g., Highest/Lowest Actual MW Output) as a separator in formula since it may be treated as a mathematical operation.
3. Provide footnotes to indicate basis of SO practices and parameters for Reserve Conformance Standard monitoring.
4. Section 7.7.2 of the WESM ASMM – ECO submission of RCS monitoring results to MO to be done within 30 business days from the relevant billing period (changed from proposed timeline of 4 calendar days prior to issuance of Preliminary Billing Settlement Statement).
5. Amend provisions affected by the 30-business day window for completing the validation and assessment of the Reserve Conformance Standards (RCS) monitoring.
6. Replace the term "*trading hour*" to "*settlement interval*" since the latter is already a defined term in the WESM.

The RCC certified the Proposed Urgent Amendment on the WESM Manual on ASM and Penalty as an Urgent Amendment and approved the endorsement of the proposal to the PEM Board, as amended.

The Secretariat will draft the corresponding resolution of the proposal and shall be routed via Adobe Sign for final approval and e-signature.

6.2 Proposed Urgent Amendment regarding Terms of Office of WESM Governance Committee Members

- Presenter/s: Mr. Ervin John Mikel D. Hilado (PEMC)
- Action Requested: For deliberation and approval
- Material/s: Annex A

Proceedings:

Mr. Evin John Mikel D. Hilado (PEMC) presented the details of the proposed amendment, stating that the current term of office for the PEM Audit Committee (PAC) and Market Surveillance Committee (MSC) was originally intended to be staggered to avoid simultaneous expiration of terms for members. However, during the implementation, the staggered terms of PAC and MSC Members was eventually lost and originally, members of the Compliance Committee (CC) did not have staggered terms. He informed that members of the PAC, MSC and CC will have their terms expire, most of which will expire in October 2024 and one member will expire its term on November 2024.

Mr. Hilado pointed out the following basis of the urgency of the proposal:

1. Several WGCs will have most, if not all, of its members end their terms on 31 October 2024, which may affect the performance of the relevant WGCs.
    a. 2 out of 3 of PAC members
    b. All of the MSC CC members
2. Holdover capacity is not ideal as it affects the continuity of the projects being handled by the WGC, if any.

The proposed amendment proposes to:

1. Correct the error in the implementation of the terms of office;
2. Restore the staggered terms of office in the PAC and in the MSC;
3. Initiate the staggered terms of office of the CC members; and
4. Lengthen the period to commence the nomination, selection and appointment of WGC members by the PEM Board to minimize the instances of WGC members occupying the office in holdover capacity.

Mr. Hilado likewise noted that there is no staggered term for the members of the Rules Change Committee (RCC) and the Technical Committee (TC) and expressed that PEMC did not see the need for the implementation of staggered terms of office, as the committees have sectoral representation and replacing the outgoing members would not be an issue.

As the proposed amendment satisfies the criteria set out in the WESM Rules Clause 8.4.1.1 item (a) sub-item (iii) which states that *"the proposed amendment requires immediate action to avoid, reduce risk of or mitigate the unintended adverse effect of a WESM Rules (or any its amendments) or a provision in a Market Manual",* Ms. Javier moved the motion to certify the

proposed amendment as an urgent amendment which was duly seconded by Mr. Jose Roderick F. Fernando (Independent).

Mr. Hilado proceeded to the line-by-line presentation of the proposed amendment and no comments were received during the presentation.

Agreements:

The RCC certified the proposed amendment as urgent amendment and approved the endorsement of the proposal to the PEM Board, as submitted.

6.3 Proposed General Amendments to the WESM Rules and various WESM Market Manuals regarding Energy Storage Systems in view of the DOE DC2023-04-0008

- Presenter/s: Mr. Edsel Y. Evasco (IEMOP) and Ms. Divine Gayle C. Cruz (Secretariat)
- Action Requested: For discussion and for approval for publication to request comments
- Material/s: Annex D

Proceedings:

Mr. Edsel Y. Evasco (IEMOP) discussed the proposed amendment highlighting that the proposed amendment intends to:

1. Define ESS as separate category of WESM Membership
2. Define the different ESS types prescribed in the DOE 2023-04-0008 (i.e., Battery Energy Storage Systems, Pump-storage Hydropower, and Integrated Generating Plant and ESS)
3. Align the WESM design with the policy prescribed in the DOE 2023-04-0008.

Mr. Claudio asked IEMOP whether they are proposing to register the Energy Storage System (ESS) as another entity in the WESM. On Clause 2.2.1 of the WESM Rules, the enumerated list are all entities which are defined in WESM Rules, PGC and DOE. These are entities owning a facility (e.g., a generation company owning a generation power plant, a distribution utility owning a distribution system) however, ESS is not an entity, but a facility as defined in the DOE DC2023-04-0008. He asked whether the proposal proposes for the ESS to register as a facility because this will be applied to the existing ESS (e.g. Alaminos BESS will not register as Alaminos BESS but as Giga Ace 4, Inc.,) He suggested to register the ESS Company not the ESS facility. He reiterated that the entity registers in the WESM not the facility.

Mr. Orillaza inquired if IEMOP did not include Flywheel Energy Storage (FES) and Compressed Air Energy Storage (CAES) on the proposal. Mr. Edsel confirmed that IEMOP only proposes the inclusion of the BESS.

Ms. Lilibeth Grace Vetus-Magtalas (IEMOP) responded to the two concerns that were raised by the RCC:

(1) Regarding the types of ESS that were included in the proposal – She explained that IEMOP's proposal was based on the DOE DC issued by the Department of Energy (DOE). While the department circular covers other types of ESS (e.g., CAES, FES), IEMOP noted that these types of ESS fall under the definition of ESS. She pointed out that the proposal

would effectively cover the other type of ESS. Additionally, she clarified that the pump-hydropower was included in the proposal since it has a specific provision on the department circular. If the RCC determines throughout the deliberation that provisions for CAES, FES, and other types of ESS that are not mentioned in the proposal should be made, IEMOP will consider the recommendations.

(2) Regarding registration of ESS as a facility – She clarified that the registration refers to the category of the facility. When registering the facility in the market, the category of the facility needs to be determined, and at the same time, the corporation that owns the facility is being registered. She suggested that it would be best to discuss this matter further during the discussion of the specific provision.

Ms. Anosan added that the registration in the market is on the registration of the entity but in relation with the facility (e.g., a generation company can have multiple facilities). She believed that the proposal suggests including additional category in the WESM Membership.

In response to Ms. Vetus-Magtalas's statement on item (1), Mr. Orillaza pointed out that BESS should not be assumed to be the same as CAES and FES, as these are three different types of ESS.

Ms. Cruz presented the preliminary assessment of the proposed amendment and discussed the following observations and comments:

1. There is a need to clarify if 'Energy Storage System' has the same category level in meaning as 'Generation Company' or 'Customer' (as implied with the usage of the term in the WESM Rules), or with 'generating unit' (as implied with the usage in the Manuals). Consider adhering to the definition of "Energy Storage System" or "ESS" under Clause 2.11 of DOE DC2023-04-0008 and usage thereof under same DOE DC.
2. The use of the term 'facility' may be too generic in some provisions when the context is solely applicable to generation.
   - *'Facility' (definition in WESM Rules and PDM Manual) - A generic term associated with apparatus, equipment, buildings and necessary supporting resources for the generation, transmission, supply, sale and consumption of electricity*
3. Replace 'pumped-storage hydro' to 'pumped-storage hydropower'.
4. Proponent might need to review the proposal for completeness of the amendments. The suggested additional amendments below are non-exhaustive.
5. Other Manuals that may need reviewing to incorporate Energy Storage Systems are:
   i. Price Determination Methodology;
   ii. Billing and Settlement;
   iii. System Security and Reliability Guidelines;
   iv. Constraint Violation Coefficients and Pricing Re-Runs;
   v. Market Operator Information Disclosure and Confidentiality;
   vi. Protocol for Central Scheduling and Dispatch of Energy and Contracted Reserves

Having heard the comments, Mr. Morallos said that the inclusion of the provisions for CAES and FES would be on IEMOP's prerogative to decide whether to revise the proposed amendment or submit another proposed amendment addressing the matter.

Mr. Morallos also asked IEMOP whether they would prefer to maintain their motion of request for the publication of the proposal to solicit comments. Ms. Vetus-Magtalas responded that they would like to pursue the request for the publication of the proposal so that the comments from the WESM Members, as well as the comments from the Secretariat, will be considered in revising the proposed amendments.

Mr. Kristoffer Monico Ng (Market Operator) supported Ms. Vetus-Magtalas statement and added that according to the WESM Rules, the necessary requirement for publishing the proposed amendment must be met. He pointed out that the assessment of the Secretariat confirmed that the proposed amendment satisfies the criteria. With that, he recommended to proceed with the publication and the comments will be addressed accordingly.

Agreements:

The RCC approved the publication of the proposed amendment in the PEMC website, as submitted, to solicit comments from WESM Members and stakeholders.

6.4 Updates on the Proposed Amendments to WESM Rules and various WESM Manuals on Implementation of Reserve Market (ORCP-WR-WM-21-11/RCC Resolution No. 2021-21)

- Presenter/s: Ms. Naomi Therese B. Legaspi (IEMOP) and Ms. Mary Rose L. Bisnar (Secretariat)
- Action Requested: For information
- Material/s: Annex A, Annex E and Annex F

Proceedings:

Ms. Bisnar provided updates on the *Proposed Amendments to the WESM Rules and various WESM Manuals on Implementation of Reserve Market*. She highlighted that, on 30 July 2024, PEMC received an *ERC Notice of Resolution in reference to ERC Case No. 2023-002 RC* which resolved the following matters:

1. Lifting of the suspension of the implementation of Section 8 of the PDM on Billing and Settlement.
2. Extension of the Interim Relief for the adoption and implementation of the proposed PDM for the co-optimized energy and reserve market in the WESM, subject to conditions.

In relation to the above-mentioned ERC notice, PEMC also received a letter from DOE dated 03 February 2022 (see Annex F). Ms. Bisnar stated that PEMC is still waiting for the ERC Order, for the incorporation of the approved amendments and for the finalization of the WESM Manual on Price Determination Methodology. Upon approval by the ERC, the revised manual will be submitted to the DOE for their subsequent promulgation.

Ms. Naomi Therese B. Legaspi (IEMOP) provided an update on the Reserve Market from February to August 2024 (see Annex E). She highlighted the significant increase in reserve offers for both dispatchable reserve and contingency reserve during the commercial operation of the reserve market from February to March 2024. Offers then declined during the suspension of the commercial operation from April 2024 to July 2024. Following the resumption of the commercial operation on 05 August 2024, she pointed out the noticeable increase on the reserve offers.

Ms. Legaspi likewise presented the following topic in relation to the issued *ERC Notice of Resolution in reference to ERC Case No. 2023-002 RC* (see Annex E).

1. Market Operator's action to the ERC directives as stated on the notice.
2. Market Operator's issues/concerns to the ERC directives and its way forwards.
3. Market Operator's proposed schedule regarding the implementation of the Market Management System (MMS) enhancements.

Agreements:

The RCC noted the updates.

7.0 Next Meeting

7.1 Update on Proposed Amendments

- Presenter/s: Ms. Mary Rose L. Bisnar (Secretariat)
- Action Requested: For information
- Material/s: Annex A

Proceedings:

Ms. Bisnar presented the update on proposed amendments highlighting the following:

Status	Topic
Proposed Amendments awaiting DOE's approval	1. System Operator Procedures on Market Intervention and Suspension 2. Interruptible Load Program 3. Refinements on Market Intervention and Market Suspension Procedure 4. Enforcement and Compliance Manual in alignment with Penalty Manual
General Amendments under RCC Evaluation of Finalization	1. Rules Change Process 2. Must Offer Rule 3. Energy Storage System (ESS)
Urgent Amendments	1. Ancillary Services Monitoring Manual and Penalty Manual 2. Terms of Office of WESM Governance Committee Members

Ms. Bisnar informed the RCC that the schedule of the Market Participants' Townhall (MPT) and Electricity Market Exchanges (EMX) 2024 was moved from 23 August 2024 to 04 September 2024 at 9:00 AM to 5:00 PM.

Agreements:

The RCC noted the updates.

7.2 DOE Updates

- Presenter/s: Mr. John Paolo O. Castro (DOE Observer)
- Action Requested: For information
- Material/s: N/A

Proceedings:

Mr. John Paolo O. Castro (DOE Observer) verified that DOE is currently finalizing the draft department circulars of the proposed amendments on the following topic:

1. System Operator Procedures on Market Intervention and Suspension
2. Interruptible Load Program Implementation
3. Refinements on Market Intervention and Market Suspension Procedures
4. Enforcement and Compliance Manual in alignment with Penalty Manual

Agreements:

The RCC noted the updates.

7.3 Schedule of Activities

- Presenter/s: Ms. Mary Rose L. Bisnar (Secretariat)
- Action Requested: For information
- Material/s: Annex A

Proceedings:

Ms. Bisnar informed the body about the schedule of activities, as follows:

Activity	Date
RCC Meetings	20 September 2024
	18 October 2024
BRC Meetings	22 August 2024
PEM Board Meetings	28 August 2024

She also noted that two (2) agenda items are to be presented on the BRC and PEM Board Meetings, as follows:

1. Proposed Urgent Amendments to the Ancillary Services Monitoring Manual and Penalty Manual
2. Proposed Urgent Amendment regarding Terms of Office of WESM Governance Committee Members

Agreements:

The RCC noted the schedule as presented.

8.0 Adjournment

The meeting was adjourned at 3:41 PM.

MEETING MINUTES

Subject/Purpose : 234th RCC (Regular) Meeting
Date & Time : 16 August 2024, 9:00 AM to 3:00 PM
Venue : Online via Microsoft Teams

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Prepared by:

[redacted]

MARY ROSE L. BISNAR
Rules Review Sr. Analyst
Market Assessment Group

Reviewed by:

[redacted]

KAREN A. VARQUEZ
Senior Manager, Rules Review Division
Market Assessment Group

Noted by:

[redacted]

BIENVENIDO C. MENDOZA JR.
Chief Market Assessment Officer

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Approved by:

[redacted]

JESUSITO G. MORALLOS
Chairperson, Independent

[redacted]

JOSE RODERICK F. FERNANDO
Member, Independent

[redacted]

RACHEL ANGELA P. ANOSAN
Member, Independent

[redacted]

JORDAN REL C. ORILLAZA
Member, Independent

[redacted]

DIXIE ANTHONY R. BANZON
Member, Generation Sector
Masinloc Power Partners Co. Ltd. (MPPCL)

[redacted]

CHERRY A. JAVIER
Member, Generation Sector
Aboitiz Power Corp. (APC)

[redacted]

CARLITO C. CLAUDIO
Member, Generation Sector
Millennium Energy, Inc./Panasia Energy, Inc. (MEI/PEI)

[redacted]

(Attended by Ms. Michelle S. Tuazon)
MARK D. HABANA
Member, Generation Sector
Vivant Corporation – Philippines (Vivant)

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[redacted]
(Attended by Mr. Manuel Luis Zagala)
RYAN S. MORALES
Member, Distribution Sector
Manila Electric Company (MERALCO)

[redacted]
VIRGILIO C. FORTICH, JR.
Member, Distribution Sector
Cebu III Electric Cooperative, Inc. (CEBECO II)

[redacted]
RUSSEL S. ALABADO
Member, Distribution Sector
Angeles Electric Corporation (AEC)

[redacted]
NELSON M. DELA CRUZ
Member, Distribution Sector
Nueva Ecija II Area 1 Electric Cooperative, Inc. (NEECO II – Area I)

[redacted]
GIAN KARLA C. GUTIERREZ
Member, Supply Sector
First Gen Corporation (FGEN)

[redacted]
ISIDRO E. CACHO, JR.
Member, Market Operator
Independent Electricity Market Operator of the Philippines (IEMOP)

DARRYL LON A. ORTIZ
Member, System Operator
National Grid Corporation of the Philippines (NGCP)

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DETERMINATION OF QUORUM

Representation/ Sector	Principal Member / Alternate Member		Attendance	
Independent	Jesusito G. Morallos			
	Jose Roderick F. Fernando			
	Rachel Angela P. Anosan			
	Jordan Rel C. Orillaza			
Generation	Dixie Anthony R. Banzon	Rose Ann O. Alfaro		
	Cherry A. Javier	Angeli Abad-Parcia		
	Carlito C. Claudio	Jessie B. Victorio		
	Mark D. Habana	Michelle S. Tuazon		
Distribution	Ryan S. Morales	Manuel Luis Zagala		
	Russel S. Alabado	Alfredo C. Sanaga, Jr.		
	Virgilio C. Fortich, Jr.	Getulio Zamosas Crodua		
	Nelson M. Dela Cruz	Darwin T. Daymiel		
Supply	Gian Karla C. Gutierrez	Dennis R. Paragas		
Transmission	Darryl Lon A. Ortiz	Clark N. Agustin		
Market Operator	Isidro E. Cacho, Jr.	Kristoffer Monico S. Ng		

Philippine Electricity Market Corporation

ADOPTION OF THE AGENDA

Philippine Electricity Market Corporation

MEETING MINUTES

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ADOPTION OF THE AGENDA

Proposed Agenda	Presenter	Action Required
I. Call to Order		
II. Determination of Quorum		
III. Adoption of Agenda	Secretariat	For approval
IV. Draft Minutes of Previous Meetings • 233rd RCC (Regular) Meeting, 19 July 2024	Secretariat	For approval
V. Matters Arising from Previous Meeting		
5.1 Proposed General Amendments to the WESM Rules and WESM Manual on Procedures for Changes to the WESM Rules, Retail Rules and Market Manuals (ORCP-WR-WM-24-01/RCC Resolution No. 24-04 • *PEM Board directives*	Secretariat	For discussion
5.2 Proposed General Amendments to the WESM Rules regarding Must-Offer • *Deliberation on proposal and comments*	Secretariat	For Discussion and Approval
VI. New Business		
6.1 Proposed Urgent Amendments to the Ancillary Services Monitoring Manual and Penalty Manual	Proponent (PEMC-ECO)	For Deliberation and Approval

ADOPTION OF THE AGENDA

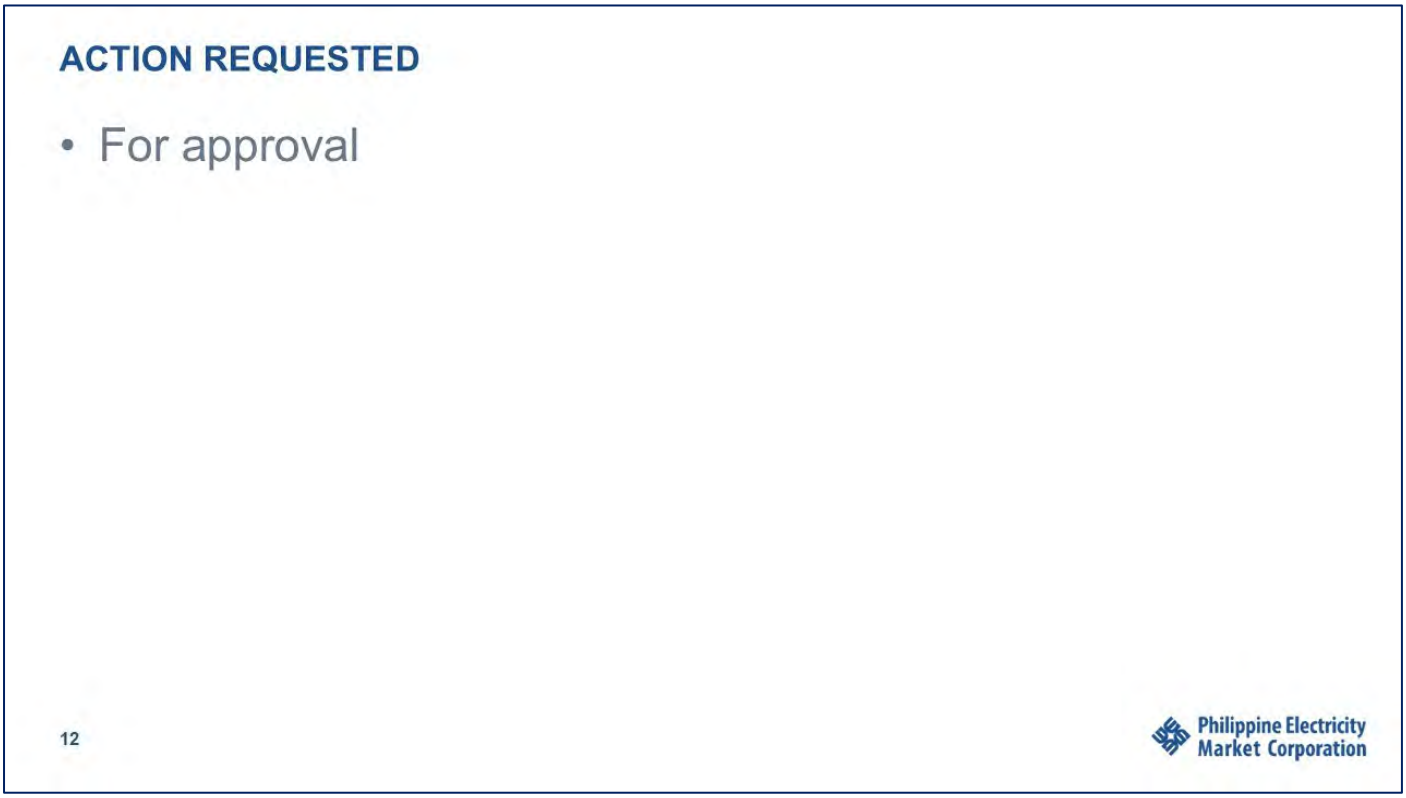
Proposed Agenda	Presenter	Action Required
6.2 Proposed Urgent Amendment regarding Terms of Office of WESM Governance Committee Members	Proponent (PEMC-Legal)	For Deliberation and Approval
6.3 Proposed General Amendments to the WESM Rules and various WESM Market Manuals regarding Energy Storage Systems in view of the DOE DC2023-04-0008	Proponent (IEMOP)	For Discussion/For approval for publication to request comments
6.4 Updates on the Proposed Amendments to WESM Rules and Various WESM Manuals on Implementation of Reserve Market (ORCP-WR-WM-21-11/ RCC Resolution No.2021-21) • *ERC-approved amendments to the Price Determination Methodology* • *Reserve Market Implementation Updates*	Secretariat / IEMOP	For Information
VII. Other Matters		
7.1 Update on Proposed Amendments	Secretariat	For information
7.2 DOE Updates	DOE Observers	For information
7.3 Schedule of Activities	Secretariat	For information
VIII. Adjournment		

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5.1 PROPOSED GENERAL AMENDMENTS TO THE WESM RULES AND WESM MANUAL ON PROCEDURES FOR CHANGES TO THE WESM RULES, RETAIL RULES AND MARKET MANUALS (ORCP-WR-WM-24-01/RCC RESOLUTION NO. 24-04)

- *PEM BOARD DIRECTIVES*

Philippine Electricity Market Corporation

ACTION REQUESTED

- For Discussion

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Philippine Electricity Market Corporation

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PEM BOARD DIRECTIVE

Board Resolution/ Agenda Item	PEM Board Directive	Description/ Action Requested
Proposed Amendments on Effectivity of Urgent Amendments and Process of General Amendments	Endorse to the Board Legal Committee and Further Study	Endorse to the Board Legal Committee for further discussion: For further study taking into consideration the provisions of the EPIRA re "joint" promulgation (by DOE and electric power industry participants) of the rules and the suggestion to add "provisionally" in the approved urgent amendment so that the affected parties know that the urgent amendment is still for the approval of the DOE and could be subject to further changes

