

MSC-QR-2017-03

Market Surveillance Committee Quarterly Report

26 April to 25 July 2017

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

October 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 May - July 2017 period. The MSC's accomplishments for the covered period are outlined in the succeeding section of this report.

II. Accomplishments

A. Submission of Market Reports

A.1. Market Assessment Reports

Monthly Market Assessment Report

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 May, June and July of 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, Energy Regulatory Commission (ERC) and Department of Energy (DOE) for its information and reference.

Annual Market Assessment Report for 2016

The MSC also reviewed and deliberated the annual Market Assessment Report covering the period 26 December 2015 to 25 December 2016 submitted by the MAG. The annual Market Assessment Report, which follows the Catalogue of Market Monitoring Data and Indices (CMMDI), sets out an overview of the results of market performance, trends and drivers. This in turn provides the means by which to assess competition and conditions in the WESM, as well as the bidding behavior of Trading Participants, in support of the attainment of the WESM objectives to establish a competitive, efficient, transparent and reliable market for electricity.

After due deliberation, the MSC approved the report and subsequently submitted the same to the PEM Board, ERC and DOE on 11 August 2017, for their 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 quarterly Retail Market Assessment Report for the 1st Quarter of 2017 prepared by the MAG. The quarterly Retail Market Assessment Report discusses the results of the monitoring indices, as set forth in the CMMDI. 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 quarterly Retail Market Monitoring Report, together with the quarterly Retail Market Assessment Report, to the PEM Board, ERC and DOE for its information and reference. The quarterly 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.

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

In reference to WESM Compliance Bulletin 6.0 issued in 2016, the MSC revised its Compliance Monitoring Process to include the evaluation of the Significant Event Reports submitted by Trading Participants. Upon submission of the Significant Event Reports and supporting documents within the billing cycle of the relevant billing month, the same shall be evaluated to assess if the reasons given for the possible non-compliance to the MOR are justified, failing which, a request for investigation (RFI) may thereafter be issued. Also, in case the concerned Trading Participant is unable to submit the Significant Event Reports and complete the supporting documents within the allowable submission period, it will automatically be issued with an RFI. The evaluation of Significant Event Reports was done beginning the billing period 26 September to 25 October 2016.

Evaluation of Trading Participants without Significant Event Reports

For the period covered, the MSC observed 63,548 total trading intervals with capacity gap for Luzon and 27,025 for Visayas. The monthly breakdown of these trading intervals per resource for Luzon and Visayas are presented in Figures 1 and 2, as follows:

