



Market Surveillance Committee 2023 Annual Report

January to December 2023

MARCH 2024

This Report is prepared by the
Philippine Electricity Market Corporation –
Market Assessment Group
and approved by the
Market Surveillance Committee

Contents

I.	INTRODUCTION	3
II.	ACTIVITIES ON MARKET MONITORING AND ASSESSMENT	5
2.1.	Assessment of Market Outcomes in the Wholesale Electricity Spot Market	5
2.1.1.	Review of Market Assessment Reports.....	5
2.1.2.	Review of Over-riding Constraints	7
2.1.3.	Review of Market Trigger and Interesting Pricing Events	9
2.1.3.1.	Market Trigger Reports or Notable Market Outcome Reports.....	9
2.1.4.	Review of Market Intervention Events	11
2.2.	Request for Investigation from a Trading Participant.....	13
2.3.	DOE Request on Yellow and Red Alerts.....	14
2.4.	Discussion on the Outline for the Assessment on the Economic Impact of Market Intervention/Suspension	14
2.5.	Discussion on the Notice from PEM Board on the Investigation of SO	15
2.6.	Development of Monitoring Framework and Parameters of Anti-Competitive Behavior (ACB) in the WESM.....	15
2.7.	Assessment of the Retail and Open Access (RCOA) Market	16
2.7.1.	RCOA Monitoring Reports.....	16
2.8.	Review of Issues Paper on the Possible Improvement to Retail and Open Access....	16
III.	COORDINATION WITH VARIOUS AGENCIES AND ENTITIES	17
3.1.	Coordination Meeting with IEMOP-MO and NGCP-SO	17
3.1.1.	Discussion on Pricing Error Notice (PEN)	17
3.1.2.	Discussion on Market Intervention Events	17
3.1.3.	Discussion on the Proposed Amendments on WESM Rules and Manuals on MI/MS Procedures.....	18
3.2.	Discussion with the System Operator and DOE Representatives on the Power Situation Outlook for 2023	19
3.3.	Meeting/s with IEMOP-MO	19
3.3.1.	Discussion on the Updates of the Implementation of WESM Mindanao	19
3.4.	Meeting with other WESM Governance Committee (WGC).....	20
3.4.1.	Joint meeting with the Compliance Committee (CC) on the Proposed Amendments to WESM Rules and Market Manuals re Maximum Available Capacity	20
3.4.2.	Joint meeting with Technical Committee (TC) regarding DOE Directive on 08 May 2023 Significant Event	20
3.5.	Meeting with DOE	20
3.5.1.	Interruptible Load Program (ILP) and Day-ahead Projection (DAP).....	20

IV.	PROPOSED AMENDMENTS TO THE WESM RULES AND OTHER MARKET MANUALS	21
4.1.	Discussion on the Proposed Amendments to the WESM Rules and Market Manuals related to Market Intervention / Suspension Procedures.....	21
4.2.	Proposed Amendments to the WESM Rules and Market Manuals related to Maximum Available Capacity	22
4.3.	Proposed Amendments to the WESM Penalty Manual.....	22
V.	OTHER ACTIVITIES AND ACCOMPLISHMENTS	24
5.1.	Review of Various Department Circulars (DCs) and Issuances	24
5.2.	Database available in the Distribution Utility Map	25
5.3.	Competition Study in Distribution System Operator (DSO).....	25
5.4.	Activities related to Energy Market Exchange (EMX)	26
5.5.	Discussion on News Article re Spot Exposure of One (1) Mindanao DU.....	27
5.6.	Review of MSC’s Accomplishments for 2022 and Proposed Work Plan for 2023.....	27
5.7.	Discussion on News Article Issued last 07 April 2023 related to Anti-Competitive Behavior.....	28
5.8.	Participation in the Public Consultations conducted by the Department of Energy (DOE) 28	
5.9.	Discussion on the Results of MSC’s Request for Investigation on Observed Discrepancy to Submitted Report.....	29
5.10.	Discussion in the Changes to the MSC Reports.....	29
5.11.	Review of MSC Internal Rules	30
5.13.	Discussion for the Hosting and Attendance to an Energy Surveillance Meeting	32
5.14.	Publication of MSC Quarterly Reports.....	32
VI.	MEMBERSHIP	32
VII.	RESPONSIBILITIES	33
VIII.	MSC WORK PLAN FOR 2024	33

I. INTRODUCTION

The Market Surveillance Committee (MSC) 2023 Annual Report outlines the accomplishments of the Committee and the activities it undertook for the period of January to December 2023. Annex A of the Report provides for the MSC's planned activities for the year 2024.

Pursuant to its mandate under Section 1.6.2 of the WESM Rules and Section 3.1 of the Market Surveillance Manual (MSM), the MSC carried out its functions and responsibilities throughout the year.

Accordingly, the MSC, with the PEMC – Market Assessment Group (MAG) as its primary support unit, accomplished monitoring and analysis of trading participants' activities and market outcomes during the year. To perform these functions, the MSC conducted a total of sixteen (16) meetings for the year 2023, fourteen of which were conducted via online platforms as agreed by the Committee, while the remaining one meeting was held physically at the PEMC office. The MSC likewise communicated through email and other online platforms to deliberate on various market issues and topics.

In summary, the MSC accomplished the following activities through the assistance of MAG:

	Activities
Monitor activities conducted by WESM Participants through submission of special / ad hoc reports and market studies	<ul style="list-style-type: none"> ○ Assessment on Reserve Adequacy during 08 May 2023 Significant event ○ Competition Study of Distribution System Operator ○ Assessment on Possible Enhancements to Retail Competition and Open Access (RCOA) Market
Preparation of periodic reports	<ul style="list-style-type: none"> ○ Market Assessment Reports (monthly, quarterly, and annual) ○ Over-riding Constraints Reports (monthly, quarterly, and annual) ○ Retail Market Assessment Reports (quarterly and annual) ○ Review Reports on Market Intervention / Suspension
Review of Unusual Market Outcomes	<ul style="list-style-type: none"> ○ Notable Market Outcome Reports ○ Investigation activities related to Generator Behavior
Review / Submit proposed amendments to the WESM Rules / Manuals	<ul style="list-style-type: none"> ○ Submit Proposed Amendments to the WESM Rules and related Market Manuals on the following: <ul style="list-style-type: none"> ○ Market Intervention/Suspension Procedures ○ Maximum Available Capacity ○ Review of the proposed General Amendments on Procedures for the Monitoring of Forecast Accuracy Standards for Must Dispatch Generating Units ○ Review of Proposed Amendments to the WESM Penalty Manual on the following: <ul style="list-style-type: none"> ▪ Maximum Available Capacity ▪ Collection and Utilization of Penalties ▪ Pricing Error Notice ▪ Penalty Provisions on the Ancillary Services Monitoring Manual ▪ Transfer of Authority of Collecting and Utilization of Penalties

	Activities
Coordination meetings with other Agencies & Entities	<ul style="list-style-type: none"> ○ Meetings with NGCP-SO: <ul style="list-style-type: none"> ● Discussion of Transmission Development Plan, Grid Operating and Maintenance Plan, and Power Outlook ● Proposed Amendments on WESM Rules and Manuals on MI/MS Procedure ● SO – Initiated MI for April and May 2023 ○ Meetings with IEMOP-MO: <ul style="list-style-type: none"> ● Proposed Amendments on WESM Rules and Manuals on MI/MS Procedure ● Updates on WESM Mindanao Operations and Implementation ● Discussion on Conditions for Issuance of Pricing Error ● Discussion regarding Market Intervention Events ○ Meetings with DOE: <ul style="list-style-type: none"> ● Interruptible Load Program (ILP) and Day-ahead Projection (DAP) ● 2023 Power Outlook ○ Meetings with WGC: <ul style="list-style-type: none"> ● Joint Meeting with the Compliance Committee (CC) in October 2022 ● Meeting with Technical Committee (TC) regarding the DOE Directive on 08 May 2023 Significant Event Meeting with TC and One (1) Distribution Utility (DU) regarding the Distribution System Operator (DSO Study) ○ Focus Group Discussion related to Competition Study on Distribution
Other Activities	<ul style="list-style-type: none"> ○ Deliberation on the Request for Investigation by WESM Member ○ Participation to Energy Market Exchange (EMX) ○ Discussion on Various Department Circulars, Issuances, and Energy Regulatory Commission (ERC) Resolutions ○ Discussion on the Possible Proposed Amendments to the WESM Penalty Manual on ○ Participation in MSC Strategic Planning Workshop for 2023-2025 Activities ○ Review on MSC Internal Rules ○ Discussion for the Hosting and Attendance to an Energy Surveillance Meeting ○ Discussion on the Notice from PEM Board on the Investigation of SO

II. ACTIVITIES ON MARKET MONITORING AND ASSESSMENT

2.1. Assessment of Market Outcomes in the Wholesale Electricity Spot Market

2.1.1. Review of Market Assessment Reports

Market Assessment Reports (MARs) are prepared pursuant to the Committee's mandate of monitoring and assessing the efficiency and competitiveness of the WESM under different timescales and market conditions. The MARs provide an assessment of market behavior and analyze market monitoring indices, which are based on monitoring data regularly collected and validated primarily from the Market Operator (MO) and the System Operator (SO).