- 05 August 2024: Endorsement to the Board Legal Committee (BLC)

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Philippine Electricity Market Corporation

5.2 PROPOSED GENERAL AMENDMENTS TO THE WESM RULES REGARDING MUST-OFFER RULE

- *DELIBERATION ON PROPOSAL AND COMMENTS*

Philippine Electricity Market Corporation

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ACTION REQUESTED

- For discussion and approval

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Philippine Electricity Market Corporation

BACKGROUND

- Published in PEMC Website to request for comments on 26 June 2024 until 06 August 2024
- Received comments from MEI/PEI, SNAP, Aboitiz Power, Technical Committee (WGC), Market Surveillance Committee (WGC), IEMOP, and PEMC
- Consolidated Comments_ORCP-WR-WM-24-02_[GNPK]_Must-Offer_Rule_(as_of_13_June_2024)

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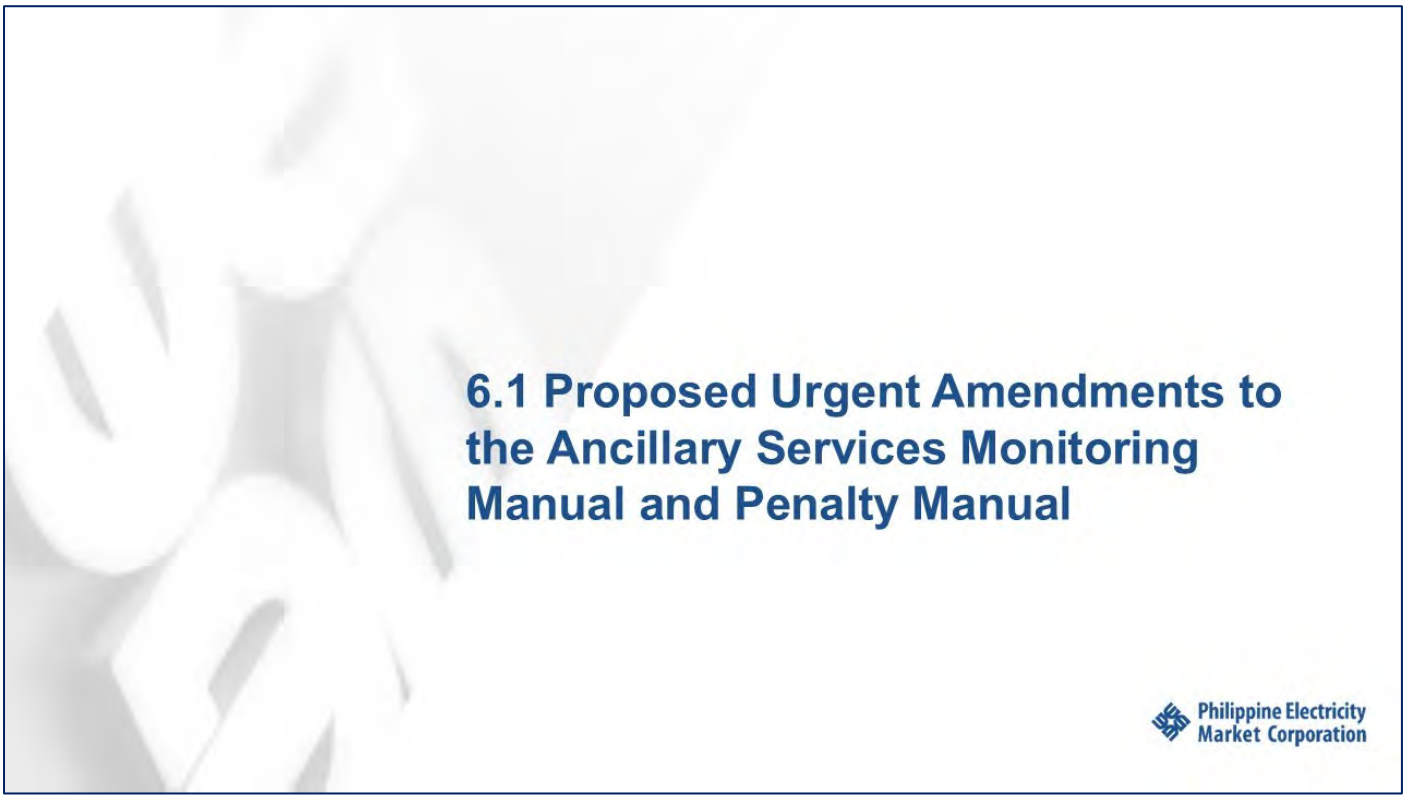
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ACTION REQUESTED

- For deliberation and for approval

- ORCP-WM-24-05 Proposed Urgent Amendment ASMM and Penalty Manual
- Preliminary Assessment of Urgent Amendment
- Matrix and Annex A

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Philippine Electricity Market Corporation

6.2 Proposed Urgent Amendment regarding Terms of Office of WESM Governance Committee Members

Philippine Electricity Market Corporation

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ACTION REQUESTED

- For deliberation and for approval

- ORCP-WM-24-4 WGC terms Urgent Amendment
- Preliminary Assessment of Urgent Amendment

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Philippine Electricity Market Corporation

PROPOSED AMENDMENTS TO THE TERMS OF THE WESM GOVERNANCE COMMITTEE MEMBERS

16 AUGUST 2024

MS Teams | 234th RCC Regular Meeting

MEETING MINUTES

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OUTLINE



ACTION REQUESTED



BACKGROUND OF THE STUDY



URGENCY



RATIONALE OF THE PROPOSAL



SUMMARY OF THE PROPOSAL

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ACTION REQUESTED / PROPONENT

- Approval of the proposed amendments to the Guidelines Governing the Constitution of the WESM Governance Committees (WESM-WGC) | Issue 5.0

- Proponent: PEMC President

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BACKGROUND OF THE PROPOSED AMENDMENTS

- The term of office of the PAC and MSC Members were originally intended to be staggered to avoid the simultaneous expiration of terms of the members.
- The CC members, however, did not originally have staggered terms.
- The staggering of terms of PAC and MSC members was eventually lost.

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BACKGROUND OF THE PROPOSED AMENDMENTS

- The members of the PAC, MSC, and CC will have their terms expire simultaneously.
- Members may continue to be part of their respective committees in holdover capacity.
- The period to notify the PEM Board of any vacancies in the WGCs and for them to act on such vacancies is not realistic given that the PEM Board only meet once a month.

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MEETING MINUTES

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URGENCY

- Several WGCs will have most, if not all, of its members end their terms on 31 October 2024, which may affect the performance of the relevant WGCs.
  - 2 out of 3 of PAC members
  - All of the MSC and CC members
- Holdover capacity is not ideal as it affects the continuity of the projects being handled by the WGC, if any.

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RATIONALE OF THE PROPOSAL

- The proposed amendments seek to remove the problem of simultaneous expiration of terms of majority of the membership of the WGCs, especially for PAC, MSC, and CC.
- It also seeks to streamline the process of monitoring the commencement and expiration of terms of WGC members.
- It also seeks to provide a more realistic period for the PEM Board to act on vacancies in the WGCs.

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SUMMARY OF THE PROPOSAL

- The proposed amendments provide for a fixed commencement period as a reckoning point for future appointments.
- It seeks to restore the staggering of the terms in the PAC and the MSC and would also implement a staggered term period for CC members.
- It also seeks to provide more time for the PEM Board to act on vacancies in WGCs

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PROPOSED AMENDMENTS

CURRENT VERSION	PROPOSED AMENDMENT	RATIONALE
Sec. 3.2.1. In case of a vacancy, the concerned WESM Governance Committee Chairperson, any member thereof, or PEMC shall give notice to the PEM Board immediately upon occurrence of such vacancy or within one month prior to the effectivity of the expiration of term of office of the concerned member.	In case of a vacancy, the concerned WESM Governance Committee Chairperson, any member thereof, or PEMC shall give notice to the PEM Board immediately upon occurrence of such vacancy or within ~~one month~~ **ninety (90) days** prior to the effectivity of the expiration of term of office of the concerned member.	To give the PEM Board a more realistic time frame to act on the vacancies in the WGCs

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PROPOSED AMENDMENTS

CURRENT VERSION	PROPOSED AMENDMENT	RATIONALE
Sec. 3.9. Hold-over Provision. Any member of a Committee whose appointment has expired shall continue to hold office, with all the rights and obligations attached to the position, until his/her replacement has been duly appointed.	Hold-over Provision. Any member of a Committee whose appointment has expired shall continue to hold office, with all the rights and obligations attached to the position, until his/her replacement has been duly appointed. **The period served by any member of a Committee in hold-over capacity shall be counted against the successor/replacement appointed. The term of the successor/ replacement shall be reckoned on the date of expiration of the term of the member replaced.**	To provide for a fixed reckoning date for commencement and expiration of terms moving forward.

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PROPOSED AMENDMENTS

CURRENT VERSION	PROPOSED AMENDMENT	RATIONALE
Sec. 5.5. The term of office of each member of the PEM Audit Committee shall be for three (3) years; provided that the initial members of the PEM Audit Committee shall be appointed for the following terms: The Chairperson for three (3) years; one member for two (2) years and the other member for one (1) year. The members of the PEM Audit Committee may be eligible for reappointment but in no case shall a member serve for more than three (3) consecutive terms. Service by a member for less than one year shall not be considered one term.	The term of office of each member of the PEM Audit Committee shall be for three (3) years; provided that the ~~initial~~ **incumbent** members of the PEM Audit Committee shall be **subject to the terms of office provided in Section 15.** ~~appointed for the following terms: The Chairperson for three (3) years; one member for two (2) years and the other member for one (1) year.~~ xxx.	To remedy the error in the implementation of the terms of office of the incumbent members and stagger the term periods of the succeeding PEM Audit Committee members and avoid a similar situation moving forward, wherein majority of the members will have their term periods expire simultaneously.

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PROPOSED AMENDMENTS

CURRENT VERSION	PROPOSED AMENDMENT	RATIONALE
Sec. 6.5. The term of office of each member of the Market Surveillance Committee shall be for three (3) years: provided that the initial members of the Committee shall be appointed for the following terms: (i) the Chairperson for three (3) years; two (2) members for two (2) years; and the remaining two (2) members for one (1) year. The members of the Market Surveillance Committee may be eligible for reappointment but in no case shall a member serve for more than three (3) consecutive terms. Service by a member for less than one year shall not be considered one term.	The term of office of each member of the Market Surveillance Committee shall be for three (3) years~~:~~**;** provided that the ~~initial~~ **incumbent** members of the **Market Surveillance** Committee shall be **subject to the terms of office provided in Section 15.** ~~appointed for the following terms: (i) the Chairperson for three (3) years; two (2) members for two (2) years; and the remaining two (2) members for one (1) year.~~ xxx	To remedy the error in the implementation of the terms of office of the incumbent members and stagger the term periods of the succeeding Market Surveillance Committee members and avoid a similar situation moving forward, wherein majority of the members will have their term periods expire simultaneously.

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PROPOSED AMENDMENTS

CURRENT VERSION	PROPOSED AMENDMENT	RATIONALE
Sec. 10.5. The term of office of each member of the Compliance Committee shall be for three (3) years. The members of the Compliance Committee may be eligible for reappointment but in no case shall a member serve for more than three (3) consecutive terms. Service by a member for less than one year shall not be considered one term.	The term of office of ~~each~~ **the** member**s** of the Compliance Committee shall be for three (3) years**; provided that the incumbent members of the Compliance Committee shall be subject to the terms of office provided in Section 15**. The members of the Compliance Committee may be eligible for reappointment but in no case shall a member serve for more than three (3) consecutive terms. Service by a member for less than one year shall not be considered one term.	To remedy the error in the implementation of the terms of office of the incumbent members and stagger the term periods of the succeeding Compliance Committee members and avoid a similar situation moving forward, wherein majority of the members will have their term periods expire simultaneously.

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PROPOSED AMENDMENTS

CURRENT VERSION	PROPOSED AMENDMENT	RATIONALE
New Provision	**SECTION 15. TRANSITORY PROVISION** **Upon the approval of this provision in this *Market Manual*, the incumbent members of the PEM Audit Committee, Market Surveillance Committee, and Compliance Committee shall have the following terms of office, reckoned from their latest appointment date:** **1) PEM Audit Committee – The Chairperson for five (5) years, one member for four (4) years, and the other member for three (3) years;**	To remedy the error in the implementation of the terms of office of the incumbent members of the PAC and MSC and once again stagger the terms of office of their members, and initiate the staggering of terms of office of the members of the CC.

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PROPOSED AMENDMENTS

CURRENT VERSION	PROPOSED AMENDMENT	RATIONALE
New Provision	**2) Market Surveillance Committee – The Chairperson for five (5) years, two (2) members for four (4) years, and the remaining two (2) members for three (3) years; and** **3) Compliance Committee – The Chairperson for five (5) years; one member for four (4) years, and the other member for three (3) years.** **Thereafter, the terms of office of each member of the PEM Audit Committee, Market Surveillance Committee, and Compliance Committee shall be in accordance with Sections 5.5, 6.5, and 10.5, respectively.**	To avoid a similar situation moving forward wherein all of the members of the said WGCs will have their terms expired simultaneously.

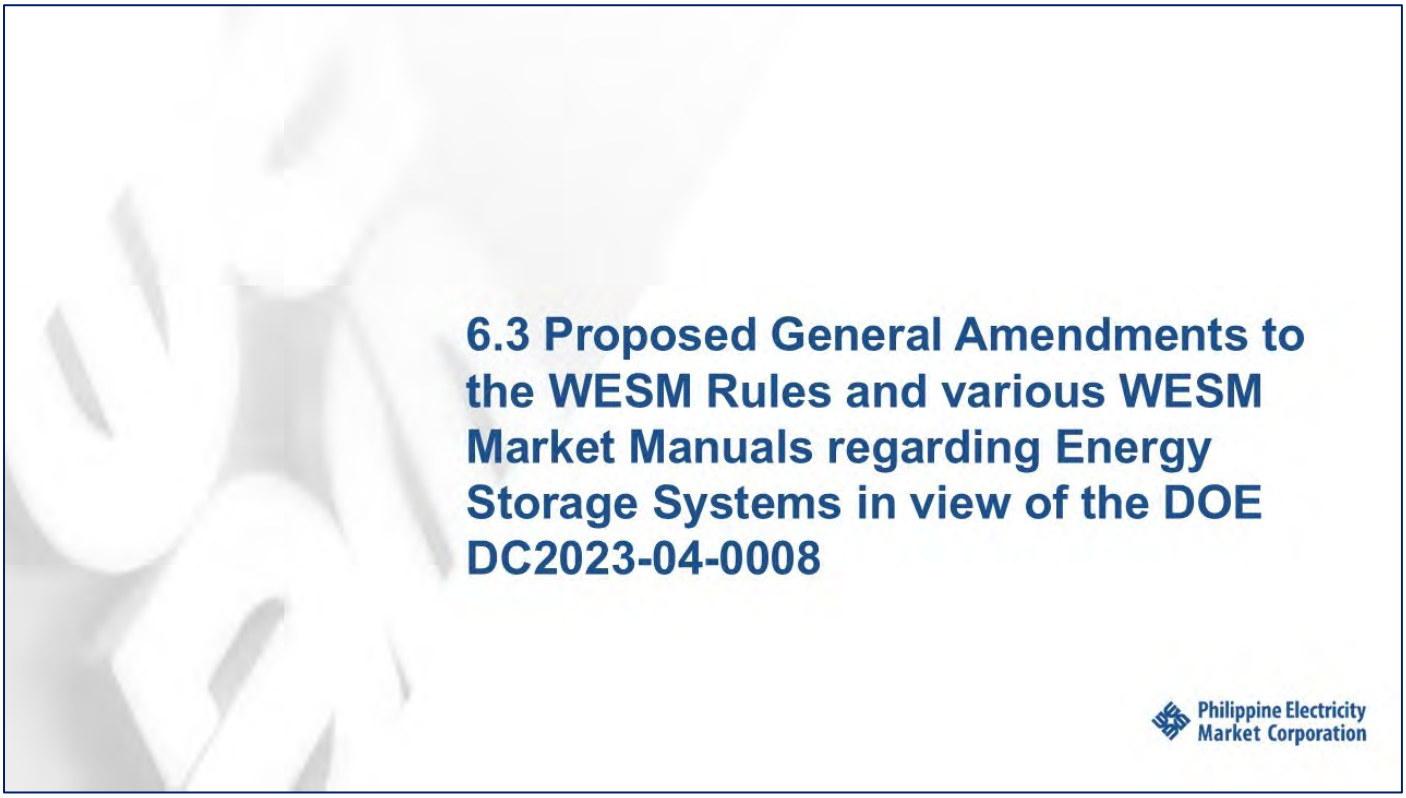
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ACTION REQUESTED

- For discussion and for approval for publication to request comments

- ESS Proposal_RCC Form
- DC2023-04-0008 ENERGY STORAGE SYSTEMS
- RRD Preliminary Assessment

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6.4 Updates on the Proposed Amendments to WESM Rules and Various WESM Manuals on Implementation of Reserve Market (ORCP-WR-WM-21-11/ RCC Resolution No.2021-21)

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ACTION REQUESTED

- For information

- Notice of Resolution ERC Case No. 2023-002 RC
- DOE Letter to PEMC

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Philippine Electricity Market Corporation

BACKGROUND

Timeline	Activity
02 September 2021	The ORCP-WR-WM-21-11 entitled "Proposed Amendments to WESM Rules and various WESM Manuals on Implementation of the Reserve Market." was proposed by Independent Electricity Market Operator of the Philippines (IEMOP).
22 November 2021	The RCC approved the proposal by way of RCC Resolution No. 2021-21.
24 November 2021	The PEM Board approved the proposal by way of PEM Board Resolution 2021-42-08
17 December 2021	The proposal was endorsed to DOE
03 February 2022	The DOE wrote a letter to PEMC stating the DOE's approval to PEMC to submit to the Energy Regulatory Commission (ERC) the proposed amendments to the PDM Manual incorporated in the aforementioned proposal. The DOE will cause the promulgation of the amendments to the PDM once approved by the ERC. (*DOE Letter to PEMC*)
10 January 2023	PEMC and IEMOP jointly filed the instant application dated 26 October 2022 seeking the ERC's approval of the amended PDM for the implementation of the co-optimized energy and reserve market in the WESM.

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BACKGROUND

Timeline	Activity
24 August 2023	The ERC granted an Interim Relief (IR) on ERC Case No. 2023-002 RC entitled "Application for the Issuance of Rules on the Price Determination Methodology (PDM) for the implementation of the Co-Optimized Energy and Reserve Market in the WESM"
26 July 2024	The ERC issued a Notice of Resolution in reference to ERC Case No. 2023-002 RC which resolved the following matters: • The suspension of the implementation of Section 8 of the PDM on Billing and Settlement is lifted. • The Interim Relief for the adoption and implementation of the proposed PDM for the co-optimized energy and reserve market in the WESM is extended, subject to conditions.

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WAYS FORWARD

1. PEMC is awaiting the formal ERC Order in reference to ERC Case No. 2023-002 RC before finalizing the submission of the revised PDM Manual to the DOE.
2. PEMC shall submit the revised PDM Manual, as approved by the Commission, to the DOE for promulgation.

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VII. OTHER MATTERS

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7.1 UPDATES ON PROPOSALS

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UPDATES ON THE PROPOSALS
Urgent Amendments

	Proposal	Proponent	Update/Status
1	Proposed New WESM Manual on **Ancillary Services Monitoring** (Urgent Proposal)	PEMC	Transmitted to the DOE in a letter dated 09 November 2023 DOE conducted virtual Public Consultation on 05 December 2023 **Signed by DOE Secretary | DOE DC2024-06-0019** **Publication of the revised WESM Rules and affected manuals, and new ASM Manual: 11 July 2024**

Philippine Electricity Market Corporation

UPDATES ON THE PROPOSALS
Urgent Amendments

	Proposal	Proponent	Update/Status
1	Proposed Urgent Amendments to the Ancillary Services Monitoring Manual and Penalty Manual	PEMC - ECO	• 28 August 2024 – For Discussion and Approval during the PEM Board Meeting • 29 August 2024 – Once approved by the PEM Board: Deadline for the posting of updated market manuals • 30 August 2024 – Effectivity of urgent Amendment
2	Proposed Urgent Amendment regarding Terms of Office of WESM Governance Committee Members	PEMC - LEGAL	• 28 August 2024 – For Discussion and Approval during the PEM Board Meeting • 29 August 2024 – Once approved by the PEM Board: Deadline for the posting of updated market manuals • 30 August 2024 – Effectivity of urgent Amendment

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UPDATES ON THE PROPOSALS

General Amendments – Under RCC Evaluation

	Proposal	Proponent	Update/Status
1	Proposed Amendments to the **Rules Change Process**	RCC	• Published in PEMC Website to request for comments. • 16 May 2024 – Received Comments from Manila Electric Company (MERALCO) • **14 July 2024 – RCC approved** • **31 July 2024 – PEM Board directive to Endorsement to the Board Legal Committee and Further Study**
2	Proposed Amendment to the WESM Rules and WESM Manual on Dispatch Protocol regarding **Must-Offer Rules**	GNPK	• **Published in PEMC Website to request for comments on 26 June 2024 until 06 August 2024** • **Received comments from MEI/PEI, SNAP, Aboitiz Power, Technical Committee (WGC), Market Surveillance Committee, IEMOP, and PEMC**

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UPDATES ON THE PROPOSALS

General Amendments – Under RCC Evaluation

	Proposal	Proponent	Update/Status
3	Proposed General Amendments to the WESM Rules and various WESM Market Manuals regarding Energy Storage Systems in view of the DOE DC2023-04-0008	IEMOP	• 19 July 2024 – Secretariat received the proposed amendment from IEMOP • **02 August 2024 – Endorsement to RCC of the discussion paper with matrix of proposed amendment, related DOE DC2023-04-0008, and secretariat's preliminary assessment**
4	Proposed General Amendments to the Retail Rules and Retail Manual on Market Transaction Procedures on **No Outstanding Balance** (Harmonization with ERC Resolution No. 01, Series of 2023)	IEMOP	Deferred deliberation pending ERC's issuance of Omnibus Retail Electricity Market Rules
5	Proposed General Amendments to the WESM Rules, Retail Rules and Market Manuals on the Implementation of **Electric Retail Aggregation Program**	IEMOP	

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UPDATES ON THE PROPOSALS

General Amendments – For DOE Promulgation

	Proposal	Proponent	Update/Status
1	Proposed General Amendments to the WESM Rules and Various WESM Manuals on the **Interruptible Load Program Implementation**	IEMOP	• Jan 31, 2024: Approved by the PEM Board **PEM Board Resolution No. 2024-68-03** • DOE conducted Public Consultation: 3 April 2024, 17 April 2024 and 23 April 2024 • **For finalization of DOE**
2	Proposed Amendments to the WESM Rules and WESM Manual on Dispatch Protocol regarding **Market Intervention and Suspension**	MSC	• Jan 31, 2024: Approved by the PEM Board **PEM Board Resolution No. 2024-68-04** • DOE conducted Public Consultation: 3 April 2024, 17 April 2024 and 23 April 2024 • **For finalization of DOE**
3	Proposed Amendments to the WESM Rules and WESM Manuals on **Penalty, and Enforcement and Compliance**	PEMC	• Jan 31, 2024: Approved by the PEM Board **PEM Board Resolution No. 2024-68-06** • DOE conducted Public Consultation: 3 April 2024, 17 April 2024 and 23 April 2024 • **For finalization of DOE**

