

MSC-QR-2017-04

Market Surveillance Committee Quarterly Report

26 July to 25 October 2017

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

January 2018

TABLE OF CONTENTS

I. Introduction	1
II. Accomplishments	1
A. Submission of Market Reports.....	1
B. Review of Compliance Monitoring Reports	2
C. Monitoring of the Submission of Nomination of Loading Level and Projected Output.....	9
D. Review of Over-riding Constraints	10
E. Review of Proposed Amendments to the WESM Rules and Market Manuals ...	12
F. Review of Market Intervention Events	13

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, from August to October 2017. 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

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 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, the Energy Regulatory Commission (ERC) and the Department of Energy (DOE) for information and reference. Said reports were also 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 2nd 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 their 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.

Date of Submission	MSC Report
24-Aug-17	Monthly Monitoring Report for June 2017
28-Sep-17	Monthly Monitoring Report for July 2017
04-Oct-17	Retail Market Monitoring Report for Q2 2017
27-Oct-17	Monthly Monitoring Report for August 2017

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

With the issuance by the Enforcement and Compliance Office (ECO) of the WESM Compliance Bulletin 6.0¹ providing the procedures for the submission of the Significant Event Reports required of Trading Participants under the WESM Rules Clause 3.5.11.7², the MSC included in its Compliance Monitoring Process the evaluation of the Significant Event Reports submitted by the Trading Participants for possible non-compliance with the MOR.

Effective 26 September 2016, the MSC started evaluating the Significant Event Reports submitted by the Trading Participants pursuant to the said Bulletin. As part of the revised MSC Compliance Monitoring Process, all Significant Event Reports that provide detailed information on a significant event resulting to a possible non-compliance of a Trading Participant with the MOR would have to be evaluated first, with corresponding requests for investigation issued, as may thereafter be warranted.

Compliance with the MOR of Trading Participants (without Significant Event Reports)

For the period covered, the MSC observed 48,759 total trading intervals with capacity gap for Luzon and 30,133 for Visayas, that are recommended for the issuance of request for investigation. It may be noted that in the revised MSC Compliance Monitoring Process, Trading Participants with generating plants that had a capacity gap but did not submit the Significant Event Reports would immediately be recommended for investigation. The

¹ WESM Compliance Bulletin 6.1 and 6.2, revising WESM Compliance Bulletin 6.0 were issued on 30 June and 07 December 2016, respectively. Revisions in version 6.1 include the details on the electronic facility to be used for submission of the report in accordance with the procedures set out in the said Bulletin, while revisions in version 6.2 include the addition of Section 6 on the revision and cancellation of reports.

² WESM Rules 3.5.11.7 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.

breakdown of these trading intervals per resource for the billing months of December 2016 to March 2017 for Luzon and Visayas are presented in Figures 1 and 2, respectively, as follows:

