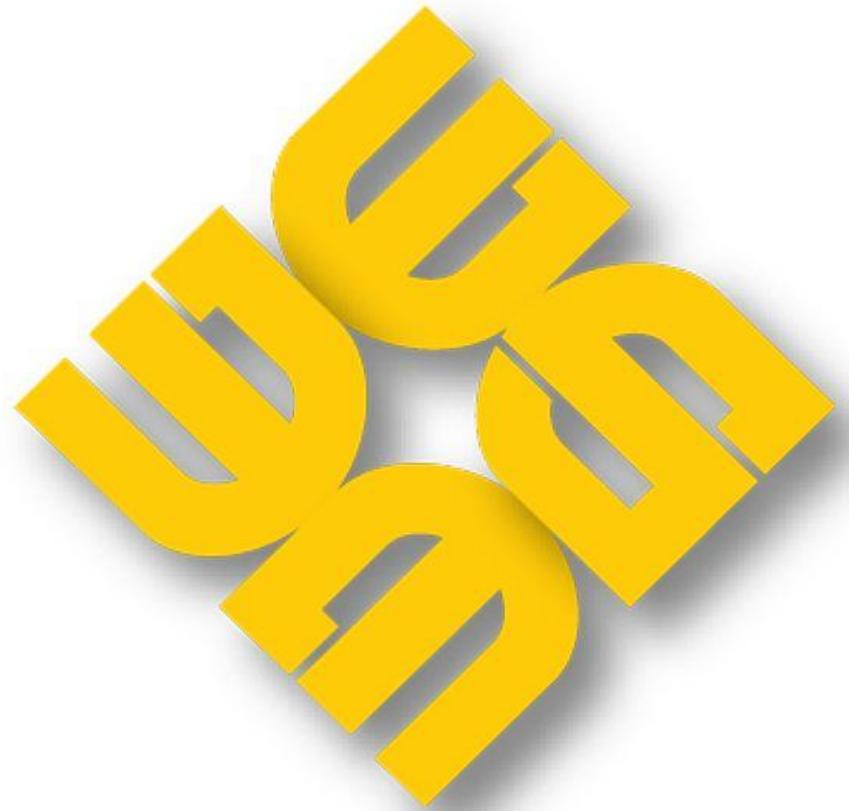


PUBLIC

Market Operator Performance

Annual Report for the Period
26 September 2017 to 25 September 2018
MOPS-2018-AR.1



**PHILIPPINE ELECTRICITY MARKET
CORPORATION
MARKET ASSESSMENT GROUP
(MAG)**

Executive Summary

This 2018 Annual Market Operator Performance Report provides the results of the monitoring and evaluation of the Market Operator's performance for the period 26 September 2017 to 25 September 2018 (4Q 2017 – 3Q 2018) based on the Market Operator Performance Standards (MOPS).

The over-all performance of the MO in 2018 is Very Satisfactory, which is at par with the rating in 2017. The MO's performance ratings in 2018 are provided below.

Category	Measure	Weight (%)	Satisfactory Range	Actual	Score	Score
A. IT Systems						
Market Management Systems	Availability	15	99.80%≤x<99.87%	99.996%	5	Excellent
WESM Website	Availability	5	99.50%≤x<99.67	99.95%	5	Excellent
B. Market Reports and Data Publication	Availability	5	90% ≤ x < 95%	99.999%	4	Very Satisfactory
	Timeliness	10	90% ≤ x < 95%	93.24%	3	Satisfactory
C. Forecast Accuracy						
RTD Forecast - MAPE	Accuracy (L)	3.75	0.92%≤x<=0.98%	0.74%	4	Very Satisfactory
	Accuracy (V)	3.75	1.17%≤x<=1.23%	0.99%	4	Very Satisfactory
RTD Forecast - FAR	Accuracy (L)	3.75	97.65%>= x>=96.75%	99.22%	5	Excellent
	Accuracy (V)	3.75	94.33%>= x>=91.67%	96.46%	4	Very Satisfactory
DAP Forecast - MAPE	Accuracy (L)	2.5	1.45%< x <2.32%	1.25%	4	Very Satisfactory
	Accuracy (V)	2.5	2.41%< x <3.08%	1.73%	5	Excellent
D. Dispatch Scheduling and Pricing						
RTD Workflow	Successful Run	2.5	99.75%≤x<99.83%	100%	5	Excellent
RTX Workflow	Successful Run	2.5	99.75%≤x<99.83%	100%	5	Excellent
Pricing Errors and Market Re-runs	Timeliness (Prelim)	2	98.50% <x<99.00%	100%	5	Excellent
	Timeliness (Final)	3	99.50%≤x<99.67%	100%	5	Excellent
Market Intervention Attributable to MO	Duration	10	14>=x>9	9	4	Very Satisfactory
E. Billing, Settlements and Accounts Management						
Preliminary and Final Settlement Statements	Timeliness	2	98%≤x<98.67%	100%	5	Excellent
Preliminary Settlement Calculations	Accuracy	2	95%≤x<96.67%	92.67%	1	Poor
Final Settlement Calculations	Accuracy	3	99%≤x<99.33%	99.79%	5	Excellent
	Frequency	2	6 ≥ x > 4	0	5	Excellent
Meter Data Error Detection	Timeliness	2	98%≤x<98.67%	100%	5	Excellent
Monetary Transactions	Efficiency	1	0 amount late	0 late	5	Excellent
	Timeliness	1	0 days late	0 late	5	Excellent
Margin Call	Timeliness	1	95%≤x<96.67%	100%	5	Excellent
Default Notice	Timeliness	1	0 days late	0 late	5	Excellent
F. Registration and Customer Relations						
Registration	Timeliness	2	90% ≤ x < 95%	100%	5	Excellent
Customer Switching	Timeliness	1	90% ≤ x < 95%	100%	5	Excellent
Participant Training	Timeliness	2	90% ≤ x < 95%	100%	5	Excellent
	Feedback	1	90%≤x<93.33%	97.45%	5	Excellent
Participant Queries and Data Requests	Timeliness	2	95%≤x<96.67%	99.19%	5	Excellent
Participant/ Customer Complaints	Timeliness	2	90% ≤ x < 95%	96.88%	4	Excellent
					4	Very Satisfactory

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1. Introduction

This report on the performance of the Market Operator (MO) covers the period 26 September 2017 to 25 September 2018 (4Q 2017 – 3Q 2018). This period is prior the transition of market operations from the Philippine Electricity Market Corporation (PEMC) to the Independent Electricity Market Operator of the Philippines (IEMOP).

Performance evaluation is made based on the Market Operator Performance Standards (MOPS), which was developed in accordance with Wholesale Electricity Spot Market (WESM) Rules Clause 1.3.2.3 to provide indication on the performance of the MO with respect to its responsibilities under applicable laws, rules and regulations.

The MOPS also provides empirical evidence of the MO's commitment in providing quality services and information to electricity market participants, governance bodies and interested parties.

This report is organized as follows:

- Section 2 provides an overview of the MOPS. It also describes the methodology in the monitoring of the MO's performance, and reporting of findings.
- Section 3 provides the detailed scores for each category and sub-categories, along with the discussion of findings. Comparative ratings for the years 2014 to 2018 are also described.
- The overall MO performance for the year is provided in Section 4.

2. Monitoring and Reporting

2.1. Development of the MO Performance Standards

The MOPS was initially approved by the PEM Board¹ on 25 May 2011, which was the basis for the internal monitoring of MO performance starting on 26 September 2011.

The MOPS, as revised, was approved by the PEM Board on 21 March 2013 and by the Department of Energy (DOE)² on 12 November 2013. This DOE-approved MOPS provided the basis for the evaluation of the MO's performance in 2014.

¹ PEMC-MOPS-001, 2011, approved by the PEM Board in its Resolution No. 2011-39

² DOE Letter dated 12 November 2013 (DOE-JLP-13006301) received by PEMC on 27 November 2013

The MOPS, as further revised, was approved by the PEM Board on 22 January 2015³ and the DOE⁴ on 06 October 2015. This current version of the MOPS provided the basis for evaluation of the MO's performance since 2015.

2.2. MO Performance Standards

The MO performance standards are classified into six (6) categories with corresponding weights, as follows:

- | | | | |
|----|---|---|-----|
| 1. | Information Technology (IT) Systems | - | 20% |
| 2. | Market Reports and Data Publication | - | 15% |
| 3. | Forecast Accuracy | - | 20% |
| 4. | Dispatch Scheduling and Pricing | - | 20% |
| 5. | Billings, Settlements and Accounts Management | - | 15% |
| 6. | Registration and Customer Relations | - | 10% |

2.3. Monitoring Timeline

The monitoring timeline is concurrent with the monthly WESM billing and settlement timetable, i.e. beginning every 26th day of each month and ending on the 25th day of the next month, and begins every 26th of September of the previous year to the 25th of September of the current year.

The annual monitoring period is divided into four (4) quarters. Table 1 provides the billing months covered in each monitoring period.

Table 1. Quarterly Monitoring Periods

Monitoring Period	Covered Billing Months
Q1 (4Q previous year)	September 26 to December 25
Q2 (1Q current year)	December 26 to March 25
Q3 (2Q current year)	March 26 to June 25
Q4 (3Q current year)	June 26 to September 25

³ PEM Board Resolution No. 2015-03

⁴ DOE Letter dated 06 October 2015 (DOE-ZYM-15000176) received by PEMC on 27 October 2015

2.4. Data Collection and Validation

Data and supporting information were collected from the relevant MO departments. Validations were conducted by cross-checking other data sources and verification of supporting documents, logs and publications, as possible.

2.5. Evaluation and Reporting

The scoring system under the MOPS provides the specific range of raw scores corresponding each score per category and the basis for the quantitative evaluation of the MO's performance (see Appendix A). Provided below is the score guide for each level of performance from highest to lowest:

Table 2. Score Guide

Score	Description
5	Excellent
4	Very Satisfactory
3	Satisfactory
2	Needs Improvement
1	Poor

Performance monitoring reports are submitted on a quarterly and annual basis to the MO, PEM Audit Committee (PAC), PEM Board, and Department of Energy (DOE). The annual monitoring report is published in the PEMC website.⁵

⁵ The 2014 Annual MOPS Report was audited during the 5th Independent Market Operations Audit in 2015. The 2015 and 2016 Annual MOPS Reports have been audited during the 6th Independent Market Operations Audit in 2017.

3. Categories and Ratings

3.1. IT Systems

IT systems cover the availability to market participants of the Market Management System (MMS) and the public WESM website, which is referred to as the market information website under the WESM Rules. Table 3 provides the summary of how the MO fared under the measures in this category.

Table 3. IT Systems Performance Ratings

Section	Sub-Category	Target		Actual		Score
3.1.1	Market Management Systems Availability	99.80%	8,742.48 hrs out of 8,760 hrs	99.996%	8,759.68 hrs; 0.32 hrs downtime	5
3.1.2	WESM Website Availability	99.50%	8,716.20 hrs out of 8,760 hrs	99.95%	8,755.40 hrs; 4.60 hrs downtime	5

The MMS and public WESM website are being administered, maintained and monitored 24x7 to ensure that the market results are available and published on time. Participants' complaints or concerns regarding these systems are reported to the MO through phone calls or emails. In addition, any system malfunction or errors detected internally are likewise immediately reported and addressed.

Unavailability of the MMS that was caused by third party service providers, such as electricity supply and communication link providers of MO, are excluded from the MOPS.

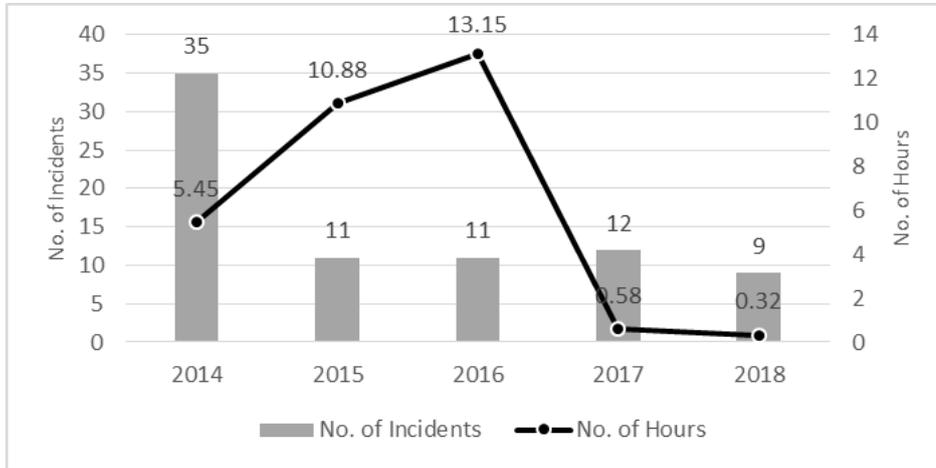
3.1.1. Market Management System

The various IT components of the MMS is essential in the continuous and efficient communication of the market systems, gathering of market workflow inputs, dispatch scheduling, processing and publication of market outputs and emergency systems.