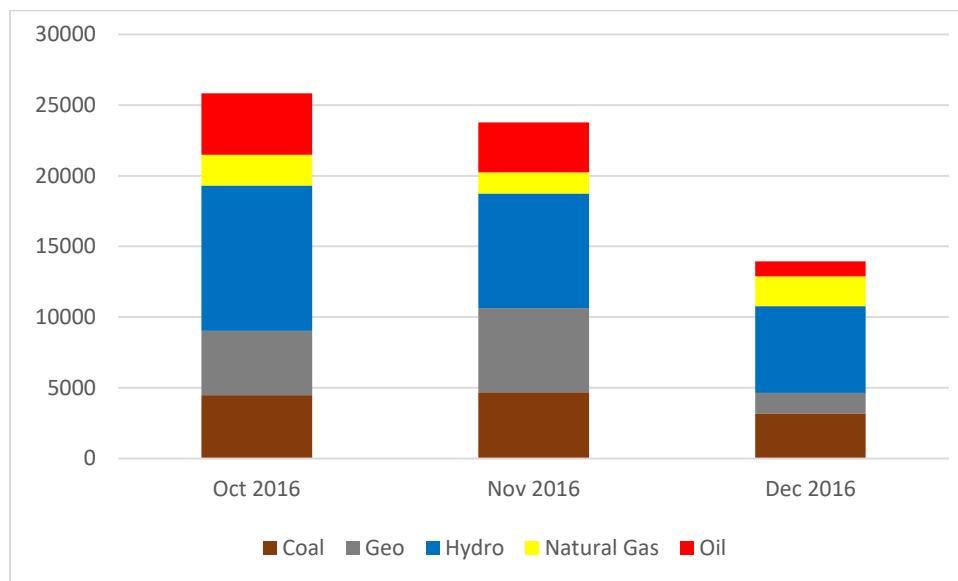


Figure 1. Number of Trading Intervals with Capacity Gap – Luzon

Table 1. Number of Trading Intervals with Capacity Gap per Plant Type, Luzon

Plant Type	Oct 2016	Nov 2016	Dec 2016	Average
Coal	4,471	4,678	3,177	4,108.67
Geo	4,564	5,956	1,467	3,995.67
Hydro	10,286	8,113	6,138	8,179.00
Natural Gas	2,159	1,486	2,089	1,911.33
Oil	4,352	3,538	1,074	2,988.00
Total	25,832	23,771	13,945	

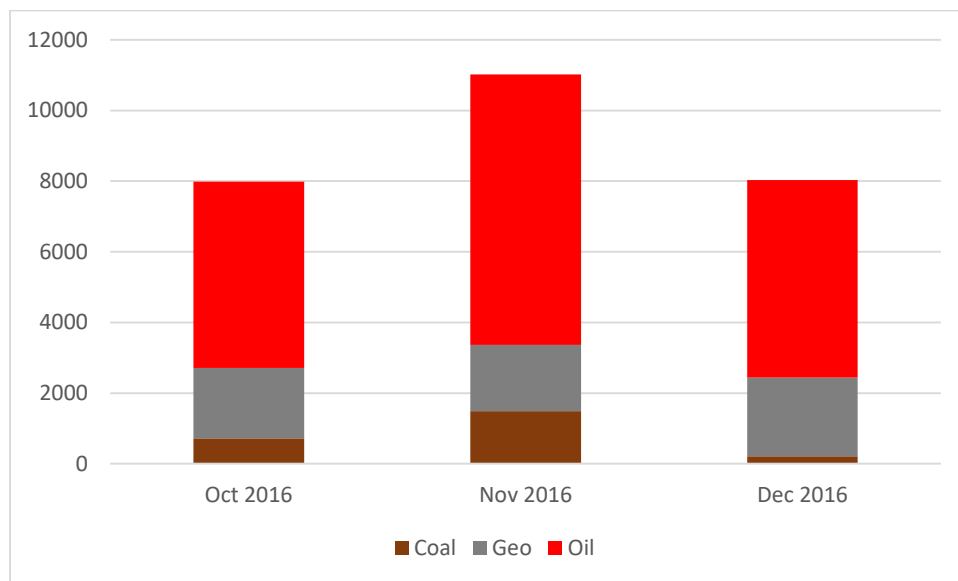


Figure 2. Number of Trading Intervals with Capacity Gap – Visayas

Table 2. Number of Trading Intervals with Capacity Gap per Plant Type, Visayas

Plant Type	Oct 2016	Nov 2016	Dec 2016	Average
Coal	720	1,490	207	805.67
Geo	1,989	1,874	2,230	2,031.00
Oil	5,272	7,653	5,590	6,171.67
Total	7,981	11,017	8,027	

As shown in Table 1, hydro plants have the highest number of total trading intervals with capacity gap in Luzon, followed by coal plants. On the other hand, oil-based plants have the highest number of total trading intervals with capacity gap in Visayas, followed by geothermal plants, as shown in Table 2.

Evaluation of Trading Participants with Significant Event Reports

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 October 2016 and November 2016. Table 2-a shows the number of trading intervals with capacity gap per resource for Luzon and Visayas.