In accordance with Section 3.1 of the Market Surveillance Manual, the MSC submitted the following MARs:

- a) Fifteen (15) Monthly Monitoring Reports, comprised of the MSC's Monthly Accomplishment Report and the Monthly Market Assessment Report/Highlights (MMAR/MMAH), covering the billing months from May 2022 to October 2023; and
- b) Annual Market Assessment Report covering the period from November 26, 2021, to November 25, 2022.

Highlights of the Monthly MARs were regularly presented by the MSC during the monthly PEM Board Meetings covering the billing periods from December 2022 to November 2023. MARs are likewise regularly furnished to the Department of Energy (DOE) and the Energy Regulatory Commission (ERC) for information and reference, and published accordingly on the PEMC website¹. The highlights of notable events in 2023 were as follows:

Billing Month	Highlights
December 2022	<ul style="list-style-type: none"> • Distorted price outcome driven by the abnormal pricing conditions. • Grid was placed under red and yellow alert due to forced outages from various power plants.
January 2023	<ul style="list-style-type: none"> • WESM Mindanao commenced its commercial operation on 26 December 2023. • There was an observed a high level of spot exposure by the Distribution Utilities (DUs) for the October and November 2022 which lead to the Committee coordinate with various DUs to discuss the matter. • The decrease in capacities on outage and capacities not offered can be attributed to the resumption of coal power plants facing forced outage, plant derations, and resource constraints. These factors are further evaluated by the Enforcement and Compliance Office (ECO) in accordance with the Must-Offer Rule (MOR).

¹ Link: <https://www.wesm.ph/market-outcomes/market-assessment-reports>

Billing Month	Highlights
February 2023	<ul style="list-style-type: none"> Line 2 of 138 kV Cebu-Mandaue underground line was damaged during the excavation activities of Department of Public Works and Highways (DPWH) which led to congestion in the Cebu-Mandaue Line 1. Maintenance shutdown of Malampaya affected WESM prices.
March 2023	<ul style="list-style-type: none"> Secondary Price Caps (SPCs) were consistently imposed to high prices with low supply margin caused by high level of outages and limited capacities, alongside grid interconnection unavailability. Considering the onset of Summer Season, system demand increased from 10,012 MW to 10,424 MW towards the end of the month in Luzon and Visayas. Similar with Luzon and Visayas, Mindanao saw an increase in system demand from 1,697 MW to 1,753 MW.
April 2023	<ul style="list-style-type: none"> Imposition of SPC persisted during the April 2023 billing period which started from the previous billing period. Luzon, Visayas, and Mindanao grid continue to experience an increase in system demand which caused the increase in market prices due to the rise of temperature in the country as a result of Summer Season
May 2023	<ul style="list-style-type: none"> All-time highest peak demand recorded on 09 May 2023, 1350h at 14,854 MW from 14,358 MW last year on 12 May 2022, at 1440h. Grid was placed under red and yellow alert levels due to forced outages from various power plants. In accordance with the DC2018-06-0017 and the WESM Rules, the Department of Energy (DOE) announced that the Luzon, Visayas, and Mindanao grids shall be treated as a single settlement starting May 2023 billing month and that the relevant provisions of the WESM Rules and Market Manuals shall apply to the WESM transactions of all Trading Participants.
June 2023	<ul style="list-style-type: none"> System demand decreased for Luzon and Visayas, and Mindanao grid because of the start of rainy season which resulted in the decrease of prices across all the regions.
July 2023	<ul style="list-style-type: none"> For Luzon and Visayas, WESM prices continue to decline due to rainy season resulting in the decrease in the system demand. In Mindanao, despite rainy season dropping temperatures in the region, WESM prices increased due to the decline of available capacities in the region during the billing period.
August 2023	<ul style="list-style-type: none"> Energization of Mindanao-Visayas Interconnection Project. Supply margin decreased due to the decline in the level of effective supply brought about by higher levels of capacities on outage and the increase in the level of system demand, despite the onset of the rainy season which was expected to have lower demand.
September 2023	<ul style="list-style-type: none"> The effect of rainy season is still felt during the billing period leading to continued decrease in system demand which started last June 2023 billing period.

Billing Month	Highlights
October 2023	<ul style="list-style-type: none"> Despite the lower temperatures brought about by the rainy season, an increase in system demand and lower supply margin of the Luzon and Visayas region was observed which led to the increase in the market prices.
November 2023	<ul style="list-style-type: none"> Tripping of Negros-Panay 138kV submarine cable that led for the automatic-shifting of Panay sub-grid to islanding operations on 17 November 2023. Tripping of multiple feeders and power plants due to 7.2 magnitude earthquake in Mindanao on 27 October 2023.

MARs are prepared upon availability of the processed and validated data received from both MO and SO.

2.1.2. Review of Over-riding Constraints

2.1.2.1. Review of Monthly Monitoring Report on Over-riding Constraints

In accordance with Section 5.5 of the Market Surveillance Manual, the MSC monitored the overriding constraints imposed by the National Grid Corporation of the Philippines – SO (NGCP-SO) on generators².

For the year in review, the MSC deliberated upon Monitoring Reports on Overriding Constraints covering the billing months from November 26, 2022, to November 25, 2023.

In summary, the majority of the overriding events imposed were categorized as non-security limit events. Most of the observed impositions for the year were due to the commissioning tests of new plants. The month-on-month comparison of the number of over-riding events imposed per generator resource type is shown below:

Plant Type	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	Jul 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023
Battery Energy Storage	3,592	3,013	2,816	7,778	362	3,070	575	4,444	7,867	863	1,439	1,069
Biomass	-	-	-	-	-	-	-	-	-	-	-	-
Coal	924	1,055	4,027	1,889	1,477	5,671	8,300	9,750	6,621	10,082	9,134	7,550
Geothermal	-	-	-	-	-	-	-	-	-	30	120	-
Hydro	432	1,715	1,236	1,079	73	500	2,880	4,556	9,962	8,964	5,936	143
Natural Gas	675	2,352	611	153	299	1,110	-	2,305	450	408	85	16,157
Oil-based	1,917	137	718	-	1,262	4,901	290	214	378	1,432	2,068	567
Solar	9,495	10,895	9,821	7,417	15,014	14,547	13,577	10,792	9,039	5,378	6,789	10,107
Wind	-	-	-	6,042	8,132	7,855	6,520	4,056	6,169	8,927	8,637	8,926
Total	17,035	19,157	19,229	24,358	26,619	37,654	32,142	36,117	40,486	36,064	34,208	44,519

² The monitoring of the over-riding constraints on generators is done on a per generator trading node per trading interval. A constraint imposed on a generator trading node on a particular trading interval is considered as one (1) **over-riding event**. The monitoring of the over-riding constraints is based on the data and information provided by MO (i.e., real time market results and MMS-input files on security limits) and SO (i.e., SO Data for Market Monitoring).

Table 1 | Summary of Over-riding Events (Luzon) – December 2022 to November 2023

Plant Type	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	Jul 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023
Battery Energy Storage	3,592	3,013	2,816	7,778	362	3,070	575	4,444	7,867	863	1,439	1,069
Biomass	-	-	-	-	-	-	-	-	-	-	-	-
Coal	924	1,055	4,027	1,889	1,477	5,671	8,300	9,750	6,621	10,082	9,134	7,550
Geothermal	-	-	-	-	-	-	-	-	-	30	120	-
Hydro	432	1,715	1,236	1,079	73	500	2,880	4,566	9,962	8,964	5,936	143
Natural Gas	675	2,352	611	153	299	1,110	-	2,305	450	408	85	16,157
Oil-based	1,917	137	718	-	1,262	4,901	290	214	378	1,432	2,068	567
Solar	9,495	108,850	9,821	7,417	15,014	14,547	13,577	10,792	9,039	5,378	6,789	10,107
Wind	-	-	-	6,042	8,132	7,855	6,520	4,056	6,169	8,927	8,637	8,926
Total	17,035	117,122	19,229	24,358	26,619	37,654	32,142	36,117	40,486	36,084	34,208	44,519

Table 2 | Summary of Over-riding Events (Visayas) – December 2022 to November 2023

Plant Type	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	Jul 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023
Battery Energy Storage	1,150	1,622	1,587	138	-	-	1,568	982	240	504	-	128
Biomass	-	-	-	-	-	-	-	-	-	-	-	-
Coal	216	1,055	767	755	-	-	504	276	-	324	139	1,029
Geothermal	-	-	-	-	-	453	-	-	-	-	-	-
Hydro	7,053	5,087	583	4,956	6,738	-	1,152	5,545	864	-	-	-
Natural Gas	-	-	-	-	-	-	-	-	-	-	-	-
Oil-based	1,388	417	2,102	9,711	2,821	1,285	84	1,683	724	1,884	1,756	659
Solar	-	-	-	-	-	-	-	-	-	-	-	-
Wind	-	-	-	-	-	-	-	-	-	-	-	-
Total	9,807	8,181	5,039	15,560	9,559	1,738	3,308	8,486	1,828	2,712	1,895	1,816