A total of 0.32 hours (19 minutes) downtime were recorded in 2018. These downtimes were due to the manually restarting of the MMS-Market Participant Interface (MPI) application to resolve errors over 9 incidents. While these errors (e.g. related to MMS applications and database) do not by themselves cause the MPI to be inaccessible, the restarting of the MPI application to reboot the MMS rendered it inaccessible for about two (2) minutes. This could be likened to restarting a laptop when an application hangs.

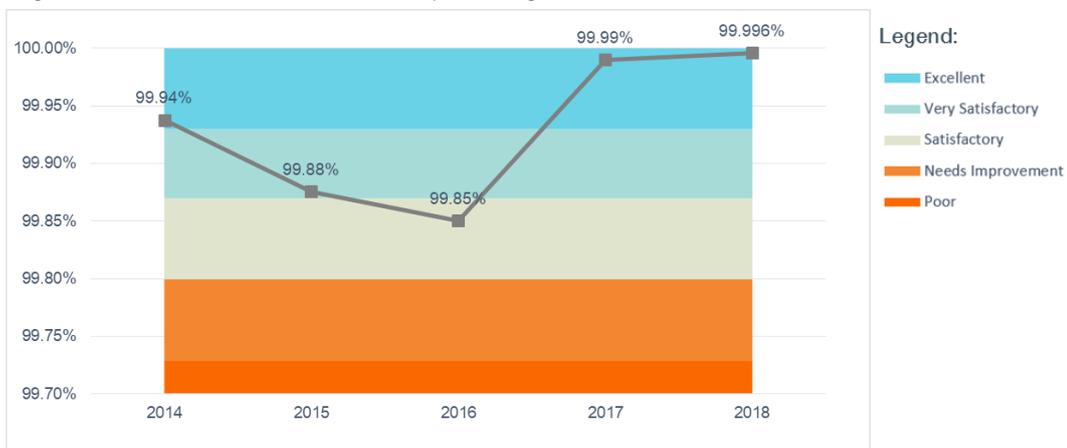
There is a significant decrease in the duration and number of downtimes from 2014 to 2018, as provided in Figure 1.

Figure 1. Total MMS Downtimes, 2014 to 2018



Considering the above-noted downtimes, the annual availability rating of the MMS for each year are provided in Figure 2. The MMS availability in 2018 is the highest rating since 2014 at 99.996%.

Figure 2. Annual MMS Availability Rating, 2014 to 2018



3.1.2. Public WESM Website

The public WESM website, or the Market Information Website, is the facility and electronic communication system wherein the MO publishes information that may be accessed by WESM Members, interested parties and the general public. It provides extensive information about the MO, WESM and Retail Competition and Open Access (RCOA), market operations and governance. It also makes available market data and operational reports, registration and training information, and various

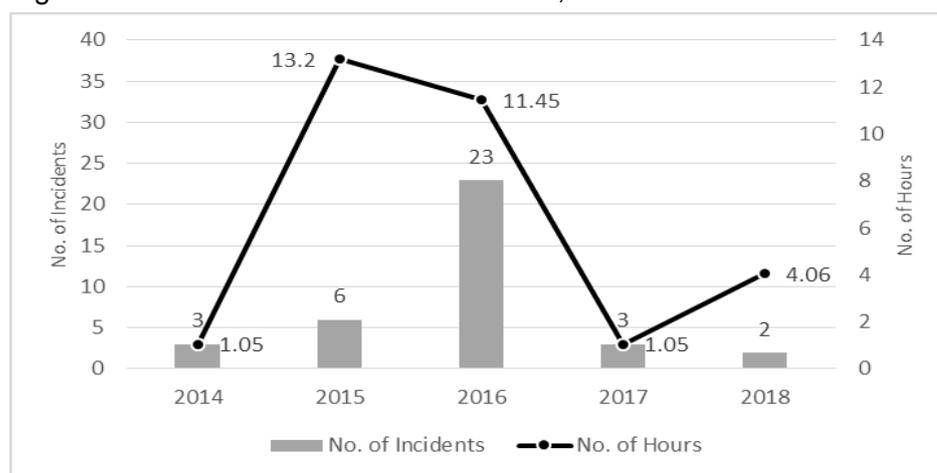
documents, including the relevant laws, issuances, rules, and manuals. During the monitoring period, the public WESM website is found at the www.wesm.ph.

The public WESM website also contains relevant publication such as news, notices, announcements, and information on events. It also has a platform, i.e. Ticketing System, wherein inquiries, concerns, and even complaints can be made electronically by any interested party.

In measuring its availability, downtimes refer to incidents when the public WESM website is not accessible due to errors caused by the MO's internal system and processes. Those attributed or caused by third parties are excluded since these are beyond the MO's control.

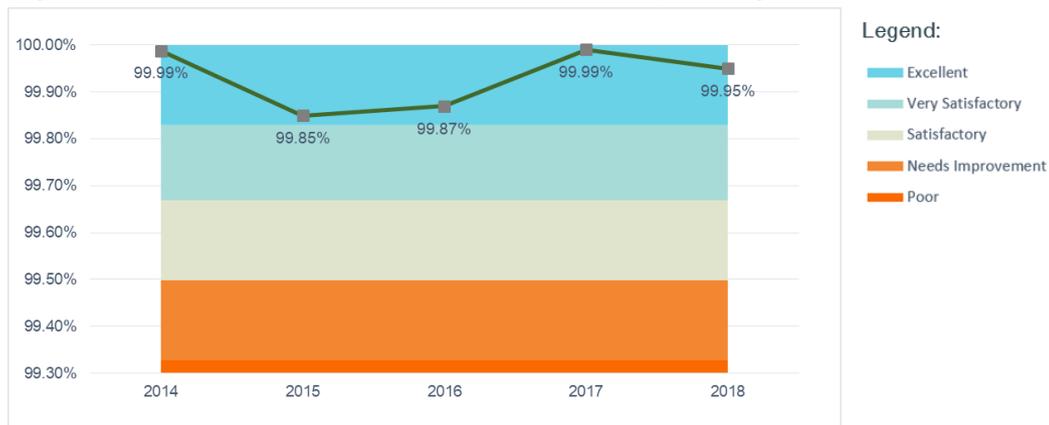
A total of 4.60 hours (276 minutes) downtime were recorded in 2018. These downtimes were hardware problems due to defective database system board over 2 incidents in February and July 2018. There is an increase in the duration of public website downtime from 2017 to 2018, as provided in Figure 3.

Figure 3. Total Public Website Downtimes, 2014 to 2018



The annual availability rating of the public WESM website for each year are provided in Figure 4. The public WESM website availability has consistently rated Excellent since 2014, with the rating in 2018 at 99.95%.

Figure 4. Annual Public WESM Website Availability Rating, 2014 to 2018



3.2. Market Reports and Data Publication

Market participants rely on market information for them to make informed business decisions, whether it be on electricity trading or making long term electricity industry investments. Readily available information are also helpful to the DOE and Energy Regulatory Commission (ERC) in their policy and regulatory decisions, respectively. Thus, making market information available through timely publication is essential in maintaining the transparency in the operations of the WESM.

The MO is required to publish various market information, in accordance with the WESM Rules, market manuals and policy/regulatory directives. The list of market information for publication is provided in Annex D of the MOPS document.

"Publication" as defined in the WESM Rules is "to make available information". While there are other means to make available information⁶, for the purposes of this MOPS monitoring, publication of market reports and data is interpreted to being made through the public WESM website, MPI, email, and newspaper of general circulation, as applicable. Note that publications through file transfer protocol (FTP) are monitored internally.

The requirement to publish market information, in market reports format or in data format, is measured under the MOPS based on availability and timeliness. Published market reports and data that were considered in the latter are those with a prescribed timeline for publication in corresponding enabling rules/guidelines. On the other hand, reports or data are considered available once published, including those that have remained unchanged since its first publication (such as WESM Manuals, e.g. procedures regarding constraint violation coefficients).

⁶ Publication is also done via data sharing or file transfer facility to market participants who have availed of this paid service. Data sharing or file transfers of MMS-generated and other market data and/or reports are provided to the monitoring systems of the DOE and ERC.

The summary on how the MO fared in this category is provided in Table 4. Publications excluded from the monitoring for availability and timeliness are shown in Table 5.

Table 4. Market Reports and Data Publication Performance Ratings

Section	Sub-Category	Details	Target	Actual	Score
3.2.1	Availability	45 publications (39 rated, 6 excluded)	95%	99.999%	4
3.2.1	Timeliness	33 publications (25 rated; 8 excluded)	95%	93.24%	4

Table 5. List of Market Information Excluded in the Rating

Required Publication (Reference Rules/Manuals)	Reason for Exclusion (in Measure)
1. Notice of Deregistered WESM Participants	No deregistered WESM Participant in 2017. (Availability and Timeliness)
2. Formulation of the Market Dispatch Optimization Model (MDOM)	Price Determination Methodology (PDM) published since 2Q 2012, particularly when the new public WESM website was launched. (Timeliness)
3. Real-Time System Condition or SO Advisory	Automated publication of data as soon as received from the SO. (Availability and Timeliness)
4. SO Advisory (Updated Daily or upon availability of verified/ complete information)	
5. Substitute prices for congestion-related pricing errors in the MPI near real-time	Not applicable since the MO has to analyze congestion relation pricing errors and publishes results within two (2) working days after the relevant trading day. (Availability and Timeliness)
6. Substitute prices for congestion-related pricing errors in the WESM website daily	Already covered in other publications. (Availability and Timeliness)
7. Other system data: Total energy dispatched, Total dispatchable load, Total reserve required per time point (for each class and area), Total system losses, Reserve requirements, Locational marginal prices	
8. Initial Loss Percentage	Documentation on initial loss percentage published since June 2015 (Timeliness)

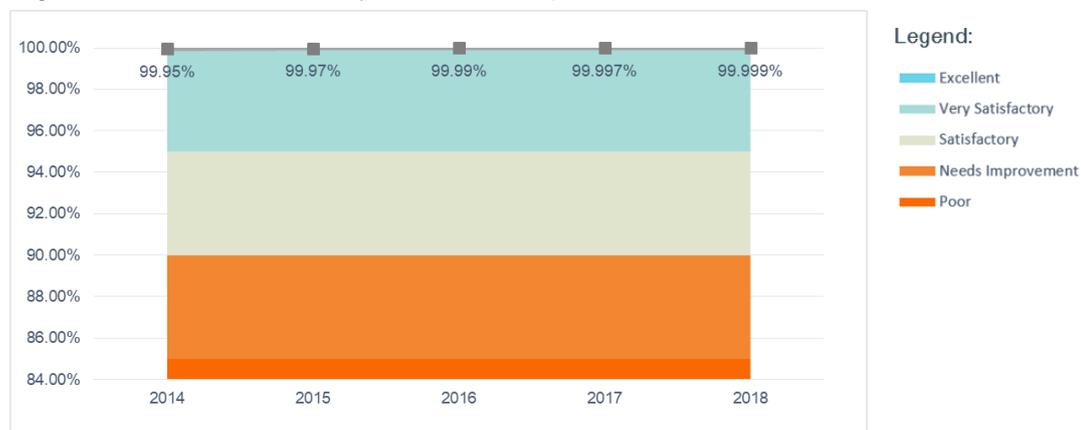
3.2.1. Availability of Market Reports and Data

Availability pertains to the actual number of publications against the total number of required publications for each of the 39 publications monitored. The average of the availability ratings for the 39 publications provides the basis for rating this measure, such that regardless of the volume of the published market information, all 39 publications have equal weights.

The availability rating for 2018 is at 99.999%, which is slightly higher than the ratings in previous years, as provided in Figure 5. While this is a very high rating, note that the MO will only be rated Excellent for this measure at a score of 100%. All 39

publications⁷ rated above 90%, which is the lowest rating in the satisfactory range for this measure.