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UPDATES ON THE PROPOSALS

General Amendments – For DOE Promulgation

	Proposal	Proponent	Update/Status
4	Proposed Amendments to the WESM Rules and WESM Manual on Dispatch Protocol regarding Enhancements and Updating of the **System Operator's Re-Dispatching, Reporting and Market Intervention/Suspension Procedures**	NGCP	Under DOE finalization stage Concluded DOE Public Consultation: • 23 Aug 2023 – Luzon (BGC) • 31 Aug 2023 – Mindanao (General Santos) • 06 Sept 2023 – Visayas (Cebu)

General Amendments – For DOE's Response

	Proposal	Proponent	Update/Status
1	Proposed General Amendments to the WESM Manual on Dispatch Protocol regarding **Non-security Over-riding Constraints**	NPC	• 17 May 2024 – RCC approved Reso on the conclusion of NPC's Proposal for endorsement to PEM Board • **31 July 2024 – PEM Board concurred with the RCC's decision to conclude the National Power Corporation's (NPC) proposed rules change**

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OTHER MATTERS

- **Market Participants' Townhall and Electricity Market Exchanges 2024**
  - What: MPT and EMX: Empowering Distribution Utilities for Enhanced Service Efficiency
  - When: 24 September 2024 | Friday | 09:00 AM – 05:00 PM
  - Where: Pavillion A, Wack Wack Golf and Country Club
  - Attire: Corporate
  - Type: In-Person Event Only

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7.2 DOE UPDATES

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7.3 SCHEDULE OF ACTIVITIES

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SCHEDULE OF ACTIVITIES

RCC Meetings	BRC Meeting	PEM Board Meeting
• 20 Sep 2024 • 18 Oct 2024	• 22 Aug 2024 Proposed Agenda: 1. ASMM and Penalty 2. WGC Terms	• 28 Aug 2024 Proposed Agenda: 1. ASMM and Penalty 2. WGC Terms

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VIII. ADJOURNMENT

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Annex B – Matrix of the Proposed Amendments to the WESM Rules and WESM Manual on Dispatch Protocol regarding Must-Offer Rule

WESM Rules (Posted: 05 March 2024 | Effective: 13 February 2024)								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comment**	**Proposed re-wording based on comment**	**Original Proponent's Response**	**RCC Decision**
Philippine Electricity Market Corporation's (PEMC) comment/s: 1. *The rules provide the following guidelines:* a. *The WESM adheres to self-commitment, where the Trading Participants manage their technical operations, unit commitment decisions, and other market risks in submitting their generation offers (Price Determination Methodology Section 1.2 (d)).* b. *The Generation Company shall submit standing market offer equivalent to the maximum stable load (Pmax) or available capacity, where the Generation Company shall take in consideration conditions such as outages, derating, **generator technical constraints** and weather disturbance that cause damage to the unit or that would limit the unit's capability to inject power to the grid (WESM Rules Clause 3.5.5.1 and Glossary-definition of Available Capacity).* c. *Generator technical constraint refers to plant equipment-related failure limitations encountered during start-up/shutdown procedure, effects of ambient temperature, and resource-related constraints that are not within the control of the Generation Company (Glossary-definition of Generator Technical Constraint).* 2. *In view of the foregoing, the proposal aims to include as generator technical constraint plant conditions, i.e. continued steam bypass, and flame loss, resulting from continuously operating at loads outside of the unit minimum operating level or being scheduled below the minimum stable load. We deem that the scheduling at minimum stable load should be effectively managed by offer submission process.*							The intention of the proposed amendment is to give the Generation Companies (as a Trading Participant) the right to exercise discretion in protecting its facility from adverse impacts during instances where the facility will be forced to deviate from its standard operating levels, specifically its minimum stable loading despite best efforts in managing generation offers	
Technical Committee's (TC) comment/s: 1. *The proposal will allow all thermal plants to use "generator technical constraints" as exemption to the Must Offer Rule (MOR) of the WESM which will significantly increase the WESM prices as capacities are effectively removed from available capacities in the grid. IEMOP should perhaps simulate the cost impact of this proposal considering the number of thermal plants in the WESM. Note that the impact will become more evident as more must dispatch RE plants become online in the WESM/grid.* 2. *A more appropriate solution to address the concern of the proponent is to either (i) reflect the cost of such technical constraints (continued steam bypass and flame loss) in its price bid/offer or (ii) contract its minimum stable dispatch (Pmin) to a DU/RES. This has been the approach of most thermal plants (coal, geo, CCGT) in order to comply with WESM rules while maintaining economic viability.*							Abuse of the said rule thereby resulting to unfavorably high market prices can be avoided through in depth compliance monitoring of the governing bodies. Securing power contracts with DU/EC is not guaranteed as this is subject to competitive selection process. Not all	

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WESM Rules (Posted: 05 March 2024 | Effective: 13 February 2024)								
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							Thermal Plant will be able to secure the necessary contract capacities to cover for its minimum stable load.	
<u>Market Surveillance Committee's (MSC) comment/s:</u> 1. *Any amendments related to the proposed amendments should not be retroactive. It should be prospective.*							GNPK agrees. GNPK's proposal is prospective in nature to avoid instances in the future that may negatively impact the facility in the long run.	
Submission of offers, bids, and data	3.5.11.5	*Market bids or market offers* for *any dispatch interval* shall be revised by *Trading Participants* prior to gate closure in accordance with the *timetable* if these offers no longer represent a reasonable estimate of: (a) the status of the relevant *generating unit* (e.g., generator circuit breaker status, *outage*) or *scheduled load* for that *dispatch interval*; or (b) the capacity that can be attained taking into account the *ramp rate* limitations of the *generating unit* during the	*Market bids or market offers* for any *dispatch interval* shall be revised by *Trading Participants* prior to gate closure in accordance with the *timetable* if these offers no longer represent a reasonable estimate of: (a) the status of the relevant *generating unit* (e.g., generator circuit breaker status, *outage*) or scheduled load for that *dispatch interval*; or (b) the capacity that can be attained taking into account the **<u>generator technical constraints, and</u>** *ramp rate* limitations of the *generating*	This proposal is applicable should the facility encounter technical limitations preventing the its unit to operate properly, or outside of its stable operating levels. We propose that the rules provide the Generation Facilities its right to make sound judgment to protect its facility from adverse impacts of generating below its stable operating conditions in the event that such situations become evident.	**<u>PEMC:</u>** Generator technical constraints should already be considered in the submission of market bids or market offers. Scheduling at the minimum stable load is due to/and should be manage by the offer submission. The proposal to include the generator technical constraint in item (b) might be presumptive since it refers to the capacity that can be attained considering	Propose to retain the original provision.	The intention is that the Trading Participant be able to exercise discretion of protecting its facility should the facility be continually forced to deviate from its minimum stable load despite best efforts in managing generation offers	

Annex B – Matrix of the Proposed Amendments to the WESM Rules and WESM Manual on Dispatch Protocol regarding Must-Offer Rule

WESM Rules (Posted: 05 March 2024 | Effective: 13 February 2024)								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comment**	**Proposed re-wording based on comment**	**Original Proponent's Response**	**RCC Decision**
		relevant *dispatch interval*; or (c) the *demand bids* or *offers* likely to apply for the real-time *dispatch* optimization of that *dispatch interval*.	*unit* during the relevant *dispatch interval*; or (c) the *demand bids* or *offers* likely to apply for the real-time *dispatch* optimization of that *dispatch interval*;		limitations, i.e. ramp rate. Should the proposal be considered, what will be the parameters used in computing the capacity than can be attained taking into account the generator technical constraints?			
					<u>TC:</u> The proponent intends to insert/add the term "generator technical constraints" in section 3.5.11.5 in order to allow generators to revise its bid/offer and temporarily de-rate its capacity if the most recent dispatch instruction targets a level below their minimum stable dispatch (Pmin). Note however, that "generator technical constraints" term is originally used in the WESM rules in the definition of Available Capacity in order to reflect a permanent reduction in the dependable capacity		The intention is not to temporarily de-rate the facility should the most recent dispatch instruction be below the minimum stable load. Instead, it is to give the Generation Company the discretion when the facility is continually being forced to dispatch below its minimum stable load resulting to adverse impacts to its operation.	

Annex B – Matrix of the Proposed Amendments to the WESM Rules and WESM Manual on Dispatch Protocol regarding Must-Offer Rule

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					of the generator. See definition below: **Available capacity**. Equal to the registered maximum stable load (Pmax) of the (aggregate) unit less forced unit outages, scheduled unit outages, derating, <u>generator technical constraints</u> and weather disturbance that cause damage to the unit or that would otherwise limit the unit's capability to inject power to the grid.			
					<u>MEI & PEI:</u> We understand that the intent of the proposed amendment is to ensure that the GNPK generating units, through the revision of offers with the generator technical constraints considered, will not be scheduled below Pmin by the WESM. How can a Trading Participant make sure, through the revision of		The scenario would be on the instance that the market conditions show low demand and the facility's units are scheduled below the minimum stable load, the Trading Participant shall revise its offer to ensure that the RTD schedules are within the facility's minimum stable load. However, this is not guaranteed as the	

Annex B – Matrix of the Proposed Amendments to the WESM Rules and WESM Manual on Dispatch Protocol regarding Must-Offer Rule

WESM Rules (Posted: 05 March 2024 | Effective: 13 February 2024)								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comment**	**Proposed re-wording based on comment**	**Original Proponent's Response**	**RCC Decision**
					its offer, that its generating unit will not be scheduled below Pmin by the WESM? How can a generator technical constraint, particularly unstable operation below Pmin, be reflected in the offer of the Trading Participant? We suggest that the proponent elucidate their proposal through an example. Unstable operation and technical issues of a generating unit at outputs below its Pmin are problems not unique to GNPK but are common to all generating units. Since the proposed amendment would be applicable to all generators, how will the WESM scheduling and dispatch process be impacted by this amendment? Generator technical constraint normally results in the deration of a generating unit due to existing		market is demand driven. There even exist pro-rating of RTD schedules when multiple Generation Companies have similar offered prices.	

Annex B – Matrix of the Proposed Amendments to the WESM Rules and WESM Manual on Dispatch Protocol regarding Must-Offer Rule

WESM Rules (Posted: 05 March 2024 | Effective: 13 February 2024)								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comment**	**Proposed re-wording based on comment**	**Original Proponent's Response**	**RCC Decision**
					equipment or resource issues which prevent the unit from reaching its maximum capacity. In the case of GNPK, the entire generating capacity is available, but cannot be fully scheduled and dispatched by the WESM because of excess generation in the Mindanao grid and the fact that GNPK remains not fully contracted. Generator technical constraints are known beforehand and are considered in the submission of offers. On the other hand, **continued steam bypass, and flame loss as a result of continuously operating at loads outside of the unit minimum operating level resulting to instability of the unit** are conditions which only ensue when the unit has been running below its Pmin. Is it being anticipated that			

Annex B – Matrix of the Proposed Amendments to the WESM Rules and WESM Manual on Dispatch Protocol regarding Must-Offer Rule

WESM Rules (Posted: 05 March 2024 | Effective: 13 February 2024)								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comment**	**Proposed re-wording based on comment**	**Original Proponent's Response**	**RCC Decision**
					the unit would be given an RTD schedule below its Pmin in the subsequent dispatch intervals?			
					<u>Aboitiz Power Corporation:</u> We suggest to re-phrase line item (b) to signify technical limitations preventing a Genco to inject its full available capacity to the grid/market pool, and capturing the distribution line constraints of embedded Gencos that are not real-time inputs to the MMS. This aligns with the intention of the MOR to optimize dispatch schedules based on actual "available capacity" and the compliance of MDGUs with the Forecast Accuracy Standards ("FAS").	xxx if these offers no longer represent a reasonable estimate of: (a) xxx (b) the capacity that can be ~~attained~~ **<u>injected to the grid</u>** ~~taking into account the~~ **<u>considering technical</u>** limitations of the generating unit **<u>(e.g.</u>** *ramp rate***<u>s</u>**, ***<u>minimum stable loading)</u>*** during the relevant dispatch interval; or (c) xxx	GNPK would like to defer to the Rules Change Committee on this	

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WESM Rules (Posted: 05 March 2024 | Effective: 13 February 2024)								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comment**	**Proposed re-wording based on comment**	**Original Proponent's Response**	**RCC Decision**
					IEMOP: Taking into consideration the proposed amendment to its definition under Chapter 11 (i.e., the addition of continued steam bypass, and flame loss as a result of continuously operating at loads outside of the unit minimum operating level resulting to instability of the unit, among others), Generator Technical Constraints, as a ground for a Trading Participant to revise its offer, may be difficult to independently verify.		We propose to consider the supporting documents presented by the facility (e.g. CRO logs, mode of operation trend, etc.) as a way for verifying such instances	
					MSC: MSC has no objection to the inclusion of "generator technical constraints" to Section 3.5.11.5.		No further comments from GNPK	

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WESM Rules (Posted: 05 March 2024 | Effective: 13 February 2024)								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comment**	**Proposed re-wording based on comment**	**Original Proponent's Response**	**RCC Decision**
Chapter 11 Glossary	Generator Technical Constraint	**Generator Technical Constraint**. Refers to plant equipment-related failure limitations encountered during start-up/shutdown procedure, effects of ambient temperature, and resource-related constraints due to the following: a) water elevation and diversion requirements for domestic or irrigation use for impounding hydro plants and water flow from rivers for run-of river hydro power plants; b) steam quality (chemical composition, condensable and non-condensable gases, steam pressure and temperature) for geothermal plants; c) unavailability of fuel resources that are not within the control of the *Generation Company* for biomass power plants; and d) steam flow limitations, station *load*, and electricity demand of its *energy* host,	**Generator Technical Constraint**. Refers to plant equipment-related failure, limitations encountered during start-up/shutdown procedure, effects of ambient temperature, and resource-related constraints due to the following: a) water elevation and diversion requirements for domestic or irrigation use for impounding hydro plants and water flow from rivers for run-of river hydro power plants; b) steam quality (chemical composition, condensable and non-condensable gases, steam pressure and temperature) for geothermal plants; c) unavailability of fuel resources that are not within the control of the *Generation Company* for biomass power plants; and d) steam flow limitations, **<u>continued steam bypass, and flame loss as a result of continuously operating at loads outside of the unit minimum operating level resulting to</u>**	Provide and consider existing conditions which contributes to the limitations on the plants' ability to supply power to the grid. Continued steam by-pass operation, and flame loss are results of operating the units at a level below its minimum stable operations, and extreme load fluctuations. These can result damage on the units' equipment in the long run, accelerate degradation and increase likelihood of plant outages/deration.	**<u>PEMC:</u>** The proposed amendment could not be considered as one of the causes of generator technical constraint because the causes, as outlined in the definition, are being identified as beyond the control of the Generation Company while the proposed amendment refers to the outcome of being scheduled below the minimum stable load.	Propose to retain the original provision.	When the market conditions show an extreme drop in the demand thereby forcing the facility to be scheduled below the minimum stable load despite best efforts in managing the offers should be considered as outside or beyond the control of the Generation Company.	
					<u>ECO:</u> The proposal is not considered as generator technical constraint but rather a result of the optimization. One cannot presume that the succeeding schedule will be outside the unit's minimum operating level although its schedule for the prior or preceding intervals are such. Furthermore, the			

Annex B – Matrix of the Proposed Amendments to the WESM Rules and WESM Manual on Dispatch Protocol regarding Must-Offer Rule

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		in the case of the co-generation systems.	**instability of the unit,** station *load*, and electricity demand of its *energy* host, in the case of the co-generation systems.		provision in paragraph (d) pertains to co-generation systems technical constraints.			
					Aboitiz Power Corporation: We would like to inquire what supporting documents may be used to prove the "continued steam bypass and flame loss as a result of continuously operating at loads outside of the unit minimum operating level resulting to instability of the unit"?		Steam bypass mode of operations and affected plant parameters can be provided by the facility's plant operators.	
					SN Aboitiz Power: **Net Head Elevation Rationale**: During spilling conditions, the Net Head Elevation (Head Elevation minus Tailrace Elevation) may limit the maximum power that the plant can generate. So even if the Head Elevation	**Generator Technical Constraint.** Refers to plant equipment-related failure, limitations encountered during start-up/shutdown procedure, effects of ambient temperature, and resource-related constraints due to the following:	GNPK would like to defer to the Rules Change Committee on this.	

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WESM Rules (Posted: 05 March 2024 | Effective: 13 February 2024)								
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					(commonly referred to as "water elevation") is high, Pmax may still not be achieved. **Water intake Rationale:** During instances where there are large amounts of debris accumulated in the reservoir (due to typhoons, etc), water flow from the water intake should be limited so as to prevent damage to the penstock and turbines. The accumulated debris in the water intake limits the flow of water and reduces the net head resulting in reduced capability for power generation. **ECO**: The proposal is not a resource-related (hydro) constraint, rather, a constraint to prevent damage to the plant. If ever a constraint related to	a) water elevation**, or net head elevation,** diversion requirements for domestic or irrigation use, **and water intake restrictions** for impounding hydro plants and water flow from rivers for run-of river hydro power plants; xxx		

Annex B – Matrix of the Proposed Amendments to the WESM Rules and WESM Manual on Dispatch Protocol regarding Must-Offer Rule

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					preventing damage to a plant will be considered, such must be applicable to all resource type and not limited to hydro plants. Suggestion for SN Aboitiz Power to file a separate proposal covering the mentioned rationales.			
					MSC: The proposed phrase is already covered by the phrase "steam flow limitations".		For clarity, Steam Bypass is diverting the flow of steam from the turbine during start-up, shutdown, or operating below the minimum stable load. Meanwhile, steam flow limitation refers to the maximum flow rate at which the steam can flow through the boiler, turbine, or other components of the steam cycle.	

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WESM Manual on Dispatch Protocol 20.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed re-wording based on comments**	**Original Proponent's Response**	**RCC Decision**
Revisions of Self-scheduled Nominations, Bids and Offers Based on Reasonable Estimates	6.13	*Trading Participants* shall revise their *self-scheduled nominations*, *bids*, or *offers*, if the *self-scheduled nominations*, *bids* or *offers* submitted no longer represent a reasonable estimate of either the following: a. The status (e.g., generator circuit breaker status, outage) for the *dispatch interval* of the relevant *generating unit* or *scheduled load*; or b. The capacity that can be attained taking into account the *ramp rate* limitations of the *generating unit* during the relevant *dispatch interval*; or c. The *loading level*, *projected output*, *bid* or *offer* likely to apply in the *real-time dispatch* optimization for the *dispatch interval*.	*Trading Participants* shall revise their *self-scheduled nominations*, *bids*, or *offers*, if the *self-scheduled nominations*, *bids* or *offers* submitted no longer represent a reasonable estimate of either the following: a. The status (e.g., generator circuit breaker status, outage) for the *dispatch interval* of the relevant *generating unit* or *scheduled load*; or b. The capacity that can be attained taking into account the **generator technical constraints, and** *ramp rate* limitations of the *generating unit* during the relevant *dispatch interval*; or c. The *loading level*, *projected output*, *bid* or *offer* likely to apply in the *real-time dispatch* optimization for the *dispatch interval*.	To harmonize with the proposed amendments in the WESM Rules	**PEMC:** Same comment on Clause 3.5.11.5 of WESM Rules.	Propose to retain the original provision.	Same response in Clause 3.5.11.5 of WESM Rules	
					MEI & PEI: Same comment on Clause 3.5.11.5 of WESM Rules.		Same response in Clause 3.5.11.5 of WESM Rules	
					Aboitiz Power Corporation: We suggest to re-phrase line item (b) to signify technical limitations preventing a Genco to inject its full available capacity to the grid/market pool, and capturing the constraints of embedded Gencos that are not real-time inputs to the MMS. This aligns with the intention of the MOR to optimize dispatch schedules based on actual "available capacity" and the compliance of MDGUs with the FAS.	xxx…if the *self-scheduled nominations*, *bids* or *offers* submitted no longer represent a reasonable estimate of either of the following: (a) xxx (b) the capacity that can be ~~attained~~ **injected to the grid** ~~taking into account the~~ **considering technical** limitations of the generating unit **(e.g.** *ramp rate***s**, ***minimum stable loading*****)** during the relevant dispatch interval; or (c) xxx	GNPK would like to defer to the Rules Change Committee on this.	