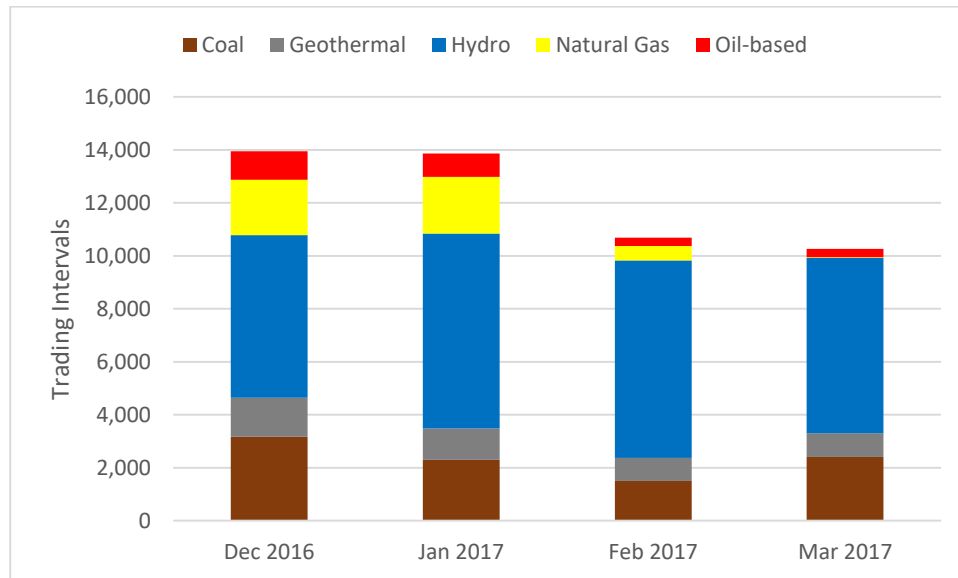


Figure 1. Number of Trading Intervals with Capacity Gap – Luzon

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

Plant Type	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Average
Coal	3,177	2,302	1,509	2,409	2,349
Geothermal	1,467	1,187	864	895	1,103
Hydro	6,138	7,356	7,457	6,622	6,893
Natural Gas	2,089	2,133	545	22	1,197
Oil-based	1,074	881	316	316	647
Total	13,945	13,859	10,691	10,264	

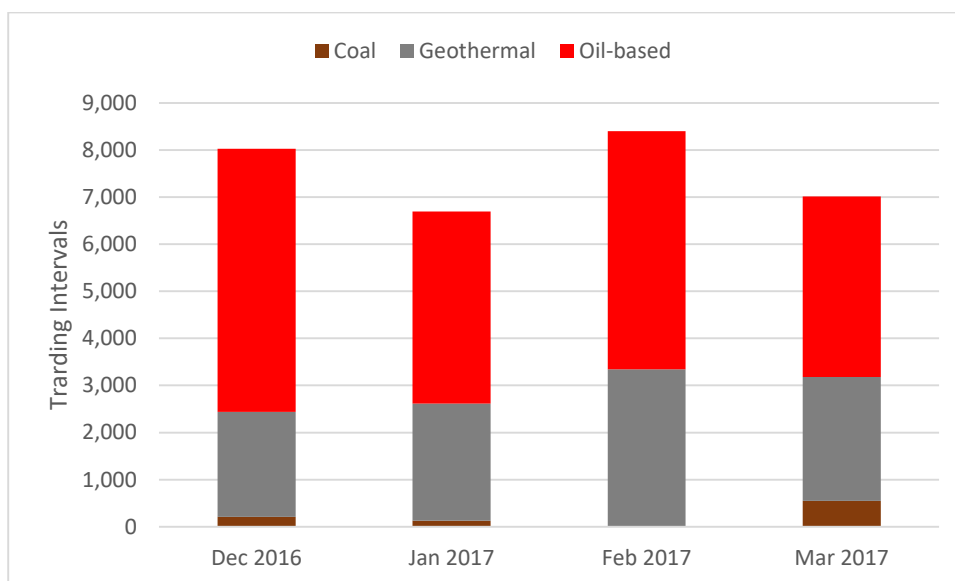


Figure 2. Number of Trading Intervals with Capacity Gap – Visayas

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

Plant Type	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Average
Coal	207	127	11	553	225
Geothermal	2,230	2,486	3,331	2,625	2,668
Oil-based	5,590	4,081	5,059	3,833	4,641
Total	8,027	6,694	8,401	7,011	

As shown in Table 1, hydro plants have the highest average number of total trading intervals with capacity gap in Luzon, due to limitations in water availability, irrigation requirement by the National Irrigation Administration and pumping requirements of Kalayaan PSPP, among others. On the other hand, oil-based plants have the highest average number of total trading intervals with capacity gap in Visayas, attributable to equipment-related concerns (Table 2).

It may be noted that the observed capacity gap in some trading intervals were attributable to the limited offer of Trading Participants that were contracted by the System Operator to provide dispatchable reserve, thus these would not be subject to requests for investigation per the revised MSC Compliance Monitoring Process.

Evaluation of Significant Event Reports submitted by Trading Participants

The MSC also reviewed the result of evaluation of Significant Events Reports submitted by the Trading Participants regarding the said plants' compliance with the MOR for the billing months of December 2016 to March 2017. For the billing months reviewed, a total of 37,170 trading intervals with capacity gap was reviewed for Luzon and 12,105 for Visayas, details of which are shown in Table 2-a.

