

MSC-QR-2017-02

Market Surveillance Committee Quarterly Report

26 January to 25 April 2017

This Report is prepared by the Philippine Electricity Market Corporation-Market Assessment Group for the Market Surveillance Committee.

July 2017

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MARKET SURVEILLANCE COMMITTEE QUARTERLY ACCOMPLISHMENT REPORT

I. Introduction

Pursuant to Section 1.6.2 of the WESM Rules, the Market Surveillance Committee (MSC) continuously monitors the activities of the WESM participants in the spot market. In performing its responsibilities under the WESM Rules and the Market Surveillance Compliance and Enforcement Market (MSCEM) Manual, the MSC regularly conducts monthly meetings to deliberate on various MSC topics, and communicates with its members and the MSC Secretariat through email and other means, on subject matters of concern to the Committee.

The MSC conducted one (1) meeting each month, for a total of three (3) meetings, for the period from February to April 2017. During the period under review, the MSC conducted/accomplished the following:

II. Accomplishments

A. Submission of Market Reports

A.1. Market Assessment Reports

As part of its mandate to monitor compliance by the WESM members, the MSC regularly reviews the market behavior of trading participants and assesses the trading and offer patterns of plants, the supply and demand condition and the significant events affecting the market.

During the period, the MSC reviewed and deliberated the monthly Market Assessment Reports for February 2017, March 2017 and April 2017, prepared by the Market Assessment Group (MAG). The Market Assessment Report is prepared for the purpose of monitoring and assessing the development of market behavior, including the evolution and analysis of the market monitoring indices.

After due deliberation during its meetings, the MSC approved and subsequently submitted its Monthly Monitoring Reports, detailing its monthly accomplishments, together with the Market Assessment Report, to the PEM Board, ERC and DOE for its information and reference. The Market Assessment Reports were published in the market information website and may be found in the following link: http://www.wesm.ph/inner.php/downloads/monthly_market_assessment_reports.

A.2. Retail Market Assessment Reports

The MSC continuously monitored the activities of the WESM participants, including the Contestable Customers (CCs) in the spot market.

During the period, the MSC reviewed and deliberated the annual Retail Market Assessment Report for 2016 prepared by the MAG. The annual Retail Market Assessment Report discusses the results of the monitoring indices, as set forth in the Catalogue of Retail Market Monitoring Data and Indices. The Report also provides indications on how the retail market performed during the period in review and how it fared with the previous quarter's performance.

After due deliberation, the MSC approved and subsequently submitted its annual Retail Market Monitoring Report, together with the annual Retail Market Assessment Report, to the PEM Board, ERC and DOE for its information and reference. The annual Retail Market Assessment Report was published in the market information website and may be found in the following link: http://www.wesm.ph/inner.php/downloads/retail_market_assessment_report.

A.3. Market Situationer Special Report for the period April 8 -10, 2017

The MSC reviewed the preliminary assessment report prepared by the MAG for the period April 8-10, 2017, on the price spikes experienced by the spot market due to low supply of power vis-à-vis demand, as a result of the recent earthquakes in the Province of Batangas. The said preliminary assessment report was included in the Market Assessment Report for April 2017.

A.4. Special Report on Interesting Pricing Events for Q1 2017

In addition to the monthly and annual Market Assessment Reports, the MSC reviewed and deliberated the Special Report on Interesting Pricing Event covering the period 26 December 2016 to 25 March 2017 submitted by the MAG. Said special report aims to provide an in-depth analysis of identified interesting pricing events during the period in review, as requested by the DOE in its letter to the MSC. The MSC approved and subsequently submitted the special report to the DOE for its information and reference.

A.5. MSC 2016 Annual Report and MSC 2017 Work Plan

The MSC finalized and approved its 2016 Annual Report which covers the activities undertaken and accomplished by the MSC for the period January to December 2016 and its proposed activities as detailed in its 2017 Work Plan. The MSC 2016 Annual Report and MSC 2017 Work Plan were submitted to the PEM Board and published in the market information website. The MSC 2016 Annual Report and MSC 2017 Work Plan may be found in the following links: http://www.wesm.ph/inner.php/downloads/msc_reports & http://www.wesm.ph/inner.php/downloads/msc_work_plan.