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Annex C – ECO Presentation Material

Philippine Electricity Market Corporation

PROPOSED URGENT RULE AMENDMENT

ASM Manual and Penalty Manual

16 August 2024 | MS Teams



OUTLINE

- REQUESTED ACTION
- OVERVIEW AND RATIONALE
- SUMMARY OF THE PROPOSAL

MEETING MINUTES

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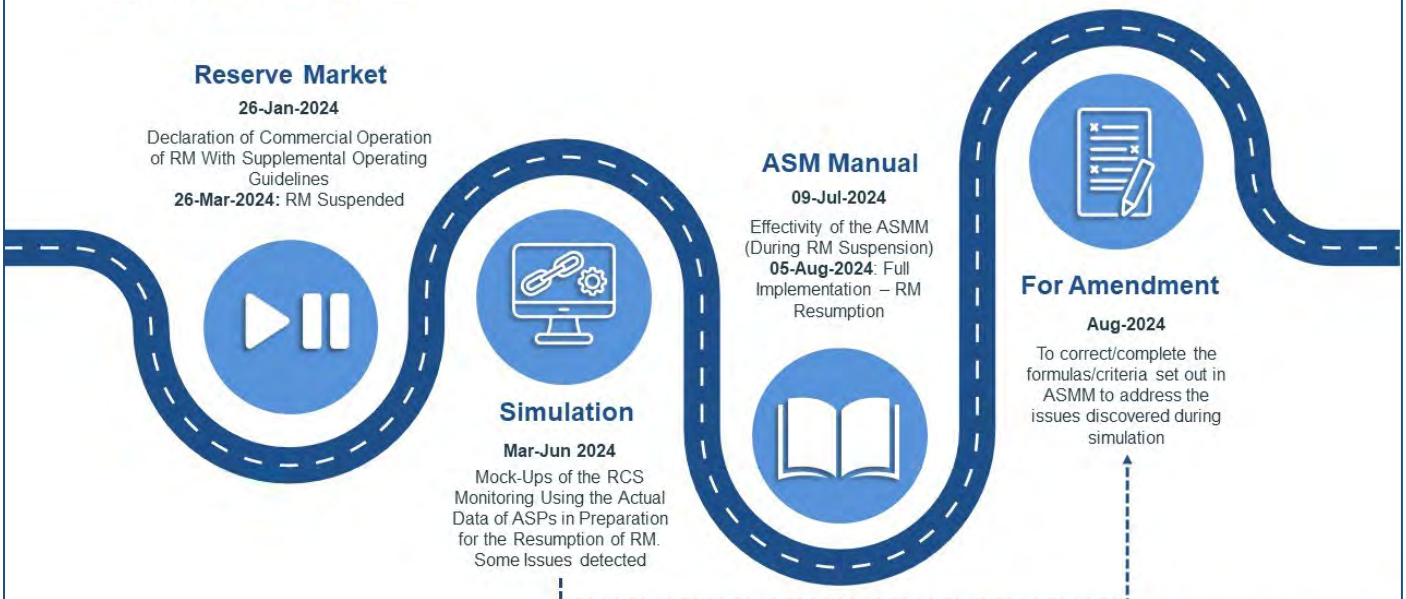
REQUESTED ACTION

For Approval
Proposed Urgent Amendments to ASM Manual

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Philippine Electricity Market Corporation

BACKGROUND



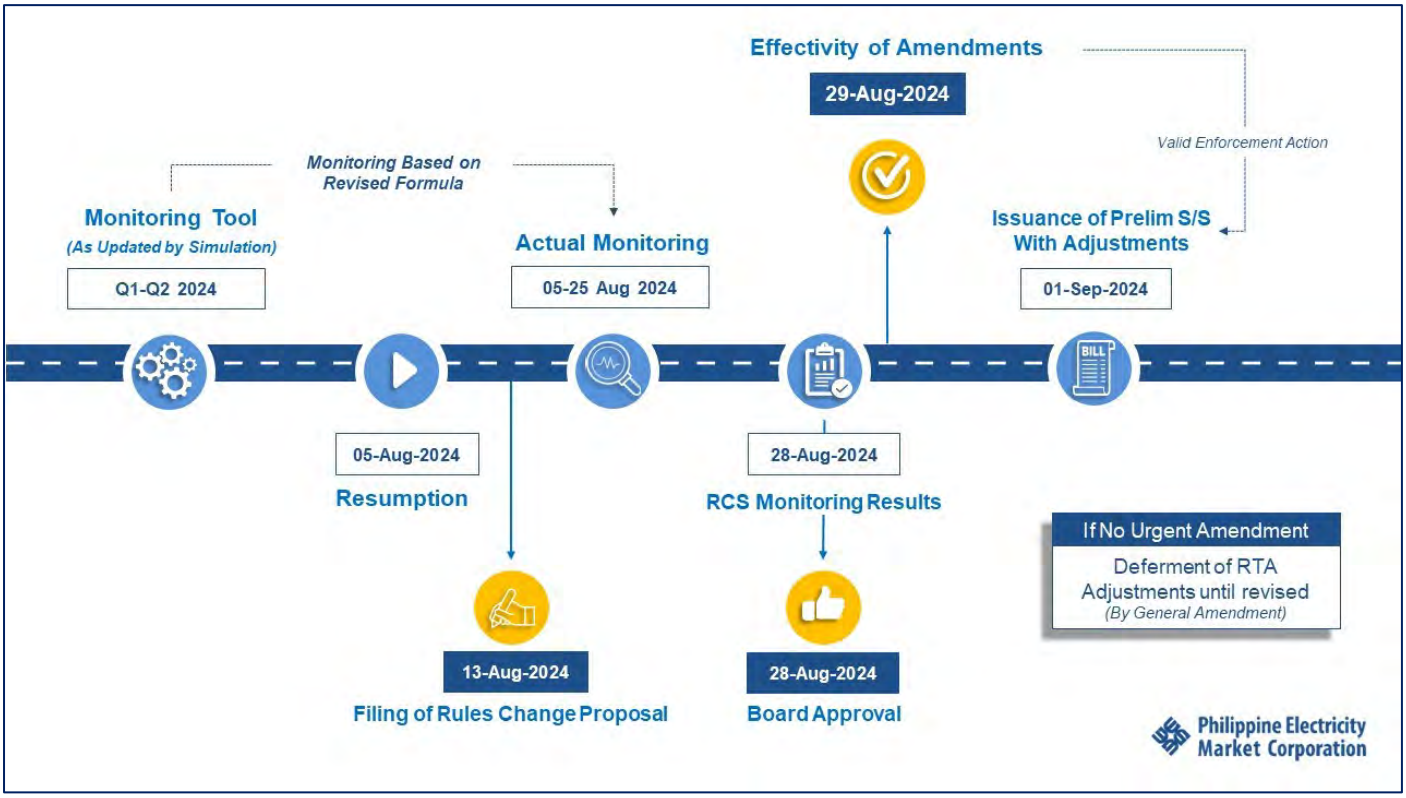
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REASONS FOR FILING AN URGENT AMENDMENT

Reference	Provision	Description
Section 3.1 (c)*	Avoid, reduce the risk of, or mitigate the **unintended adverse effect** of the ASM Manual and Penalty Manual	Possible Adverse Effect: • For ASM Manual: Incorrect/unreasonable results or findings of Breach of RCS with financial implication • For Penalty Manual: Confusion on the penalty application for Breach of RCS with financial implication
Section 3.1 (d)*	Facilitate the implementation of the WESM Rules and the ASM Manual.	To fairly implement Section 7.7.1 of the ASM Manual: "7.7.1 The *Market Operator* **shall reflect in the settlement statement** the **adjustment** as specified in the *Notice of Reserve Amount Adjustment* **received from the *Enforcement and Compliance Office*** under Section 7.6.4 hereof." *(Emphasis Supplied)*

**Procedures for Changes to the WESM Rules, Retail Rules and Market Manuals*

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Philippine Electricity Market Corporation



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SUMMARY OF THE CHANGES

Correction and Clarity on Some Formula/Criteria

- To ensure appropriate, correct, and complete measures for determining the "Response Time," "Response Accuracy," and "Sustainability" metrics in the Reserve Compliance Standards (RCS).

Streamlining the Monitoring Functions of MO and ECO

- To provide clarity in the roles of MO, SO, and ECO regarding the data provision, flagging, determination, and reporting of breach.

Breach Determination and Averaging Horizon

- To ensure a more balanced breach determination of the RCS by changing the horizon of averaging from monthly to hourly for determining compliance with Response Accuracy and Response Time.

Clarity on the Basis for Request for Reassessment

- To address the gap between the process for adjusting the Reserve Trading Amount and for the filing of the Request for Reassessment with Notice of Claim.

Harmonization of Penalty for Breach of ROCC

- To harmonize the penalty mechanisms between the ASM Manual and the Penalty Manual as regards the Reserve Offer Capacity Compliance (ROCC).

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Correction and Clarity on Some Formula/Criteria

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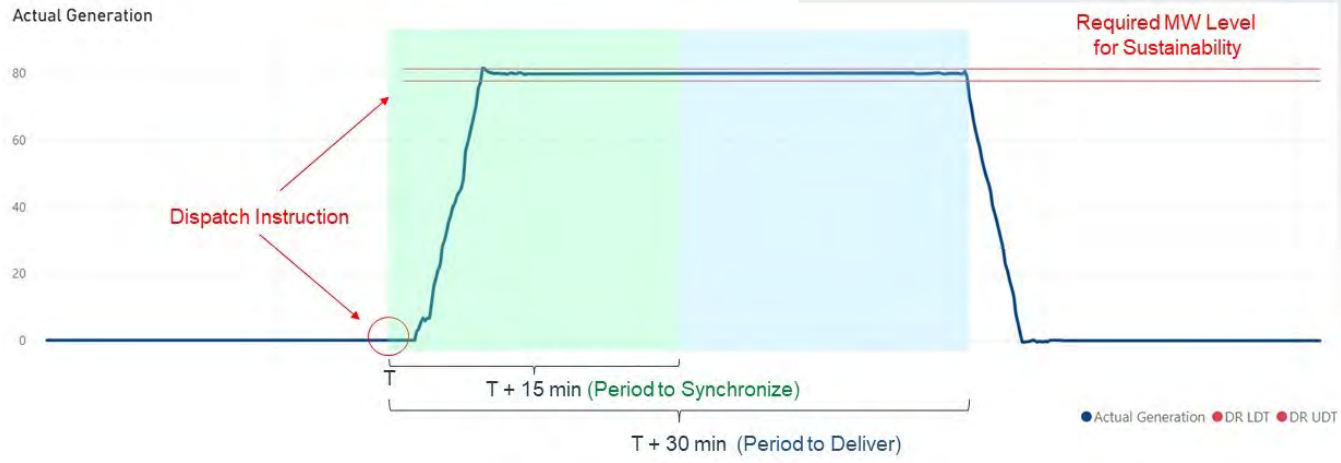
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PROPOSED REVISION TO THE RCS FORMULA ON SEC. 5.5 OF THE ASM

On Section 5.5 of the ASM Manual (Dispatchable Reserve)

Status	must be offline unless there is a *dispatch instruction* from the *System Operator*, or it was scheduled for energy *dispatch* in the *WESM*.
Synchronization	Within 15 minutes upon advice from the *System Operator*
Sustainability	After synchronization, the *dispatchable reserve facility* shall deliver the MW capacity instructed by the *System Operator* within 15 minutes **and shall generate within the upper and lower dispatch thresholds of +/-1% of the dispatch instruction, or +/- 0.5 MW, whichever is higher. The facility shall sustain and maintain generation in accordance with the active instruction and any succeeding instructions from the System Operator until instructed to shut down.**



PROPOSED REVISION TO THE RCS FORMULA ON SEC. 5.5 OF THE ASM

Application - Sustainability Metric for Dispatchable Reserve (DR)

Sample Dispatch Instruction Report with Active Instructions

RESOURCE_NAME	TIME_INTERVAL	INSTRUCTION	MW_FROM	MW_TO	CATEGORY
08PDPP3_C	01/14/2024 17:21	CUT - IN	0	8	DISPATCHABLE RESERVE
08PDPP3_C	01/14/2024 20:43	CUT - OUT	8	0	DISPATCHABLE RESERVE
08PDPP3_C	01/15/2024 11:03	ON LINE	0	6	DISPATCHABLE RESERVE
08PDPP3_C	01/15/2024 11:33	INCREASE LOAD	6	8	DISPATCHABLE RESERVE
08PDPP3_C	01/15/2024 15:29	CUT-OUT ASPA DISPATCH	8	0	DISPATCHABLE RESERVE
08PDPP3_C	01/15/2024 17:18	ASPA DISPATCH	0	8	DISPATCHABLE RESERVE

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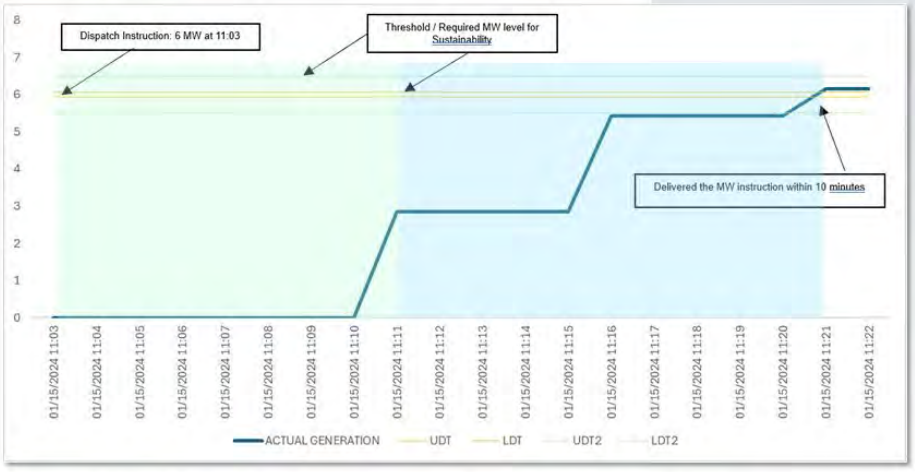
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PROPOSED REVISION TO THE RCS FORMULA ON SEC. 5.5 OF THE ASM

Application - Sustainability Metric for Dispatchable Reserve (DR)

Sample DR Instruction



Observations:

- PDPP3_C was offline prior to instruction **(Status requirement: COMPLIANT)**
- PDPP3_C synchronized at 11:11 (within Interval 11:15) or 8 minutes after the instruction **(Synchronization requirement: COMPLIANT)**
- PDPP3_C delivered the 6 MW instruction at 11:21 (within interval 11:25) or 10 minutes after synchronization **(Sustainability requirement: COMPLIANT).**

Proposed Tolerance: +/- 1% of the dispatch instruction, or +/-0.5 MW, whichever is higher

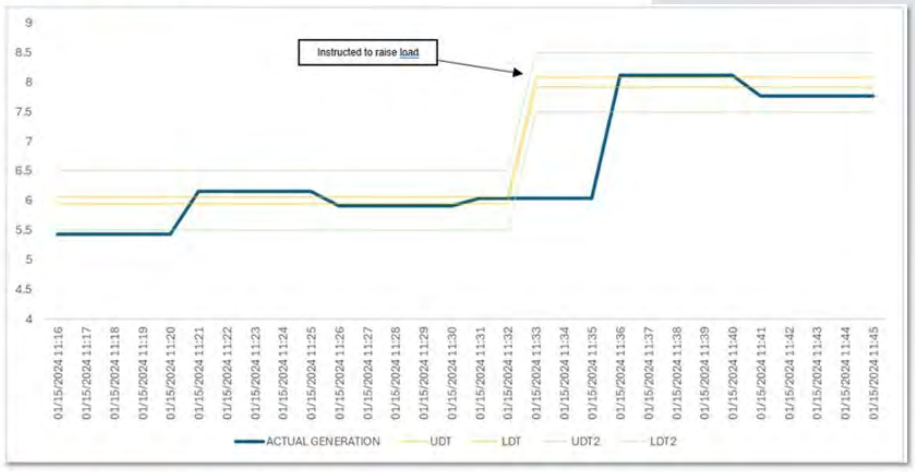
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PROPOSED REVISION TO THE RCS FORMULA ON SEC. 5.5 OF THE ASM

Application - Sustainability Metric for Dispatchable Reserve (DR)

Sample DR Instruction



Observations:

- PDPP3_C was able to sustain active instruction from 11:25 to 11:30 **(Sustainability requirement: COMPLIANT)**
- PDPP3_C received another instruction to raise load from 6 MW to 8 MW at 11:33 (within Interval 11:35); At 11:36 (within interval 11:40) PDPP3_C delivered the 8 MW instruction. **(Sustainability requirement: FOR FURTHER ASSESSMENT)**

Proposed Tolerance: +/- 1% of the dispatch instruction, or +/-0.5 MW, whichever is higher

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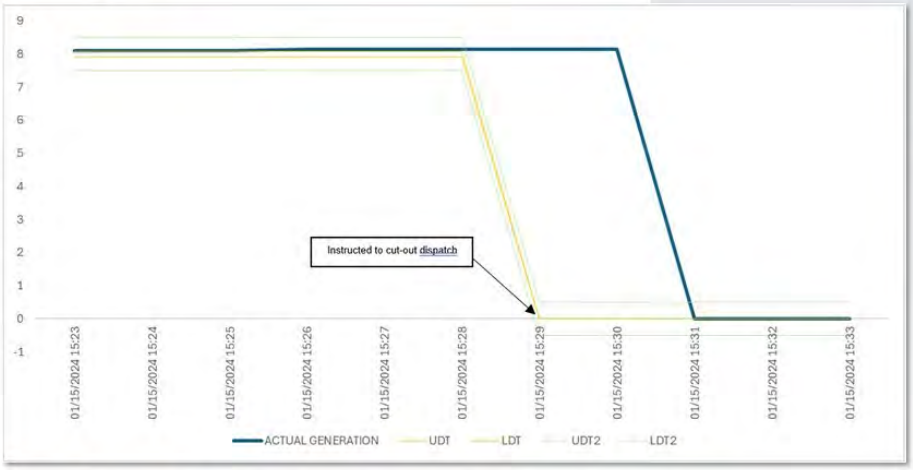
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PROPOSED REVISION TO THE RCS FORMULA ON SEC. 5.5 OF THE ASM

Application - Sustainability Metric for Dispatchable Reserve (DR)

Sample DR Instruction



Observations:

- PDPP3_C was able to sustain active instruction from 11:33 to 15:25 **(Sustainability requirement: COMPLIANT)**
- PDPP3_C received another instruction at 15:29 to shut down; At 15:31, the unit was offline. **(Sustainability requirement: FOR FURTHER ASSESSMENT)**

Proposed Tolerance: +/- 1% of the dispatch instruction, or +/-0.5 MW, whichever is higher

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PROPOSED NEW PROVISION On Sec. 5.5 of the ASM

Application – Flagging of intervals that precede non-compliance to dispatch instruction for DR Facilities



With DR Schedule
Flagged

Facility is given real time dispatch instruction by the SO to run on its DR Schedule. However, the facility fails to comply with the instruction due outage/unavailability.

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PROPOSED REVISION TO THE RCS FORMULA ON SEC. 5.6 OF THE ASM

Application - Using Highest and Lowest Actual MW Output depending on the System Frequency Condition

5.6 Measuring Reserve Response Compliance of Generators on Governor Control Mode

5.6.1 A *reserve facility* responding to a frequency-driven event through GCM shall maintain a response accuracy of at least 80% for the entire monitoring period.

5.6.2 A *reserve facility*'s response accuracy via GCM shall be calculated as follows.

$$Response\ Accuracy = \frac{Actual\ MW\ Response\ Capacity}{Expected\ MW\ Response\ Capacity}\ x\ 100\%$$

Where:

Actual MW Response Capacity
= Highest Actual MW Output – MW Output Prior to Frequency-Driven Event

Expected MW Response Capacity
= Static Gain x Frequency Change

Frequency Change
= Worst Frequency Highest/Lowest – Frequency Prior to Frequency-Driven Event

Frequency Prior to Frequency-Driven Event
= Nominal Frequency ± Dead band Setting

$$Static\ Gain = \frac{Scheduled\ MW\ Capacity}{Droop\ Setting\ x\ Nominal\ Frequency}\ x\ 100\%$$

Actual MW Response Capacity
= Highest/Lowest Actual MW Output – MW Output Prior to Frequency-Driven Event

Where: The Highest/Lowest Actual MW Output is the value obtained 20 seconds after the Lowest/Highest frequency occurred during the Frequency-Driven Event

Frequency Change
= Frequency Prior to FDE – Lowest/Highest Frequency during FDE

Scheduled MW Capacity should be **Rated Capacity**
(Static Gain will be a fixed value)

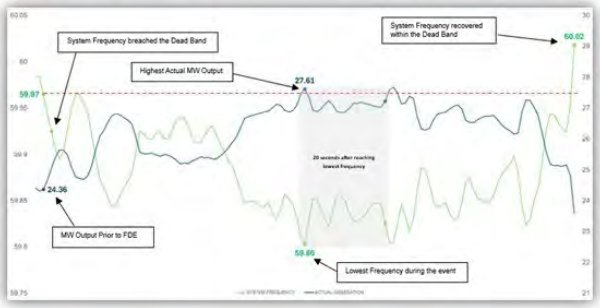
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PROPOSED REVISION TO THE RCS FORMULA ON SEC. 5.6 OF THE ASM

Application - Using Highest and Lowest Actual MW Output depending on the System Frequency Condition

Scenario 1: The System Frequency falls below the lower deadband threshold, the AS facility needs to react by increasing generation to correct the frequency.



For this example, the following are the AS facility's certified characteristics:

- Droop Setting: 4.5%
- Dead Band Settings: 0.03 Hz
- Rated Capacity: 65.4 MW

Given:

- Highest Actual MW Output: 27.61 MW (Within the 20s period after lowest frequency)
- MW Output Prior to FDE: 24.36 MW
- Lowest Frequency during FDE: 59.80 Hz

Solution:

Actual MW Response Capacity

= Highest/**Lowest** Actual MW Output – MW Output Prior to Frequency-Driven Event

= 27.61 MW – 24.36 MW

= **3.25 MW**

Static Gain

$$= \frac{\sout{Scheduled\ MW}\ \mathbf{Rated}\ Capacity}{Droop\ Setting\ x\ Nominal\ Frequency}$$

$$= \frac{65.4\ MW}{4.5\ \%\ x\ 60\ Hz}\ x\ 100\%$$

= **24.22 MW/Hz**

Frequency Prior to Frequency-Driven Event

= Nominal Frequency ± Dead band Setting

= 60 Hz - 0.03 Hz

= **59.97 Hz**

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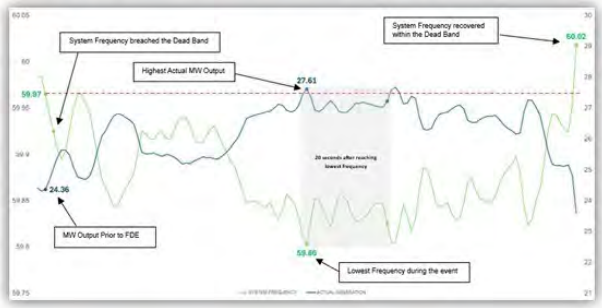
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PROPOSED REVISION TO THE RCS FORMULA ON SEC. 5.6 OF THE ASM

Application - Using Highest and Lowest Actual MW Output depending on the System Frequency Condition

Scenario 1: The System Frequency falls below the lower deadband threshold, the AS facility needs to react by increasing generation to correct the frequency.