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

Luzon				
Plant Type	Dec 2016	Jan 2017	Feb 2017	Mar 2017
Coal	581	137	849	1,031
Geothermal	5,036	4,082	5,163	3,692
Hydro	1,216	759	684	380
Natural Gas	0	13	527	61
Oil-based	1,539	3,888	3,954	3,578
Total	8,372	8,879	11,177	8,742
Visayas				
Plant Type	Dec 2016	Jan 2017	Feb 2017	Mar 2017
Coal	718	983	1,407	672
Oil-based	1,069	2,480	2,127	2,649
Total	1,787	3,463	3,534	3,321

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

The MSC observed 10,134 total trading intervals with deviations exceeding the dispatch tolerance limit for Luzon, and 1,739 for Visayas, and thus recommended the issuance of requests for investigation of concerned Trading Participants. It may be noted that effective 17 June 2017, the dispatch tolerance limit has been revised based on Section 12.4.1 of the Dispatch Protocol Issue 12, which provides that *"All scheduled and priority dispatch generating units shall not deviate beyond the dispatch tolerance limit of +1.5% or –3% of the dispatch target or +/-1 MW, whichever is higher."* In this regard, the Trading Participants' compliance to the RTD schedule for the period 26 May – 16 June 2017 is still based on the dispatch tolerance limit of $\pm 3\%$ of the dispatch target as approved by the PEM Board per Resolution No. 2005-15.

Figures 3 and 4 below show the monthly breakdown of trading intervals with deviations between the RTD schedule and actual dispatch exceeding the dispatch tolerance limit for Luzon and Visayas, respectively, for the billing months from June to August 2017:

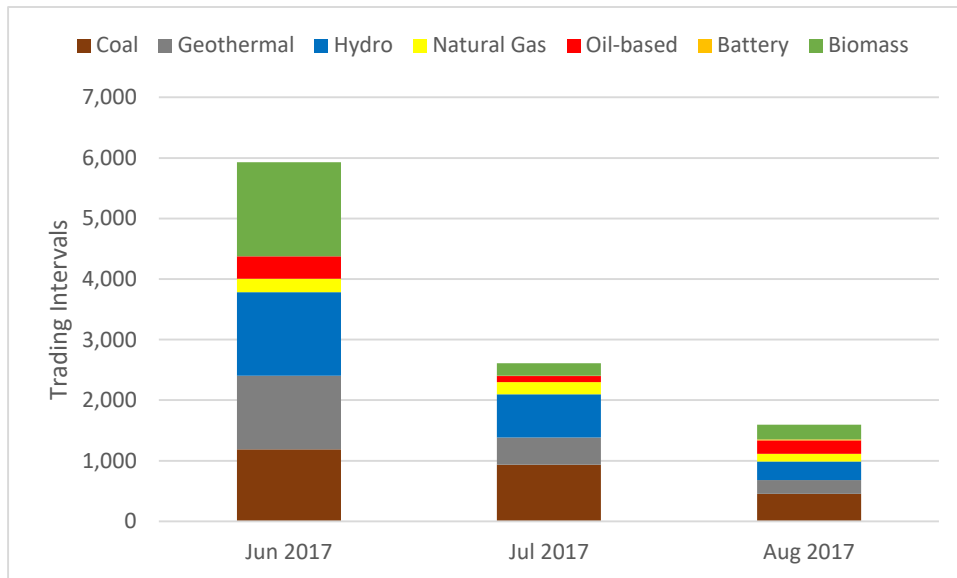


Figure 3. Number of Trading Intervals with RTD Deviations – Luzon

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

Plant Type	Jun 2017	Jul 2017	Aug 2017	Average
Coal	1,190	936	456	861
Geothermal	1,213	449	226	629
Hydro	1,379	713	306	799
Natural Gas	221	198	129	183
Oil-based	375	101	221	232
Battery	0	5	13	9
Biomass	1,553	208	242	668
Total	5,931	2,610	1,593	