Plant Type	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	Jul 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023
Battery Energy Storage	-	108	1,861	2,142	142	2,713	1,740	-	221	83	-	48
Biomass	-	-	-	-	-	-	-	-	-	-	288	-
Coal	-	283	72	6	264	-	240	-	-	559	-	-
Geothermal	-	5,903	-	-	-	-	-	-	-	-	-	-
Hydro	-	-	1,822	36	213	-	130	-	106	371	-	-
Natural Gas	-	-	-	-	-	-	-	-	-	-	-	-
Oil-based	-	-	7,542	8,276	16,346	22,288	20,162	6,591	5,718	4,647	5,593	4,736
Solar	-	-	-	-	-	-	-	-	-	-	-	-
Wind	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	6,294	11,097	10,460	16,965	25,001	22,272	6,591	6,045	5,660	5,881	4,784

Table 2 | Summary of Over-riding Events (Mindanao)3 – December 2022 to November 2023

Plant Type	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	Jul 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023
Battery Energy Storage	-	108	1,811	2,142	142	2,713	1,740	-	221	83	-	48
Biomass	-	-	-	-	-	-	-	-	-	-	288	-
Coal	-	283	72	6	264	-	240	-	-	559	-	-
Geothermal	-	5,903	-	-	-	-	-	-	-	-	-	-
Hydro	-	-	1,822	36	213	-	130	-	106	371	-	-
Natural Gas	-	-	-	-	-	-	-	-	-	-	-	-
Oil-based	-	-	7,542	8,276	16,346	22,288	20,162	6,591	5,718	4,647	5,593	4,736
Solar	-	-	-	-	-	-	-	-	-	-	-	-
Wind	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	6,294	11,047	10,460	16,965	25,001	22,272	6,591	6,045	5,660	5,881	4,784

2.1.2.2. Review of Annual Monitoring Report on Over-riding Constraints

The MSC assessed the results of monitoring activities for overriding constraints during the billing year from December 26, 2021, to December 25, 2022. Here are the highlights of the discussion:

- A total of 321,144 Overriding Constraint (OC) events were recorded for the covered period, with the majority imposed on Luzon plants. Ninety-eight percent (98%) of these events were non-security limits, attributed to either plants undergoing commissioning tests or complying with commercial and regulatory requirements.

³ WESM Mindanao started its commercial operation on 26 December 2023

- Various factors contributed to changes in the number of impositions on a month-on-month basis, including:
 - Increase due to commissioning test impositions.
 - Decrease resulting from expiration of commissioning test periods of plants or the commencement of commercial operation of plants.
 - Increase in commercial and regulatory requirement tests.
- 70% of the impositions were accounted to commissioning tests of plants during the billing period.
- Must Run Unit (MRU) impositions were also noted during the 2nd and 4th quarter of the covered period to address the real power balancing and frequency control in the Luzon grid.
- In terms of the simulated impact of OC in the market using unconstrained solutions, a slight increase in the supply may be observed during the noted impositions resulting in a decrease of available supply. However, this observation may not reflect the true condition of the market due to the distortion of the resulting market prices, effectively risking the market's stability in the long term.

The Annual Monitoring Report on Over-Riding Constraints was submitted to the PEM Board, DOE, and ERC, for information on August 2023.

2.1.3. Review of Market Trigger and Interesting Pricing Events

2.1.3.1. Market Trigger Reports or Notable Market Outcome Reports

The MSC was regularly briefed on the summary of facts and observations regarding market triggers noted during the covered period. Monitoring market triggers aligns with the mandate provided under Section 3.1.2 of the Catalogue of Market Triggers. The Committee also reviewed and revised the thresholds used for monitoring, updating price references and thresholds based on the most recent data.⁴ The highlights of the reports are as follows:

Billing Period	Highlights
December 2022	<p>24 days out the 30-day observation had price spike events resulting in a total of 584 price spikes events (245 in off peak and 339 in peak) that mostly occurred on Mondays and Thursdays.</p> <p>There were 4,589 intervals with issuance of SPC while 15 intervals were noted to have had interesting pricing events.</p>
January 2023	<p>8 days out of the 31-day observation had price spike events resulting in a total of 15 price spikes events (11 in off peak and 4 in peak) that mostly occurred on Saturdays.</p>

⁴ MSC Resolution No. 2023-03 dated 30 June 2023. *Adopting the Recommendation to Retain the Seasonality Threshold for the Spot Prices Indices on Market Monitoring Triggers and Interesting Pricing Events*

Billing Period	Highlights
	<p>There were no intervals with issuance of SPC, but 23 intervals were noted to have had interesting pricing events.</p>
February 2023	<p>18 days out of the 31-day observation had price spike events resulting in a total of 139 price spikes events (86 in off peak and 53 in peak) that mostly occurred on Tuesdays and Fridays.</p> <p>There were 544 intervals with issuance of SPC and 15 intervals were noted to have had interesting pricing events.</p>
March 2023	<p>Luzon and Visayas experienced 140 price spike events (25 in off-peak hours and 115 peak hours), primarily on Fridays and Tuesdays. Additionally, 1,034 intervals were subjected to SPC imposition, while 38 intervals showed noteworthy pricing events.</p> <p>Conversely, in Mindanao, out of the 28 observed days, 15 days saw 156 price spike events, with 27 during off-peak hours and 129 during peak hours, mostly on Thursdays. Furthermore, 248 intervals were subject to issuance of SPC, with 116 intervals exhibiting interesting pricing events.</p>
April 2023	<p>In Luzon and Visayas, there were 234 price spike events (65 in off-peak hours and 169 in peak hours) that mostly occurred on Fridays and Thursdays. Additionally, 985 intervals were subjected to SPC impositions, while 61 intervals exhibited noteworthy pricing events.</p> <p>In Mindanao, there were 54 price spike events occurring over the 17 day observation, with 14 in off-peak hours and 40 during peak hours, mostly imposed on Fridays. Unlike Luzon and Visayas, there were no instances of intervals with issuance of SPC or noteworthy pricing events observed during the same period in Mindanao.</p>
May 2023	<p>In Luzon and Visayas, out of the 31 days, 21 days experienced a total of 341 price spike events, with 107 occurring during off-peak hours and 234 during peak hours, notably imposed majority on Mondays and Tuesdays. Additionally, 992 intervals were subjected to a SPC, while 178 intervals witnessed noteworthy pricing events.</p> <p>In contrast, in Mindanao, out of the 31 days observed, 16 days saw 82 price spike events, with only 4 happening during off-peak hours and 78 during peak hours, mostly on Wednesdays and Mondays. Unlike Luzon and Visayas, there were no intervals with issuance of SPC, and no remarkable pricing events were recorded.</p>
June 2023	<p>In Luzon and Visayas, it was observed that out of the 31 days monitored, 16 days experienced a total of 192 price spike events (66 during off-peak hours and 126 during peak hours), mostly occurring on Mondays and Wednesdays. Additionally, there were 286 intervals during which a SPC was imposed, while 151 intervals exhibited notable pricing events.</p> <p>In Mindanao, only 4 days within the same period witnessed 17 price spike events, with just 1 occurring during off-peak hours and 16 during peak hours, primarily on Tuesdays. Notably, no intervals with issuance of SPC were noted throughout the reviewed billing period.</p>

Billing Period	Highlights
July 2023	<p>Luzon and Visayas experienced a total of 104 price spike events, with 53 occurring during off-peak hours and 51 during peak hours, mostly on Tuesdays. Additionally, 143 intervals were subjected to SPC imposition, while 88 intervals witnessed noteworthy pricing events.</p> <p>In Mindanao, only 4 days out of 30 recorded 17 price spike events, with 1 in off-peak hours and 16 in peak hours, predominantly on Tuesdays. Notably, there were no intervals with issuance of SPC throughout the reviewed billing period.</p>
August 2023	<p>A total of 123 price spike events in Luzon and Visayas, with 61 occurring during off-peak hours and 62 during peak hours, majority of which is imposed on Tuesdays. Notably, no intervals were imposed with SPC, and there were no particularly noteworthy pricing events in these regions.</p> <p>In Mindanao, over the same period, there were 11 days with a total of 129 price spike events, with only 4 happening during off-peak hours and 125 during peak hours, mainly on Fridays. Similar to Luzon and Visayas, there were no intervals with issuance of SPC, and no particularly notable pricing events were observed.</p>
September 2023	<p>During the billing period, there were 59 price spike events recorded in the Luzon and Visayas regions, with 19 occurring during peak hours. Notably, no intervals were issued with SPC during this period.</p> <p>Similarly, a total of one hundred 182 price spike events were observed throughout the billing period, with one hundred 176 happening during peak hours. Like in Luzon and Visayas, no intervals were subjected to issuance of SPC during this time frame.</p>
October 2023	<p>A total of 267 price spike events in the integrated Luzon, Visayas, and Mindanao regions – 77 of which happened during off-peak hours.</p>
November 2023	<p>A total of 67 price spike events in the integrated Luzon, Visayas, and Mindanao regions – 47 of which happened during off-peak hours with Thursdays having the highest number of events.</p>

2.1.4. Review of Market Intervention Events

Pursuant to its mandate under the WESM Rules, the Market Surveillance Manual, and the PEM Board Resolution No. 2011-62, to review market intervention (MI) and market suspension (MS) events, the MSC undertook review activities for events declared during the covered period and subsequently prepared its Review Reports on the SO- and MO-initiated MI events.