Figure 5. Annual Availability of Market Reports and Data, 2014 to 2018



3.2.2. Timeliness of Market Reports and Data Publication

Timeliness of market information publication refers to the MO's compliance to the required timing of publication of market information in accordance to the schedules under the WESM Rules, Manuals, internal procedures or the MOPS document. Similar to the calculation of availability in Section 3.2.1, timeliness pertains to the actual number of timely publications against the total number of required publications for each of the 25 publications monitored. The average of the timeliness ratings for the 25 publications provides the basis for rating for this measure, such that regardless of the volume of the published information, all 25 publications have equal weights.⁸

The publications with ratings below the satisfactory range (90%) are as follows:

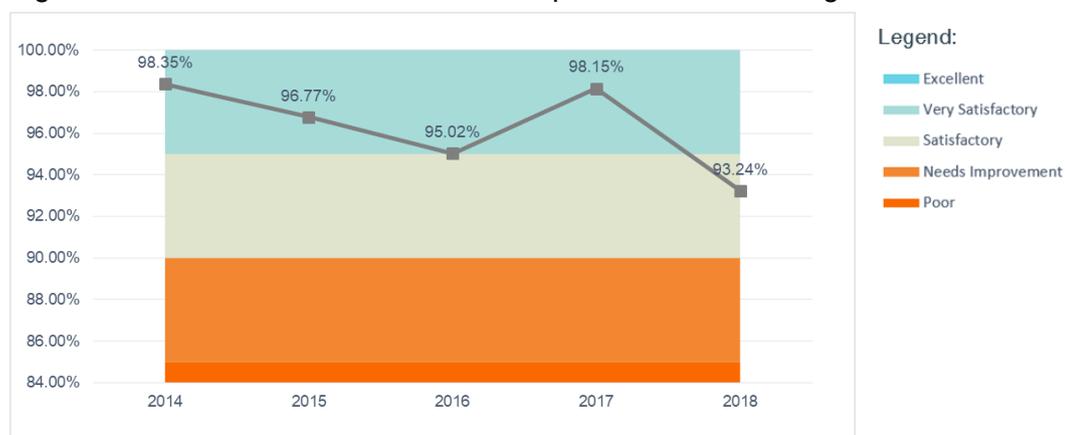
- (1) Review of the Underlying Factors Giving Rise to any Net Settlement Surplus, with the report published on 28 June 2018, which is two (2) days after the deadline on 26 June 2018. Rating is 0%.
- (2) Register of all WESM Members, with the late publication of seven (7) of 15 WESM registration and 154 of 276 RCOA membership entries. The timeline for publication is not later than one (1) business day from the issuance of notice. Rating is 44.67%.

⁷ Details of publications are provided in Appendix C

⁸ Details of publications are provided in Appendix B

The over-all timeliness rating of market reports and data in 2018 is 93.24%, as shown in Figure 6. This is the lowest timeliness rating since 2014. Note that the MO will only be rated Excellent for this measure at a score of 100%.

Figure 6. Annual Timeliness of Market Reports and Data Rating, 2014 to 2018



3.3. Forecast Accuracy

As cited in the 4th MO Audit Report on Market Software Testing, load forecasting is a key determinant of market prices and schedules, and therefore must be as accurate as is reasonably possible. Any difference between the forecast load and the actual load represents an economic cost to the market in that either too much or too little generation is scheduled.

The MO currently prepares and publishes week ahead (WAP), day ahead (DAP) and hour ahead (RTD) market projections to forecast load scenarios considering various factors (e.g. network service provider data, reserve requirements, generation offer, among others).

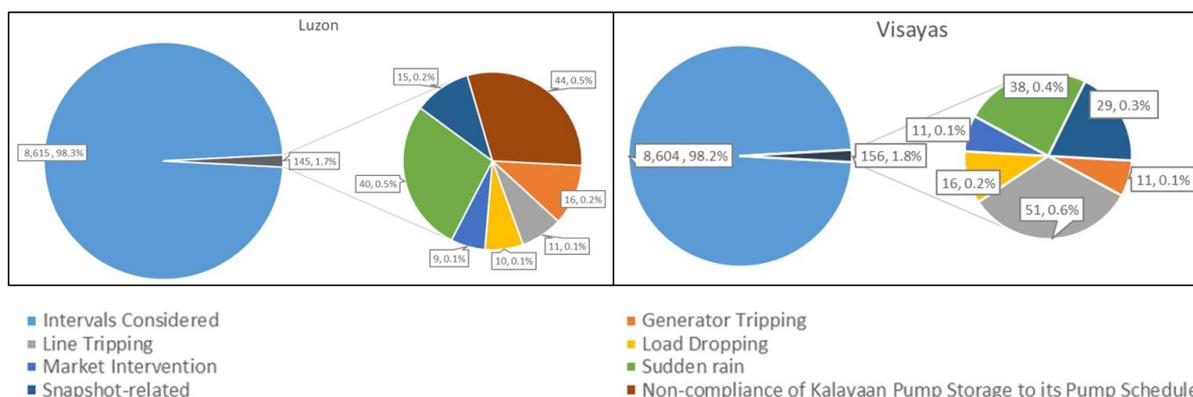
As provided in the MOPS, however, only the DAP and RTD projections shall be measured as to their accuracy. The RTD accuracy is measured in terms of Mean Absolute Percentage Error (MAPE) and Forecast Accuracy Rate (FAR) while the DAP accuracy is measured with the MAPE only. Both RTD and DAP are measured per region, i.e. Luzon and Visayas. The ratings for these sub-categories are provided in Table 6.

Table 6. Forecast Accuracy Performance Ratings

Section	Sub-Category	Target	Region	Actual	Score
3.3.1	RTD Forecast - MAPE	0.95%	Luzon	0.74%	4
		1.20%	Visayas	0.99%	4
	RTD Forecast - FAR	97.20%	Luzon	99.22%	5
		93.00%	Visayas	96.46%	4
3.3.2	DAP Forecast - MAPE	1.60%	Luzon	1.25%	4
		2.20%	Visayas	1.73%	5

The assessment of forecast accuracy in this report considered exclusions that were provided in the MOPS. 8,615 intervals out of the 8,760 total intervals were considered for the purpose of this monitoring of the forecast accuracy in Luzon, while 8,604 were considered in Visayas. Figure 7 provides the number of trading intervals considered and excluded in the monitoring of forecast accuracy.

Figure 7. Trading Intervals Considered and Excluded in 2018



3.3.1. RTD Forecast

The hour ahead forecast or the RTD forecast is one (1) of the variables that are used to determine the ex-ante schedules and prices for the target trading interval. For clarity, it is noted that the data used in the computation of RTD forecast accuracy is the MMS generated forecast for Luzon and Visayas.⁹ The said regions are measured separately since RTD is published on a regional basis. The accuracy is measured against the actual demand based on snapshot data of all generators at minute 59,¹⁰ as follows:

- MAPE - reflects the average of the absolute percent difference between the actual and forecasted demand across all intervals
- FAR - reflects the number of intervals in percent wherein the forecast is within the MAPE tolerance level, which is set at $\pm 3\%$.

As provided in Figure 8, the Luzon RTD-MAPE has been consistently within the Very Satisfactory range. For 2018, the raw score is at 0.74%, which is the highest RTD

⁹ Previously, hourly load forecasts that are inputs to the MMS (LDF or LDP) were used, in accordance with the MOPS, Issue 1.0.

¹⁰ In the absence of 59th minute snapshot data, the 54th minute snapshot data before the target hour or the 4th minute snapshot data of the target trading interval could be used. As an example, the 1559H or 1554H or 1604H snapshot data shall be used as actual demand for the 1600H interval.

MAPE since 2015.¹¹ On the other hand, Figure 9 shows that the RTD-MAPE in Visayas in 2018 is still Satisfactory at 0.99%, which is the highest rating since 2015.

Figure 8. Annual RTD-MAPE for Luzon, 2015 to 2018

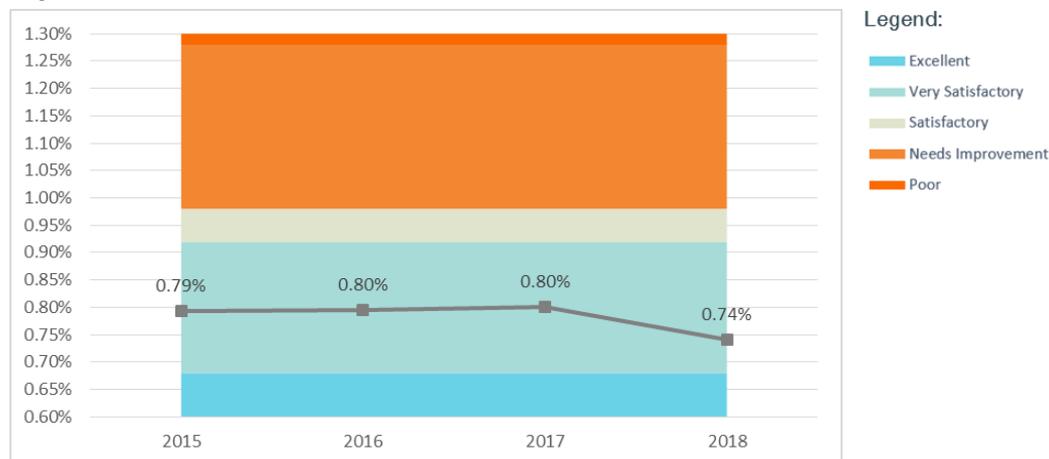


Figure 9. Annual RTD-MAPE for Visayas, 2015 to 2018



Of the 8,615 intervals considered in Luzon and 8,604 intervals considered in Visayas, there were 67 and 305 intervals, respectively, that had RTD forecasts beyond the +/- 3% MAPE tolerance level.

As provided in Figure 10 and Figure 11, this resulted to RTD-FARs of 99.22% and 96.46% in Luzon and Visayas, respectively. The rating for Luzon has consistently been in the lower bounds of the Excellent range since 2015. On the other hand, the RTD-FAR in Visayas has greatly improved, since rating 89.70% (Needs Improvement) in 2016.

¹¹ 2014 RTD-MAPE ratings are not provided since these were based on a different rating system under the previous MOPS version (2013).

Figure 10. Annual RTD-FAR for Luzon, 2015 to 2018

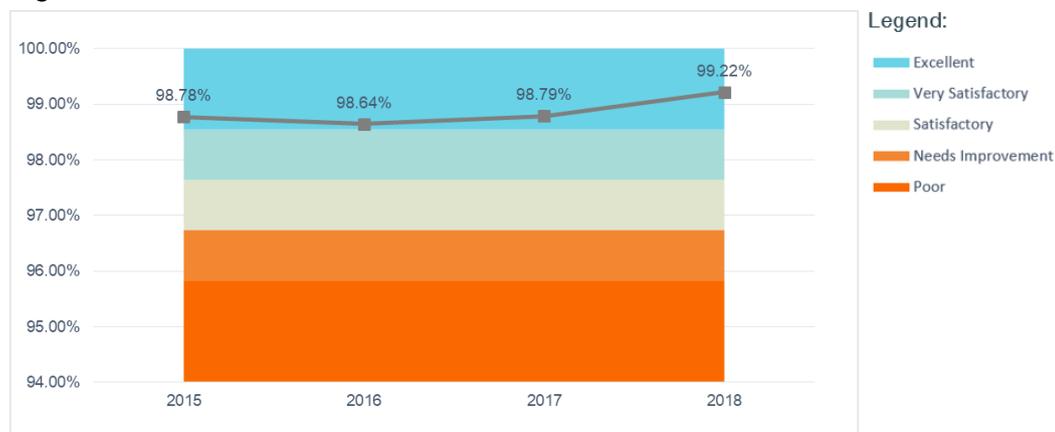
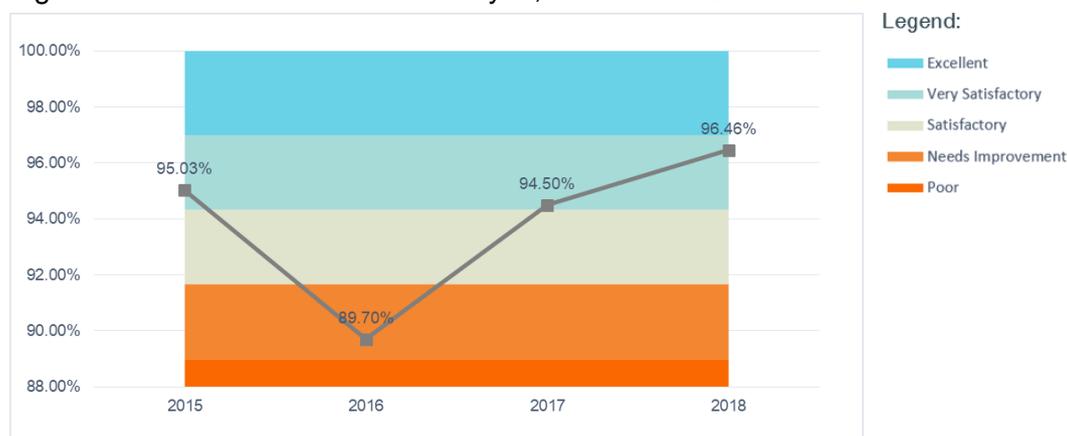


Figure 11. Annual RTD-FAR for Visayas, 2014 to 2018

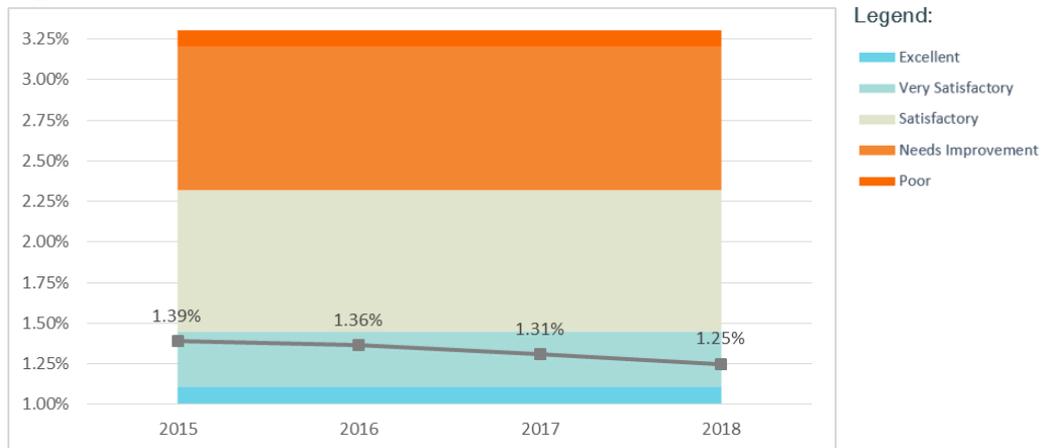


3.3.2. DAP Forecast

The DAP MAPE is used to measure the accuracy of DAP forecast. For clarity, the data used in the computation of DAP MAPE is the Similar Day Load Forecast (SDLF) Demand for Luzon and Visayas. Similar with the computation of RTD forecast, the accuracy of DAP forecast is measured against the actual demand based on snapshot data of all generators at minute 59. Further the same exclusions in the RTD forecasts are applied in the DAP forecasts.