For this example, the following are the AS facility's certified characteristics:

- Droop Setting: 4.5%
- Dead Band Settings: 0.03 Hz
- Rated Capacity: 65.4 MW

Given:

- Highest Actual MW Output: 27.61 MW (Within the 20s period after lowest frequency)
- MW Output Prior to FDE: 24.36 MW
- Lowest Frequency during FDE: 59.80 Hz

Solution:

Frequency Change *(Transposition in the Formula)*

= **Frequency Prior to Frequency-Driven Event - Highest/Lowest Frequency During Frequency-Driven Event**

= 59.97 Hz – 59.80 Hz

= **0.17 Hz**

Expected MW Response Capacity

= Static Gain x Frequency Change

= 24.22 MW/Hz x 0.17 Hz

= **4.12 MW**

Response Accuracy

$$= \frac{Actual\ MW\ Response\ Capacity}{Expected\ MW\ Response\ Capacity} \times 100\%$$

$$= \frac{3.25\ MW}{4.12\ MW} \times 100\%$$

= **78.88 (NON-COMPLIANT)**

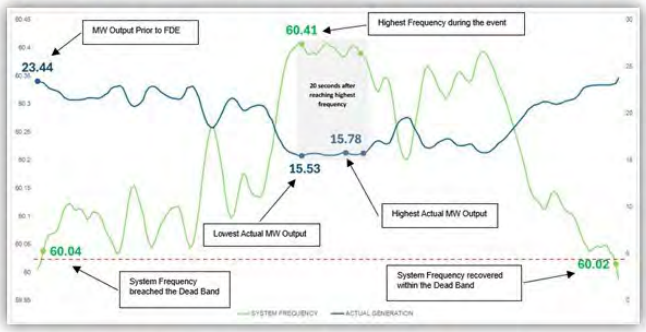
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PROPOSED REVISION TO THE RCS FORMULA ON SEC. 5.6 OF THE ASM

Application - Using Highest and Lowest Actual MW Output depending on the System Frequency Condition

Scenario 2: The System Frequency breaches the upper deadband threshold, the AS facility needs to react by decreasing generation to correct the frequency



For this example, the following are the AS facility's certified characteristics:

- Droop Setting: 4.5%
- Dead Band Settings: 0.03 Hz
- Rated Capacity: 65.4 MW

Given:

- Highest Actual MW Output: 15.78 MW (within the 20-second period)
- Lowest Actual MW Output: 15.53 MW (within the 20-second period)
- MW Output Prior to FDE: 23.44 MW
- Highest Frequency during FDE: 60.41 Hz

Solution:

Using Highest Actual MW Output:

Actual MW Response Capacity

= Highest/**Lowest** Actual MW Output – MW Output Prior to Frequency-Driven Event

= 15.78 MW – 23.44 MW

= -7.66 MW

Using Lowest Actual MW Output:

Actual MW Response Capacity

= Highest/**Lowest** Actual MW Output – MW Output Prior to Frequency-Driven Event

= 15.53 MW – 23.44 MW

= - 7.91 MW

Static Gain

$$= \frac{\sout{Scheduled\ MW}\ \mathbf{Rated}\ Capacity}{Droop\ Setting\ x\ Nominal\ Frequency}$$

$$= \frac{65.4\ MW}{4.5\ \%\ x\ 60\ Hz} \times 100\%$$

= **24.22 MW/Hz**

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PROPOSED REVISION TO THE RCS FORMULA ON SEC. 5.6 OF THE ASM

Application - Using Highest and Lowest Actual MW Output depending on the System Frequency Condition

Scenario 2: The System Frequency breaches the upper deadband threshold, the AS facility needs to react by decreasing generation to correct the frequency



For this example, the following are the AS facility's certified characteristics:

- Droop Setting: 4.5%
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- Rated Capacity: 65.4 MW

Given:

- Highest Actual MW Output: 15.78 MW (within the 20-second period)
- Lowest Actual MW Output: 15.53 MW (within the 20-second period)
- MW Output Prior to FDE: 23.44 MW
- Highest Frequency during FDE: 60.41 Hz

Solution:

Frequency Prior to Frequency-Driven Event

= Nominal Frequency ± Dead band Setting

= 60 Hz + 0.03 Hz

= **60.03 Hz**

Frequency Change

= **Frequency Prior to Frequency-Driven Event - Highest/Lowest Frequency During Frequency-Driven Event**

= 60.03 Hz - 60.41Hz

= **-0.38 Hz**

Expected MW Response Capacity

= Static Gain x Frequency Change

= 24.22 MW/Hz x -0.38 Hz

= **-9.20 MW**

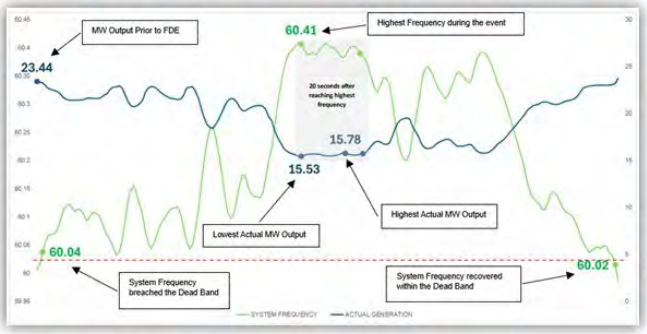
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PROPOSED REVISION TO THE RCS FORMULA ON SEC. 5.6 OF THE ASM

Application - Using Highest and Lowest Actual MW Output depending on the System Frequency Condition

Scenario 2: The System Frequency breaches the upper deadband threshold, the AS facility needs to react by decreasing generation to correct the frequency



For this example, the following are the AS facility's certified characteristics:

- Droop Setting: 4.5%
- Dead Band Settings: 0.03 Hz
- Rated Capacity: 65.4 MW

Given:

- Highest Actual MW Output: 15.78 MW (within the 20-second period)
- Lowest Actual MW Output: 15.53 MW (within the 20-second period)
- MW Output Prior to FDE: 23.44 MW
- Highest Frequency during FDE: 60.41 Hz

Solution:

Using Highest Actual MW Output:

Response Accuracy

$$= \frac{Actual\ MW\ Response\ Capacity}{Expected\ MW\ Response\ Capacity} \times 100\%$$

$$= \frac{7.66\ MW}{-9.2\ MW} \times 100\%$$

= **83.26 %** **(COMPLIANT)**

Using Lowest Actual MW Output:

Response Accuracy

$$= \frac{Actual\ MW\ Response\ Capacity}{Expected\ MW\ Response\ Capacity} \times 100\%$$

$$= \frac{-7.91\ MW}{-9.2\ MW} \times 100\%$$

= **85.98 %** **(COMPLIANT)**

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PROPOSED REVISION TO THE RCS FORMULA ON SEC. 5.6 OF THE ASM

Application - Calculating the Static Gain using Rated Capacity vs. Scheduled MW Capacity on GCM

Scenario 2: The System Frequency breaches the upper deadband threshold, the AS facility needs to react by decreasing generation to correct the frequency



From Scenario 2 Given:

- Droop Setting: 4.5%
- Dead Band Settings: 0.03 Hz
- Rated Capacity: 65.4 MW
- Lowest Actual MW Output: 15.53 MW
- MW Output Prior to FDE: 23.44 MW
- Highest Frequency during FDE: 60.41 Hz

Assumption:

- Scheduled MW Capacity: 30 MW

Solution:

Actual MW Response Capacity

= Highest/**Lowest** Actual MW Output – MW Output Prior to Frequency-Driven Event

= 15.53 MW – 23.44 MW

= **-7.91 MW**

Frequency Prior to Frequency-Driven Event

= Nominal Frequency ± Dead band Setting

= 60 Hz + 0.03 Hz

= **60.03 Hz**

Frequency Change

= **Frequency Prior to Frequency-Driven Event - Highest/Lowest Frequency During Frequency-Driven Event**

= 60.03 Hz - 60.41Hz

= **-0.38 Hz**

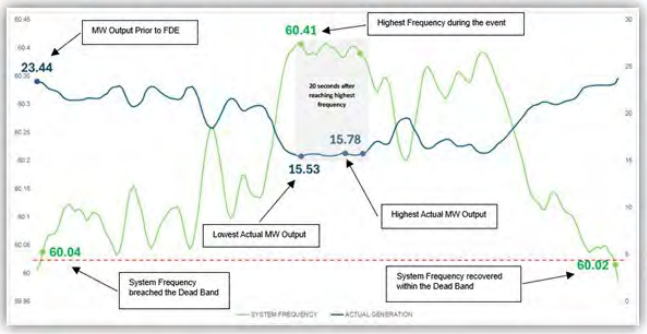
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PROPOSED REVISION TO THE RCS FORMULA ON SEC. 5.6 OF THE ASM

Application - Calculating the Static Gain using Rated Capacity vs. Scheduled MW Capacity on GCM

Scenario 2: The System Frequency breaches the upper deadband threshold, the AS facility needs to react by decreasing generation to correct the frequency



From Scenario 2 Given:

- Droop Setting: 4.5%
- Dead Band Settings: 0.03 Hz
- Rated Capacity: 65.4 MW
- Lowest Actual MW Output: 15.53 MW
- MW Output Prior to FDE: 23.44 MW
- Highest Frequency during FDE: 60.41 Hz

Assumption:

- Scheduled MW Capacity: 30 MW

Solution:

Using the Scheduled MW Capacity:

Static Gain

$$= \frac{Scheduled\ MW\ Capacity}{Droop\ Setting\ x\ Nominal\ Frequency}$$

$$= \frac{30\ MW}{4.5\ \%\ x\ 60\ Hz}\ x\ 100\%$$

= **11.11 MW/Hz**

Expected MW Response Capacity

= Static Gain x Frequency Change

= 11.11 MW/Hz x -0.38 Hz

= **-4.22MW**

Response Accuracy

$$= \frac{Actual\ MW\ Response\ Capacity}{Expected\ MW\ Response\ Capacity}\ x\ 100\%$$

$$= \frac{-7.91\ MW}{-4.22\ MW}\ x\ 100\%$$

= **187.44 %** (COMPLIANT)

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PROPOSED REVISION TO THE RCS FORMULA ON SEC. 5.6 OF THE ASM

Application - Calculating the Static Gain using Rated Capacity vs. Scheduled MW Capacity on GCM

Scenario 2: The System Frequency breaches the upper deadband threshold, the AS facility needs to react by decreasing generation to correct the frequency



From Scenario 2 Given:

- Droop Setting: 4.5%
- Dead Band Settings: 0.03 Hz
- Rated Capacity: 65.4 MW
- Lowest Actual MW Output: 15.53 MW
- MW Output Prior to FDE: 23.44 MW
- Highest Frequency during FDE: 60.41 Hz

Assumption:

- Scheduled MW Capacity: 30 MW

Solution:

Using the Rated MW Capacity:

Static Gain

$$= \frac{Rated\ MW\ Capacity}{Droop\ Setting\ x\ Nominal\ Frequency}$$

$$= \frac{65.4\ MW}{4.5\ \%\ x\ 60\ Hz}\ x\ 100\%$$

$$= 24.22\ MW/Hz$$

Expected MW Response Capacity

= Static Gain x Frequency Change

= 24.22 MW/Hz x -0.38 Hz

= **-9.20 MW**

Response Accuracy

$$= \frac{Actual\ MW\ Response\ Capacity}{Expected\ MW\ Response\ Capacity}\ x\ 100\%$$

$$= \frac{-7.91\ MW}{-9.20\ MW}\ x\ 100\%$$

= **85.99 %** **(COMPLIANT)**

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PROPOSED REVISION TO THE RCS FORMULA ON SEC. 5.7 OF THE ASM

Application - Determination of Percentage (%) Compliance of ASP on AGC

5.7 Measuring Reserve Response Compliance of Generators on Automatic Generator Control

5.7.1 A *reserve facility* responding to a *frequency-driven event* or to *dispatch instructions*, through commands received from the *System Operator's* Energy Management System (EMS) via AGC shall comply to at least 75% of such AGC commands for the entire monitoring period.

A reserve facility responding to a frequency-driven event or to dispatch instructions, through commands received from the System Operator's Energy Management System (EMS) via AGC shall comply to at least **90%** of such AGC commands for the **relevant trading hour**.

Percentage (%) of Compliance of a reserve facility/unit operating on AGC is given below:

% Compliance = (No. of Compliant AGC Commands)/(No. of AGC Commands) x 100%

5.7.2 A *reserve* is deemed compliant to an AGC command if:

Actual MW Generation ≥ (Desired MW Generation – Control Dead band); and

Actual MW Generation ≤ (Desired MW Generation + Control Dead band).

5.7.2.1 The Actual Generation of the reserve facility shall reach at least 63% of the Desired Generation within 25 seconds from the time the AGC command is issued.

5.7.2.2 Additionally, the Actual Generation of the reserve facility shall reach at least 90% but not exceed 130% of the Desired Generation or ± 0.5 MW from the Desired Generation, (whichever requirement is the higher threshold) within 32 seconds from the time AGC command is issued. The facility shall sustain and maintain generation throughout the command in such range set out herein.

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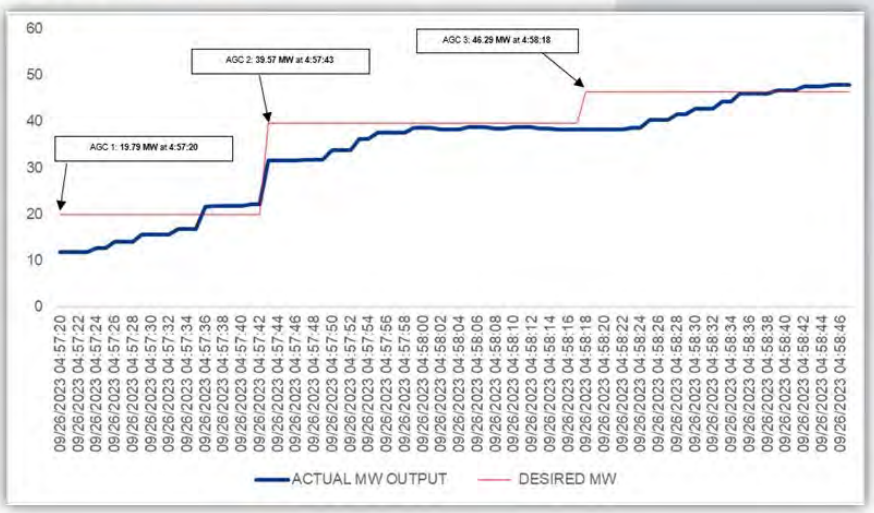
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PROPOSED REVISION TO THE RCS FORMULA ON SEC. 5.7 OF THE ASM

Application - Determination of Percentage (%) Compliance of ASP on AGC

Sample Series of AGC Commands



Summary of illustration from the sample:
AGC1: 19.79 MW at 4:57:20
AGC2: 39.57 MW at 4:57:43
AGC3: 46.29 MW at 4:58:18

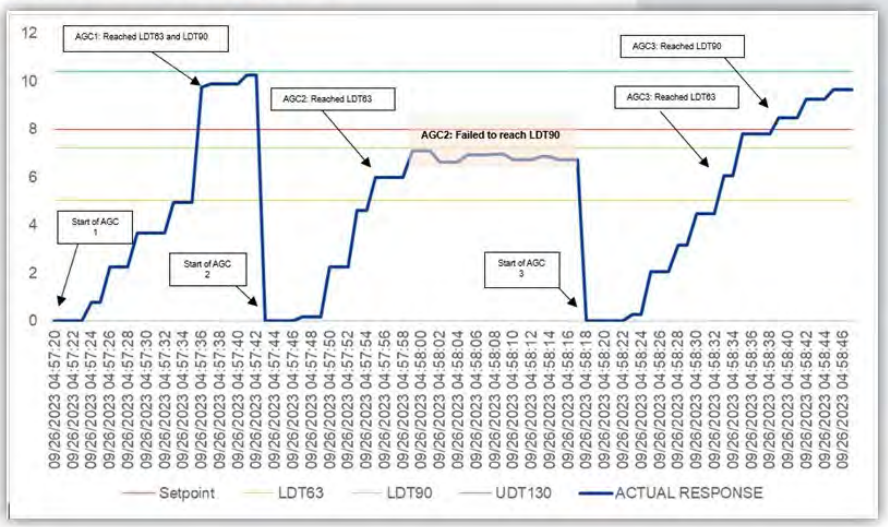
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PROPOSED REVISION TO THE RCS FORMULA ON SEC. 5.7 OF THE ASM

Application - Determination of Percentage (%) Compliance of ASP on AGC

Equivalent Setpoint and Actual Response



Summary of illustration from the sample:
AGC1: **COMPLIANT**
LDT63 reached within 16 seconds
LDT90 reached within 16 seconds
AGC2: **Non-COMPLIANT**
LDT63 reached within 12 seconds
Failed to reach LDT90
AGC3: **COMPLIANT**
LDT63 reached within 15 seconds
LDT90 reached within 17 seconds

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PROPOSED REVISION TO THE RCS FORMULA ON SEC. 5.7 OF THE ASM

Application - Determination of Percentage (%) Compliance of ASP on AGC

Solution:

Total Commands = 3
Total Compliant Commands = 2

$$\%\ Compliance = \frac{No.\ of\ Compliant\ AGC\ Commands}{No.\ of\ AGC\ Commands}\ x\ 100\ \%$$

$$\%\ Compliance = \frac{2}{3}\ x\ 100\ \%$$

$$\%\ Compliance = 66.67\ \%\ (NON-COMPLIANT)$$

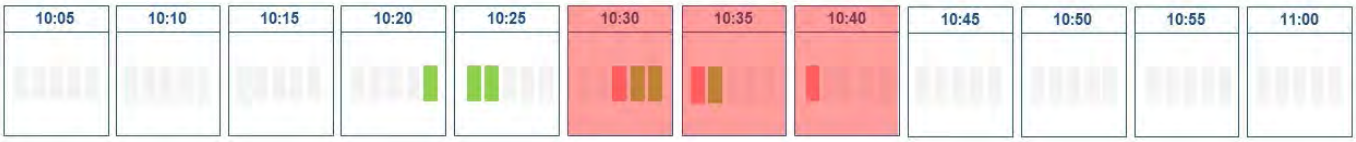
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PROPOSED REVISION TO THE RCS FORMULA ON SEC. 5.7 OF THE ASM

Application - Determination of Percentage (%) Compliance of ASP on AGC

Case 1: Failed Percentage (%) of Compliance



$$\%\ Compliance = \frac{No.\ of\ Compliant\ AGC\ Commands}{No.\ of\ AGC\ Commands}\ x\ 100\ \%$$

$$\%\ Compliance = \frac{6}{9}\ x\ 100\ \%$$

$$\%\ Compliance = 66.67\ \%\ (NON-COMPLIANT)$$

Per AGC Command NO BREACH
Per AGC Command BREACH

Intervals with BREACH
resulting from Failing Hourly Percentage (%) Compliance

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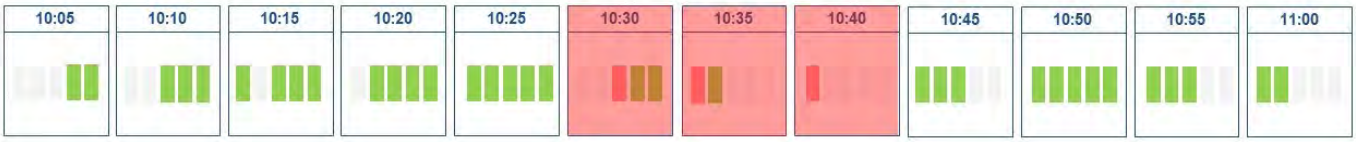
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PROPOSED REVISION TO THE RCS FORMULA ON SEC. 5.7 OF THE ASM

Application - Determination of Percentage (%) Compliance of ASP on AGC

Case 2: Passing Percentage (%) of Compliance



$$\%\ Compliance = \frac{No.\ of\ Compliant\ AGC\ Commands}{No.\ of\ AGC\ Commands}\ x\ 100\ \%$$

$$\%\ Compliance = \frac{34}{37}\ x\ 100\ \%$$

$$\%\ Compliance = 91.89\%\ (COMPLIANT)$$

Per AGC Command NO BREACH
Per AGC Command BREACH

Intervals with No BREACH
resulting from Passing Hourly Percentage (%) Compliance

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Streamlining the Monitoring Functions

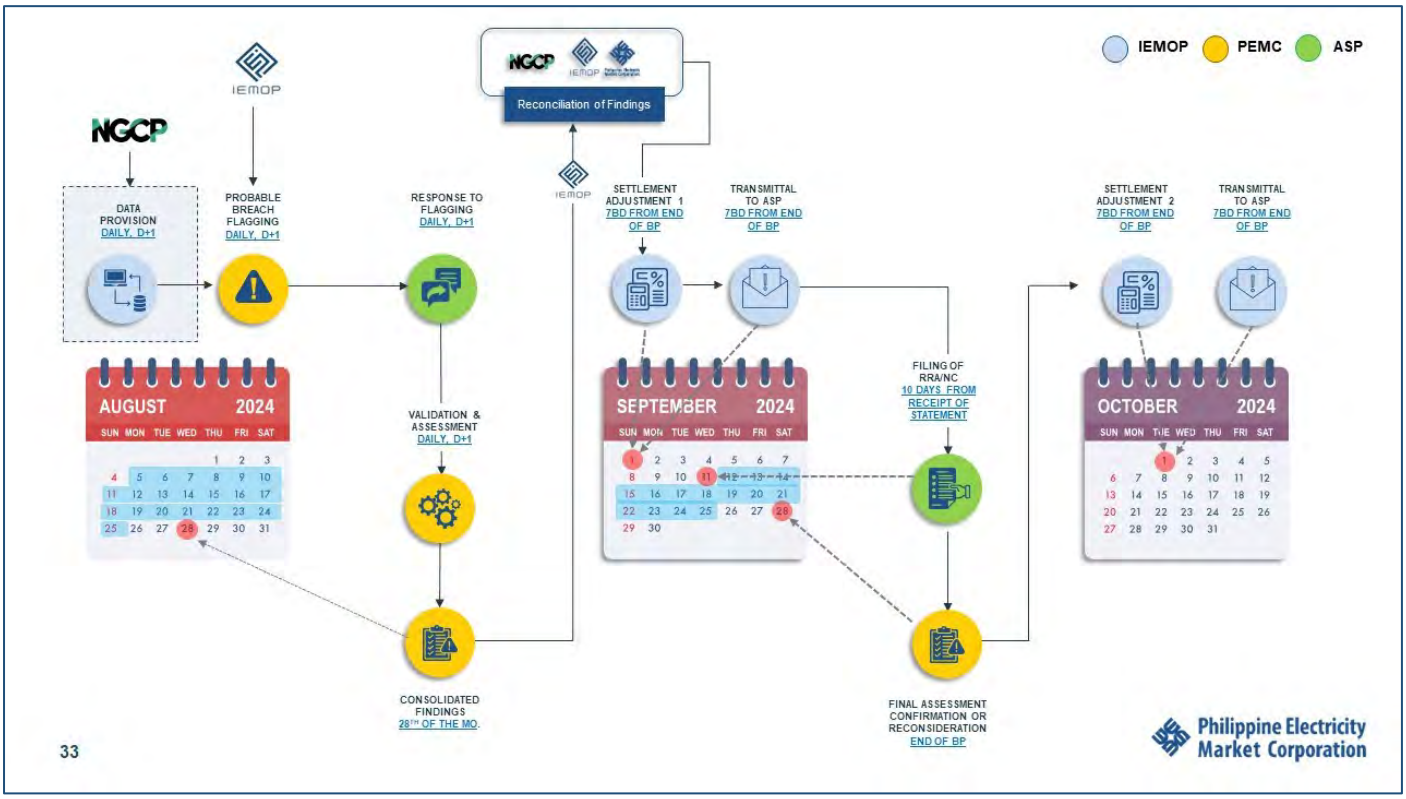
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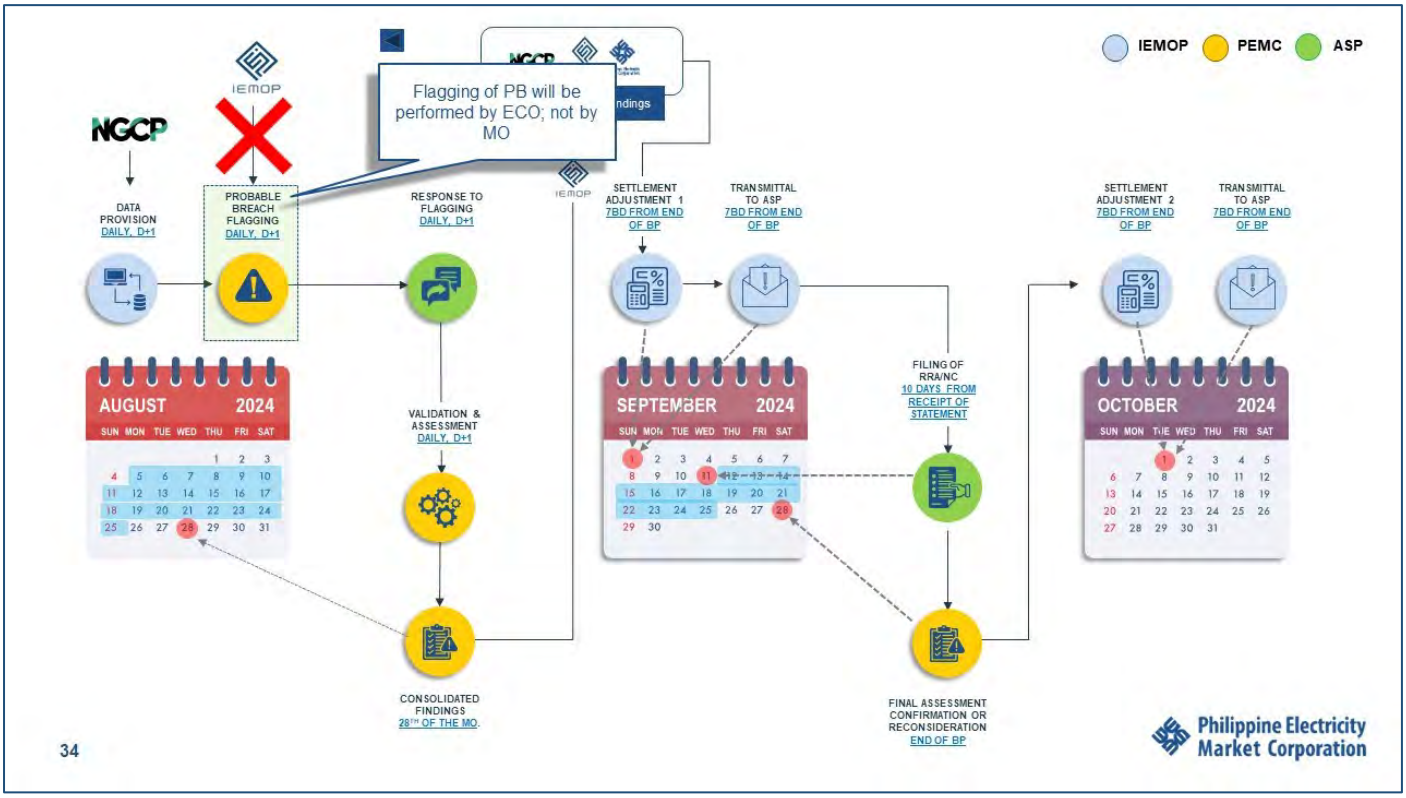
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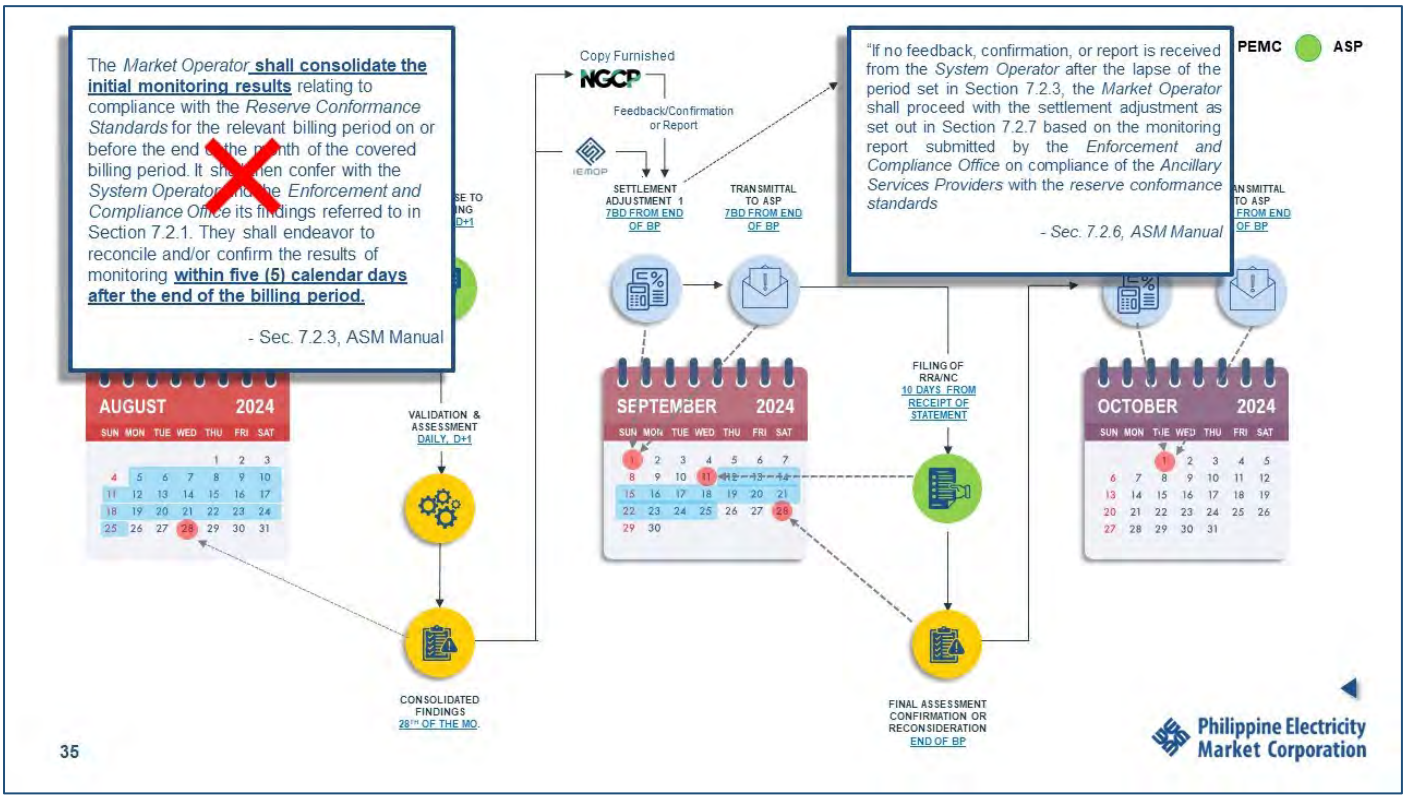