Following its thorough review, the MSC submitted a total of eleven (11) MSC Review Reports, for review and approval of the PEM Board. For the period under review, there were no reported MS events. The recorded MI events were mainly due to the following reasons:

Classification	Reasons
Force Majeure	<ul style="list-style-type: none"> • Software Failures <ul style="list-style-type: none"> ○ No RTD was generated due to database-related error experienced during the implementation of database configuration changes. ○ Market Participant Interface (MPI) Issues: <ul style="list-style-type: none"> ▪ RTD market run failure; ▪ Data transfer error; ○ Database error ○ Non-responsive database ○ Workflow Controller execution error ○ Incomplete generation offers transferred from MPI to RTD ○ Data transfer error for load forecasting ○ Inability of the Market Management System (MMS) to produce RTD results on account of the failure of Market Dispatch Optimization model (MDOM) solver software ○ Failure in the publication of the Market Results in the Market Operator Archive Repository (MOAR) ○ Stoppage of Real Time Dispatch (RTD) Run arising from the software failure of Bid Transfer Program to provide complete input data to the Market Dispatch Optimization Model (MDOM) • Unimplementable Real-time Dispatch (RTD) schedule: <ul style="list-style-type: none"> ○ arising from multiple OPEN generator breaker status in Luzon and Visayas ○ posing a threat to system security
Emergency / Threat to System Security	<ul style="list-style-type: none"> • Unimplementable RTD due to erroneous Real Time Data • Critical Loading of the Cebu-Mandaue 138kV Line 1 • Panay Island Black-out and isolation from the grid • Implementation of Manual Load Dropping (MLD) to prevent overloading of 138kV Cebu-Mandaue Transmission Line 1 • Implementation of MLD to prevent overloading of 138kV Aurora-Baloi Transmission Line • Due to multiple tripping of power plants in Panay and Negros sub-grids • Due to unimplementable Real Time Dispatch (RTD) brought about by multiple tripping of power plants • Due to implementation of MLD brought about by an undervoltage situation at the Negros sub-grid • Tripping of Bolo-Masinloc 230kV line 2 leading to generation deficiency (618MW) occurred in Luzon grid due to tripping of Masinloc 1 and 2 generating units at 1300h • Unimplementable RTD schedule which was caused by multiple tripping incidents (transmission line and power plants in Luzon)

Classification	Reasons
	<ul style="list-style-type: none"> • Due to Manual Load Dropping (MLD) implementation to prevent overloading of Amlan-Samboan 138kV Line 1.

In order to complete its assessment on the MI events, the MSC conducted several coordination meetings with the concerned entities⁵. An example of this is the coordination meeting with representatives from the MO and SO to discuss the details of the MI event that occurred last 23 September and 29 October 2023. The details of the discussion were used to supplement the assessment of MSC to the aforementioned events.

Furthermore, the Committee reviewed proposed amendments to the WESM Rules and related Market Manuals regarding procedures for Market Intervention and Suspension events. Key amendments include the introduction of two categories: Transmission System-related and Market System-related market intervention, clarification that the Market Operator (MO) and System Operator (SO) may declare, and lift market intervention as currently practiced, and the adoption of a revised timeline for reportorial requirements. To ensure comprehensive consideration, the MSC met with both the MO and SO to address any substantial concerns arising from the proposal.

The corresponding review reports which detailed the MSC's assessment and recommendations on the abovementioned MI events were duly presented and submitted to the PEM Board, for approval and submission to the DOE and Energy Regulatory Commission (ERC)⁶.

2.2. Request for Investigation from a Trading Participant

In February 2023, the MSC received a letter from a retail market participant requesting for the Committee's appropriate action on a potential breach by their respective Retail Electricity Supplier for failing to register their facility in the WESM and/or with the Central Registration Body.

Subsequently, the MSC forwarded the matter to the ECO for investigation. However, after discussions between MAG and ECO, it became apparent that certain details needed further revision and validation. As a result, ECO presented the preliminary findings of its assessment in their notice issued in March 2023. This included concerns about the reference provisions for the violation, the appropriate party for lodging the investigation, and consideration of the prescriptive period for filing a request for investigation.

Following the deliberation, the Committee recommended informing the requesting party to directly file the case with ECO to streamline the process. Additionally, since the requesting party already had legal standing to file a case, it was agreed to remind the party in the letter that the complaint

⁵ For further information, see Section 3.1 of this report.

⁶ Market Surveillance Manual Issue 1.0 Sections 5.3.6 and 5.3.7.

must adhere to the specific rules provided by ECO and include information on the 2-year prescriptive period.

2.3. DOE Request on Yellow and Red Alerts

Per directive from the DOE, through its letter dated 17 May 2023, the MSC, through the MAG as the Committee's technical support, deliberated on the results of assessment conducted on the Adequacy of Reserve Capacities during the 08 May 2023 significant incident which caused the system to be placed under yellow and red alerts, as well as the implementation of manual and automatic load dropping.

Based on the discussion of the Committee, it has agreed to submit its recommendations to the DOE which are as follows:

- Harmonization of the NGPC's definition in determining the existence of an alert notice with the Philippine Grid Code (PGC) 2016 Edition and the WESM Rules.
- Contracting enough reserve capacities to avoid the recurrence of instances of major generation deficiencies.
- Ensure frequent coordination between the NGCP and power plants to synchronize the design of protective equipment and avoid the recurrence of significant events, including that of Bolo-Masinloc 230kV line.

As agreed, the result of the assessment by the MSC was submitted to the DOE together with the results of study made by the TC.

2.4. Discussion on the Outline for the Assessment on the Economic Impact of Market Intervention/Suspension

As part of its committed activities for 2023, the MSC was apprised on the status of activities, as well as the result of the coordination meeting with other jurisdictions relative to the Study on the Economic Impact of Market Intervention/Suspension (MI/MS). The study aims to, among other things, explore practices in various jurisdictions through a survey, to gather information on the determination and quantification of MI/MS effects on electricity markets. In view of the recent updates, the Committee deliberated on the outline, the recent status updates for the study, and the proposed roadmap for the study along with the issues encountered throughout the activity.

Further, concerns were raised regarding the tight timeframe to complete the study by the end of 2023. The MSC also emphasized the possibility in exploring existing mathematical models to quantify costs during MI/MS events. To address the timeframe challenge, the MSC approved to extend the timeline to include activities such as discussions with representatives from the Australian market, MSC and MAG, as well as the survey on the other jurisdictions' best practice during these events.

The discussion with the Australian counterpart encompasses their existing processes, rules, frameworks, and methodologies related to 'Intervention' in the Australian electricity market. The following topics were discussed during the meeting:

- Frameworks and the process of declaring market intervention.
- Compensations and incentives for plants providing ancillary services in the grid.
- Methodologies in determining the price when the intervention occurred.

Upon deliberation, the MSC approved the outlined plan, incorporating suggestions and revisions, as well as the updated timeline of completion until Q1 2024.

2.5. Discussion on the Notice from PEM Board on the Investigation of SO

In response to the MSC's Request for Investigation, the Compliance Committee (CC) investigated the potential breach of the SO's obligations outlined in the Market Surveillance Manual (MSM) in submitting complete and accurate data for the assessment and analysis of the MSC. The result of the said investigation was then presented and approved by the PEM Board.

For information of the MSC, the ECO, CC's technical and administrative support, presented the result of their investigation relative to the abovementioned request. After the discussion, the Committee has noted the result of the said investigation which effectively found the SO to be in compliance with the provisions of the MSM.

2.6. Development of Monitoring Framework and Parameters of Anti-Competitive Behavior (ACB) in the WESM

During the 1st quarter of 2023, the MSC continued its initiative in the development of ACB monitoring framework and parameters applicable for the WESM. The said initiative commenced in September 2022 which aims to enhance the Committee's monitoring framework for possible reporting of any apparent or suspected incidents of ACB or abuse of market power by any participant in accordance with the Committee's responsibility under the WESM Rules and relevant Market Manuals.

In view of the comments and inquiries received from various agencies during the consultation meetings that started in 2022, the revised report, as submitted by the Consultant, was duly reviewed by the Committee. The additional comments and proposed revisions gathered and submitted were duly considered and reflected in the revised version. To conclude the said engagement, a wrap-up meeting was conducted as an avenue to discuss the proposed framework along with the Consultant's recommendations.

On the latter part of 2023, the MSC further discussed the proposed processes and thresholds for ACB monitoring, as well as some other concerns on the implementation of the tool. After the deliberation, a series of simulations will be conducted to determine the appropriate thresholds and

if there are exemptions to be implemented in the course of undertaking monitoring activities to streamline the entire process.

2.7. Assessment of the Retail and Open Access (RCOA) Market

2.7.1. RCOA Monitoring Reports

Pursuant to the Catalogue of Retail Market Monitoring Data and Indices (CRMMDI) Section 3.1.2, the MSC monitored and assessed the performance of the Retail Market, as contained in the Retail Market Assessment Report. In accordance with Sections 3.1 (b), 4.3.8 (b), and 4.3.8 (c) of the MSM Manual, and Section 3.1 of the CRMMDI, the MSC submitted to the PEM Board the following:

- Four (4) quarterly Retail Market Monitoring Reports (RMMR), covering the Fourth Quarter of 2022 to Third Quarter of 2023; and
- Annual Retail Market Monitoring Report (ARMMR), covering the period 26 December 2021 to 25 December 2022.