B. Review of Compliance Monitoring Reports

The MSC reviewed the activities of the trading participants in terms of their compliance with the Must Offer Rule (MOR) and the Real Time Dispatch (RTD) schedule, as contained in the Compliance Monitoring Reports. The said Reports contain the list of trading participants in Luzon and Visayas, and the number of trading intervals with capacity gaps and deviations from the RTD schedule.

B.1. Compliance of Trading Participants with the MOR

The MSC evaluated the Significant Events Reports submitted by the trading participants regarding the said plants' compliance with the MOR for the billing month of November

2016. The evaluation of the Significant Event Reports, covering the period 26 November 2016 to 25 February 2017 is still ongoing.

It may be noted that the MSC revised its Compliance Monitoring Process to include the evaluation of the Significant Event Reports, in reference to WESM Compliance Bulletin 6.0. issued in 2016. The WESM Compliance Bulletin provides the procedures for the submission of the Significant Event Report required of trading participants under WESM Rules Clause 3.5.11.7¹, and provides a description of the Significant Event Notice and the Significant Event Report Form required to be submitted to comply with the reportorial requirements under said Rule.

B.2. Compliance of Trading Participants with the RTD Schedule

As regards the deviations to the RTD schedule, the MSC observed 23, 831 total trading intervals with deviation exceeding the $\pm 3\%$ dispatch tolerance limit for Luzon, and 3,314 for Visayas. The monthly breakdown of these trading intervals is presented in Figures 1 and 2, as follows:

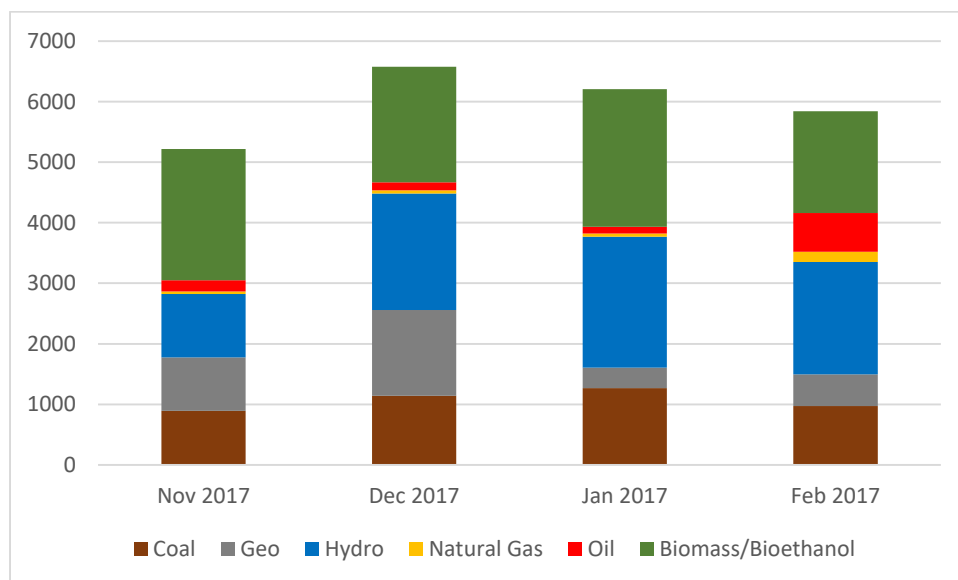


Figure 1. Number of Trading Intervals with RTD Deviations – Luzon

¹ *Trading Participants* shall immediately advise the *System Operator* and *Market Operator* of any circumstances which threaten a significant probability of material adverse change in the state of their facilities in any *trading interval* of any trading day in the current *week-ahead market horizon*. After the occurrence of the significant event referred to above, the *Trading Participant* shall submit a written report to the *Market Operator* with supporting data immediately within the following trading day.