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PROPOSED REVISION TO THE 'AVERAGING' CONDITION

Use of Hourly Averaging Instead of Billing Period Averaging

5.3 Reserve Conformance Standards for Regulating Reserves

*5.3.4 A reserve facility providing regulating reserve that fails **to maintain an average response accuracy** as set out in Sections 5.6.1 and 5.7.1 or **an average response time** as set out in Sections 5.6.3 and 5.7.3 in any dispatch interval **during the monitoring period** shall be flagged as non-compliant. Once flagged as non-compliant, a reserve facility will be assessed further based on the following:*

a) Compliance with the response accuracy for each dispatch interval; and
b) Compliance with the response time for each dispatch interval.

5.4 Reserve Conformance Standards for Contingency Reserves

*5.4.5 A reserve facility providing contingency reserve that fails **to maintain an average response accuracy** as set out in Sections 5.6.1 and 5.7.1 or **an average response time** as set out in Sections 5.6.3 and 5.7.3 **for the entire monitoring period** shall be flagged as non-compliant. Once flagged as non-compliant, a reserve facility will be assessed further based on the following:*

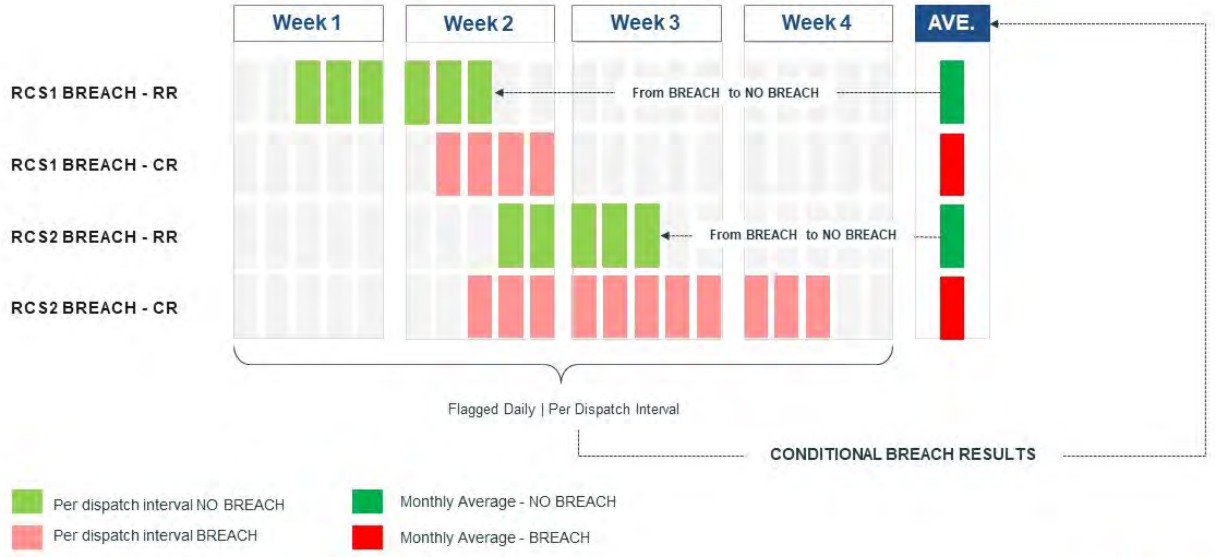
a) Compliance with the response accuracy for each dispatch interval; and
b) Compliance with the response time for each dispatch interval.

The proposed approach would calculate the average response accuracy and response time for the reserve facility within each relevant **hourly** interval, rather than across the entire monitoring period. This would provide a more balanced and granular assessment of compliance.

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ILLUSTRATION: If averaging is done monthly



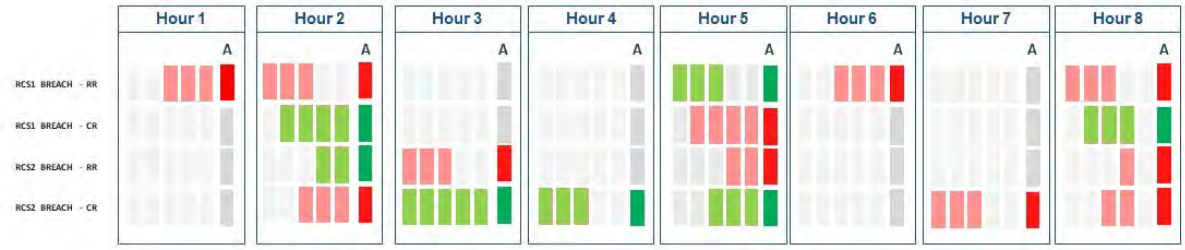
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ILLUSTRATION: If averaging is done hourly



The proposed approach would calculate the average response accuracy and response time for the reserve facility within each relevant **hourly** interval, rather than across the entire monitoring period. This would provide a **more balanced and granular** assessment of compliance.

Per dispatch interval NO BREACH
Per dispatch interval BREACH
Hourly Average - NO BREACH
Hourly Average - BREACH

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Clarity in the Basis for Request for Reassessment

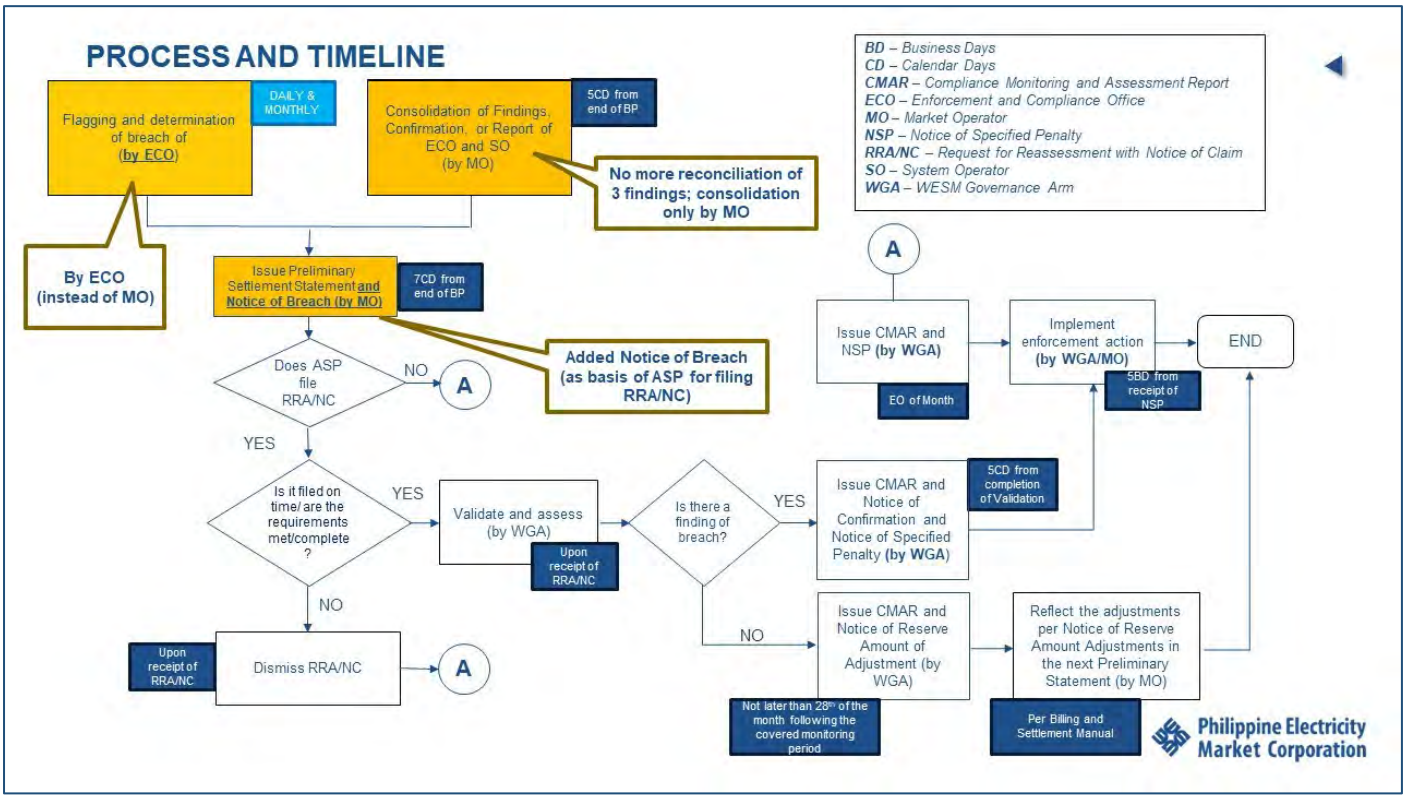
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PENALTY FOR BREACH OF ROCC UNDER ASM MANUAL

For ROCC

- Pre-set amount
- Level 1: P1,000 per count (per dispatch interval)
- Level 2: P2,000 per count (per dispatch interval)

Became effective on 09 July 2024 (ASM Manual)

- Penalty $Amount_{p,r,a} = 50\%$ of $\frac{1}{n}(SC_{p,i} * AR_{c,r,a})$

Where:

n	Refers to the number of dispatch intervals within a settlement interval, which is 12 for a five-minute market
$SC_{p,i}$	Refers to the scheduled capacity of the Ancillary Services Provider p for dispatch interval i
$AR_{c,r,a}$	refers to the Applicable Rate for type of contract c for reserve category r in reserve region a

Level 2: 2x the amount of the penalty computed in L1

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UNDER THE CURRENT PENALTY MANUAL

Breach of Must Offer Rule *(for both energy and reserve market)*

SECTION 5 SCHEDULE OF BREACH AND PENALTIES[4]

	Breach	Market Rule Breached & Associated Market Manual	Applicable Penalty	Level 2 - Financial Penalty	Level 3 - Escalated Financial Penalty
1	Failure of generation company to submit valid generation and/or reserve offers, or failure to submit valid generation and/or reserve offers that is equivalent to the registered maximum available capacity of their generating units at any dispatch interval; Valid generation or reserve offer refers to the offer that is considered in the real time dispatch optimization run for the relevant dispatch interval. There is failure to submit valid offer if there is no offer that is considered in the real time dispatch market run for the	WESM Rules • 3.5.5.1; 3.5.5.2; Appendix A1.1 • 3.5.7.2 *In relation to 3.5.12.1& the WESM Dispatch Protocol*	• Level 1 - Reprimand • Level 2 - Financial Penalties • Level 3 – Escalated Financial Penalties • Suspension & Deregistration	PhP10,000.00/ *breach*	PhP20,000.00/ *breach*

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DISTINCTION

Item	Breach of OCC *(Per Penalty Manual)*	Breach of ROCC *(Per ASM Manual)*
As to Count	Per trading hour	Per dispatch interval
As to Initial Penalty Level	With penalty of reprimand	No Reprimand Financial Penalty as Initial Penalty
As to Penalty Amount per count	Penalty Level 2: P10,000 / count Penalty Level 3: P20,000 / count Where: count = trading hour	Penalty Level 1: P1,000 / count Penalty Level 2: P2,000 / count Where: count = dispatch interval

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FOR REVISION

DELETE / REMOVE the following from Section 5, Item 1 of the Penalty Manual
(1) Term "reserve"
(2) Reference to Rule 3.5.7.2

Objective:

To **harmonize** the provisions of ASMM and Penalty Manual; and to **avoid confusion** as to penalty application.

Section 5, Item 1 of the Penalty Manual will refer to breach of rules concerning **generation/energy offer** only; while the breach of reserve offer will be governed by **ASM Manual.**

SECTION 5 SCHEDULE OF BREACH AND PENALTIES[4]

No.	Breach	Market Rule Breached & Associated Market Manual	Applicable Penalty	Level 2 - Financial Penalty	Level 3 - Escalated Financial Penalty
1	Failure of generation company to submit valid generation and/or reserve offers, or failure to submit valid generation and/or reserve offers that is equivalent to the registered maximum available capacity of their generating units at any dispatch interval; Valid generation or reserve offer refers to the offer that is considered in the real time dispatch optimization run for the relevant dispatch interval. There is failure to submit valid offer if there is no offer that is considered in the real time dispatch market run for the	WESM Rules • 3.5.5.1; 3.5.5.2; Appendix A1.1 • 3.5.7.2 *In relation to 3.5.12.1& the WESM Dispatch Protocol*	• Level 1 - Reprimand • Level 2 - Financial Penalties • Level 3 – Escalated Financial Penalties • Suspension & Deregistration	PhP10,000.00/ *breach*	PhP20,000.00/ *breach*

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REQUESTED ACTION

For Approval
Proposed Urgent Amendments to ASM Manual

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PROPOSED URGENT RULE AMENDMENT

ASM Manual and Penalty Manual

16 August 2024 | MS Teams

REPLACE "SPEED DROOP" TO "SPEED DROOP CHARACTERISTIC"

ASM Manual Section 7.2.2

Action	Sections
Global Change - "speed droop" to "speed droop characteristic"	3.4.1 5.2.1 5.8

2

Philippine Electricity Market Corporation

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Annex C – ECO Presentation Material – Part 2

REPLACE "TRADING HOUR" TO "SETTLEMENT INTERVAL"

ASM Manual

Action	Sections
Global Change - "trading hour" to "settlement interval" *Reference:* WESM Rules **3.4.2 Settlement Interval** A *settlement interval* is defined to be a period of one (1) hour, commencing on the hour.	5.3.4 5.4.5 5.6.1 5.6.3 5.7.1

3

Philippine Electricity Market Corporation

FORMULA SYNTAX CORRECTION

ASM Manual Section 5.6.2

Proposed Amendment	Proposed Rewording/Amendment
A reserve facility's response accuracy via GCM shall be calculated as follows. $Response\ Accuracy = \frac{Actual\ MW\ Response\ Capacity}{Expected\ MW\ Response\ Capacity} \times 100\%$ Where: Actual MW Response Capacity = Highest~~/Lowest~~ Actual MW Output – MW Output Prior to Frequency-Driven Event Where: The Highest/Lowest Actual MW Output is the value obtained 20 seconds after the Lowest/Highest frequency that occurred during the Frequency-Driven Event Expected MW Response Capacity = Static Gain ~~Frequency Change~~ ~~= Worst Frequency Highest/Lowest – Frequency Prior to Frequency-Driven Event~~ **Frequency Change** **= Frequency Prior to Frequency-Driven Event - Highest/Lowest Frequency During Frequency-Driven Event** Frequency Prior to Frequency-Driven Event = Nominal Frequency ± Dead band Setting $Static\ Gain = \frac{~~Scheduled\ MW~~\ Rated\ Capacity}{Droop\ Setting \times Nominal\ Frequency} \times 100\%$ If the system frequency breaches the upper deadband threshold, the reserve facility needs to react by decreasing generation to correct the frequency and *vice versa*. In this case, the Actual MW Response Capacity shall be calculated as the difference between the Highest or Lowest Actual MW Output, as the case may be, and the MW Output prior to the Frequency-Driven Event.	A reserve facility's response accuracy via GCM shall be calculated as follows. $Response\ Accuracy = \frac{Actual\ MW\ Response\ Capacity}{Expected\ MW\ Response\ Capacity} \times 100\%$ a. When System Frequency falls below the lower deadband: **Actual MW Response Capacity** **= Highest Actual MW Output – MW Output Prior to Frequency-Driven Event** Where: The Highest Actual MW Output is the value obtained 20 seconds after the lowest frequency that occurred during the Frequency-Driven Event **Frequency Change** **= Frequency Prior to Frequency-Driven Event - Lowest Frequency During Frequency-Driven Event** **Frequency Prior to Frequency-Driven Event** **= Nominal Frequency - Dead band Setting** b. When System Frequency breaches the upper deadband: **Actual MW Response Capacity** **= Lowest Actual MW Output – MW Output Prior to Frequency-Driven Event** Where: The Lowest Actual MW Output is the value obtained 20 seconds after the highest frequency that occurred during the Frequency-Driven Event **Frequency Change** **= Frequency Prior to Frequency-Driven Event - Highest Frequency During Frequency-Driven Event** Frequency Prior to Frequency-Driven Event = Nominal Frequency - Dead band Setting x x x If the system frequency breaches the upper deadband threshold, the reserve facility needs to react by decreasing generation to correct the frequency and *vice versa*. In this case, the Actual MW Response Capacity shall be calculated as the difference between the Highest or Lowest Actual MW Output, as the case may be, and the MW Output prior to the Frequency-Driven Event.