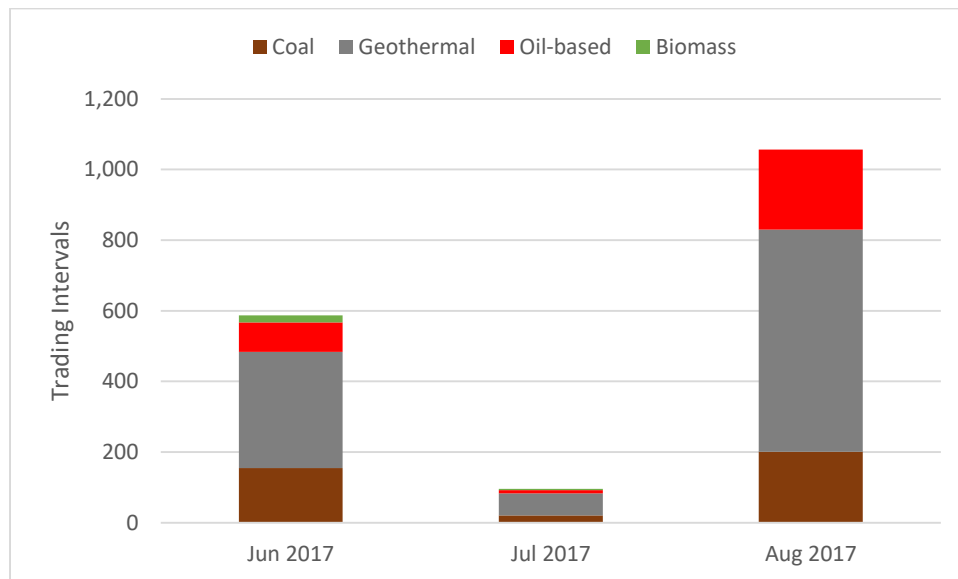


Figure 4. Number of Trading Intervals with RTD Deviations – Visayas

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

Plant Type	Jun 2017	Jul 2017	Aug 2017	Average
Coal	155	21	201	126
Geothermal	329	62	629	340
Oil-based	83	9	226	106
Biomass	20	4	0	12
Total	587	96	1,056	

Based on the average values, coal-based plants are shown to have the highest number of total trading intervals with deviation exceeding the dispatch tolerance limit in Luzon, followed by hydro plants and biomass plants, as shown in Figure 3. For Visayas (Figure 4), geothermal plants have the highest number of total trading intervals with deviation exceeding the dispatch tolerance limit, followed by coal-based plants.

It may be noted that trading intervals with deviations exceeding the dispatch tolerance limit due to generator problem and non-compliance to dispatch instructions together with the trading intervals not included by the System Operator in its Deviation Dispatch Monitoring Report³, are recommended for the issuance of request for investigation.

³ Includes trading intervals of generating plants with deviations above 10 MW and 10 MW & below (for Luzon) and 5 MW and 5 MW & below (for Visayas) but are not scheduled as reserve.

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 from June to August 2017 and possible non-compliances with the MOR for the billing months from January to March 2017 and thereafter submitted 281 requests for investigation 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 May 2016 to 25 August 2017.

During the billing month of August 2017, one (1) solar resource in Visayas started its WESM participation thus in total, there were already seventy-one (71) resources that have registered in the WESM as non-scheduled, must-dispatch and priority dispatch generating units (Table 4). It may be recalled that by the end of the May billing month in the previous quarter, there were no new registrants in the market, maintaining the total number of registered resources at 70. The total registered capacity by the end of the August 2017 billing month stood at about 1,380 MW.

Table 4. *Summary of Registered Resources (by Plant Type), as of August 2017*

Plant Type	Registered Capacity		Frequency	
	MW	Share	No. of Plants	Share
Biomass	194	14.1%	15	22.5%
Hydro	46	3.4%	11	15.5%
Oil-based	3	0.2%	1	1.4%
Solar	709	51.4%	36	50.7%
Wind	427	30.9%	7	9.9%
Total:	1,380	100.0%	71	100.0%

Of the total 71 registered resources, fifteen (15) were non-scheduled, forty-eight (48) were must-dispatch and eight (8) were priority-dispatch generating units. Seventeen (17) of these registered resources were still undergoing test and commissioning, thus only fifty-four (54) were monitored for their compliance to the submission of nomination of loading level and projected output.

Of the resources monitored for non-submission of nomination of loading level and projected output during the August 2017 billing month, only sixteen (16) resources were able to submit their nomination of loading level and projected output in all of the covered trading intervals. On the other hand, thirty-eight (38) resources failed to submit their nomination of loading level and projected output in some or all of the intervals⁴.

D. Review of Over-riding Constraints

The MSC reviewed the Monthly Monitoring Report on Over-riding Constraints covering the period 26 May to 25 August 2017.

During the covered period, a total of 28,711 over-riding events were imposed on generating plants in Luzon and Visayas.

