



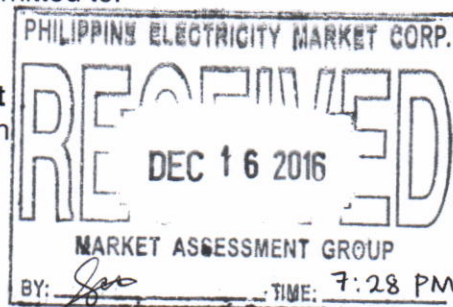
REQUEST FOR AMENDMENTS OR CHANGES TO THE WESM MANUALS

Proposals made only under this prescribed form shall be accepted and considered as submitted:

This request for amendments to the WESM Rules can be submitted to:

PEM Board

Attention: **PEM Committee Secretariat**
Philippine Electricity Market Corporation
18/F Robinsons Equitable Tower
ADB Avenue, Ortigas Center
Pasig City, 1605 Philippines
Email address: rcc@wesm.ph
Fax Number: (+632) 395-2704



I. Proposer's Information

Name	Melinda L. Ocampo
Designation	President
Company	Philippine Electricity Market Corporation
Company Address	18/F Robinsons Equitable Tower, ADB Avenue Ortigas Center, Pasig City 1600
Telephone No.	631-8734
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II. WESM Manual Amendments Information

Title of WESM Manual being commented:
Retail Metering Standards and Procedures

Nature of Request (please indicate with x)

☒ Addition ☒ Alteration ☒ Deletion ☒ Clarification ☒ Clerical Correction



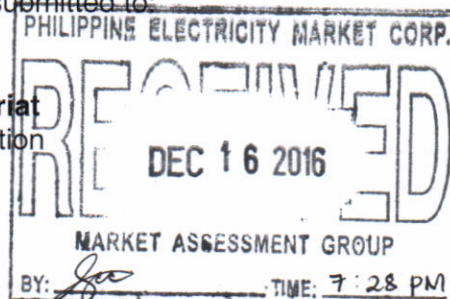
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III. Proposed Amendment

Title	Section	Provision	Proposed Amendment	Rationale
Metering Installation Standards	2			
Technical Requirements	2.4.2.	<p>xxx</p> <p>Mass Memory: Minimum of 60-day recording of a 15-minute time-stamped demand interval for 4 recording channels for bi-directional meters or 2 recording channels for uni-directional meters.</p> <p>xxx</p>	<p>xxx</p> <p>Mass Memory: Minimum of 60-day recording of a 15 <u>5</u>-minute time-stamped demand interval for 4 recording channels for bi-directional meters or 2 recording channels for uni-directional meters.</p> <p>xxx</p>	Consistent with the implementation of 5-minute dispatch interval and the determination of trading amounts every settlement interval from the aggregate of trading amounts per dispatch interval
Existing Metering Installation	2.8	<p>An existing metering installation that does not fully comply with the requirements of this Manual shall be permitted by the Central Registration Body to remain in service subject to the following conditions:</p> <p>a) The meter has a mass memory capable of recording 15-minute demand interval and have communication ports for remote and manual data retrieval;</p> <p>b) The Energy Regulatory Commission has tested or verified and sealed the meter;</p> <p>c) All non-compliant meters shall be replaced within six (6) months from the effectivity of its registration in the WESM.</p> <p>d) All non-compliant instrument transformers shall be replaced within the period of two</p>	<p>An existing metering installation that does not fully comply with the requirements of this Manual shall be permitted by the Central Registration Body to remain in service subject to the following conditions:</p> <p>a) The meter has a mass memory capable of recording 15 <u>5</u>-minute demand interval and have communication ports for remote and manual data retrieval;</p> <p>b) The Energy Regulatory Commission has tested or verified and sealed the meter;</p> <p>c) All non-compliant meters shall be replaced within six (6) months from the effectivity of its registration in the WESM.</p> <p>d) All non-compliant instrument transformers shall be replaced within the period of two</p>	

Title	Section	Provision	Proposed Amendment	Rationale
		(2) years from the effectivity of registration in the WESM.	(2) years from the effectivity of registration in the WESM.	
Metering Installation Registration	4			
Submission of Application Form and Pertinent Documents	4.4.1	<p>To initiate the registration of a metering installation of a Contestable Customer, its Retail Metering Services Provider, on behalf of the Supplier or Contestable Customer, shall submit the following to the Central Registration Body by courier:</p> <p>a) Accomplished Metering Installation Registration Form as published in the market information web site signed by both Retail Metering Services Provider and Contestable Customer;</p> <p>b) Load Profile of the metering installation during the previous twelve (12) months as well as its maximum and minimum hourly demand;</p> <p style="text-align: center;">xxx</p>	<p>To initiate the registration of a metering installation of a Contestable Customer, its Retail Metering Services Provider, on behalf of the Supplier or Contestable Customer, shall submit the following to the Central Registration Body by courier:</p> <p>a) Accomplished Metering Installation Registration Form as published in the market information web site signed by both Retail Metering Services Provider and Contestable Customer;</p> <p>b) Load Profile of the metering installation during the previous twelve (12) months as well as its maximum and minimum hourly demand;</p> <p style="text-align: center;">xxx</p>	Consistent with the implementation of 5-minute dispatch interval and the determination of trading amounts every settlement interval from the aggregate of trading amounts per dispatch interval
Metering Data Collection	5			
Data	5.3.1.1	<p>The metering data shall contain the following:</p> <p>a) Date and time, or time series, of the meter readings received for each Contestable Customer meter,</p> <p>b) Active energy (kWh), active power (kW), reactive energy (kVARh), and reactive</p>	<p>The metering data shall contain the following:</p> <p>a) Date and time, or time series, of the meter readings received for each Contestable Customer meter,</p> <p>b) Active energy (kWh), active power (kW), reactive energy (kVARh), and reactive power (kVAR) data in 15 <u>5</u>-minute</p>	Consistent with the implementation of 5-minute dispatch interval and the determination of trading amounts every settlement interval from the aggregate of trading