The Retail Market Monitoring Report contains the Retail Market Assessment Report, which discusses the outcomes of monitoring indices and provides indications on how the retail market performed during the period in review and how it fared in comparison with the performance of the previous periods.

During the year, the MSC regularly submits to the PEM Board the highlights of its assessment of the RCOA Market. The reports were also furnished to the DOE and ERC for information and reference and were published in the PEMC website⁷.

2.8. Review of Issues Paper on the Possible Improvement to Retail and Open Access

As part of its committed activities for 2023, the MSC reviewed and approved the Issues Paper providing potential improvements to the operations of RCOA. The study's main objective is to identify the prevailing issues in the current implementation of the RCOA and determine the best practices from other retail electricity markets focusing on market structure, deregulation, consumer choice, price mechanisms, and safeguards.

Key recommendations include advocating for a full retail market rollout in the Philippines, as done in Singapore and Australia, to align with the objectives of the Electric Power Industry Reform Act of 2001 (EPIRA) in empowering consumers for increased market competition. The paper suggests giving consumers flexibility to revert to the regulated market, ensuring adaptability and access to

⁷ Link: <https://www.wesm.ph/market-outcomes/retail-market-assessment-reports>

suitable pricing options. Inspired by Singapore and New Zealand, the paper proposes adopting diverse regulatory and market mechanisms to foster fair pricing, encourage innovation, and offer various pricing options based on market dynamics.

The paper further recommends enhancing the regulatory framework, drawing parallels with Singapore's successful approach. It encourages the ERC to consider measures like requiring electricity retailers to hedge a significant portion (e.g., 80%) of their retail contract portion and providing a performance bond for any unhedged position to fortify resilience against market volatility.

The approved paper was submitted to the DOE and ERC for consideration and was published in the PEMC website.

III. COORDINATION WITH VARIOUS AGENCIES AND ENTITIES

3.1. Coordination Meeting with IEMOP-MO and NGCP-SO

3.1.1. Discussion on Pricing Error Notice (PEN)

With the directive from the MSC to review the existing WESM Penalty Manual Issue 1.0 for any possible amendment to resolve the non-compliance issues that lead to the issuances of PEN and pricing re-runs through its letter dated 20 March 2023, a coordination meeting with IEMOP-MO and NGCP-SO was conducted. The MSC was briefed on the outcomes of the coordination meeting held with the MO and SO concerning concerns raised about the issuance of PEN. During the said meeting, it was underscored that the complete elimination of PEN is not feasible. The proposal made by a participant suggesting PEN as a Pricing Condition Category for claiming Additional Compensation was reiterated but had already been dismissed by the DOE due to insufficient merit. The MO and SO reached a consensus to issue a joint statement or response to address the MSC's inquiries, subject to its consideration in the proposal.

During the Committee's regular meeting, the MSC confirmed its decision to still proceed with drafting the proposed amendments for submission to the DOE. This decision considers preventive measures provided by the MO and SO.

3.1.2. Discussion on Market Intervention Events

Throughout 2023, with the invitation from the MSC, the IEMOP and NGCP participated in several discussions related to the occurrence of the following MI events from January to December 2023.

Date of Meeting	Initiated by	Date	Region/s Affected	Classification	Discussion
May 2023	SO	April and May 2023	Visayas (27 – 30 April 2023) Luzon (08 May 2023)	Threat to System Security (27 – 30 April 2023) Emergency (08 May 2023)	The MSC investigated two Luzon grid MI events. They met with NGCP-SO to discuss details (forced outages, tripped lines, actions taken) for the April 27-30 event and an initial report was submitted. A separate report with solutions followed. For the May 8 event, additional reserve capacity was used for energy instead of dispatch. NGCP-SO planned a meeting with the involved plant. The MSC requested extra info from NGCP-SO to complete their review report, mandated by WESM rules. They received the info within the quarter.
October 2023	SO	September and October 2023	Visayas and Mindanao (23 September 2023) Luzon (01 October 2023)	Force Majeure and Threat to System Security (23 September 2023) Threat to System Security (01 October 2023)	The report details multiple Market Intervention (MI) events in Sept and Oct 2023 due to issues with the power grid. In September, unexpected generator breaker trips in Luzon and Visayas, and security concerns with HVDC cable schedules triggered MIs. On October 1st, multiple transmission line and power plant trips caused unimplementable RTD schedules and forced Automatic Load Dropping in Luzon, leading to another MI.

3.1.3. Discussion on the Proposed Amendments on WESM Rules and Manuals on MI/MS Procedures

As agreed by the Committee, the following PEMC/MSC's proposed amendments related to Market Intervention and Market Suspension Procedures were presented to both the MO and SO during the conducted coordination meeting, for comments and inputs:

- Introduction of two (2) categories: 1) Transmission System-related; and 2) Market System-related market intervention.
- Recurrence of similar market intervention due to force majeure shall be subject to further assessment of the MSC.
- A proposed five (5) working day timeline for the submission of reports from the MO and SO was likewise presented to allow the MSC to comply with the requirements of

an initial report to be submitted to the PEM Board instead of reckoning the same “upon market resumption”.

- In cases when MO and SO require more time to prepare the complete report, an initial report shall be submitted within the prescribed timeline while the complete report shall be submitted within fifteen (15) working days from the resumption of the market operations.
- Proposed new template (Annex G of Dispatch Protocol Manual).

3.2. Discussion with the System Operator and DOE Representatives on the Power Situation Outlook for 2023

With the invitation from the MSC, the NGCP representatives and the DOE participated in the discussion related to the power situation outlook for the year 2023 held on 09 February 2023, respectively.

In its presentation, the NGCP apprised the MSC on the 1) short- and long-term Transmission Development Plans for the Philippines, 2) the Grid Operating and Maintenance Program, and 3) Power Outlook for the year 2023.

On 13 April 2023, the power situation outlook for 2023 was further discussed by the DOE. The Committee noted two (2) major upcoming activities being monitored by the DOE in Luzon grid which are the FIBA world cup to be held on 25 August 2023 to 10 September 2023, and the Barangay Sangguniang Kabataan (SK) elections on 30 October 2023. For 2023, there were projected yellow alerts for both the Luzon and Visayas regions while normal operations were expected for the whole year in Mindanao with no expected yellow and red alerts owing to ample capacities in the region. Lastly, the projections presented will be further updated upon availability of the Natural gas plants which were on outage since 2022.

Considering this, the MSC requested MAG to ensure that the timing of the exchanges from NGCP to MSC shall complement the timeline mandated by the Rules and Manuals on the submission of report and presentation to the appropriate entity/ies. MAG accordingly noted the instruction and reflected the proposed revisions to the proposed amendments submitted to RCC.

3.3. Meeting/s with IEMOP-MO

3.3.1. Discussion on the Updates of the Implementation of WESM Mindanao

In view of the commencement of WESM in Mindanao, the MSC requested IEMOP’s presentation last 16 March 2023 on the status of commercial operations in Mindanao, as well as the details and updates on the issues submitted in its weekly reports.

As of March 2023, 98% of the expected market participants in Mindanao were already registered in the market. The remaining 2% were yet to complete their registration requirements by Q2 2023 but were nevertheless already included in the statistics. The commencement of

WESM in the region recorded several major issues encountered with some are already resolved while others were still pending and undergoing discussions.

3.4. Meeting with other WESM Governance Committee (WGC)

3.4.1. Joint meeting with the Compliance Committee (CC) on the Proposed Amendments to WESM Rules and Market Manuals re Maximum Available Capacity

As a background, the MSC, together with the CC, submitted a proposed amendments to the WESM Rules and Market Manuals in October 2022 to provide a clearer guidance and include other conditions (e.g., circuit breaker status, ramp rates) that shall be considered by the Trading Participants when offering/bidding or revising/updating offers in the market. The said proposal was published on the PEMC website for comments of the stakeholders.

With the receipt of the comments from stakeholders, the two (2) WESM Governance Committees (WGCs) conducted a joint meeting to discuss the consolidated comments and proposed responses for consideration and submission to the RCC. Upon due deliberation, both Committees approved the proposed revised responses, as discussed.

3.4.2. Joint meeting with Technical Committee (TC) regarding DOE Directive on 08 May 2023 Significant Event

With the invitation from the TC, the MSC participated in the discussion on the incident related to the declaration of red and yellow alert status of the Luzon Grid by the NGCP on 08 May 2023. This is in reference to the DOE's request for the assistance of the Philippine Electricity Market Corporation (PEMC), through the MSC and TC, to conduct an evaluation and investigation to determine if ancillary services were used or were adequate during the subject incident.

The results of individual study / assessment conducted by the MSC and TC were discussed during the meeting. Both Committees agreed to jointly submit their respective studies to the DOE, for consideration.

3.5. Meeting with DOE

3.5.1. Interruptible Load Program (ILP) and Day-ahead Projection (DAP)

As initiated by the DOE, the MSC participated in the discussion with PEMC-MAG and the ECO, in relation to the implementation of the Interruptible Load Program (ILP) in consideration of the Day-Ahead Projection (DAP). The discussion revolved on the issues raised with regard to the accuracy in the submission of the DAP that could possibly affect the ILP implementation.