Table 1. Number of Trading Intervals with RTD Deviations per Plant Type, Luzon

Plant Type	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Average
Coal	895	1,142	1,269	973	1,069.75
Geo	882	1,413	336	520	787.75
Hydro	1,047	1,927	2,164	1,855	1,748.25
Natural Gas	40	55	51	172	79.50
Oil	186	129	113	641	267.25
Biomass/Bioethanol	2,164	1,906	2,274	1,677	2,005.25
Total	5,214	6,572	6,207	5,838	

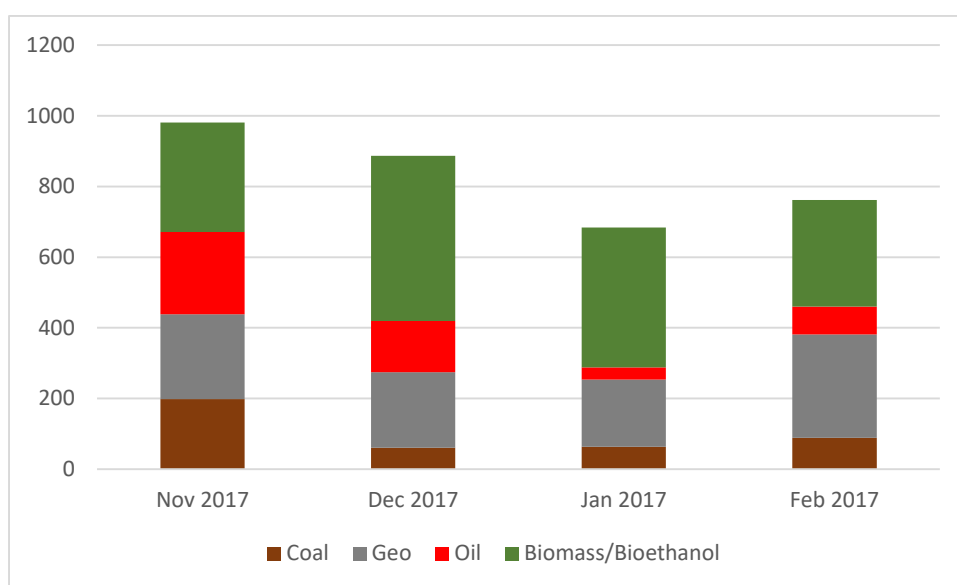


Figure 2. Number of Trading Intervals with RTD Deviations – Visayas

Table 2. Number of Trading Intervals with RTD Deviations per Plant Type, Visayas

Plant Type	Nov 2017	Dec 2017	Jan 2017	Feb 2017	Average
Coal	198	61	63	89	102.75
Geo	240	213	191	292	234.00
Oil	233	145	34	79	122.75
Biomass/Bioethanol	310	468	396	302	369.00
Total	981	887	684	762	

As shown in Figures 1 and 2, biomass/bioethanol plants have the highest number of total trading intervals with deviation exceeding the $\pm 3\%$ dispatch tolerance limit in Luzon, followed by hydro plants and coal plants. Similarly, biomass/bioethanol plants have the

highest number of total trading intervals with deviation exceeding the $\pm 3\%$ dispatch tolerance limit in Visayas, followed by geothermal plants and coal plants.

Table 3 below shows the number of trading participants with deviations between the RTD schedule and actual dispatch exceeding the $\pm 3\%$ tolerance limit.

Table 3. Compliance of Trading Participants to RTD Schedule

	Nov 2016			Dec 2016			Jan 2017			Feb 2017		
	TP	Plant	TI	TP	Plant	TI	TP	Plant	TI	TP	Plant	TI
Luzon	30	35	5,524	34	40	7,040	34	41	6,603	37	42	6,140
Visayas	12	15	671	13	16	419	12	14	288	13	17	460
Total:	42	50	6,195	47	56	7,459	46	55	6,891	50	59	6,600

Note: TP – Trading Participant; TI – Trading Interval

B.3. Issuance of Requests for Investigation

On the basis of its review of the Compliance Monitoring Reports, the MSC found possible non-compliances with the RTD schedule for the billing months of November 2016 to February 2017 and thereafter submitted 220 requests for investigation (RFI) to the PEM Board.

C. Monitoring of the Submission of Nomination of Loading Level and Projected Output

The MSC reviewed the Monthly Monitoring Report on the Submission of Nomination of Loading Levels and Projected Output covering the period 26 November 2016 to 25 February 2017.