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Philippine Electricity Market Corporation

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Annex C – ECO Presentation Material – Part 2

REWORDING OF THE PROPOSED AMENDMENTS

ASM Manual Section 7.2.2

Proposed Amendment	Proposed Rewording/Amendment
The *Enforcement and Compliance Office* **shall conduct** validation**, verification, and assessment** of breach of the *Reserve Conformance* ***Standards***. The *Enforcement and Compliance Office* shall generate monitoring results for **submission to** the *Market Operator* **at least four (4) calendar days prior to the issuance of the Preliminary Settlement Statement. The *Reserve Conformance Standards* monitoring report shall include the specific intervals, resource unit/s, the type of reserve that is found in breach, and such other relevant information as may be appropriate.** **The *Enforcement and Compliance Office* shall furnish the *System Operator* a copy of the monitoring results for any feedback or confirmation of the results or findings.**	The *Enforcement and Compliance Office* **shall conduct** validation**, verification, and assessment** ~~or confirmation~~ of breach of the *Reserve Conformance* ***Standards***. The *Enforcement and Compliance Office* shall generate monitoring results for **submission to** the *Market Operator* **within thirty (30) *business days* after the end of the covered monitoring period. The *Reserve Conformance Standards* monitoring report shall include the specific intervals, resource unit/s, the type of reserve that is found in breach, and such other relevant information as may be appropriate.** **The *Enforcement and Compliance Office* shall furnish the *System Operator* a copy of the monitoring results for any feedback or confirmation of the results or findings.**

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Philippine Electricity Market Corporation

REQUESTED ACTION

For The Approval

Amended Provisions As May Be Affected By the 30-day Window For Completing the Validation and Assessment of the Reserve Conformance Standards (RCS) Monitoring

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Philippine Electricity Market Corporation

MEETING MINUTES

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Annex C – ECO Presentation Material – Part 2

AFFECTED PROVISIONS

With the revised submission timeline for monitoring results under 7.2.2

Affected Provision	Proposed Amendment
7.2.3 The *Market Operator* shall consolidate the ~~initial~~ monitoring result **provided by the *Enforcement and Compliance Office* and the confirmation or report of the *System Operator*, if any,** relating to compliance with the *Reserve Conformance Standards* for the relevant billing period ~~on or before the end of the month of the covered billing period. It shall then confer with the *System Operator* and the *Enforcement and Compliance Office* its findings referred to in Section 7.2.1. They shall endeavor to reconcile and/or confirm the results of monitoring~~ within five (5) calendar days after the end of the billing period.	7.2.3 The *Market Operator* shall consolidate the ~~initial~~ monitoring result **provided by the *Enforcement and Compliance Office* and the confirmation or report of the *System Operator*, if any,** relating to compliance with the *Reserve Conformance Standards* for the relevant billing period ~~on or before the end of the month of the covered billing period. It shall then confer with the *System Operator* and the *Enforcement and Compliance Office* its findings referred to in Section 7.2.1. They shall endeavor to reconcile and/or confirm the results of monitoring~~ within five (5) calendar days ~~after the end of the billing period~~ **from receipt of the monitoring results. For instance, the results for August received on 25 September shall be consolidated on or before 30 September.**

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Philippine Electricity Market Corporation

AFFECTED PROVISIONS

With the revised submission timeline for monitoring results under 7.2.2

Affected Provision	Proposed Amendment
7.5.3 The assessment, validation, and verification of the information gathered in relation to the request shall be completed not later than the end of the billing month following the covered monitoring period. For instance, if the request for reassessment pertains to the August *Billing Period*, the validation and assessment shall be completed on or before 25 September.	7.5.3 The assessment, validation, and verification of the information gathered in relation to the request shall be completed **within fifteen days from receipt of the *Request for Reassessment with Notice of Claim*** ~~not later than the end of the billing month following the covered monitoring period. For instance, if the request for reassessment pertains to the August *Billing Period*, the validation and assessment shall be completed on or before 25 September.~~

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AFFECTED PROVISIONS

With the revised submission timeline for monitoring results under 7.2.2

Affected Provision	Proposed Amendment
7.6.1 If **the consolidated** *Notice of ~~Probable~~ Breach* is received by *Enforcement and Compliance Office*, and no *Request for Reassessment with Notice of Claim* is filed by the concerned *Ancillary Services Provider* within the allowable period to file the same under Section 7.4.1, the *Enforcement and Compliance Office* shall issue a *Compliance Monitoring and Assessment Report* based on its monitoring and assessment~~, and after reconciliation of the findings with the Market Operator~~. The said report and a *Notice of Specified Penalty* shall be issued not later than the end of the month following the covered monitoring period. For instance, if the *Notice of ~~Probable~~ Breach* pertains to the August *Billing Period*, the compliance monitoring and assessment report shall be issued on or before 30 September.	7.6.1 If **the consolidated** *Notice of ~~Probable~~ Breach* is received by *Enforcement and Compliance Office*, and no *Request for Reassessment with Notice of Claim* is filed by the concerned *Ancillary Services Provider* within the allowable period to file the same under Section 7.4.1, the *Enforcement and Compliance Office* shall issue a *Compliance Monitoring and Assessment Report* based on its monitoring and assessment~~, and after reconciliation of the findings with the Market Operator~~. The said report and a *Notice of Specified Penalty* shall be issued ~~not later than the end of the month following~~ **within sixty (60) *business days* from** the end of the month following the covered monitoring period. For instance, if the *Notice of ~~Probable~~ Breach* pertains to the August *Billing Period*, the compliance monitoring and assessment report shall be issued on or before ~~30 September~~ **30 October**.

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Philippine Electricity Market Corporation

AFFECTED PROVISIONS

With the revised submission timeline for monitoring results under 7.2.2



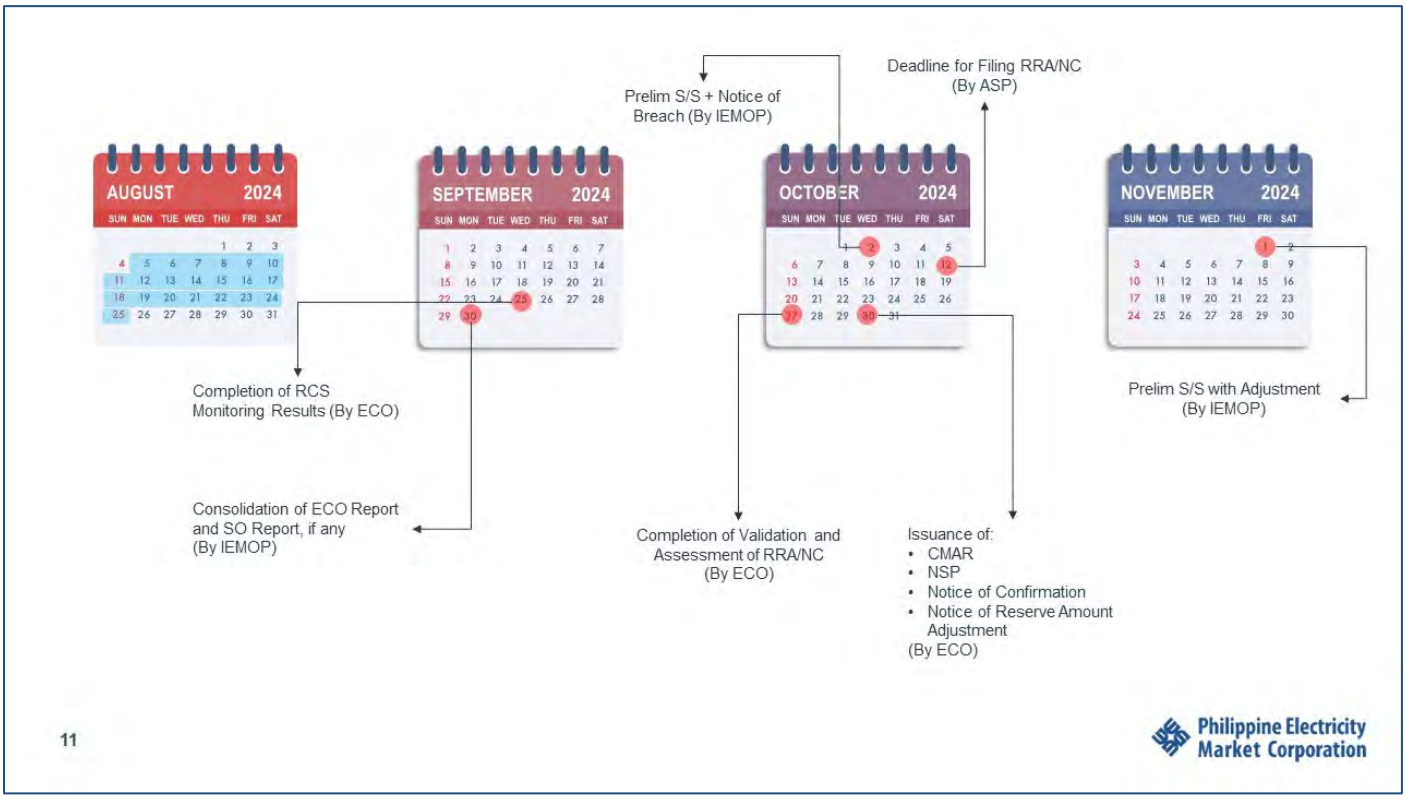
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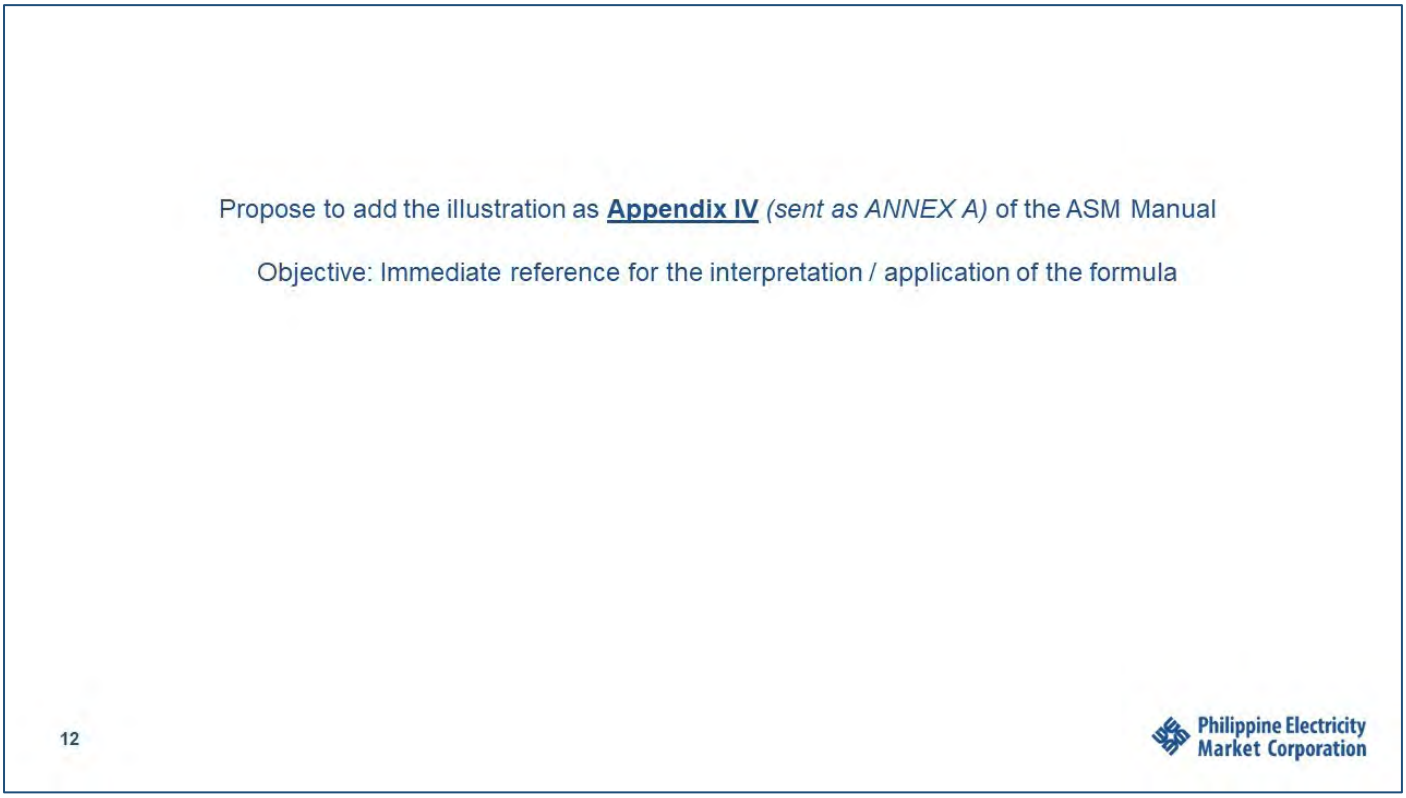
Philippine Electricity Market Corporation

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REQUESTED ACTION

For The Approval

Amended Provisions As May Be Affected By the 30-day Window For Completing the Validation and Assessment of the Reserve Conformance Standards (RCS) Monitoring

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Philippine Electricity Market Corporation

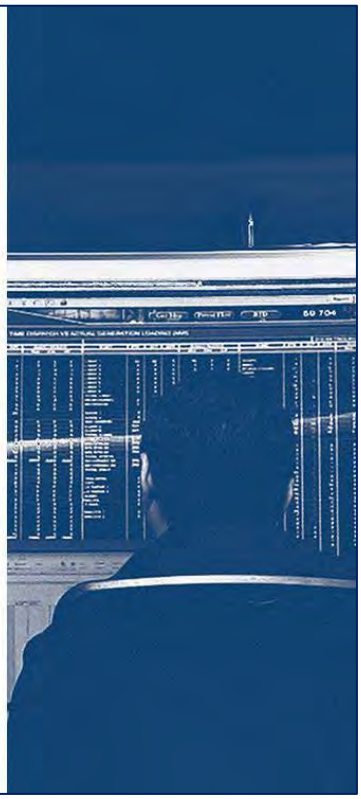


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Annex D – Proposed General Amendments to the WESM Rules and various WESM Market Manuals regarding Energy Storage Systems in view of the DOE DC2023-04-0008

Rules Change Proposal for Energy Storage System (ESS)



Action Requested

- **For approval :** Proposed Changes to the WESM Rules and Market Manuals Involving BESS Operations in the WESM.

MEETING MINUTES

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Annex D – Proposed General Amendments to the WESM Rules and various WESM Market Manuals regarding Energy Storage Systems in view of the DOE DC2023-04-0008

BACKGROUND

- A rules change proposal was presented and approved by the IEMOP Board during its September 2023 meeting
  - This proposal is in line with the DOE Department Circular 2023-04-0008
- Several preparatory activities were then initiated for the Reserve Market's Commercial Operations in September 2023, which also involved testing the capability of Battery ESS
  - Given this, IEMOP's Rules Development team opted to propose additional rules changes considering observations in the operations of BESS facilities

IEMOP

ESS POLICY OVERVIEW

ESS shall operate within the framework of:



1. Facilities injecting/withdrawing electricity, or providing reliability services to the Grid or Distribution System
2. Compliance with the Central Dispatch, as applicable, to achieve economic operations and maintenance of quality, stability, reliability, and security of the transmission and distribution system
3. Compliance with the EPIRA and its IRR, relevant rules, manuals, and pertinent issuances by the DOE, ERC, and other relevant government instrumentalities having authority over the Grid or Distribution System's reliability and supply security

MEETING MINUTES

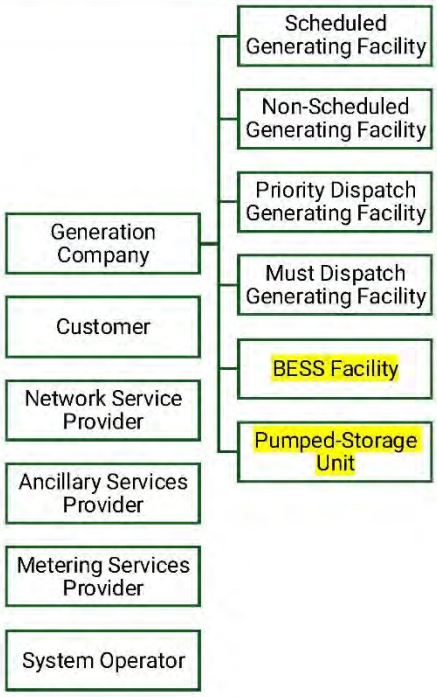
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Annex D – Proposed General Amendments to the WESM Rules and various WESM Market Manuals regarding Energy Storage Systems in view of the DOE DC2023-04-0008

ESS POLICY OVERVIEW: TECHNOLOGIES

TECHNOLOGY	DEFINITION
BATTERY ENERGY STORAGE SYSTEM (BESS)	Capable of storing electric energy electrochemically from which it is able to charge or discharge electricity
COMPRESSED AIR ENERGY STORAGE (CAES)	Uses electric energy to inject high-pressure air containers. When energy is required, the pressurized air is heated and expanded in an expansion turbine driving a generator for power production
FLYWHEEL ENERGY STORAGE (FES)	Uses electric energy to accelerate a rotating mass, called a "rotor", to store kinetic energy. Energy is extracted from the system by drawing down the kinetic energy from the rotor
PUMPED-STORAGE HYDROPOWER (PSH)	Uses electric energy to pump water from a lower elevation reservoir to a higher elevation reservoir. When required, the water flows back from the upper to lower reservoir, powering a turbine with a generator to produce electric energy.

CURRENT MEMBERSHIP TYPES



IEMOP

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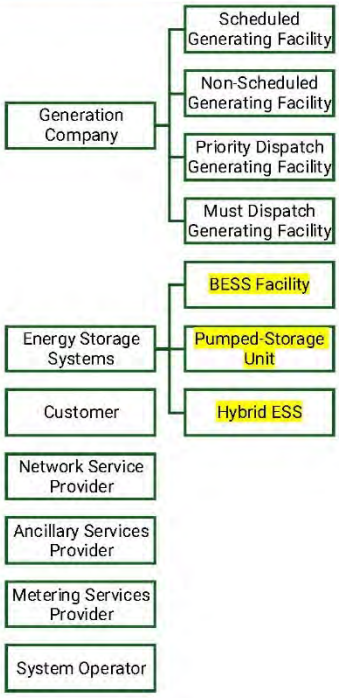
Annex D – Proposed General Amendments to the WESM Rules and various WESM Market Manuals regarding Energy Storage Systems in view of the DOE DC2023-04-0008

WESM REGISTERED BESS

Market Participant Name	Region	Market Trading Node	Facility Name	Type	Classification	Max. Stable Load (Pmax, MW)
Bataan Solar Energy Inc.	Luzon	01BTSOLEN_BAT	0.531 MW/1.400 MWh Energy Storage System (ESS)	BATTERY	BESS	0.5
GIGA ACE 4, Inc.	Luzon	03ALMNOS_BAT1	Subplant 1 Alaminos Battery Energy Storage System	BATTERY	BESS	20.0
GIGA ACE 4, Inc.	Luzon	03ALMNOS_BAT2	Alaminos Battery Energy Storage System 2	BATTERY	BESS	20.0
Masinloc Power Co. Ltd.	Luzon	01MSINLO_BAT	Masinloc Battery Energy Storage System	BATTERY	BESS	10.0
SN Aboitiz Power - Magat, Inc.	Luzon	01MAGAT_BAT	32.423 MW Magat Battery Energy Storage System	BATTERY	BESS	24.0
SMGP BESS Power Inc.	Luzon	01LAMAO_BAT	60.234 MW Lamao Battery Energy Storage System	BATTERY	BESS	50.0
SMGP BESS Power Inc.	Luzon	01LIMAY_BAT	50.519 MW Bataan Battery Energy Storage System	BATTERY	BESS	40.0
SMGP BESS Power Inc.	Luzon	01SNMAN_BAT	57.168 MW San Manuel Battery Energy Storage System	BATTERY	BESS	50.0
SMGP BESS Power Inc.	Luzon	01MAGAPIT_BAT	(+/-) 40 MW Magapit Battery Energy Storage System	BATTERY	BESS	40.0
SMGP BESS Power Inc.	Luzon	01CNCEP_BAT	72.281 MW Concepcion Battery Energy Storage System (BESS)	BATTERY	BESS	50.0
SMGP BESS Power Inc.	Luzon	01GAMU_BAT	45.758 MWh Gamu Battery Energy Storage System (BESS)	BATTERY	BESS	40
SMGP BESS Power Inc.	Luzon	03LUMBAN_BAT	57.125 MWh Lumban Battery Energy Storage System (BESS)	BATTERY	BESS	50
SMGP Kabankalan Power Co. Ltd.	Visayas	06KABAN_BAT	22.469 MW Kabankalan Battery Energy Storage System	BATTERY	BESS	20.0
SMGP BESS Power Inc.	Visayas	05TOLEDO_BAT	23.740 MW Toledo Battery Energy Storage System	BATTERY	BESS	20.0
SMGP BESS Power Inc.	Visayas	07UBAY_BAT	23.316 MW Ubay Battery Energy Storage System (BESS)	BATTERY	BESS	20.0
SMGP BESS Power Inc.	Visayas	04ORMOC_BAT	47.486 MW Ormoc Battery Energy Storage System(BESS)	BATTERY	BESS	40.0
SMGP BESS Power Inc.	Mindanao	13MALITA_BAT	Malita Battery Energy Storage System (BESS)	BATTERY	BESS	20
SMGP BESS Power Inc.	Mindanao	13MACO_BAT	24.288 MW / 24.288 MWh Maco Battery Energy Storage System (BESS)	BATTERY	BESS	20
SMGP BESS Power Inc.	Mindanao	11JASA_BAT	22.830 MWh Jasaan Battery Energy Storage System (BESS)	BATTERY	BESS	20
SMGP BESS Power Inc.	Mindanao	11VILLA_BAT	±20 MW Villanueva Battery Energy Storage System	BATTERY	BESS	20
Fort Pilar Energy, Inc.	Mindanao	09SANGALI_BAT	22.928 Sangali Battery Energy Storage System (BESS)	BATTERY	BESS	20

IEMOP

PROPOSAL: REVISED MEMBERSHIP TYPES



IEMOP

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Annex D – Proposed General Amendments to the WESM Rules and various WESM Market Manuals regarding Energy Storage Systems in view of the DOE DC2023-04-0008

PROPOSAL: ESS TYPES BASED ON DOE DC2023-04-0008

TYPE	DEFINITION
STAND-ALONE ENERGY STORAGE SYSTEM	ESS that is connected to and stores energy sourced from the Transmission or Distribution System
GENERATING PLANT AND ESS	ESS is connected to the Generating Plant/s and can be charged from the Generating Plant/s or to the Grid or Distribution System
INTEGRATED RE PLANT AND ESS	Combination of RE Plant/s and an ESS, where the ESS is solely charged by the RE plant/s
INTEGRATED NON-RE PLANT AND ESS	refers to a combination of a Conventional Plant/s and an ESS, where the ESS will not charge from the Grid or Distribution System and that its Pmax will be limited to the plant capacity

SEP 2023 PROPOSAL: PRESCRIBED CAPACITY AND CONNECTION

TYPE	PMAX	RAMP RATE	CONNECTION
STAND-ALONE ENERGY STORAGE SYSTEM	ESS Capacity	ESS Ramp Rate	To the grid or distribution system
GENERATING PLANT AND ESS	Gen Capacity + ESS Capacity	Gen Capacity + ESS Ramp Rate	May charge from the grid, distribution system, or its generator
INTEGRATED RE PLANT AND ESS	RE Plant Capacity	As applicable*	Connected to the RE only
INTEGRATED NON-RE PLANT AND ESS	Conventional Plant Capacity	Conventional Plant Ramp Rate	Connected to the Conventional Plant only

*Some RE facilities cannot be tested for their ramp rate capability. It should be added that facilities submitting MW nominations do not need ramp rates in their WESM scheduling process.

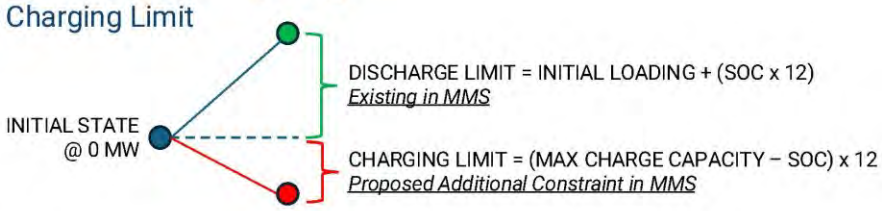
MEETING MINUTES

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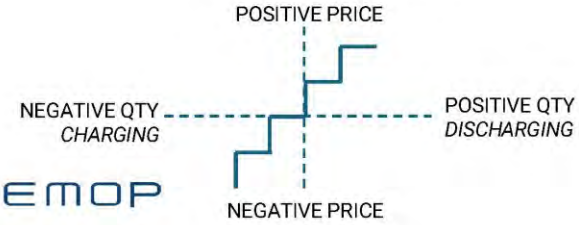
ADDITIONAL PROPOSAL: NEW WESM FEATURES FOR ESS

- Additional Constraint: SOC Operating Range
  - Add SOC Charging Limit

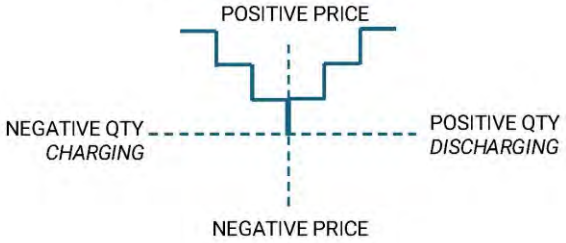


- Offer Structure
  - Monotonically increasing for discharging (offer to sell)
  - Monotonically decreasing for charging (bid to buy)

CURRENT DESIGN



PROPOSED DESIGN



IEMOP

Action Requested

- **For approval :** Proposed Changes to the WESM Rules and Market Manuals Involving BESS Operations in the WESM.