Table 2-a. Number of Trading Intervals with Capacity Gap per Plant Type, Luzon and Visayas

Luzon			Visayas	
Plant Type	Oct 2016	Nov 2016	Oct 2016	Nov 2016
Coal	75	192	--	7
Geo	1,949	1,351	--	--
Hydro	62	4	--	--
Natural Gas	--	--	--	--
Oil	820	739	1,710	--
Total	2,906	2,286	1,710	7

On another note, the evaluation of Significant Event Reports submitted by Trading Participants in regards to its compliance with the MOR for December 2016 to May 2017 is still ongoing.

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

As regards the deviations to the RTD schedule, the MSC observed 19,590 total trading intervals with deviation exceeding the $\pm 3\%$ dispatch tolerance limit for Luzon, and 2,107 for Visayas. The monthly breakdown of these trading intervals for Luzon and Visayas is presented in Figures 3 and 4, as follows:

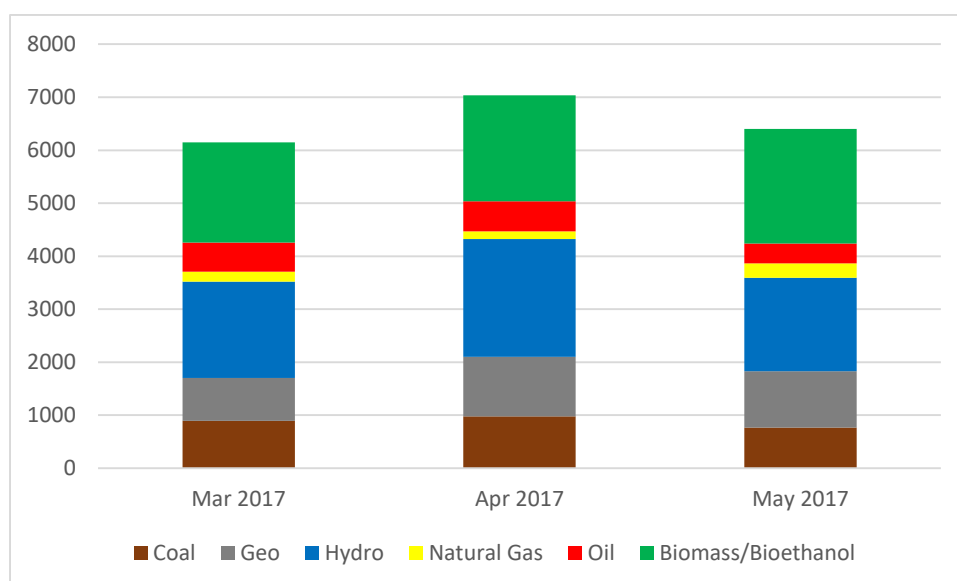


Figure 3. Number of Trading Intervals with RTD Deviations – Luzon

Table 3. Number of Trading Intervals with RTD Deviations per Plant Type, Luzon

Plant Type	Mar 2017	Apr 2017	May 2017	Average
Coal	893	979	765	879.00
Geo	811	1,124	1,067	1,000.67
Hydro	1,819	2,220	1,761	1,933.33
Natural Gas	186	144	274	201.33
Oil	547	568	371	495.33
Biomass/Bioethanol	1,893	2,003	2,165	2,020.33
Total	6,149	7,038	6,403	