It may be noted that due to the power system disturbance brought about by the intensity scale 5 earthquake in the Visayas, the ERC declared a market suspension in the region from 06 July at 1700H to 01 August at 1400H. However, the System Operator intermittently placed the region under market intervention due to generation deficiency which affected seventy-two (72) trading intervals during the August billing month.

Accordingly, no over-riding events were recorded in the Visayas region during trading intervals which were placed under market suspension and market intervention.

⁴ 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.

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 6.

Table 6. Summary of Over-riding Events

	Jun 2017	Jul 2017	Aug 2017	Total
No. of Generators	53	41	49	143
No. of Over-riding Events⁵	11,933	8,435	8,343	28,711
Battery Energy Storage	12	3	0	15
Biofuel	2,151	1,039	590	3,780
Coal	1,179	1,005	500	2,684
Geothermal	730	542	0	1,272
Hydro	1,543	924	1,375	3,842
Natural Gas	24	267	38	329
Oil-based	125	0	418	543
Solar	6,169	4,655	5,422	16,246
Wind	0	0	0	0

Among the plant types, solar plants had the most number of over-riding events at 16,246, related to the conduct of commissioning tests. This was followed by hydro plants (3,842) and biofuel plants (3,780).

As seen in Table 6, lower occurrences of over-riding events were observed during the month of July 2017 as compared with the month of June 2017. The decrease was attributable to the lower number of over-riding events involving Visayas solar plants in view of the market suspension in the region as well as the start of commercial operations of two (2) biomass plants.

⁵ 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).

The occurrences of over-riding events further lowered during the month of August 2017. This was attributable to the fewer events imposed on SMC Limay CFTPP and the start of commercial operations of Bicol Biomass and GIFT biomass. No over-riding events were imposed on geothermal plants coming from 542 events in July related to the load tests of Makban GPP.

E. Review of Proposed Amendments to the WESM Rules and Market Manuals

E.1. Proposed Market Surveillance Manual

In view of the Rules Change Committee's (RCC) observations that the proposed Market Surveillance Manual was still not aligned with the RCC-approved WESM Rules in terms of the provisions related to anti-competitive behavior (ACB), the MSC proposed further changes to the said manual and also provided comments on the same, for the RCC's consideration, through email on 20 September 2017.

E.2. Proposed Penalty Manual

Per the PEMC Transition Committee's request, the MSC met with the Transition Committee for a briefing on 14 August 2017. During the said briefing, the MSC presented the overview of the MSC's functions and responsibilities, including its activities and accomplishments. As part of its consultation process, the MSC also presented the proposed WESM Penalty Manual. Subsequently, the MSC posted for comments the proposed WESM Penalty Manual in the market information website on 15 August 2017.

Pursuant to the WESM Rules Clause 1.6.3⁶, the MSC also conducted a consultation meeting on the proposed WESM Penalty Manual, with the RCC on 14 September 2017. Following the presentation of the proposed WESM Penalty Manual to the RCC, the MSC further discussed the proposal, particularly the features of the penalty scheme and the one-year transition period.

⁶ WESM Rules Clause 1.6.3 *The MSC will conduct consultations with the Rules Change Committee and the PEM Board in its formulation of the penalty levels and appropriate range of penalties.*

It was noted that the proposed WESM Penalty Manual had already been circulated for comments and that the consultation of the same had already started. Just the same, the MSC agreed to review the proposed WESM Penalty Manual to consider the inclusion of an automatic penalty scheme (APS). The MSC noted to go through the posting and consultation process again once the proposed WESM Penalty Manual is revised and finalized.

On the proposal to include the APS in the proposed WESM Penalty Manual, the MSC noted to revise the affected provisions in the proposed Market Surveillance Manual, the proposed Enforcement and Compliance Manual and the WESM Rules, as applicable.

E.3. Proposed WESM Penalty Utilization Manual

The MSC finalized its comments to 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 submitted the same to ECO on 08 August 2017.

F. Review of Market Intervention Events

Pursuant to its mandate under the WESM Rules, the MSC reviewed the market intervention events during the period 01 August 2017 – 19 September 2017. Due to insufficient information given in the System Operator's Market Intervention Event Report, the MSC agreed to request the System Operator for a more detailed report on the market intervention events in August 2017, and if available, the Significant Incident Report pursuant to the Philippine Grid Code 2016.