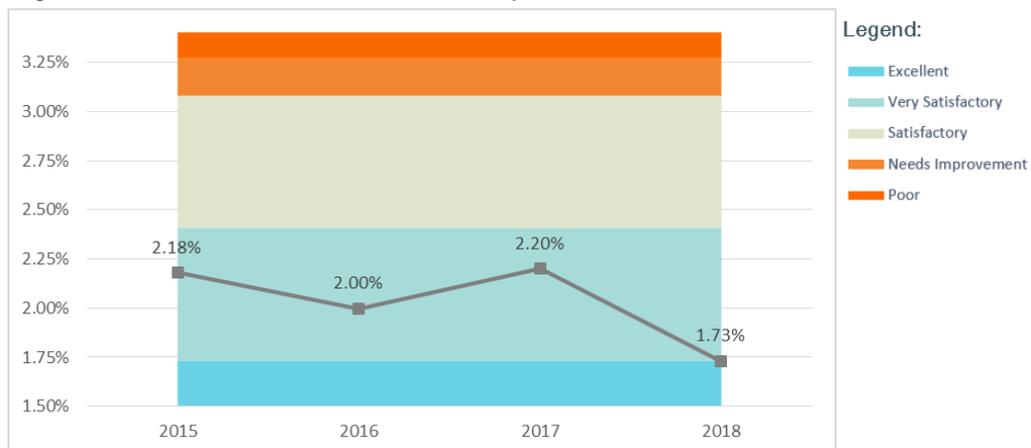
As provided in Figure 12, the DAP-MAPE ratings for Luzon was maintained in the Very Satisfactory range with the rating for the year at 1.25%, which is the highest year-end rating since 2015.

Figure 12. Annual DAP-MAPE for Luzon, 2015 to 2018



Similarly, the highest year-end rating for DAP-MAPE in Visayas was recorded in 2018 at 1.73%. As shown in Figure 13, this is right on the boundary of the Excellent range.

Figure 13. Annual DAP-MAPE for Visayas, 2015 to 2018



3.4. Dispatch Scheduling and Pricing

This category deals with the market scheduling and pricing performance by the MO. It is particularly important that market processes be properly managed because of its impact to participant behavior and market outcome. As such, this category is measured in terms of the success in implementing RTD and real-time ex-post (RTX) workflow processes, timeliness of pricing error issuance and the duration of market intervention (MI) attributable to the MO, as provided in Table 7.

Table 7. Dispatch Scheduling and Pricing Performance Ratings

Section	Sub-Category	Target	Actual	Score
3.4.1	RTD Workflow Successful Run	99.75%	100%	5
3.4.2	RTX Workflow Successful Run	99.75%	100%	5
3.4.3	Timeliness of Pricing Errors and Market Re-runs before the issuance of Preliminary Statements	98.50%	100%	5
	Timeliness of Pricing Errors and Market Re-runs before the issuance of Final Statements	99.50%	100%	5
3.4.4	Number of Market Intervention (MI) Attributable to MO	≤ 14	9	4

3.4.1. RTD Workflow

Since the RTD workflow process is run at an hourly interval, its success rate is evaluated by the number of trading intervals with resulting schedule completed within the timetable. These include RTD runs that were manually run by PEMC within the timetable.

Under the MOPS, unsuccessful RTD runs that are attributable to factors beyond the control of MO (e.g. attributable to the SO and communication failure by service providers) are excluded from the calculations. Further, RTD runs with MI attributable to the MO are excluded in the trading intervals considered.

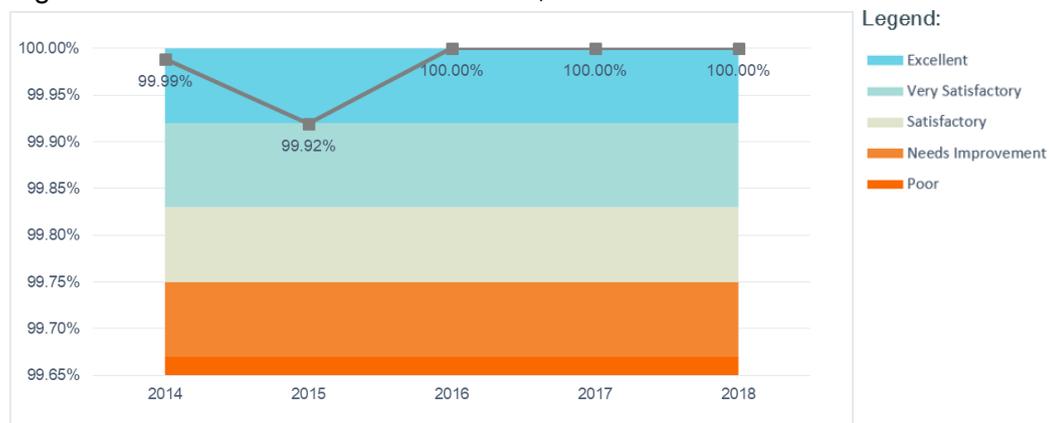
The MO maintained a 100% success rate for RTD workflow runs from 2014 to 2018. For the current year, the excluded trading intervals due to the occurrence of market intervention include those attributed to the MO in Section 3.4.4.

3.4.2. RTX Workflow

The ex-post run or RTX workflow is measured in the same manner as with the RTD workflow process.

The MO rated 100% success rate for RTX workflow runs in 2018. Figure 14 provides that the rating for this measure improved from 2014.

Figure 14. Annual RTX Successful Runs, 2014 to 2018

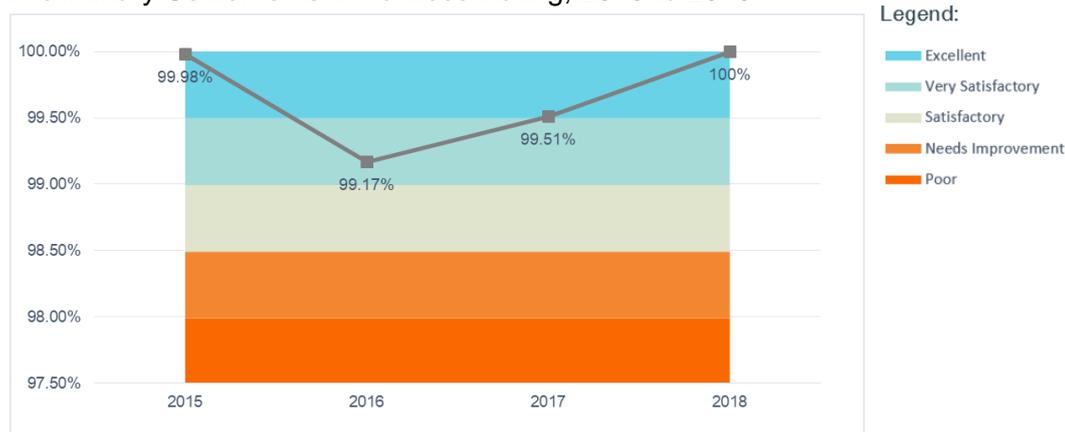


3.4.3. Pricing Errors and Market Re-runs

This sub-category particularly refers to the process of validation of intervals with PENs and the timely completion of market re-runs (MRR) prior to the issuance of preliminary and final settlements for Luzon and Visayas.

For the submission of prices prior the preliminary settlements, the MO rated 100% in 2018, which is the highest rating since 2015, as provided in Figure 15.¹²

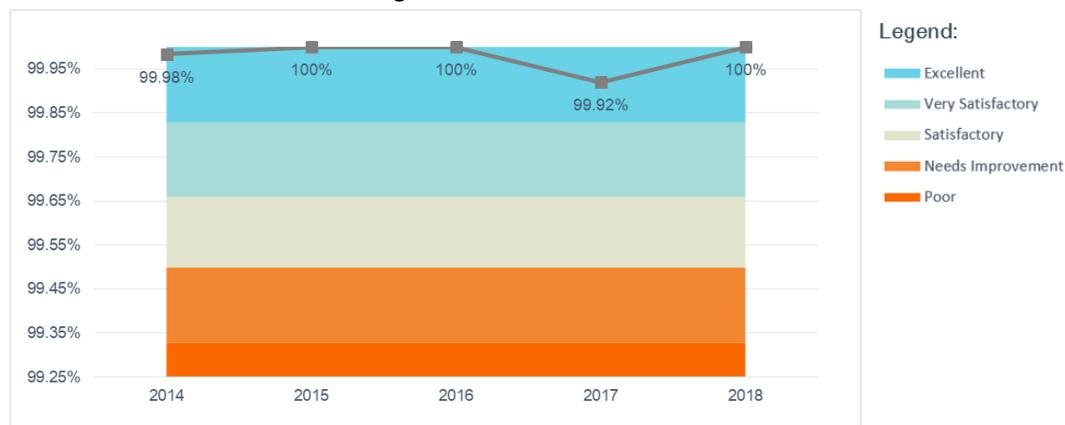
Figure 15. Annual Issuance of Pricing Errors and Conduct of Market Re-runs for Preliminary Settlements Timeliness Rating, 2015 to 2018



As provided in Figure 16, the timeliness rating for the issuance of prices for the final settlements this year is at 100%, which is higher than the rating in 2017.

¹² This measure was monitored starting in 2015, thus, there is no rating for this measure in 2014.

Figure 16. Annual Issuance of Pricing Errors and Conduct of Market Re-runs for Final Settlements Timeliness Rating, 2014 to 2018



3.4.4. Market Intervention Attributable to MO

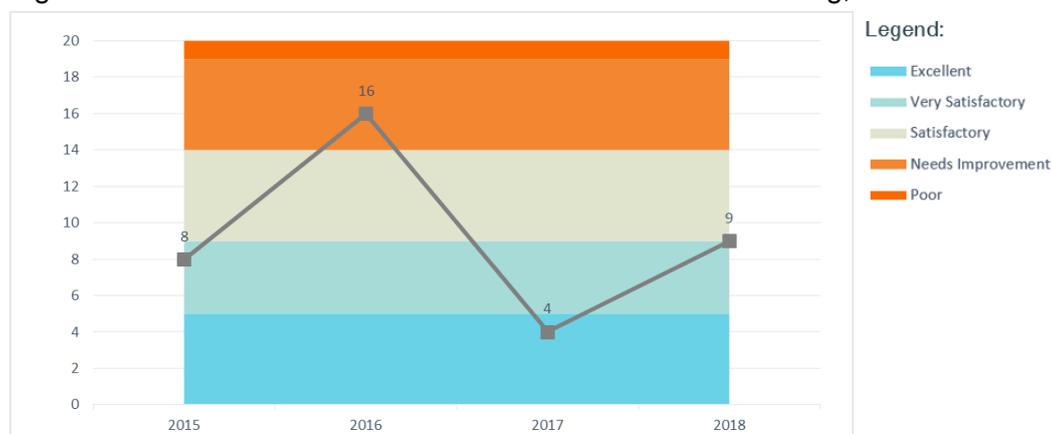
The duration or frequency of market interventions (MIs) that are attributable to the MO is being monitored to ensure that the WESM is operational 24x7. The allowable number of MIs in a year is equal to or less than 14 trading intervals.