In view of the above, the MSC will extend to ECO any possible assistance it could extend in the development of methodology to aid the DOE on its aim to detect any inaccuracy that may affect DAP.

IV. PROPOSED AMENDMENTS TO THE WESM RULES AND OTHER MARKET MANUALS

4.1. Discussion on the Proposed Amendments to the WESM Rules and Market Manuals related to Market Intervention / Suspension Procedures

The Committee submitted proposed amendments to the WESM Rules and related Market Manuals concerning Market Intervention and Suspension events procedures. Specifically, the amendments aim to:

- Introduce two categories: 1) Transmission System-related; and 2) Market System-related market intervention.
- Clarify that the Market Operator (MO) and System Operator (SO) may declare and lift market intervention as currently practiced.
- Adopt a revised timeline for reportorial requirements.

To further consider the insights of both the MO and SO, the MSC through PEMC-MAG invited the representatives of two entities for a discussion to address any concerns substantially affecting them arising from the proposal.

After the RCC deliberation on the consolidated comments from stakeholders and interested parties on the two separate proposals submitted by MSC and SO, the MSC was apprised on the discussion of the RCC to include all WESM participants among the entities entitled to submit comments on the MSC's assessment report for the MI/MS event. The MSC agreed to recommend for the consideration the deletion of the provision in the proposed amendments that allows the SO (as in the original proposal) and the WESM participants (as discussed by the RCC) to submit comments on the MSC's Review Report. This decision was made for the following reasons:

- Both the MO and SO have respective representations to the Board, granting them the opportunity to raise comments before actions are taken by the Board. Additionally, there is a procedure by MAG & MSC wherein concerned entities are consulted prior to the Committee's submission of the report to the Board.
- The proposal for WESM participants to submit comments to MSC reports may open the floodgates to those participants who may not be concerned about the MI/MS, potentially causing inefficiency in the Committee's process.

In addition to the initial comments received, the Committee deliberated on comments submitted to the RCC by interested stakeholder, particularly regarding suggested enhancements to the MI/MS procedures.

In addition, the MSC deliberated and reached a consensus on recommended responses to the comments received from the entities. Lastly, the MSC was briefed on concerns and clarifications raised by the RCC regarding the proposed amendments, specifically regarding the distinction between the declaration of MI events by the MO and SO, as well as the categorization of software-related MI as force majeure. Following the deliberations, the Committee approved the proposed responses to address these concerns, incorporating additional inputs for submission to the RCC.

Furthermore, the MSC was briefed on the latest updates regarding the final revisions to proposed amendments, which now integrated insights from recent deliberations within the RCC. The discussion encompassed various aspects, including the process for submitting impact and actual costs stemming from MI/MS events, MO's responsibility in declaring MI during unimplementable Real-Time Dispatch (RTD) in collaboration with NGCP-SO, and the formulation of language concerning force majeure events impacting grid security.

Particular attention was devoted to defining force majeure, prompting the MSC to suggest specific wording that underscores the unforeseen and uncontrollable nature of such occurrences. Ultimately, the Committee recommended retaining the declaration process, with categorization serving as a point of reference if events are deemed justifiable. Following this thorough discussion, the MSC endorsed the final proposal for submission to the RCC.

4.2. Proposed Amendments to the WESM Rules and Market Manuals related to Maximum Available Capacity

In October 2022, the MSC and CC jointly submitted proposed amendments to the WESM Rules and the Dispatch Protocol Manual regarding the use of the term "Maximum Available Capacity" to the RCC. This proposal aimed to provide a clearer definition of maximum available capacity and guidance to Trading Participants (TPs) in submitting/revising their bids/offers.

The MSC was apprised on the agreement of the RCC to change the term "Maximum Available Capacity" to "available capacity" for clarity and to distinguish it from the same term in the Philippine Grid Code (PGC). It was noted that this change would affect one provision of the WESM Penalty Manual. The Committee was assured that this revision did not alter the original intention of the proposal; rather, it aimed to prevent confusion with the term found in the PGC. Recognizing its mandate to deliberate on amendments to the WESM Penalty Manual, the RCC formally endorsed the proposed amendment to the WESM Penalty Manual to the MSC on 14 June 2023 (refer to Section 4.4 for further details).

4.3. Proposed Amendments to the WESM Penalty Manual

- **On Maximum Available Capacity**

In view of the MSC's proposal to the WESM Rules and the Dispatch Protocol Manual relating to the use of Maximum Available Capacity, the Committee discussed the resulting additional

revisions to the WESM Penalty Manual as discussed and noted by the RCC. It was noted that the proposed amendments will affect only one provision of the Penalty Manual, to reflect global change in the term "Maximum Available Capacity" with "available capacity" to clarify and differentiate it from the same term found in the Philippine Grid Code (PGC).

Pursuant to the responsibilities outlined in the WESM Penalty Manual, the Committee's role relative to penalties in the WESM includes the review and deliberation of proposed amendments for submission to the DOE. This is in consultation with WESM Members, RCC, and the PEM Board. The consultation meeting with the PEM Board was held through the RCC discussion of other related manuals. Following the deliberation of the Committee, the MSC approved the proposed amendment which are documented through a committee resolution transmitted to the DOE.

- **Penalty Provisions on the Ancillary Services Monitoring Manual**

The MSC extensively reviewed the proposed Ancillary Service Monitoring (ASM) Manual, focusing on penalty provisions for the upcoming Reserve Market launch in December 2023. During the Committee's deliberation, concerns were raised about the effectiveness of a PHP 10,000 financial penalty, leading to discussions on the MSC's authority for higher penalties as clarified by the ECO. Contractual matters with Ancillary Services Providers were addressed, confirming NGCP's exclusive role in the Reserve Market. After thorough deliberations, the MSC approved the proposed penalty framework for submission to the RCC and PEM Board.

Further discussions on amendments to Section 8 of the ASM Manual were made, emphasizing criteria for contract rate utilization, and suggesting an illustration for penalties computed over a full day of continuous breach. In view of the Committee's mandate related to penalties, the Committee consulted the PEM Board on the proposal. Upon further deliberation, the MSC endorsed the proposed amendments to the DOE for consideration.

- **Transfer of Authority of Collecting and Utilization of Penalties**

Recognizing the Committee's jurisdiction over the WESM Penalty Manual, PEMC, as the lead proponent, submitted to the MSC its proposed amendments which mainly aims to: Transfer the responsibility to collect penalties from the Market Operator to the WESM Governance Arm;

- Reflect the proposed utilization of penalties collected;
- Remove the provisions relating to the enforcement remedies;
- Revise the timeline for the implementation of the enforcement sanction; and
- Reflect other changes which include clerical correction, removal of redundant provisions, use of common terminologies in reference to Market Rules and relevant Market Manuals and updating of glossary and rule references due to previous amendments.

During its committee meetings, the MSC deliberated the merits of the proposal and conducted a line-by-line review of the proposed amendments. The said proposal was published in PEMC

website to seek for comments from any interested parties. Comments received from the proposal were likewise discussed by the MSC.

Following the MSM and the relevant provision of the Penalty Manual, the MSC will consult the PEM Board during its January 2024 meeting.

V. OTHER ACTIVITIES AND ACCOMPLISHMENTS

5.1. Review of Various Department Circulars (DCs) and Issuances

The MSC regularly reviewed various proposed amendments, DCs, and/or Resolutions pertaining to the Committee's mandates and responsibilities to ensure its compliance with the same. This activity involved the following issuances:

- Proposed General Amendments regarding the Interruptible Load Program (ILP) Implementation which seek to harmonize the WESM Rules, and relevant Manuals with the DOE policies and ERC regulations related to ILP and to recommend improvements to existing market processes to aid in smooth implementation of ILP.
- Proposed General Amendments in view of the ERC Resolution No. 01, Series of 2023 (Certification of No Outstanding Balance) which aims to harmonize the Retail Rules and Manuals with provisions of ERC Resolution No. 01, Series of 2023.
- Supreme Court (SC) Decision regarding PSALM's petition insisting that PEMC has no investigative and punitive powers over energy sector participants.
- DOE DC No. 2023-06-0018 – Creating the performance assessment and audit team for the operations of the transmission network provider and system operator (PAAT-TNPSO) and providing for its responsibilities.
- DOE Advisory on the Implementation of Single Settlement for WESM Trading Participants in Luzon, Visayas, and Mindanao Grids
- DOE Advisory and DC2023-09-0026 - Declaring the Commencement of the Reserve Market Trial Operations Program on 26 June 2023.
- ERC Resolution No. 04, Series of 2023 – A Resolution Constituting an Interim Grid Management Committee (IGMC) for a specific purpose and perform limited functions under the Philippine Grid Code.
- ERC Case No. 2023-011MC to Rationalize the Market Prices for the areas affected by the Cebu-Mandaue Transmission Line 2 damage until repairs thereon are completed.