As of 25 February 2017, a total of seventy (70) generating units have registered with the market, fourteen (14) of which are non-scheduled, forty-eight (48), must-dispatch and eight (8), priority dispatch generating units. Of these generating units, twenty-three (23) are still

undergoing test and commissioning, thus only forty-seven (47) were monitored for their compliance to the submission of nomination of loading level and projected output.

For the February 2017 billing month, thirty-six (36) generating units failed to submit their nomination of loading level and projected output in some or all of the covered trading intervals. It must be noted that solar plants are expected to be in operation only during day time, hence, the submission of their projected output was observed only from 0600H to 1800H.

A month-on-month comparison of the number of monitored non-scheduled, must-dispatch and priority dispatch generating plants is shown in Table 4.

Table 4. Summary of Monitored Non-scheduled, Must-dispatch and Priority Dispatch Generating Plants

	Dec 2016	Jan 2017	Feb 2017
Must-dispatch	24	29	31
Priority Dispatch	8	8	8
Non-scheduled	8	8	8
Total	40	45	47

The increase in the number of must-dispatch generating units by the end of February 2017 was attributable to the solar plants that started their WESM participation during the period covered.

D. Review of Over-riding Constraints

The MSC reviewed the Monthly Monitoring Report on Over-riding Constraints covering the period 26 November 2016 to 25 February 2017.

During the billing month of February 2017, a total of 15,814 over-riding events were imposed on fifty (50) Luzon generating plants and sixteen (16) Visayas generating plants. About 91.1% over-riding events were categorized under non-security limit events, mostly due to plant commissioning, while the remaining 8.1% were categorized under security limit².

² Beginning 24 June 2016, the System Operator adopted a new categorization scheme which categorized the over-riding events into "security limit" and "non-security limit" pursuant to the Dispatch Protocol Manual. Security limits include reasons due to must run units, emergency de-rating/outage of specific transmission and other types as

A month-on-month comparison of the number of generators and number of over-riding events imposed per generator resource type is shown in Table 5.

Table 5. Summary of Over-riding Events

	Dec 2016	Jan 2017	Feb 2017	Average
No. of Generators	67	73	66	
No. of Over-riding Events³	15,428	15,514	15,814	
Battery Energy Storage	536	128	622	429
Biofuel	1,545	1,658	2,158	1,787
Coal	1,505	2,009	1,819	1,778
Geothermal	756	744	793	764
Hydro	884	966	1,156	1,002
Natural Gas	109	249	119	159
Oil-Based	0	46	129	58
Solar	8,653	8,331	7,531	8,172
Wind	1,440	1,383	1,487	1,437

Among the plant types, solar plants contributed the most number of over-riding events averaging at 8,172, related to the conduct of commissioning tests. This was followed by biofuel plants (averaging at 1,787) and coal plants (averaging at 1,778), mostly due to commissioning.

A slight increase was noted in the number of occurrences of over-riding events during the month of February 2017 as compared during January 2017. It was noted that the increase was mainly due to the higher number of over-riding events involving battery energy storage facility, biofuel and hydro plants. Also, wind, oil-based and geothermal plants recorded an increase in the number of over-riding constraints events. On the other hand, solar, coal and natural gas plants registered a decrease in the number of over-riding event. The decrease

recommended by the System Operator. Non-security limits on the other hand include reasons due to commercial testing, regulatory requirements and generating unit limitations.

³ 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 **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).

was attributed to the completion of the conduct of test and commissioning of solar and coal plants.

E. Review of Market Intervention Events

The MSC continued with its review of the MO-initiated market intervention (MI) event that occurred on 05 November at 2000H and the SO-initiated market intervention event that occurred on 15 November 2016 at 2000-2300H. The MSC conducted a meeting with representatives from the System Operator and further discussed the abovementioned market intervention events.

As reference in its ongoing review, the MSC requested from the System Operator the detailed report/clarification on the MI event that occurred on 05 November 2016 at 2000H, the list of generators that went on outage during the MI event that occurred on 15 November 2016 at 2000H-2300H, and the copy of the significant incident report, prepared by the System Operator, during the said MI event.