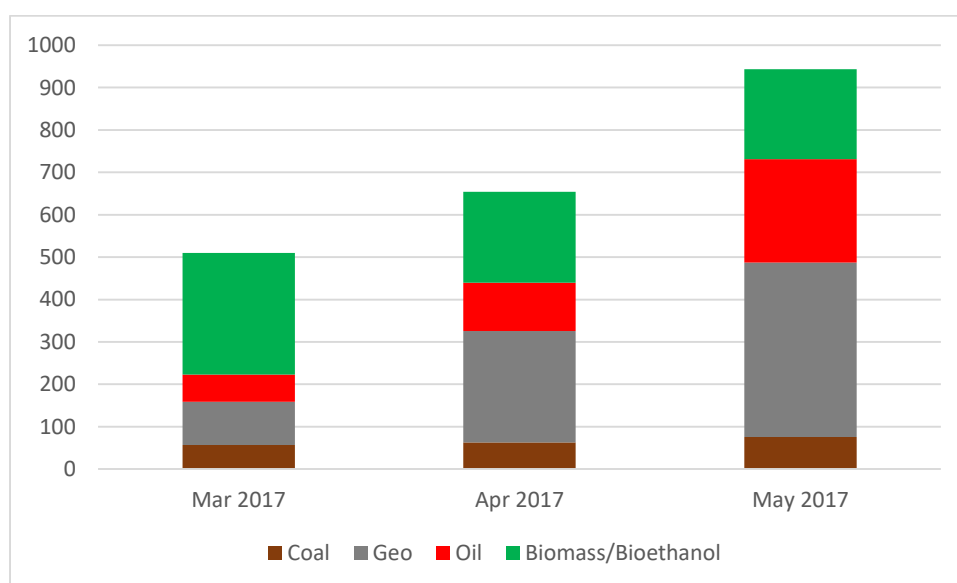


Figure 4. Number of Trading Intervals with RTD Deviations – Visayas

Table 4. Number of Trading Intervals with RTD Deviations per Plant Type, Visayas

Plant Type	Mar 2017	Apr 2017	May 2017	Average
Coal	57	63	76	65.33
Geo	102	263	411	258.67
Oil	64	114	244	140.67
Biomass/Bioethanol	287	214	212	237.67
Total	510	654	943	

Based on the average values, biomass/bioethanol plants are shown to have the highest number of total trading intervals with deviation exceeding the $\pm 3\%$ dispatch tolerance limit

in Luzon, followed by hydro plants and geothermal plants, as shown in Figure 3. For Visayas (Figure 4), geothermal plants have the highest number of total trading intervals with deviation exceeding the $\pm 3\%$ dispatch tolerance limit, followed by biomass/bioethanol plants.

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 March to May 2017 and possible non-compliances with the MOR for the billing month of December 2016 and thereafter submitted 217 RFIs 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 February 2016 to 25 May 2017.

Since the November 2016 billing month, there were no new registrants in the market, i.e., there were still 70 plants registered as non-scheduled, must-dispatch and priority dispatch generating unit, 14 of which are non-scheduled, 48 are must-dispatch and eight are priority-dispatch generating units.

As of 25 May 2017, 19 of these registered plants are still undergoing test and commissioning. Therefore, during the covered period only 51 were monitored for their compliance to the submission of nomination of loading level and projected output. Of the plants monitored for non-submission of nomination of loading level and projected output, only 12 plants were able to submit their nomination of loading level and projected output in all of the covered trading intervals¹. Meanwhile, two solar plants started their WESM participation during the period.

In the course of its monitoring, the MSC observed a number of plants that do not submit its nomination of loading level and projected output 100 percent of the time. The MSC thereafter

¹ It must be noted that solar plants are expected to be in operation only during daytime, hence, the submission of their projected output was observed only from 0600H to 1800H.

sent letters to all concerned Trading Participants, requesting for the reasons and clarifications for its inability to comply with the WESM Rules. Based on the reasons and clarifications received, it was noted that some of the Trading Participants have yet to be installed/reinstalled with digital certificates. The MSC subsequently referred the Trading Participants to appropriate PEMC department for assistance.

A month-on-month comparison of the number of monitored non-scheduled, must-dispatch and priority dispatch generating plants is shown in Table 5.

Table 5. Summary of Monitored Non-scheduled, Must-dispatch and Priority Dispatch Generating Plants

	Mar 2017	Apr 2017	May 2017
Must-dispatch	32	33	35
Priority Dispatch	8	8	8
Non-scheduled	8	8	8
Total	48	49	51

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

D. Review of Overriding Constraints

The MSC reviewed the Monthly Monitoring Report on Overriding Constraints covering the period 26 February to 25 May 2017.