The market interventions in 2018 that were attributable to the MO occurred during the following intervals:

- 0800H to 1400H on 30 November 2017 due to un-implementable RTD schedule (7 intervals);
- 0100H on 06 April 2018 due to un-implementable RTD schedule (1 interval); and
- 0400H on 12 April 2018 due to the business continuity simulation drill (1 interval).

The total nine (9) intervals with MO-attributable MIs is higher than the four (4) in 2017, as shown in Figure 17.

Figure 17. Annual Market Intervention Attributable to MO Rating, 2014 to 2018



3.5. Billings, Settlements and Accounts Management

This category is related to the financial aspect of the WESM operations. It is essential that the MO handle financial transactions of the WESM with utmost integrity and efficiency considering the possible financial impact of the transactions to the Market Participants. The MOPS provides that this category be measured in terms of timeliness, frequency and accuracy. The ratings for the sub-categories under this major category are summarized below.

Table 8. Billings, Settlement and Accounts Management Performance Ratings

Section	Sub-Category	Target	Actual	Score
3.5.1	Timeliness of Preliminary and Final Settlement Statements	98%	99.79%	5
3.5.2	Accuracy of Preliminary Settlement Calculations	95%	92.67%	1
	Accuracy of Final Settlement Calculations	99%	100%	5
	Frequency of Final Settlement Adjustments	≤ 6	0	5
3.5.3	Timeliness of Meter Data Error Detection	98%	100%	5
0	Remittance Efficiency	0 amount late	0 amount late	5
	Timeliness of Monetary Transactions	0 days late	0 days late	5
3.5.5	Timeliness of Margin Call	100%	100%	5
	Timeliness of Default Notice	0 days late	0 days late	5

For reference, Table 9 provides the relevant dates and WESM billing periods that are covered in Sections 3.5.1 to 3.5.2.

Table 9. WESM Billing Periods

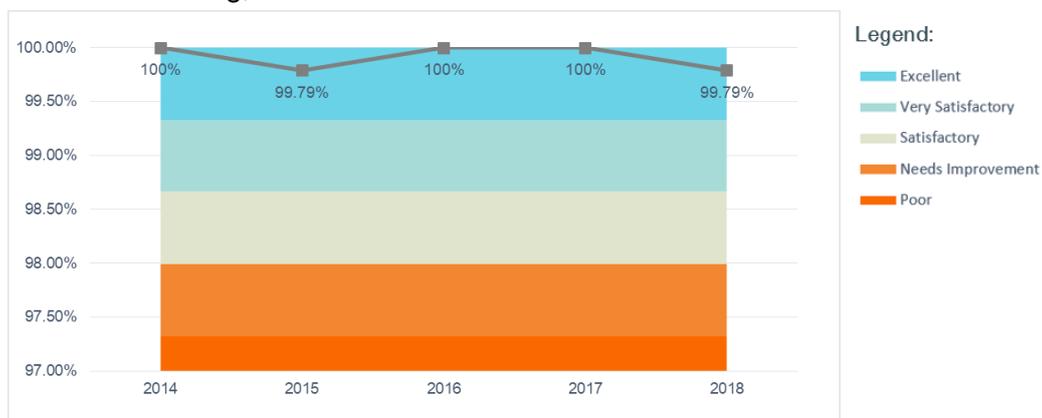
Monitoring Period	Covered Billing Periods	Billing Period	Dates
Q1 26Sep17 - 25Dec17	135 – 137	135	26 August 2017 to 25 September 2017
Q2 26Dec17 - 25Mar18	138 – 140	136	26 September 2017 to 25 October 2017
Q3 26Mar18 - 25Jun18	141 – 143	137	26 October 2017 to 25 November 2017
Q4 26Jun18 - 25Sep18	144 – 146	138	26 November 2017 to 25 December 2017
		139	26 December 2017 to 25 January 2018
		140	26 January 2018 to 25 February 2018
		141	26 February 2018 to 25 March 2018
		142	26 March 2018 to 25 April 2018
		143	26 April 2018 to 25 May 2018
		144	26 May 2018 to 25 June 2018
		145	26 June 2018 to 25 July 2018
		146	26 July 2018 to 25 August 2018

3.5.1. Timeliness of Preliminary and Final Settlement Statements

The WESM Rules require that Preliminary Settlement Statements are issued within seven (7) days after the end of each billing period. It also provides that the issuance of Final Settlement Statements should not be later than 18 days after the end of each billing period. Further, if the deadline falls on a Non-Working Day, the issuance of the settlement statements shall be made during the next immediate Working Day.

The MO scored 99.79% timeliness rating for the issuance of Preliminary and Final Statements in 2018, which is lower than the rating in 2017. The final settlement statement for the 146th Billing Month was issued one (1) day late on 13 September 2018. Figure 18 presents the annual timeliness ratings from 2014 to 2018.

Figure 18. Annual Issuance of Preliminary and Final Settlement Statements Timeliness Rating, 2014 to 2018



3.5.2. Accuracy of Preliminary and Final Settlement Calculations

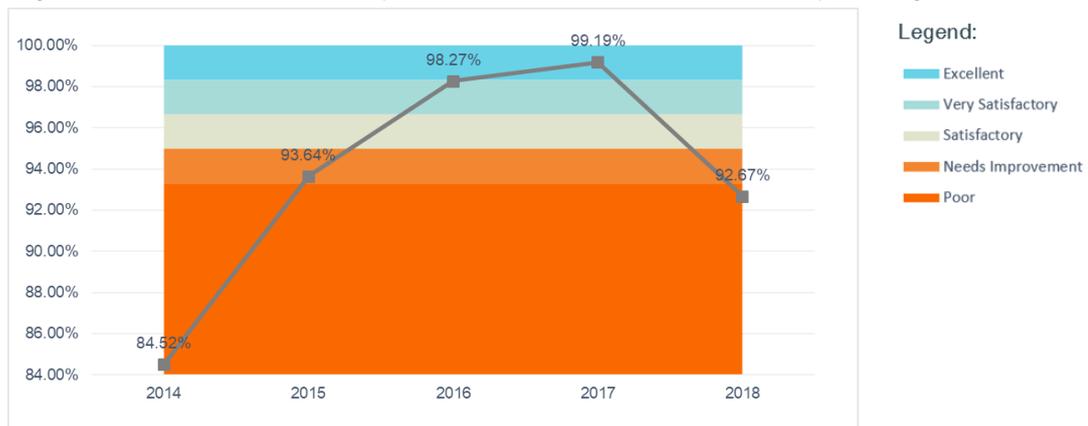
Given the possible financial impact of WESM settlement statements, the MO is rated according to the accuracy of issued billing statements. Accuracy rating of Preliminary Settlements is computed as the mean of the absolute percentage error of the preliminary settlement total trading amount (TTA) and the final settlement TTA per participant invoice.

The adjustments related to claims for additional compensation for Administered Prices (AP) and must run units (MRUs) are excluded, as well as the adjustments due to corrections in meter quantities that are attributable to the metering service provider (MSP).

The accuracy rating of preliminary settlement statements for 2018 is at 92.67%. This low rating is due to the inaccurate March 2018 Preliminary Settlements caused by the improper mapping of market trading node in the program for site-specific loss adjustment (SSLA). It is noted that the error was rectified in the final settlement statement for the said billing period.

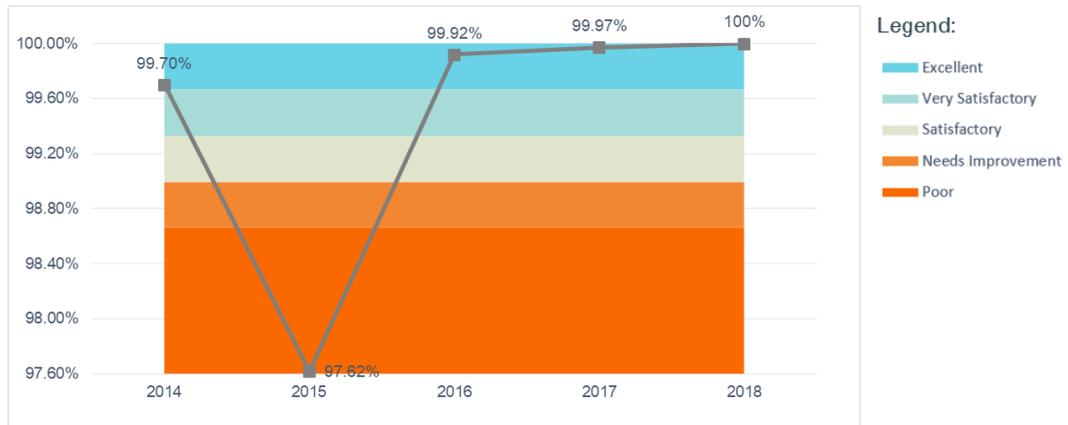
As shown in Figure 19, this year's rating is higher than the lowest rating of 84.52% in 2014, however, the performance this year is still rated as Poor.

Figure 19. Annual Preliminary Settlement Statements Accuracy Rating, 2014 to 2018



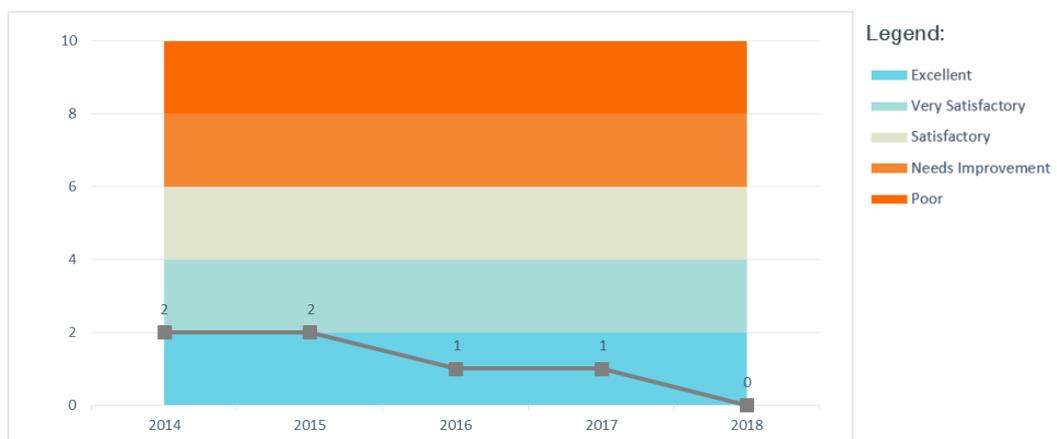
On the other hand, the accuracy rating for Final Settlements in 2018 is at 100%, with no adjustments attributed to the MO. As shown in Figure 20, this is the highest accuracy rating for final settlement statements since 2014.

Figure 20. Annual Final Settlement Statements Accuracy Rating, 2014 to 2018



Final settlement statements are also evaluated according to the number of adjustments in the final settlement calculations with the target being less than 6 adjustments per year. As shown in Figure 21, there were no adjustments in final settlement calculations in 2018, which is consistent with the accuracy rating for final settlements.

Figure 21. Annual Frequency of Adjustments in Final Settlement Calculations, 2014 to 2018



3.5.3. Meter Data Error Detection

The MO is also evaluated in terms of its ability to detect meter data errors through the timely issuance of Meter Trouble Reports (MTRs) within four (4) calendar days after receipt of meter data from the Metering Services Provider (MSP).

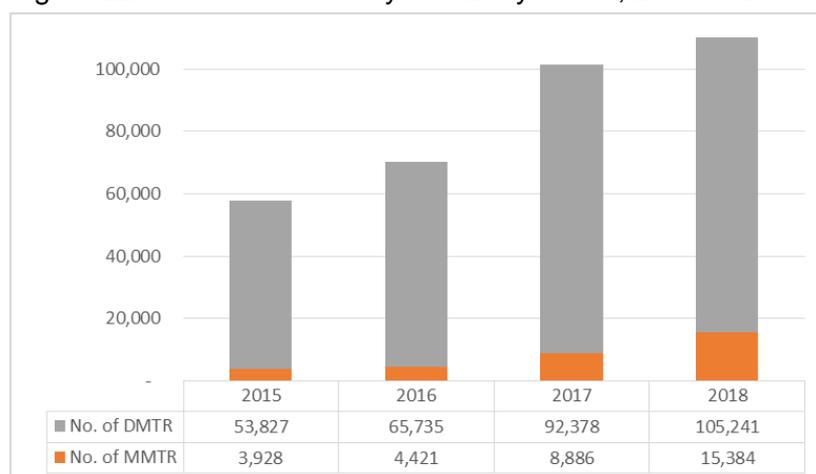
The MO receives daily meter quantities (MQ) electronically in Meter Data Exchange Format (MDEF – a software format) and monthly MQ via compact disc (CD) in Excel format from the MSP. The daily MQ is used for daily monitoring, processing and validation while the formatted-excel MQ is used for monthly settlement in the WESM.