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Philippine Electricity Market Corporation

Annex E – Reserve Market Updates

Reserve Market Updates

February to August 2024

16 August 2024 | IEMOP Ortigas

IEMOP We Run Markets

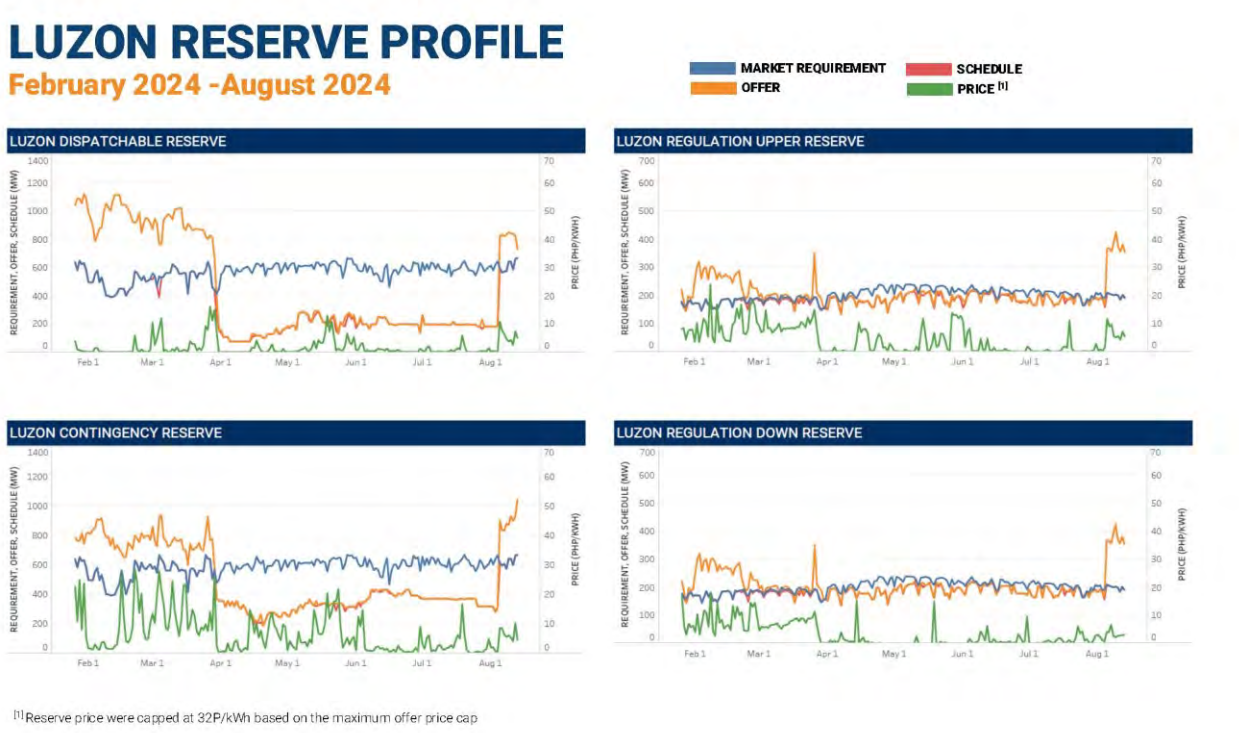
AS Providers Summary

Reserve Type Technical MW Capacity	Luzon	Visayas	Mindanao
Regulating Reserve	1,982	196	490
Contingency Reserve	2,221	233	829
Dispatchable Reserve	2,559	193	1,044

MEETING MINUTES

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Annex E – Reserve Market Updates



[1] Reserve price were capped at 32P/kWh based on the maximum offer price cap



LUZON RESERVE PROFILE

February 2024 -August 2024

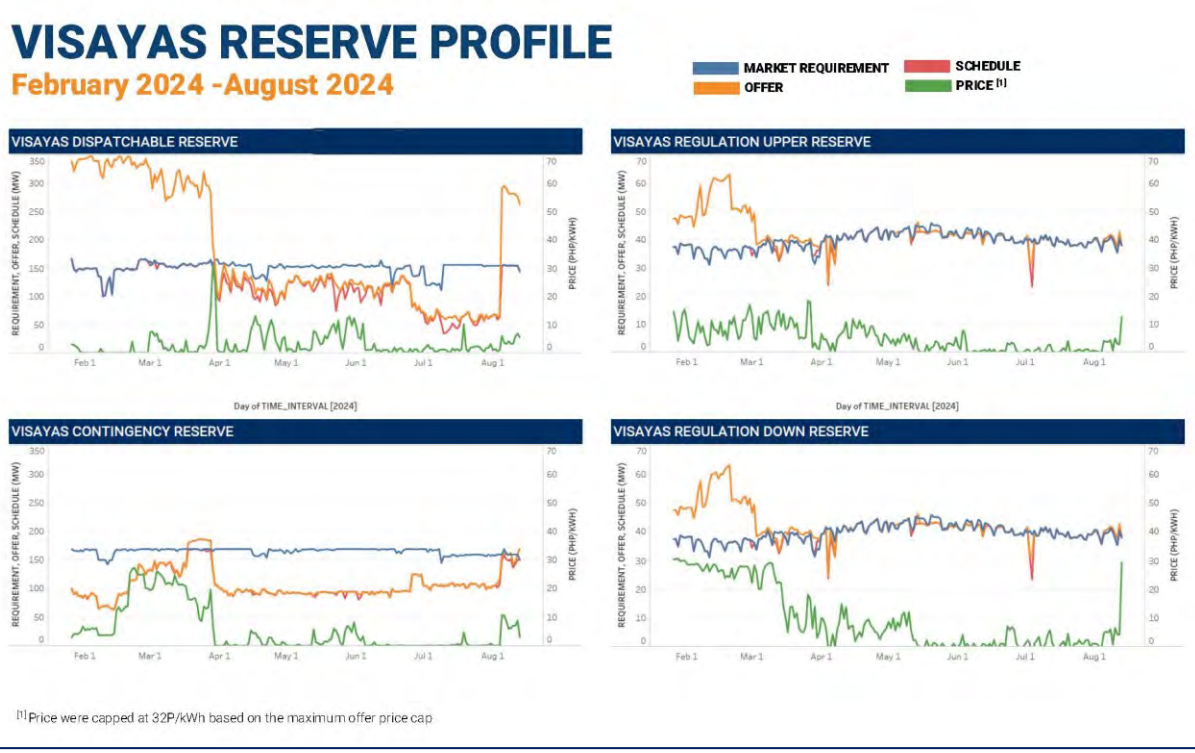
LUZON AVERAGE (RTD) DATA

COMMODITY_TYPE	BILLING_MONTH	MARKET REQ'T	OFFER	SCHEDULE	PRICE
REGULATION UPPER	FEBRUARY 2024	173.7	250.8	171.1	8.40
	MARCH 2024	187.7	197.7	180.1	9.85
	AUGUST 2024	196.1	268.0	188.8	3.55
REGULATION DOWN	FEBRUARY 2024	173.7	250.8	171.1	7.97
	MARCH 2024	187.7	197.7	180.1	7.97
	AUGUST 2024	196.1	268.0	188.9	2.37
CONTIGENCY RESERVE	FEBRUARY 2024	516.2	777.7	516.1	9.10
	MARCH 2024	576.8	759.7	576.4	12.58
	AUGUST 2024	615.6	567.3	448.3	3.82
DISPATCHABLE RESERVE	FEBRUARY 2024	500.1	998.4	500.0	0.58
	MARCH 2024	547.7	911.8	541.0	2.42
	AUGUST 2024	605.0	478.1	368.0	2.84

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Annex E – Reserve Market Updates



[1] Price were capped at 32P/kWh based on the maximum offer price cap

VISAYAS RESERVE PROFILE

February 2024 -August 2024

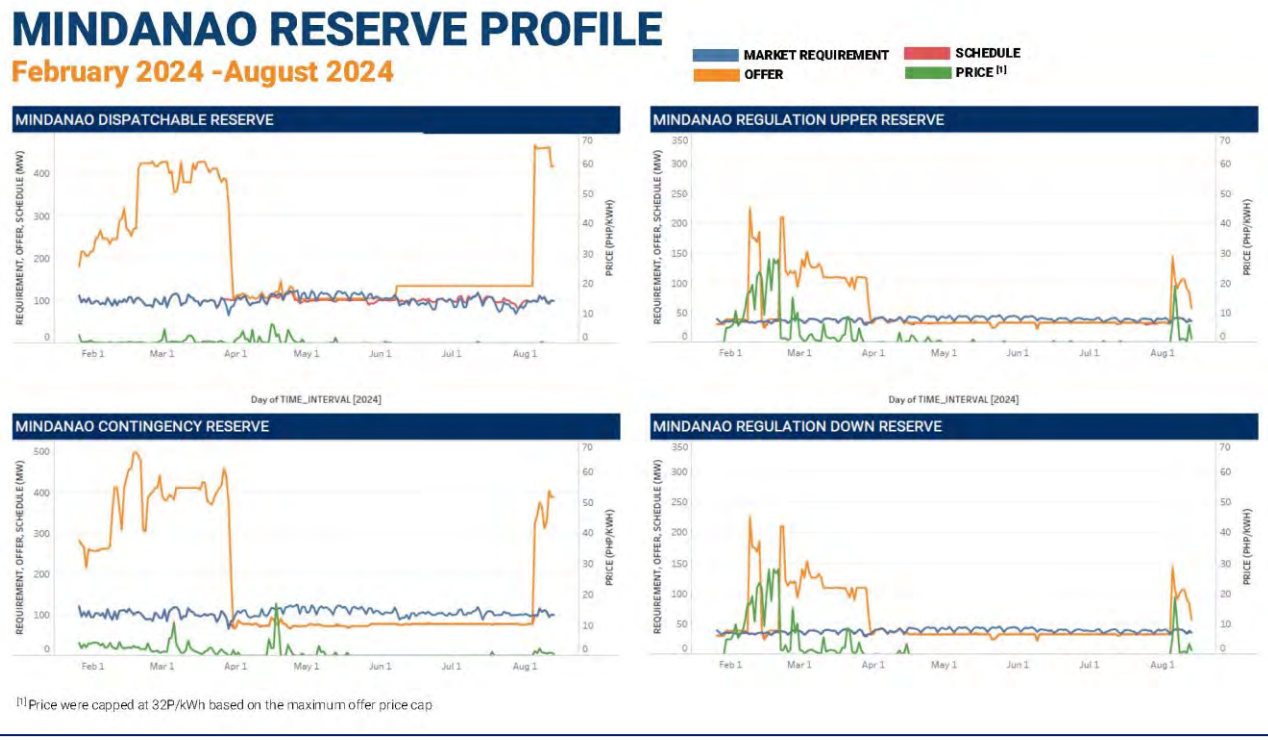
VISAYAS AVERAGE (RTD) DATA

COMMODITY_TYPE	BILLING_MONTH	MARKET REQ'T	OFFER	SCHEDULE	PRICE
REGULATION UPPER	FEBRUARY 2024	36.1	53.3	36.1	8.09
	MARCH 2024	38.0	41.5	37.2	10.26
	AUGUST 2024	38.9	39.5	38.8	1.80
REGULATION DOWN	FEBRUARY 2024	36.1	53.0	36.1	27.69
	MARCH 2024	38.0	41.5	37.2	19.46
	AUGUST 2024	38.9	39.5	38.8	2.67
CONTIGENCY RESERVE	FEBRUARY 2024	163.1	88.5	88.4	9.70
	MARCH 2024	168.5	149.9	145.0	20.02
	AUGUST 2024	170.7	128.3	123.9	3.71
DISPATCHABLE RESERVE	FEBRUARY 2024	142.9	338.2	142.8	0.53
	MARCH 2024	157.4	305.2	156.7	2.06
	AUGUST 2024	154.7	163.3	103.9	2.81

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Annex E – Reserve Market Updates



MINDANAO RESERVE PROFILE

February 2024 -August 2024

MINDANAO AVERAGE (RTD) DATA

COMMODITY_TYPE	BILLING_MONTH	MARKET REQ'T	OFFER	SCHEDULE	PRICE
REGULATION UPPER	FEBRUARY 2024	35.7	77.3	34.1	11.57
	MARCH 2024	38.1	115.6	38.1	3.04
	AUGUST 2024	38.9	64.8	35.4	2.50
REGULATION DOWN	FEBRUARY 2024	35.7	77.3	34.1	11.52
	MARCH 2024	38.1	115.6	38.1	2.79
	AUGUST 2024	38.9	64.8	35.8	2.27
CONTIGENCY RESERVE	FEBRUARY 2024	102.2	342.5	102.2	3.14
	MARCH 2024	101.2	403.1	101.2	2.25
	AUGUST 2024	102.0	201.0	89.5	0.53
DISPATCHABLE RESERVE	FEBRUARY 2024	98.7	280.7	98.7	0.33
	MARCH 2024	100.1	407.6	100.2	0.78
	AUGUST 2024	93.6	278.1	98.2	0.03

MEETING MINUTES

Subject/Purpose : 234th RCC (Regular) Meeting
Date & Time : 16 August 2024, 9:00 AM to 3:00 PM
Venue : Online via Microsoft Teams

Philippine Electricity Market Corporation

Annex E – Reserve Market Updates

SALIENT PROVISIONS OF ERC DIRECTIVE

- Suspension of RM Settlement is Lifted
- Interim Relief of PDM Approval is Extended subject to amendments/modifications prescribed in the ERC Directive

Latest ERC Directive	Responsible Entity	MO Actions
Use of market projections (WAP/DAP/HAP) in the updating of reserve requirements	Market Operator	• Ensure accuracy of forecasts • Coordinate this requirement with SO
	System Operator	Update reserve requirements regularly using market projections in the WESM
Conduct of Trainings for ASPs considering that they prioritize contracted capacities when submitting reserve offers	Market Operator	Conduct Focus Group Discussion
Use MDOM Enhancements for (a) Single Reserve Scheduling amidst multiple reserve offers and (b) Operational Pre-requisites	Market Operator	Deploy MMS Enhancements
SO to complete enhancements on dispatching, compliance monitoring, and settlements in line with the 5-minute dispatch interval	System Operator	Coordinate this requirement with SO

SALIENT PROVISIONS OF ERC DIRECTIVE

Latest ERC Directive	Responsible Entity	MO Actions
Prioritization of ASPA subject to DOE Policy	DOE	Suggest to discuss within AS-TWG chaired by DOE and ERC
Cap RM prices to the Reserve Offer Cap	Market Operator	• Clarify the continued use of P32k/MWH as the reserve offer cap • Implement as part of the post-pricing mechanism outside of the MMS, which will then serve as input to the CRSS.
Implement AP, PSM, and SPC (energy-only) as directed, then subject it to audit as may be necessary	Market Operator	• Implement as part of the post-pricing mechanism outside of the MMS, which will then serve as input to the CRSS. • Recommend for post-audit
Allow Additional Compensation during MI/MS for Reserves	Market Operator	• Clarify guidelines of cost recovery, including allowable components that can be recovered
BCQ declaration shall consider RTD Reserve Schedule	System Operator	• MO to propose guidelines for SO to adopt
Re-declaration of BCQ	System Operator	• Clarify with ERC and suggest that this should not be included in the PDM

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Annex E – Reserve Market Updates

SALIENT PROVISIONS OF ERC DIRECTIVE

Latest ERC Directive	Responsible Entity	MO Actions
Recompute the Feb and Mar 2024 RM Settlements based on: • Capped prices for Reserves • Revised Reserve BCQs from SO • A/S Non-compliances → All adjustments in Feb 2024 (100%) and Mar 2024 (30%) shall be considered when netting out payments for the remaining 70% for Mar 2024. → RM Adjustments should be subject to ERC approval	Market Operator	• Provide implications of RM adjustments to ERC • Include this in FGD with SO and ASPs

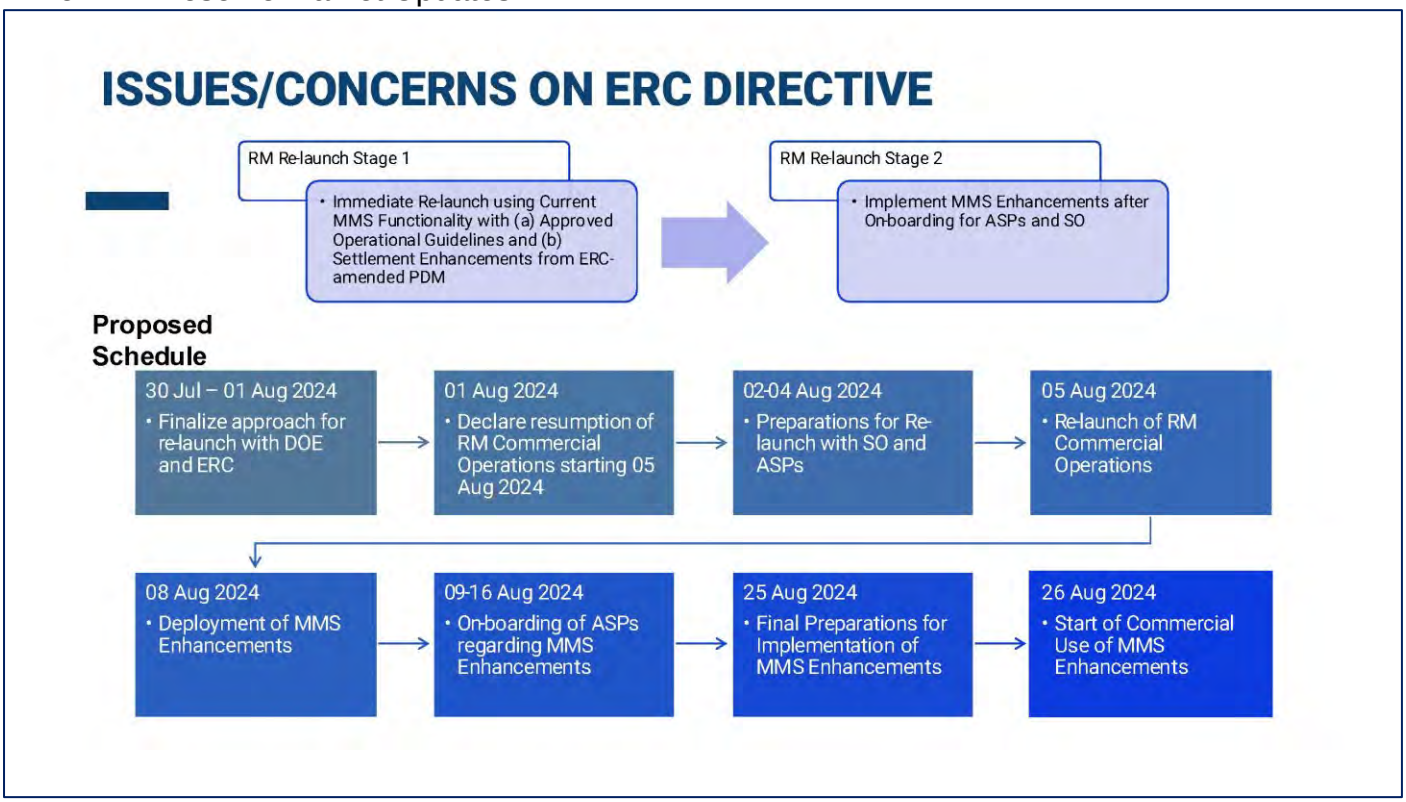
ISSUES/CONCERNS ON ERC DIRECTIVE

No.	Issue/Concern	Way Forward
1	Deployment of MMS Enhancements will need process adjustments from SO and ASPs, including on-boarding in the Production System	Suggest to have two stages in the re-launch of Reserve Market • Stage 1: Immediate Re-launch using Current MMS Functionality with (a) Approved Operational Guidelines and (b) Settlement Enhancements from ERC-amended PDM • Stage 2: Implement MMS Enhancements
2	There is risk in the timely completion of RM settlement adjustments since it involves SO re-declaring Reserve BCQs and resolution of disputes for A/S non-compliances	• SO to implement Reserve BCQ adjustments considering DAASS, Reserve Schedules, and Reserve Offers subject to approval of guidelines from DOE/ERC. • For A/S non-compliances: ➢ Option 1: SO to resolve disputes ASAP ➢ Option 2: Apply non-compliances data from SO then allow ASPs to recover after resolution of disputes
3	SO Systems Readiness	• SO systems are ready for scheduling and dispatch • SO to immediately implement Reserve BCQ adjustments considering DAASS, Reserve Schedules, and Reserve Offers subject to approval of guidelines from DOE/ERC
4	Clarifications on ERC Directive	• Resolve guidelines on Additional Compensation for A/S during MI/MS • Suggest to remove re-declaration guidelines in PDM

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Annex F – DOE Letter to PEMC regarding the Proposed Amendments to the Price Determination Methodology Manual

Republic of the Philippines
DEPARTMENT OF ENERGY
(Kagawaran ng Enerhiya)

ANNEX "T"

03 February 2022

ATTY. LEONIDO J. PULIDO III
President
Philippine Electricity Market Corporation (PEMC)
18F Robinsons Equitable Tower, ADB Avenue
Ortigas Center, Pasig City

Dear ***President Pulido*:**

This refers to the proposed amendments to the WESM Manual on Price Determination Methodology (PDM) incorporated in the Proposed Amendments to the WESM rules and various Manuals for the implementation of Reserve Market which was submitted to the DOE dated 04 December 2021. During the kick-off meeting on Reserve Market Readiness Assessment, the DOE noted the emphasis made by the Market Operator that the regulatory approval on the PDM will prompt the subsequent requisite activities needed to enable the commercial operations of the reserve market such as the development, testing and audit of the market system enhancements.

In this regard, the Department of Energy, hereby provides the approval for PEMC to file before the Energy Regulatory Commission the PDM containing the proposed amendments we received for the implementation of the co-optimized energy and reserve market. Please ensure the timely filing before the ERC to facilitate an expeditious review and approval of the PDM that will govern the pricing of the co-optimized energy and reserve market. Once approved by the ERC, the DOE will cause the promulgation of the amendments to the PDM Manual.

We look forward to your favorable and prompt action considering the urgency of this matter.

Thank you for your continued support to the DOE.

Very truly yours,

[redacted]

FELIX WILLIAM B. FUENTEBELLA
Undersecretary

Cc: Secretary Alfonso G. Cusi
Chairperson Agnes VST Devanadera,ERC
Commissioner Catherine P. Maceda, ERC
Commissioner Alexis M. Lumbatan, ERC
Commissioner Floresinda G. Baldo-Digal, ERC
Commissioner Marko Romeo L. Fuentes, ERC
President Richard J. Nethercott, Independent Electricity Market Operator of the Philippines

Energy Center, Rizal Drive cor. 34th Street, Bonifacio Global City, Taguig City, Philippines 1632
Tel. No. (Trunkline) (632) 8479-2900
Website: http://www.doe.gov.ph; E-mail: info@doe.gov.ph

[redacted]