During the billing month of May 2017, a total of 13,481 overriding events were imposed on 49 Luzon generating plants and 17 Visayas generating plants. About 87.7 percent of overriding events were categorized under non-security limit events while the remaining 12.3 percent, mostly due to commercial tests, were categorized under security limit².

² Beginning 24 June 2016, the System Operator has been using a new categorization scheme that categorizes overriding events as “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 recommended by the System Operator. Non-security limits include reasons due to commercial testing, regulatory requirements and generating unit limitations.

A month-on-month comparison of the number of generators and number of overriding events imposed per generator resource type is shown in Table 6.

Table 6. Summary of Overriding Events

	Mar 2017	Apr 2017	May 2017	Average
No. of Generators	57	60	66	
No. of Overriding Events³	12,569	13,865	13,481	
Battery Energy Storage	338	0	0	113
Biofuel	1,926	1,861	2,083	1,957
Coal	1,147	2,486	1,857	1,830
Geothermal	665	744	744	718
Hydro	1,236	1,523	1,421	1,393
Natural Gas	0	102	194	99
Oil-based	256	544	808	536
Solar	5,899	6,605	6,374	6,293
Wind	1,102	0	0	367

Among the plant types, solar plants contributed the most number of overriding events averaging at 6,293, related to the conduct of commissioning tests. This was followed by biofuel plants (averaging at 1,957) and coal plants (averaging at 1,830), mostly due to commissioning.

As seen in Table 6, a slightly lower occurrence of over-riding events was observed during the billing month of May 2017 (13,481 events) as compared to April 2017 (13,865 events). This was mainly due to the lower number of impositions on coal plant SLPGC CFTPP, solar plants Mariveles Solar and Silay Solar, and hydro plant Magat HEP.

³ The monitoring of the overriding 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 **overriding event**. The monitoring of the overriding 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).

E. Review of Market Intervention Events

The MSC continued with its review of the Market Operator (MO)-initiated market intervention (MI) event that occurred on 05 November at 2000H and the SO-initiated MI event that occurred on 15 November 2016 at 2000-2300H.

In reference to the MSC's previous request from the System Operator (SO) for a detailed report/clarification on the MI event that occurred on 05 November 2016 at 2000H, the MSC transmitted a follow-up letter to the Visayas-SO on 20 June 2017.

On another note, following the MSC's approval of the MSC Internal Rules 3.0, which include the procedure and flowcharts for the review of MI events and review of Enforcement and Compliance Office (ECO) investigation reports, the MSC requested for inputs/comments from the MO and SO on the MSC's proposed template for the MI event report. The MSC noted that there should be a more detailed reporting for the MI events.

The MSC received the inputs of the MO and the SO and accordingly incorporated the same in the proposed template. On 30 June 2017, the MSC transmitted the final template, with consolidated inputs from the MO and SO, for the MO and SO's reference in the preparing its reports on MI event.

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

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

The MSC discussed the response of the Rules Change Committee (RCC) on the MSC's proposed amendments to the WESM Rules and the Market Surveillance, Compliance and Enforcement Market Manual, which are as follows:

1. For the general amendment in the use of the term "WESM Governance Committees," the RCC requested to further review the WESM Rules clauses and manuals that would be affected by the amendment; and

2. For Section 5.3.3 (b) of the proposed Market Surveillance Manual, the RCC proposed to include a reasonable timeline for the submission of market intervention reports.

Following its discussions, the MSC subsequently transmitted to the RCC on 24 May 2017 its (a) revisions to the proposed amendments to the MSCEM Manual; and (b) the matrix of proposed amendments to the seven manuals affected by the proposal to replace “PEM Committee” with “WESM Governance Committee.”