In cases where there exists orphan¹³ meter data and meter data with uncertain and missing values¹⁴, the MO will issue an MTR to the MSP. In turn, the MSP should issue the corrected daily meter data within ten (10) calendar days and monthly meter data within two (2) business days.¹⁵

Timeliness of the issuance of MTRs rated 100%, or Excellent, for the year and since 2014. While this is the case, there is a need to implement enhancements to the quality of metering data being received by the MO in consideration of the significant volume of MTRs and responsibility of the MSPs to provide accurate MQs.

The number of monthly (MMTR) and daily MTRs (DMTR) issued in 2018 for WESM and RCOA meters have increased from 2015 as shown in Figure 22. The number of MTRs is further categorized in Figure 23 based on the markets the meters are associated with. The latter figure shows that, in 2018, majority of the MMTRs are associated with WESM meters while most of the DMTRs are associated with RCOA meters.

Figure 22. Number of Monthly and Daily MTRs, 2015 to 2018

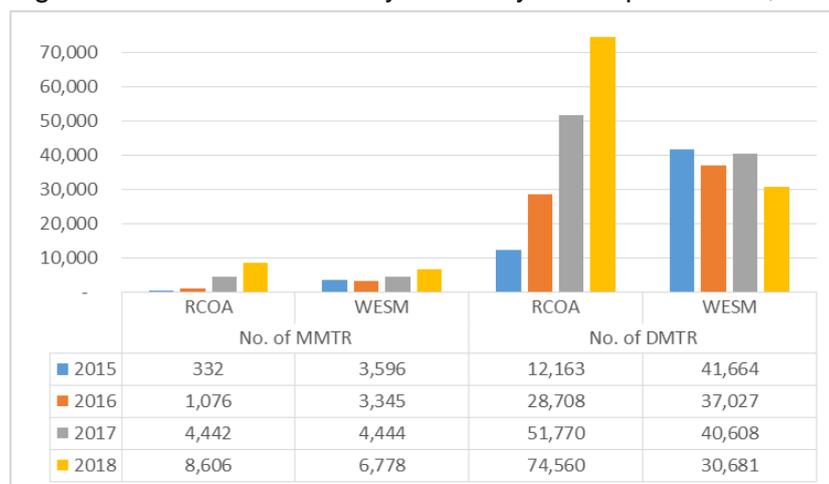


¹³ Values of the metered data whose meter is not registered in the MMS master lists are known as the "Orphan Values" (Section 7.3.2.3 of the WESM Manual on Metering Standards and Procedures).

¹⁴ Section 7.3.4 of the WESM Manual on Metering Standards and Procedures

¹⁵ Section 10.4.1.3-4 of the WESM Manual on Metering Standards and Procedures

Figure 23. Number of Monthly and Daily MTRs per Market, 2015 to 2018



3.5.4. Monetary Transactions and Remittance Efficiency

As provided in the MOPS and the WESM Billing and Settlements Manual, all monetary transactions must be remitted to WESM Members in accordance to the WESM settlement timetable, i.e. no later than 3:00 p.m. on the next business day following the day on which the MO is to be paid.

The MO has consistently rated Excellent in processing timely monetary transactions and ensuring that all payments received from buying Trading Participants are remitted to selling Trading Participants on time.

The total amount received and paid by the MO in 2018 is PhP 69.133 billion. It is interesting to note that the maximum amount of daily monetary transaction in 2018 is at PhP 8.462 billion and the minimum amount is at PhP 6.05.

3.5.5. Timeliness of Margin Calls and Default Notices

In accordance with the WESM Rules, the MO should verify whether each market participant has sufficient levels of prudential support to cover their financial trading activity in the spot market. If the actual exposure of a Market Participant exceeds its trading limit, then the MO shall issue a "Margin Call" to the Market Participant. As provided in the MOPS, the MO shall be evaluated according to the timeliness of issuing a notice for margin call to relevant WESM Member.

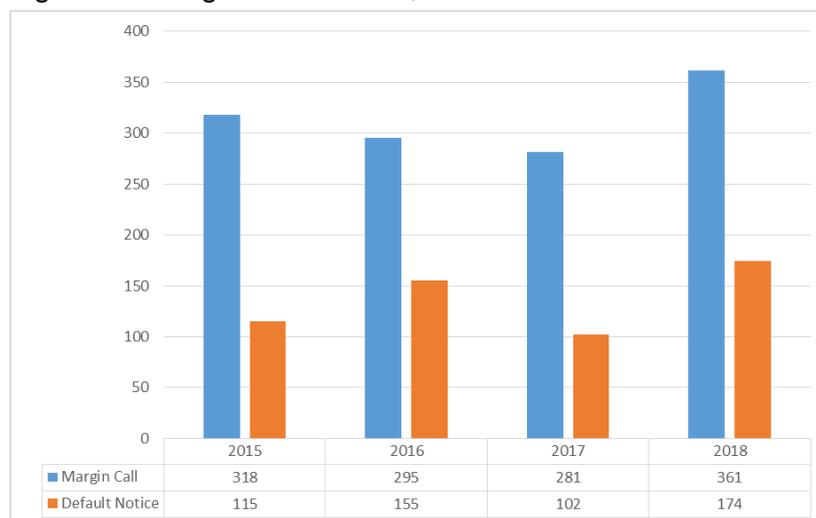
The MO target of margin call issuance is on or before the 20th of the next month after the billing period, i.e. for the billing month 26 January 2016 to 25 February 2016, margin calls should have been issued on or before 20 March 2016.

With regards the issuance of default notices, WESM Rule 3.14.11.2 requires the MO to issue a default notice, which specifies the nature of the alleged default, as soon as practicable, during any of the default events specified under WESM Rule 3.14.11.1. Further, the MO is required to disclose information pursuant to DOE DC No. 2013-07-0018 issued on 26 July 2013, Section 1.1.(a) containing the Settlement amount unpaid by the end of the month, and the specific WESM member that failed to pay the settlement amounts.

The MO has consistently rated Excellent in providing timely margin calls and default notices to Trading Participants.¹⁶ The list of WESM members with unpaid energy settlement amounts are published, as required, in the WESM website.

The number of margin calls and default notices issued by the MO in 2015 to 2018 are shown in Figure 24. The number of times that trading participants have breached their trading limits have increased. Further, the instances of non-payment have increased since 2015.

Figure 24. Margin Calls Issued, 2015 to 2018



¹⁶ Monitoring of timely default notices was implemented starting in 2015, under the current version of the MOPS.

3.6. Registration and Customer Relations

This category evaluates the MO in relation to its efficiency in addressing the concerns and requests of external parties, which may directly influence the perception of the market participants on PEMC as an organization, and WESM as a venue for trading electricity.

In summary, the ratings for the sub-categories under this major category are provided below.

Table 10. Registration and Customer Relations Performance Ratings

Section	Sub-Category	Target	Actual	Score
3.6.1	Timeliness of Processing Registration Applications	95%	100%	5
3.6.2	Timeliness of Processing Customer Switching Applications	95%	100%	5
3.6.3	Timeliness of the conduct of Participant Trainings	95%	100%	5
	Participant's Feedback re: Training	90%	97.45%	5
3.6.4	Timeliness in addressing Participant Queries and Data Requests	95%	99.19%	5
3.6.5	Timeliness in addressing Participant/ Customer Complaints	95%	96.88%	4

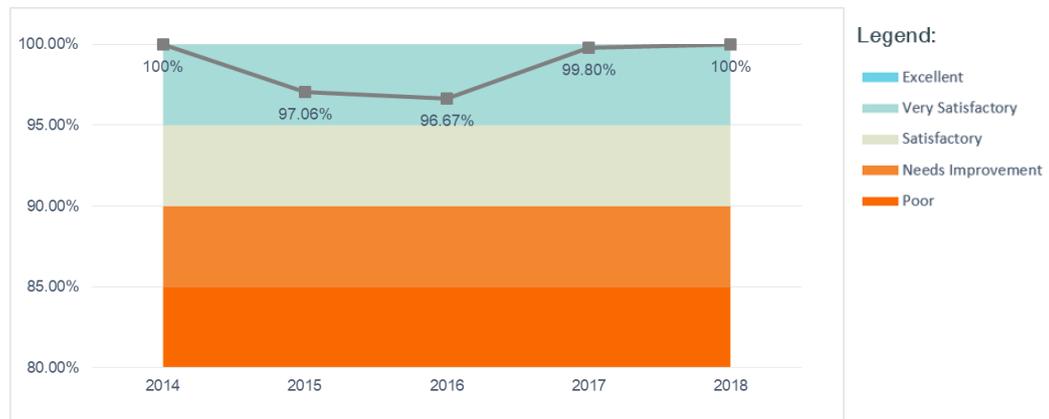
3.6.1. Registration Processing

The process of registration of the WESM participants under the WESM Rules is being implemented according to the following timeline:

- Within five (5) working days from receiving an application, the MO shall advise the applicant of any further information which the MO reasonably considers to be required to properly assess the application (WESM Rules, Clause 2.5.3.1);
- The MO shall send written notice of approval to the applicant within 15 working days from receipt of the application or the additional information or fees, if any;
- The registration of the applicant shall take effect on the date specified in the notice of approval which shall be a date not more than 7 working days after the date on which the MO sends the notice of approval.

In consideration of the above timelines, the MO fully met the target timeliness rating in 2018. As shown in Figure 25, this is greater than the rating last year. Note that the Excellent rating for this measure equals a 100% timely processing of registration applications.

Figure 25. Annual Processing Registration Applications Timeliness Rating, 2014 to 2018

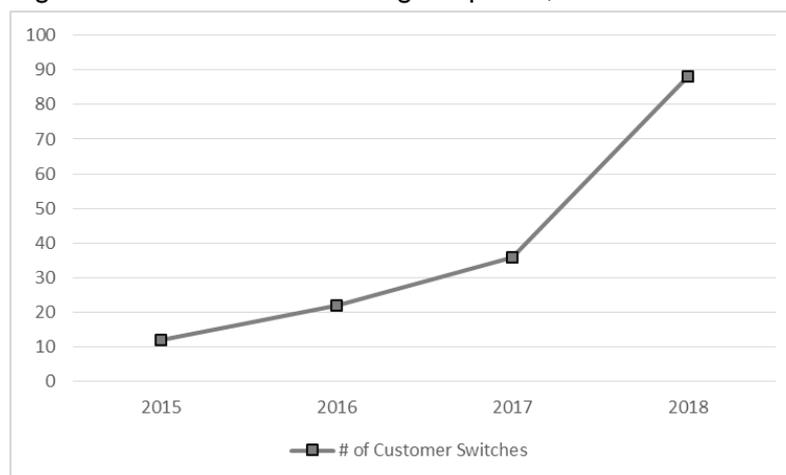


3.6.2. Customer Switching Requests

In accordance with the Retail Rules, customer switching requests should be processed by the MO, subject to the completion of all requirements, within 30 days prior to the proposed effective date.

The MO has consistently rated 100% (Excellent) in processing timely requests for customer switching since 2015.¹⁷ Figure 26 shows the increasing trend in the number of customer switching requests since 2015.

Figure 26. Customer Switching Requests, 2015 to 2018



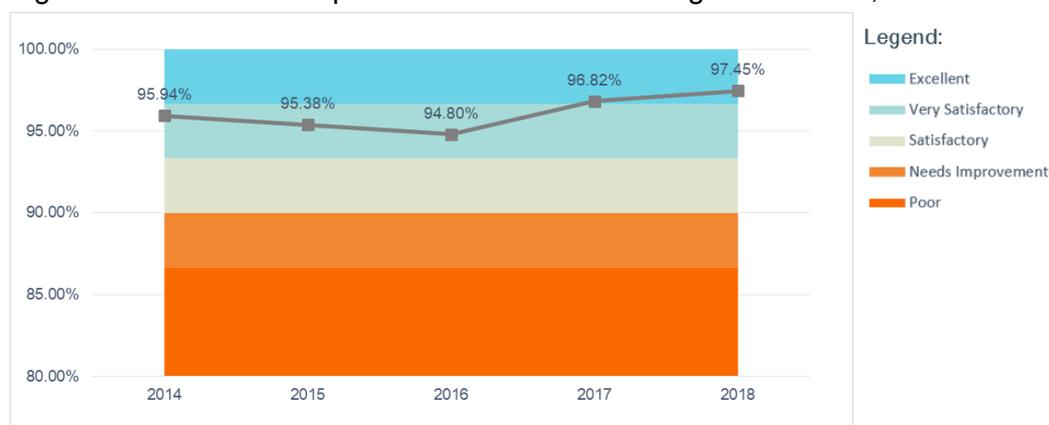
¹⁷ Customer switching timeliness was only measured starting in 2015, under the current MOPS.