F. Review of ECO Investigation Reports

The MSC continued its ongoing review of the fifteen (15) ECO Investigation Reports on possible non-compliance with the MOR and RTD schedule involving fifty-five (55) cases. The MSC finalized its review and approved the same for submission and presentation to the PEM Board.

After completing its review of the 15 ECO Investigation Reports, the MSC also commenced its review of another twelve (12) ECO Investigation Reports on possible non-compliance with the MOR and RTD schedule involving fifty-two (52) cases. The MSC will finalize its review and submit the same for presentation to the PEM Board.

G. Review of Draft ERC Resolution

The MSC reviewed the draft ERC resolution adopting amendments to the pre-emptive mitigating measure in the WESM. The MSC subsequently agreed to submit its comments on the same, as follows: (a) retain the 7-day rolling average because it contains all the days of the week such that weekdays and weekends will have the same weight in every average (though weekdays will always have a greater weight because they are five days vs. two days for weekends); and (b) the 7-day rolling average is seen to be more stable.

The MSC transmitted to the ERC its letter incorporating its comments to the draft resolution on 24 March 2017.

H. Submission of Comments/Proposed Amendments to the WESM Rules and Market Manuals

H.1. Proposed Amendments to WESM Rules and Market Surveillance, Compliance and Enforcement Manual

The MSC discussed the comments of the DOE and the Rules Change Committee (RCC) to the MSC's proposed amendments to the WESM Rules and the MSCEM Manual as follows:

- a. To define the "WESM Governance Committee" and harmonize the same with the definition of "PEM Committees" under the Guidelines Governing the Constitution of the PEM Board Committees; and
- b. To revise, as necessary, all affected clauses in the WESM Rules.

In response to the comments, the MSC revised the relevant provisions and thereafter approved its proposed amendments. The proposed amendments, as revised, was transmitted to the RCC on 27 April 2017.

H.2. Proposed Penalty Manual

The MSC reviewed the PEMC's proposed Penalty Manual and agreed to request the ECO for a presentation on the same, particularly on the computation of breaches.

On the process of approval, the MSC agreed that following the provisions of the WESM Rules on the promulgation of the said Penalty Manual, consultations with stakeholders shall be conducted, similar with the process of approval of the Catalogue of Market Monitoring Data and Indices (CMMDI), with the final output submitted to the DOE for approval.

H.3. Proposed Amendments to the various WESM Manuals

The MSC reviewed the PEMC's proposed amendments to the (a) Price Determination Methodology Manual; (b) Constraint Violation Coefficient and Pricing Re-Run Manual; and (c) Market Operator Information Disclosure and Confidentiality Manual, for the implementation of enhancements to WESM design and operations, and posed no objections on the same.

In the proposed amendments to the Market Operator Information Disclosure and Confidentiality Manual, the MSC observed that the 59th snapshot data and the aggregate metered quantity (MQ) are not yet categorized as public data. The MSC deemed that both data are not confidential, thus it recommended that the aggregate MQ per trading participant and 59th snapshot data be categorized as public information.

The MSC submitted its proposal to the RCC on 24 May 2017.

H.4. Review of MSC Internal Rules

The MSC approved its Internal Rules, as amended, which include the procedure and flowcharts for the review of market intervention events and review of ECO investigation reports. The MSC also passed corresponding resolutions approving the MSC Internal Rules 3.0 and the procedure for the review of market intervention events, on 26 April 2017.

I. Other Activities

I.1. MSC Meeting with Masinloc Power Partners Co. Ltd

During its regular meeting on 14 March 2017, the MSC met with resource persons from Masinloc Power Partners Co. Ltd (MPPCL) to discuss and better understand the operations of the 10 MW Masinloc Energy Storage Array, which recently started its commissioning and testing. Following the discussion, the resource persons from MPPCL invited the MSC for a plant visit to its battery energy storage facility in Masinloc, Zambales.

I.2. Conduct of MSC Planning Session

On 06 February 2017, the MSC conducted its Planning Session to review its accomplishments for 2016 and draft its 2017 Work Plan. The MSC approved the latter as revised on 07 February 2017 during the MSC Meeting No. 2017-02.