- DOE DC No. DC2022-12-0038 – Adopting Further Amendments to the Wholesale Electricity Spot Market (WESM) Market Manual on the Guidelines Governing the Constitution of the PEM Board Committees (GDL)
 - A Market Manual update on WESM Governance Committee composition was published in December 2022 and took effect in January 2023. This update outlines member qualifications, responsibilities, and selection processes for these committees. The said Department Circular was published on 24 December 2022 and became effective on 08 January 2023. As a background, the manual provides for the qualifications and responsibilities of PEM Board Committee members as well as the process for the holding of their respective proceedings, their selection, as well as their appointment.

The summary of the key changes to the department circular were as follows:

- Adoption of independence qualification for WESM Governance Committee (WGC) members under DOE DC2018-01-0002.
- Provision for expanded PEMC Audit Committee (PAC) from a maximum of 3 members to at least 3 members.
- Expansion of MSC from 5 members to at least 5 members.
- Changes in Technical Committee (TC) composition from at least 5 members to 7 members with 3 members are independents, 1 from SO, 1 from MO, 1 from generation section, and 2 distribution sector.
- Compliance Committee (CC)-related provisions composed of 3 independent members with at least 1 lawyer member.

5.2. Database available in the Distribution Utility Map

The MSC discussed the ERC database on Distribution Utility Map as part of the DOE's policy to promote transparency in the energy sector. This database ensures that DUs are informed about the latest tariffs permitted to be collected from consumers. The presentation outlined the contents of the database, including the most recent approved rates of DUs, and provided guidance on accessing it. Links to the respective pages of each DU in the Philippines are available on the ERC website.

5.3. Competition Study in Distribution System Operator (DSO)

As a background, the Technical Committee (TC) requested the assistance of the MSC to conduct a Competition Study on Distribution System Operator (DSO). The study aimed to provide an assessment on the impact of the implementation of the DSO-managed model in terms of competition in the generation sector and its possible advantages and issues as gathered from the stakeholders. The study was finalized in October 2023. To gather necessary information, the

Market Analysis Group (MAG) conducted five on-site visits to selected embedded generators and relevant Electric Cooperatives (ECs) or Distribution Utilities (DUs). Representatives from MAG, MSC, and the DOE participated in these visits.

MAG conducted five (5) onsite visits to selected embedded generators and concerned Electric Cooperatives or Distribution Utilities. The said onsite visits was be attended by representatives from MAG, MSC, and DOE. The on-site visits aimed to collect feedback from participants on how the proposed model might commercially and operationally impact them. This feedback helped identify common concerns from DUs/ECs and embedded generators (EGs) regarding the DSO-managed network model.

The Committee was able to gather the common concerns from the DUs/Electric Cooperatives (ECs) and EGs regarding the proposed DSO managed network model:

DUs/ECs	EGs
<ul style="list-style-type: none"> • Resistance from traditional utilities • Lack of standardization • Technological limitation • Cost and financing • Customer and stakeholders' pre-engagements 	<ul style="list-style-type: none"> • Market access for EGs • Market design and rules • Wheeling rates and power delivery costs • Market transparency and information availability • Market power of incumbent players

In view of the above information, the Committee, with the assistance of MAG, conducted further simulations in assessing the effect of DSO managed network model to the market in general which are all reflected in the approved paper.

Additionally, the MSC was apprised of the discussion held with TC and one (1) Luzon Distribution Utility related to its Distribution System Operator (DSO) study. The highlights of the discussion are listed below:

- Clarificatory matters were discussed as regards the timeline and responsibilities of involved entities once the DSO has been implemented.
- Concerns on the procurement of ancillary services and feasibility of DSO in certain regions.
- Methodology as to how the DSO implementation would impact the current market setup.

5.4. Activities related to Energy Market Exchange (EMX)

Overall, the passage reads fluently, but I've made a few adjustments for clarity:

As background information, PEMC annually organizes an Energy Market Exchange (EMX) event with the goal of enhancing market stakeholders' understanding of significant matters related to market development, operations, or governance through discussions and knowledge exchanges. Since the MSC planned to hold a generator summit as part of its activities, it was decided to

incorporate the summit into the EMX to streamline preparatory efforts and save on budgetary requirements.

For 2023, the EMX event took place on 21 June 2023, at the Crowne Plaza in Ortigas Center and attracted hundreds of industry participants from various sectors, including Contestable Customers, Distribution Utilities/Electric Cooperatives, generators, suppliers, bulk users, and other government agencies. During the event, DOE Secretary Raphael P.M. Lotilla delivered the keynote speech, followed by a presentation by the Chairman of the MSC on the current market conditions and challenges. Additionally, a resource speaker from the California Independent System Operator (CAISO) discussed Battery Energy Storage Systems (BESS), and representatives from the generation sector also participated.

5.5. Discussion on News Article re Spot Exposure of One (1) Mindanao DU

A news article that was published last 15 May 2023 stated that one (1) DU in Mindanao, explained higher power bills from March to April 2023 attributable to the effects of higher generation charges brought by drawing more of its power supply requirement from the WESM. Based on the actual April 2023 data, the MSC was apprised that the concerned DU's spot exposure was around 24% with an average spot settlement price lower than the alleged spot settlement price mentioned in the article. This is likewise misaligned with the claim that majority of their energy were drawn from the WESM.

The Committee was also apprised on the recent policy issued by the DOE where the public can now access the latest Power Supply Agreements (PSAs), as well as the rates of the DUs to serve as guide for the DUs who wish to enter into an emergency PSA with any generator. In view of this, the MSC requested MAG to undertake further study on the effects of this event to the WESM in Mindanao DUs and determine whether the objective of EPIRA is being achieved. The result of the said study will be shared with the DOE and the Mindanao Readiness Committee.

5.6. Review of MSC's Accomplishments for 2022 and Proposed Work Plan for 2023

The MSC reviewed and commented on the proposed activities for the year 2023 which includes the timely submission and publication of reports as required by the Market Rules and Manuals, development of monitoring framework for ACB, and a series of market studies. The Committee was likewise apprised of the list of market studies to be conducted for 2023-2025.

With further edits, the MSC approved the revised Work Plan for incorporation in the Annual Committee report for 2022 and was thereafter submitted to the PEM Board on 24 March 2023.

In addition, in the course of the year, the MSC was apprised of the updates of the completed, on-going, and status of activities under preparatory stage as reflected in the Committee's work plan for 2023. In addition, the Committee noted the activities which require extension of timelines following the additional instructions and discussions to be undertaken by MAG.

5.7. Discussion on News Article Issued last 07 April 2023 related to Anti-Competitive Behavior

The MSC discussed the news article issued last 07 April 2023 relevant to the challenges in undertaking an investigation for ACB in the WESM. It was highlighted that ERC will be engaging the assistance of the Philippine Competition Commission (PCC) in crafting regulatory rules and protocols that will be employed in flagging probable acts constituting ACB, especially in the spot market. The article likewise mentioned that the ERC reclaims their jurisdiction in probing and resolving cases related to ACB of Market Participants in the industry by virtue of the Supreme Court Ruling in 2021. The High Court primarily stipulated that the ERC has the power to probe over unscrupulous trading activity in the WESM, despite earlier questions raised by some parties that the jurisdiction of such cases should have been vested to the PCC.

With this, the Committee was informed that under the MSM and the ERC-PEMC Protocol, the MSC is mandated to report any suspected incidents of probable acts constituting ACB to the PEMC President which will later endorse the same to the ERC for further investigation or issuance of penalties, as deemed appropriate.

As to the appropriate entity to conduct investigations for the determination of ACB, it was further explained that there was a Memorandum of Understanding between the ERC and the PCC wherein, the two bodies may conduct a joint fact-finding inquiry on the received report on possible ACB or upon its own volition. If the joint fact-finding inquiry found that the suspected ACB is an actual ACB, the concerned party will be penalized by ERC under the EPIRA and PCC under the Philippine Competition Act (PCA).

To further assist the ERC and PCC in its investigation for any possible ACB in the WESM, the MSC requested MAG to start with the preparation of monitoring possible ACB to aid PEMC in commencing with its flagging activities for possible ACBs to the ERC and PEMC. It was likewise recommended to mobilize the project even without the said monitoring system or by utilizing other alternative processes.

5.8. Participation in the Public Consultations conducted by the Department of Energy (DOE)

The MSC participated in the following public consultations last 23 August 2023 on Various Draft Department Circulars Adopting Further Amendments to the WESM Rules and Market Manuals.

- Amending Certain Provision of DC No. 2021-06-0013 on the Framework Governing the Test and Commissioning of Embedded Generators

- Proposed Amendments to the WESM Rules and Various Manuals regarding Maximum Available Capacity
- Proposed Amendments to the WESM Rules and FAS Manual on matters relating to Enforcement Proceedings and Actions
- Proposed Amendments to the WESM Rules and Various Manuals on Dispatch Protocol regarding Enhancements and Updating of the System Operator's Re-dispatching, Reporting, and Market Intervention/Suspension Procedures
- Proposed Amendments to the WESM Rules and Registration Manual regarding Preferential Dispatch of Renewable Energy Generating Units
- Proposed Amendments to the WESM Manual on Dispute Resolution regarding Disputes under the Retail Rules

5.9. Discussion on the Results of MSC's Request for Investigation on Observed Discrepancy to Submitted Report

In the course of its monitoring and assessment, the MSC noted discrepancies in the submitted report by a WESM Member in relation to a notable event in May 2023 which were used as reference in the Committee's reporting, as prescribed by the WESM Rules and the relevant Market Manuals.