3.6.3. Participants Feedback and Timeliness in the Conduct of Training

To gauge the effectiveness of trainings, their timely conduct and the participants' feedback on the trainer/speaker and other aspects of the training (e.g. logistics and materials), which are gathered through survey forms to rate, are monitored.

The MO has consistently rated Excellent in the timely conduct of trainings since 2014. In 2018, there were 48 trainings conducted with an average feedback of 97.45%. Figure 27 shows the participants' feedback from 2014 to 2018. The training feedback this year can be seen as the highest rating since 2014. This increase is attributed to the change in the scoring system for Training Feedback in 2017.

Figure 27. Annual Participants' Feedback on Trainings Conducted, 2014 to 2018

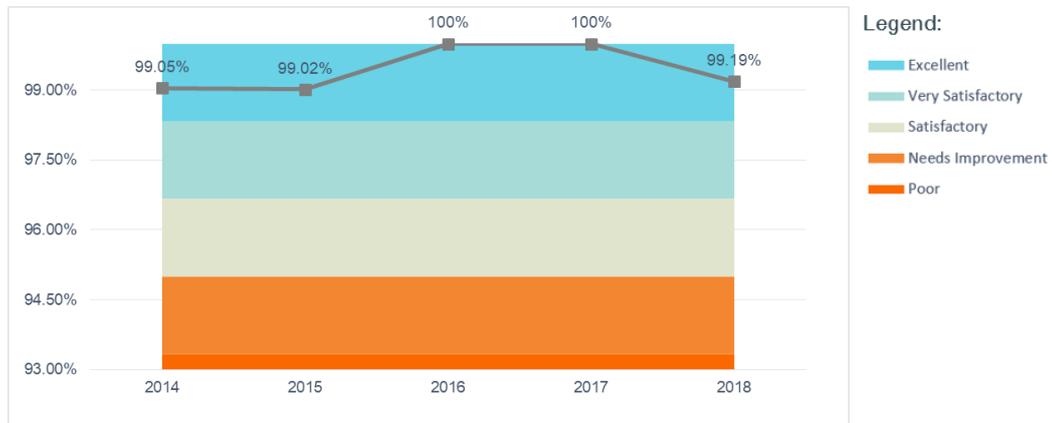


3.6.4. Participant Queries and Data Requests

The MOPS requires the MO to address queries and data requests in a timely manner. Queries and data requests may include requests for historical data, clarifications regarding WESM concepts and requests for in-depth analysis or simulations.

The MO processed 122 out of 123 queries/data requests within the required timeline, resulting to an annual rating of 99.19%. While this is lower than the ratings in 2016 and 2017, this is still within the Excellent range as provided in Figure 28.

Figure 28. Annual Processing Participant Queries and Data Requests Timeliness Rating, 2014 to 2018



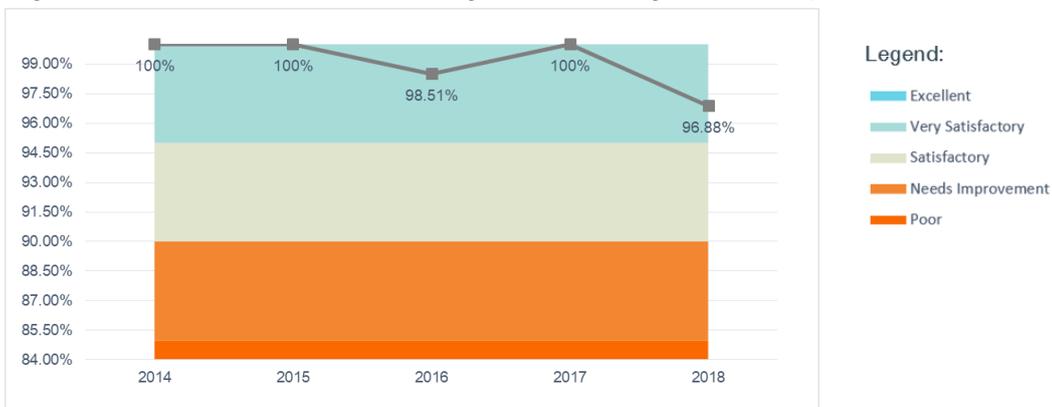
3.6.5. Participant/Customer Complaint

The MOPS provides that complaints by customers should be resolved in a timely manner, i.e. within 5 working days. The MOPS provides that customers refer to Trading Participants, which may be generation companies or customer/load, Network Service Provider, Metering Services Provider, the System Operator, Contestable Customers, Retail Metering Services Provider, Retail Suppliers, the DOE, and the ERC.

The complaints received are mostly related to the MO's IT systems, particularly the MPI and public WESM website, which are the main interface of the MO with the market participants.

The MO addressed 31 out of 32 valid complaints in 2018, rating 96.88% for the year. Figure 29 shows that this is the lowest rating since 2014.

Figure 29. Annual Timeliness Rating in addressing Valid Complaints, 2014 to 2018



4. Over-all MO Performance

The over-all performance of the MO in 2018 for the period 26 September 2017 to 25 September 2018 is Very Satisfactory, which is at par with the rating in 2017. The MO's performance rating in each performance category in 2018 and 2017 are summarized below.

The over-all MO performance rating is computed as the rounded-off sum of the weighted scores, which are computed from the equivalent scores multiplied by the assigned weights of the performance categories.

Table 11. MO Performance, 2017 and 2018

Category	Measure	Weight (%)	Target	2017		2018		Y-O-Y (Score)	
				Actual	Score	Actual	Score		
A. IT Systems									
Market Management Systems	Availability	15	99.80%	99.99%	5	99.996%	5	Excellent	■
WESM Website	Availability	5	99.50%	99.99%	5	99.95%	5	Excellent	■
B. Market Reports and Data Publication									
	Availability	5	95%	99.998%	4	99.999%	4	Very Satisfactory	■
	Timeliness	10	95%	98.22%	4	93.24%	3	Satisfactory	↓
C. Forecast Accuracy									
RTD Forecast - MAPE	Accuracy (L)	3.75	0.95%	0.80%	4	0.74%	4	Very Satisfactory	■
	Accuracy (V)	3.75	1.20%	1.14%	4	0.99%	4	Very Satisfactory	■
RTD Forecast - FAR	Accuracy (L)	3.75	97.20%	98.79%	5	99.22%	5	Excellent	■
	Accuracy (V)	3.75	93.00%	94.50%	4	96.46%	4	Very Satisfactory	■
DAP Forecast - MAPE	Accuracy (L)	2.5	1.60%	1.31%	4	1.25%	4	Very Satisfactory	■
	Accuracy (V)	2.5	2.20%	2.20%	4	1.73%	5	Excellent	↑
D. Dispatch Scheduling and Pricing									
RTD Workflow	Successful Run	2.5	99.75%	100%	5	100%	5	Excellent	■
RTX Workflow	Successful Run	2.5	99.75%	100%	5	100%	5	Excellent	■
Pricing Errors and Market Re-runs	Timeliness (Prelim)	2	98.50%	99.50%	5	100%	5	Excellent	■
	Timeliness (Final)	3	99.50%	99.92%	5	100%	5	Excellent	■
Market Intervention Attributable to MO	Duration	10	≤ 14	4	5	9	4	Very Satisfactory	↓
E. Billing, Settlements and Accounts Management									
Preliminary and Final Settlement Statements	Timeliness	2	98%	100%	5	99.79%	5	Excellent	■
Preliminary Settlement Calculations	Accuracy	2	95%	99.19%	5	92.67%	1	Poor	↓
Final Settlement Calculations	Accuracy	3	99%	99.97%	5	99.79%	5	Excellent	■
	Frequency	2	≤ 6	1	5	0	5	Excellent	■
Meter Data Error Detection	Timeliness	2	98%	100%	5	100%	5	Excellent	■
Monetary Transactions	Efficiency	1	0 amount late	0 late	5	0 late	5	Excellent	■
	Timeliness	1	0 days late	0 late	5	0 late	5	Excellent	■
Margin Call	Timeliness	1	95%	100%	5	100%	5	Excellent	■

Category	Measure	Weight (%)	Target	2017		2018			Y-O-Y (Score)
				Actual	Score	Actual	Score		
Default Notice	Timeliness	1	0 days late	0 late	5	0 late	5	Excellent	■
F. Registration and Customer Relations									
Registration	Timeliness	2	95%	99.81%	4	100%	5	Excellent	▲
Customer Switching	Timeliness	1	95%	100%	5	100%	5	Excellent	■
Participant Training	Timeliness	2	95%	100%	5	100%	5	Excellent	■
	Feedback	1	90%	96.82%	5	97.45%	5	Excellent	■
Participant Queries and Data Requests	Timeliness	2	95%	100%	5	99.19%	5	Excellent	■
Participant/ Customer Complaints	Timeliness	2	95%	100%	5	96.88%	4	Excellent	▼
Over-All Score					4		4	Very Satisfactory	■

Appendix A. Rating System References¹⁸

MO Performance Category	Measure	Rating System	Target	Ranges				
				Excellent 5	Very Satisfactory 4	Satisfactory 3	Needs Improvement 2	Poor 1
IT Systems (20%)								
Market Management Systems	Availability	RS 2a	99.80%	99.93%≤x≤100%	99.87%≤x<99.93%	99.80%≤x<99.87%	99.80%>x≥99.73%	99.73%>x
WESM Website	Availability	RS 2a	99.50%	99.83%≤x≤100%	99.67%≤x<99.83%	99.50%≤x<99.67	99.50%>x≥99.33%	99.33%>x
Market Reports and Data Publication (15%)	Availability	RS 3	95%	=100%	95% ≤ x < 100%	90% ≤ x < 95%	85% ≤ x < 90%	x < 85%
	Timeliness	RS 3	95%	=100%	95% ≤ x < 100%	90% ≤ x < 95%	85% ≤ x < 90%	x < 85%
Forecast Accuracy (20%)								
RTD Forecast - MAPE	Accuracy - Luzon	RS 4b	0.95%	x≤0.68%	0.68%< x<0.92%	0.92%≤ x ≤0.98%	0.98%< x<1.28%	x ≥1.28%
	Accuracy - Visayas		1.20%	x ≤0.86%	0.86%< x <1.17%	1.17%≤ x ≤1.23%	1.23%< x <1.65%	x ≥1.65%
RTD Forecast - FAR	Accuracy - Luzon	RS 2b	97.20%	x ≥98.55%	98.55%> x >97.65%	97.65%≥ x ≥96.75%	96.75%> x >95.85%	x ≤95.85%
	Accuracy - Visayas		93.00%	x ≥97.00%	97.00%> x >94.33%	94.33%≥ x ≥91.67%	91.67%> x >89.00%	x ≤89.00%
DAP Forecast - MAPE	Accuracy - Luzon	RS 4C	1.60%	x <1.11	1.11%< x <1.45%	1.45%< x <2.32%	2.32%< x <3.20%	x >3.20%
	Accuracy - Visayas		2.20%	x <1.73	1.73%< x <2.41%	2.41%< x <3.08%	3.08%< x <3.27%	x >3.27%
Dispatch Scheduling and Pricing (20%)								
RTD Workflow	Successful Run	RS 2a	99.75%	99.92%≤x≤100%	99.83%≤x<99.92%	99.75%≤x<99.83%	99.75%>x≥99.67%	99.67%>x
RTX Workflow	Successful Run	RS 2a	99.75%	99.92%≤x≤100%	99.83%≤x<99.92%	99.75%≤x<99.83%	99.75%>x≥99.67%	99.67%>x
Pricing Errors and Market Re-runs	Timeliness - Prelim	RS 2a	98.50%	99.50% <x<100%	99.50% <x<99.00%	98.50% <x<99.00%	98.50% <x<98.00%	98.00%>x
	Timeliness - Final	RS 2a	99.50%	99.83%≤x≤100%	99.67%≤x<99.83%	99.50%≤x<99.67%	99.50%>x≥99.33%	99.33%>x
Market Intervention Attributable to MO	Duration	RS 4a	14	5>=x>=0	9>=x>5	14>=x>9	14<x≤19	19<x

¹⁸ Refer to the MO Performance Standards Scoring System, Section 9, MOPS as approved by the DOE in October 2015