The MSC thereafter participated during the RCC meeting held on 09 June 2017, during which the RCC discussed the MSC’s revisions to the proposed Market Surveillance Manual, specifically on the proposed timeline for the submission of market intervention reports, and the matrix of proposed amendments to the various manuals affected by the MSC’s proposal to replace “PEM Committee” with “WESM Governance Committee.”

The MSC presented its revisions to the proposals, which the RCC further revised and subsequently approved.

F.2. Proposed Penalty Manual

On 20 March 2017, the ECO submitted to the MSC its recommendations for the revision of the current WESM Financial Penalty Manual. Said recommendations are embodied in the proposed WESM Penalty Manual Issue 2.0, which the ECO submitted pursuant to Clause 1.6.3 of the WESM Rules.

On 26 April 2017, the MSC reviewed the proposed WESM Penalty Manual Issue 2.0 and agreed to request the ECO for a presentation of the same. Subsequently, the ECO presented to the MSC the proposed WESM Penalty Manual Issue 2.0 on 24 May 2017, during which the MSC provided its inputs and recommendations.

On 13 July 2017, the ECO submitted to the MSC the revisions to the proposed WESM Penalty Manual Issue 2.0, after incorporating the following: (a) inputs and recommendations of the MSC during its meeting on 24 May 2017; (b) changes based on the recent developments on the proposed Dispatch Protocol Manual Issue 13.0, as approved by the Rules Change Committee on 07 July 2017; and (c) clarifications obtained

by the ECO on the design of the Compliance Module of the new market management system.

On 19 July 2017, the MSC reviewed the ECO's revisions to the proposed WESM Penalty Manual Issue 2.0 and agreed to conduct a stakeholder's consultations to solicit inputs and comments from various entities, including the RCC and the PEM Board.

On the process of approval, the MSC agreed that following the provisions of the WESM Rules on the promulgation of the said proposed Penalty Manual, consultations with stakeholders shall be conducted, similar with the process of approval of the CMMDI, with the final output submitted to the DOE for approval.

F.3. Proposed WESM Penalty Utilization Manual

The MSC likewise reviewed the proposed WESM Penalty Utilization Manual, prepared by the ECO and Mr. Alasdair MacDonald as part of the engagement of the latter to study the possible utilization of collected penalties, and subsequently finalized its comments on the same for submission to the ECO.

G. Other Activities

G1. Participation in the Market Participants Update for 2017 and 4th Retail Market Participants' Meeting

Dr. Peter Lee U, in behalf of the MSC, participated as resource speaker during the Market Participants Update (MPU) for 2017 held on 05 May 2017 at Bravo Hotel, Sibulan, Negros Oriental. During the MPU, he presented the Market Assessment Highlights for 26 September 2016 to 25 March 2017.

The MSC also presented the Retail Market Assessment Highlights for the period 26 June 2016 to 25 July 2017, during the 4th Retail Market Participants' Meeting held on 21 July 2017 at Chardonnay by Astoria, Pasig City.

G2. Participation in the Performance Assessment and Audit Team Task Force

Pursuant to the directive of the DOE, the MSC designated its representatives to the Performance Assessment and Audit Team (PAAT) Task Force, as follows:

- a. PAAT on Power Generation Facilities – Engr. Jose Mari T. Bigornia (lead), Dr. Peter Lee U (alternate); and
- b. PAAT on Transmission Service Provider/Operator – Engr. Francis V. Mapile (lead), Atty. Doroteo B. Aguila (alternate).

As part of its functions and responsibilities as a member of the PAAT Task Force, the MSC participated during the meetings facilitated by the DOE as follows:

- a. Kickoff meeting held on 27 June 2017;
- b. Pre-workshop meeting for the formation of the PAAT Task Force held on 05 July 2017; and
- c. Workshop on the performance assessment and audit of power generation, transmission and distribution systems and facilities held on 28 July 2017 to 01 August 2017.