In view of this, the Committee sought the assistance of the ECO to initiate an investigation into a possible violation of a Market Manual, specifically regarding the accuracy and completeness of the information provided to the MSC. The result of the investigation was essential to serve as a reference for the Committee's subsequent actions on the matter.

The outcome of the investigation request was discussed within the Committee on 13 July 2023. Following this discussion, the MSC requested the ECO to reevaluate the details of the case and to place greater emphasis on investigating the WESM member's adherence to the WESM Rules and the relevant Market Manuals.

5.10. Discussion in the Changes to the MSC Reports

In view of the continuing efforts to improve the contents of its assessment report for the public and WESM stakeholders, the MSC deliberated on and subsequently approved the modifications proposed for the regular market assessment and over-riding constraints reports. Specifically, the proposal intends to change the frequency of both reports from a monthly submission to a quarterly one. Moreover, instead of monthly reports, key market highlights will be summarized and presented to the MSC on a monthly basis and will likewise be made available for the consumption of the general public.

Finally, the MSC discussed and approved the proposed revisions to the structure and format of the abovementioned monthly highlights, as well as the proposed quarterly reports.

5.11. Review of MSC Internal Rules

In accordance with its responsibility to periodically review their Internal Rules on an annual basis or as needed, the MSC discussed the suggested amendments / changes primarily centered around the Committee's operations and the monthly mandated meetings, as stipulated in the applicable Market Manuals. Revisions were focused on the following:

- Updating reference provisions
- Reflecting current practices and responsibilities of the MSC and other concerned entities on procedural matters
- Deleting of processes which are already in the relevant Market Manuals
- Clerical and minor edits

The proposed amendments were approved by the Committee through a Resolution documenting the changes thereto.

5.12. Discussion on the Call for Comments on Various Topics

5.13.1 Proposed General Amendments on Procedures for the Monitoring of Forecast Accuracy Standards for Must Dispatch Generating Units

The Committee reviewed the proposed amendments on procedures for the monitoring of forecast accuracy standards for must dispatch generating units in view of the call for comments notice issued by the RCC. The proposed amendments were submitted by PEMC and aim to:

- Address the gap between the Forecast Accuracy Standards (FAS) manual and interim procedures;
- Ensure compliance with the requirements set forth in the DOE DC2022-05-0015;
- Define with more clarity the reference data for the calculation of the forecast percentage error and other terms used in the Manual;
- Address some unique conditions, situation, or circumstances affecting the compliance of must dispatch generating units;
- Give considerations or exemptions (for plants with limited participation); and
- Add provisions related to due process.

The Committee has taken note of the information with no further comments, questions, or clarifications.

5.13.2 Draft Terms of Reference for Market Design and Operation Review (MDOR)

As part of PEMC's committed activities for 2023, the scope of work for the MDOR project was discussed with the MSC for their input and comments. During the discussion, the MSC noted that conducting a review of the effectiveness for the first 2 years of the Enhanced WESM Design and Operations (EWDO) implementation might be too early. With only 2 years into operations, the

question on whether the EWDO is effective or not might be premature because it may take more than 2 years, maybe even 5-10 years, for the effectiveness of the 5-minute market to be realized.

After due deliberation, the MSC commented to set the proper expectations of the project and the result of the measures to be used in evaluating the effectiveness of the EWDO.

5.13.3 Draft Department Circular Entitle “Prescribing the Policy Framework on the Development of Natural Gas Power Generation Facilities in the Luzon Main Grid in Support to Energy Transition.”

The MSC discussed the context of the subject draft DOE Department Circular, along with its objectives, purpose, and salient provisions. The same was published for comments of various stakeholders.

The aim of the said circular is to guarantee the efficient distribution of locally sourced natural gas to ensure a stable and reasonably priced supply of electrical power. It likewise seeks to promote the growth of the natural gas industry, establish a clear and competitive playing field for all stakeholders involved in natural gas, facilitate fair and timely investments in new or supplementary natural gas facilities, and guarantee a sufficient and reasonably priced electricity supply.

After the discussion, the MSC noted the information with no further comments or suggestion on the draft. "

5.13.4 Draft Department Circular Entitle “Prescribing the Policy Framework on the Development of Natural Gas Power Generation Facilities in the Luzon Main Grid in Support to Energy Transition.”

The MSC was apprised on the highlights of amendments submitted by SO to Rules Change Committee (RCC) during the call for comments of the proposed amendments, which mainly aims to enhance and update SO’s re-dispatching and reporting in cases of MI/MS:

- Removal of the Grid Management Committee on the recipients of the System Operator’s System Advisories and Significant Incident Reports
- System Operator’s use of the 5-minute WESM Merit Order Table (WMOT) as reference in issuing re dispatch instructions
- Addition of national WMOT which will cover the interconnected grids where WESM is in operation
- Specification of the different classification of regional WMOTs
- Generator’s seeking of Clearance from the System Operator prior to following dispatch schedules, when coming from compliance to re dispatch instructions
- Amendment of the basis of updating of outage schedule due to generating unit’s deferred start-up
- Addition of the System Operator as recipient of the Market Surveillance Committee’s assessment report during Market Intervention or Suspension

- Addition of a new provision providing the System Operator of the option to submit its comments on the Market Surveillance Committee's assessment report during Market Intervention or Suspension
- Revision of the provision which will give trading participants with sufficient time to prepare for market-based instructions, upon ERC lifting of the Market Suspension

5.13. Discussion for the Hosting and Attendance to an Energy Surveillance Meeting

The MSC was apprised on the details of PEMC's hosting of an Energy Surveillance Meeting in April 2024 with attendees from the surveillance groups in various jurisdictions. It was emphasized that the attendance of the Committee is highly encouraged, as various surveillance and monitoring organizations will be attending the said event.

Subsequent to discussions regarding the hosting of the said Meeting, the MSC was informed that the 2023 Meeting held in Canada, from 17 to 19 September 2023, tackled the Committee's impending Study on the Economic Impact of Market Intervention/Suspension to gather insights and information as to the experience of other jurisdictions in the subject matter.

5.14. Publication of MSC Quarterly Reports

The MSC regularly publishes its Quarterly Accomplishment Report to apprise stakeholders of its activities and accomplishments for the Quarter. For the year 2023, the MSC has published four (4) Quarterly Accomplishment Reports which may be downloaded in the PEMC website⁸.

VI. MEMBERSHIP

The MSC is currently composed of the following experts in the fields of electrical engineering, information technology, law, and economics:

- 1) Atty. Doroteo B. Aguila (Chairperson)
- 2) Engr. Arthur N. Escalante
- 3) Engr. Christian M. Orias
- 4) Engr. Ferdinand P. Villareal
- 5) Engr. Peter L. Wallace (Retired⁹)
- 6) Dr. Justin Ranier S. Chan¹⁰

⁸ <https://www.wesm.ph/market-governance/market-surveillance/msc-reports-and-work-plans>

⁹ Effective 30 September 2023

¹⁰ Effective 25 October 2023 through PEM Board Letter

VII. RESPONSIBILITIES

As set out in Section 1.6.2 of the WESM Rules, the responsibilities of the MSC are as follows:

1. Monitor activities conducted by WESM Participants in the spot market;
2. Prepare periodic reports, which outline:
 - a) Activities of WESM Participants in the spot market;
 - b) Apparent or suspected incidents of ACB by any WESM Participant; and
 - c) Matters concerning the operation of the spot market.
3. Propose amendments to the WESM Rules as necessary to:
 - a) Improve the efficiency and the effectiveness of the operation of the WESM; and
 - b) Enhance the prospects for the achievement of the WESM objectives; and
4. Assist the RCC in relation to its assessment of proposals to amend the WESM Rules under Chapter 8.

In addition, the MSC is tasked under Section 3.1 of the Market Surveillance Manual to perform the following responsibilities:

1. Prepare and submit monthly monitoring reports, quarterly retail market monitoring reports, annual reports to the PEM Board, the DOE and the ERC;
2. Prepare and submit special market reports as may be directed by the PEM Board, DOE, or ERC;
3. Review an event of market intervention or market suspension, as defined under Chapter 6 of the WESM Rules, and prepare the corresponding Market Intervention or Market Suspension Report to be submitted to the PEM Board;
4. Propose amendments to the WESM Rules and other Market Manuals in accordance with Chapter 8;
5. Upon request, assist the RCC in reviewing proposed amendments to the WESM Rules and Market Manuals, and make recommendations on the expected impact and necessity of the amendment proposal; and
6. Annually review and propose changes, as appropriate, to the WESM Penalty Manual.

VIII. MSC WORK PLAN FOR 2024

Annex A provides for the details of the MSC's program of activities for 2024, consistent with the PEMC Corporate Strategic Plan.

SUBMITTED BY:

Approved by:

THE MARKET SURVEILLANCE COMMITTEE

[SIGNED]
DOROTEO B. AGUILA
Chairperson

[SIGNED]
ARTHUR N. ESCALANTE
Member

[SIGNED]
CHRISTIAN M. ORIAS
Member

[SIGNED]
FERDINAND P. VILLAREAL
Member

[SIGNED]
JUSTINE RANIER S. CHAN
Member