MO Performance Category	Measure	Rating System	Target	Ranges				
				Excellent 5	Very Satisfactory 4	Satisfactory 3	Needs Improvement 2	Poor 1
Billings, Settlements and Accounts Management (15%)								
Preliminary and Final Settlement Statements	Timeliness	RS 2a	98%	$99.33\% \leq x \leq 100\%$	$98.67\% \leq x < 99.33\%$	$98\% \leq x < 98.67\%$	$98\% > x \geq 97.33\%$	$97.33\% > x$
Preliminary Settlement Calculations	Accuracy	RS 2a	95%	$98.33\% \leq x \leq 100\%$	$96.67\% \leq x < 98.33\%$	$95\% \leq x < 96.67\%$	$95\% > x \geq 93.33\%$	$93.33\% > x$
Final Settlement Calculations	Accuracy	RS 2a	99%	$99.67\% \leq x \leq 100\%$	$99.33\% \leq x < 99.67\%$	$99\% \leq x < 99.33\%$	$99\% > x \geq 98.67\%$	$98.67\% > x$
	Frequency	RS 4a	≤ 6	$2 \geq x \geq 0$	$4 \geq x > 2$	$6 \geq x > 4$	$6 < x \leq 8$	$8 < x$
Meter Data Error Detection	Timeliness	RS 2a	98%	$99.33\% \leq x \leq 100\%$	$98.67\% \leq x < 99.33\%$	$98\% \leq x < 98.67\%$	$98\% > x \geq 97.33\%$	$97.33\% > x$
Monetary Transactions	Remittance Efficiency	RS 1	0 amount late	$x=0$				$x>0$
	Timeliness	RS 1a	0 days late	$x=0$				$x>0$
Margin Call	Timeliness	RS 2a	95%	$98.33\% \leq x \leq 100\%$	$96.67\% \leq x < 98.33\%$	$95\% \leq x < 96.67\%$	$95\% > x \geq 93.33\%$	$93.33\% > x$
Default Notice	Timeliness	RS 1	0 days late	$x=0$				$x>0$
Registration and Customer Relations (10%)								
Registration	Timeliness	RS 3	95%	$x=100\%$	$95\% \leq x < 100\%$	$90\% \leq x < 95\%$	$85\% \leq x < 90\%$	$x < 85\%$
Customer Switching	Timeliness	RS 3	95%	$x=100\%$	$95\% \leq x < 100\%$	$90\% \leq x < 95\%$	$85\% \leq x < 90\%$	$x < 85\%$
Participant Training	Timeliness	RS 3	95%	$x=100\%$	$95\% \leq x < 100\%$	$90\% \leq x < 95\%$	$85\% \leq x < 90\%$	$x < 85\%$
	Feedback	RS 2a	90%	$96.67\% \leq x \leq 100\%$	$93.33\% \leq x < 96.67\%$	$90\% \leq x < 93.33\%$	$90\% > x \geq 86.67\%$	$86.67\% > x$
Participant Queries and Data Requests	Timeliness	RS 2a	95%	$98.33\% \leq x \leq 100\%$	$96.67\% \leq x < 98.33\%$	$95\% \leq x < 96.67\%$	$95\% > x \geq 93.33\%$	$93.33\% > x$
Participant/ Customer Complaints	Timeliness	RS 3	95%	$x=100\%$	$95\% \leq x < 100\%$	$90\% \leq x < 95\%$	$85\% \leq x < 90\%$	$x < 85\%$

Appendix B. Observations on Publication of Market Reports and Data

Publication	Rules/Manual References	Location / Audience	Availability		Timeliness		
			Score	Rating	Score	Rating	
Registration Information							
1. Registration Fees	WESM Rules 2.9.2 & 2.5.1	IEMOP website / Public	100%	5	Not rated		
2. Suspension Notice	WESM Rules 3.15.7.1 a to 3.15.7.1 b and WESM Rules 3.15.8.3 & Manual – Billing and Settlement Section 5.1	Public website / Public	100%	5	Not rated		
3. Notice of Deregistered WESM Participants	WESM Rules 4.7.5 & WESM Rule 3.15.8.6 (b) & Dispatch Protocol Appendix A.10 Market Information Publication 4.2.1.4. Registration	Public website / Public	n/a		n/a		
4. Register of all WESM Members	WESM Rule 1.3.1.1 (f) & WESM Rules 5.2.3 (a), (c) and (d) & WESM Rule 2.5.7 & MO Information Disclosure and Confidentiality Manual – Market Information Catalogue & Dispatch Protocol Appendix A.10 Market Information Publication 4.2.1.4. Registration	Public website / Public	100%	5	44.67%	1	
5. Register of all WESM Applicants	WESM Rules 2.5.7 & WESM Rules 5.2.3 (a) and (b)	Public website (WESM/RCOA) / Public	100%	5	Not rated		
6. New Metering Installation of the MSP	Manual - Metering Standards and Procedures	Public website / Public	100%	5	100%	5	
Market Manuals, Regulatory Issuances, and Guidelines							
7. Formulation Of The Market Dispatch Optimization Model (Price Determination Methodology)	WESM Rules 3.6.1.2 & MO Information Disclosure and Confidentiality Manual – Market Information Catalogue	Public website / Public	100%	5	n/a		
8. Structure and level of market fees and the methods used in determining the structure	WESM Rules 2.10.5 & MO Information Disclosure and Confidentiality Manual – Market Information Catalogue	Public website / Public	100%	5	100%	5	
9. Spot Market Operation Timetable (contained in the Dispatch Protocol Manual)	WESM Rules 3.4.2.3	Public website / Public	100%	5	Not rated		
10. Forecast Tolerance Range (contained in the Load Forecasting Manual)	WESM Rules 3.5.4.1	Public website / Public	100%	5	Not rated		
11. Dispatch Tolerances Standards (PEM Board Resolution (2005-15))	WESM Rules 3.8.7	Public website / Public	100%	5	Not rated		
12. Procedures for determination	WESM Rules 3.10.5	Public website / Public	100%	5	Not rated		

Publication	Rules/Manual References	Location / Audience	Availability		Timeliness	
			Score	Rating	Score	Rating
of market re-run prices (contained in the Criteria and Guidelines for the Issuance of Pricing Error Notices and Conduct of Market Re-Run)						
13. Procedure In Establishing the Network Configuration and Other Constraints for the determination of ex-post nodal energy prices (contained in the Dispatch Protocol Manual and Determination of Ex-post Nodal Prices Manual)	WESM Rules 3.10.7	Public website / Public	100%	5	Not rated	
14. Electronic Communication Procedures (contained in the MO Information Disclosure and Confidentiality Manual)	WESM Rules 5.2.2.5 (a) to 5.2.2.5 (c)	Public website / Public	100%	5	Not rated	
15. Methodology For Determining the Administered Price (contained in the Administered Price Determination Methodology Manual)	WESM Rules 6.2.3	Public website / Public	100%	5	Not rated	
16. Constraint Violation Coefficients or Procedures for Calculating Constraint Violation Coefficients for Each Constraint and Revisions in the Constraint Violation Coefficient levels (contained in the Constraint Violation Coefficients (CVC) Manual)	WESM Rules 3.6.2.4 (DOE Circular No. DC 2010-03-0004 & Manual – Constraint Violation Coefficients (CVC) Sections 3.1, 10.1 and 10.3 & Dispatch Protocol Appendix A.10 Market Information Publication 4.2.1.2	Public website / Public	100%	5	Not rated	
17. MDOM Performance Standards	WESM Rule 3.6.1.2	Public website / Public	100%	5	Not rated	
18. Operating Procedures (Dispatch Protocol, Emergency Procedures, Load Shedding, Registration Manual)	Dispatch Protocol Appendix A.10 Market Information Publication 4.2.1.1. Systems and Procedures	Public website / Public	100%	5	100%	5

Publication	Rules/Manual References	Location / Audience	Availability		Timeliness	
			Score	Rating	Score	Rating
19. Initial Loss Percentage	Load Forecasting Manual 6.3. Initial Loss Percentage	Public website / Public	100%	5	100%	5
Market Reports						
20. Significant Variations Report	WESM Rules 1.3.1.4 & Manual - Guidelines on Significant Variations In and Between Trading Intervals Clause 7.2	Public website (PEMC & IEMOP¹⁹) / Public	100%	5	100%	5
21. Market Network Model / Market Trading Nodes / MNM Bus-Oriented Single Line Diagram	WESM Rules 3.2.1 & WESM Rules 3.2.2.4 & Manual – Market Network Model & MO Information Disclosure and Confidentiality Manual – Market Information Catalogue & Dispatch Protocol Appendix A.10 Market Information Publication 4.2.1.2	Public website / Public	100%	5	100%	5
22. Review of the Underlying Factors Giving Rise to any Net Settlement Surplus	WESM Rules 3.13.16.3 b	Public website / Public	100%	5	0%	1
23. Post Dispatch Reports	Dispatch Protocol	Public website (Luzon/Visayas) / Public	100%	5	98.90%	4
24. Summary of PEN Issuance	Manual – Criteria for Guidelines for the Issuance of Pricing Error Notices and Conduct of Market Re-run in WESM Clause 9.4	Public website / Public	100%	5	99.45%	4
25. Summary of PSM Issuance	Manual - Methodology for Determining Pricing Errors and Price Substitution Due to Congestion for Energy Transactions in the WESM Clause 9.3	Public website / Public	100%	5	99.40%	4
26. Market Re-Run (MRR) Results	Manual – Criteria for Guidelines for the Issuance of Pricing Error Notices and Conduct of Market Re-run in WESM Clause 9.5	Public website / Public	100%	5	100%	5
27. Monthly Performance Rating of the MSP	Manual - Metering Standards and Procedures in WESM Clause 10.7.1	Public website / Public	100%	5	100%	5
28. MRU Report by the SO	MO Information Disclosure and Confidentiality Manual – Market Information Catalogue & Transmission System Information provided by the System Operator to the Market Operator	Public website / Public (MyWESM log-in)	100%	5	100%	5
Market Data						
29. Day-Ahead Projections	WESM Rules 3.4.2.2 (b) & WESM Rules 3.7.2.1 & Dispatch Protocol & MO Information Disclosure and Confidentiality Manual – Market Information Catalogue	MPI / per participant Public website (DAP: Load/Gen & Next Day Summary: Luzon/Visayas) / Public	100%	5	99.30%	4
30. Week-Ahead Projections	WESM Rules 3.4.2.2 (a) & WESM Rules	MPI / per participant	100%	5	99.29%	4

¹⁹ Starting 17 October 2018, SVRs for 26 September 2018 and onwards are published in the IEMOP website

Publication	Rules/Manual References	Location / Audience	Availability		Timeliness	
			Score	Rating	Score	Rating
	3.7.1.1 & Dispatch Protocol & MO Information Disclosure and Confidentiality Manual – Market Information Catalogue	Public website (WAP: Load/Gen & Next Week Summary: Luzon/ Visayas) / Public				
31. Scheduled Generation Or Scheduled Load	WESM Rules 3.11.1.3 & MO Information Disclosure and Confidentiality Manual – Market Information Catalogue	Public website / Public	100%	5	99.97%	4
32. Levels of NSS / NSS Allocations	WESM Rules 3.13.16.3 a & Manual - Management of The Net Settlement Surplus Clause 10.1 & ERC/DOE Directive	Public website / Public	100%	5	100%	5
33. Administered Prices for one billing period	Manual - Administered Price Determination Methodology	Public website / Public	100%	5	91.12%	3
34. Hourly Total Registered Pmin of All Scheduled Generating Units	Dispatch Protocol (DP) - Bids and Offers	MMS-MPI / WESM Trading participants	100%	5	99.73%	4
35. Hourly Nodal Demand Forecasts for RTD, DAP, WAP Reserve Requirement	DP - Demand Forecasting & MO Information Disclosure and Confidentiality Manual – Market Information Catalogue	MMS-MPI / WESM Trading participants, DOE and ERC Public website / Public	100%	5	99.82%	4
36. Generation Offers and Demand Bids	MO Information Disclosure and Confidentiality Manual – Market Information Catalogue	Public website / Public	100%	5	100%	5
37. Ex-Ante and Ex-Post Load Weighted Average Price (LWAP)	MO Information Disclosure and Confidentiality Manual – Market Information Catalogue	Public website / Public (MyWESM log-in)	100%	5	100%	5
38. MRU generation prices	MO Information Disclosure and Confidentiality Manual – Market Information Catalogue	Public website / Public	100%	5	100%	5
39. Marginal Plants and Market Clearing Prices	MO Information Disclosure and Confidentiality Manual – Market Information Catalogue	Public website / Public	100%	5	100%	5
40. Generator and Line Outages, Security Limits and Contingency Lists as submitted by SO to the MMS	MO Information Disclosure and Confidentiality Manual – Market Information Catalogue & Transmission System Information provided by the System Operator to the Market Operator	Public Website / WESM Trading Participants and exceptions under WESM Rules 5.3.2 (MyWESM log-in)	100%	5	100%	5