Title	Section	Provision	Proposed Amendment	Rationale
		power (kVAR) data in 15-minute resolution with assigned channel number, and xxx	resolution with assigned channel number, and xxx	amounts per dispatch interval
Data Validation, Estimation, and Editing	6			
General Description	6.2	All metering data received by the Central Registration Body shall be evaluated using the Validation, Estimation and Editing process described in this section. When metering data contains missing values, uncertain values, or exceeds the maximum or minimum of the daily hourly load profile values of the registered meter, such metering data shall undergo estimation and editing wherein substitutions of metering data shall be made using historical data. xxx	All metering data received by the Central Registration Body shall be evaluated using the Validation, Estimation and Editing process described in this section. When metering data contains missing values, uncertain values, or exceeds the maximum or minimum of the daily hourly load profile values of the registered meter, such metering data shall undergo estimation and editing wherein substitutions of metering data shall be made using historical data. xxx	Consistent with the implementation of 5-minute dispatch interval and the determination of trading amounts every settlement interval from the aggregate of trading amounts per dispatch interval
Validation Checks	6.3.1.2.	The following checks shall be performed by the Central Registration Body for the above validation error categories: a) Check for uncertain values. b) Check for missing values. c) Check for values in the metering data which fall outside the maximum and minimum range of the historical data. The historical data used in this check are as follows: i. Value during the same hour of last week, ii. Value during the same hour of the previous day, and iii. Average of the values during the whole previous day.	The following checks shall be performed by the Central Registration Body for the above validation error categories: a) Check for uncertain values. b) Check for missing values. c) Check for values in the metering data which fall outside the maximum and minimum range of the historical data. The historical data used in this check are as follows: i. Value during the same hour hour <u>dispatch interval</u> of last week, ii. Value during the same hour hour <u>dispatch interval</u> of the previous day, and	

Title	Section	Provision	Proposed Amendment	Rationale
		d) Check for values in the metering data whose meter is not registered in the Central Registration Body.	iii. Average of the values during the whole previous day. d) Check for values in the metering data whose meter is not registered in the Central Registration Body.	
Historical Values	6.4.1.1.1.	The values with 'uncertain' status may be replaced using the following historical data: a) Value during the same hour of last week, b) Value during the same hour of the previous day, and c) Average of the values during the whole previous day.	The values with 'uncertain' status may be replaced using the following historical data: a) Value during the same hour hour dispatch interval of last week, b) Value during the same same hour hour dispatch interval of the previous day, and c) Average of the values during the whole previous day.	Consistent with the implementation of 5-minute dispatch interval and the determination of trading amounts every settlement interval from the aggregate of trading amounts per dispatch interval
Backup Meter	6.4.1.1.2.	The values with 'uncertain' status may be replaced with the values from the backup meter during the same hour.	The values with 'uncertain' status may be replaced with the values from the backup meter during the same hour hour dispatch interval .	
Previous Hour dispatch interval Data	6.4.1.1.3.	The values with 'uncertain' status may be replaced using the reading from the previous hour.	The values with 'uncertain' status may be replaced using the reading from the previous hour hour dispatch interval .	
Interpolation of Metering Data	6.4.2.1.	If metering data of one (1) to four (4) consecutive fifteen-minute intervals are missing, metering data shall be estimated by means of interpolation between the available intervals.	If metering data of one (1) to four twelve (4 12) consecutive fifteen five -minute intervals are missing, metering data shall be estimated by means of interpolation between the available intervals.	
Back-up Meter Data	6.4.2.2.	If metering data of more than four (4) consecutive fifteen-minute intervals are missing, metering data from the back-up meter can be directly substituted for the missing data from the main meter provided that the historical difference of metering data between the main and backup meters does not exceed more than 0.2%. If the historical deviation exceeds 0.2% but not more than 0.6%, a correction factor	If metering data of more than four twelve (4 12) consecutive fifteen five -minute intervals are missing, metering data from the back-up meter can be directly substituted for the missing data from the main meter provided that the historical difference of metering data between the main and backup meters does not exceed more than 0.2%. If the historical deviation exceeds 0.2% but not more than 0.6%, a correction factor	

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		based on the historical difference between the main and backup meters shall be applied on the metering data from the backup meter before it is substituted for the missing data.	based on the historical difference between the main and backup meters shall be applied on the metering data from the backup meter before it is substituted for the missing data.	
Historical Meter Data	6.4.2.5.	<p>If the above methods do not provide reasonable values, the following historical data from the main meter may be used for estimating missing values:</p> <ul style="list-style-type: none"> a) Values during the same hour of the previous day with the same day type (i.e., weekday or weekend), b) Values during the same hour of the same day last week recorded by the same meter (i.e. Saturday, Sunday, Holidays), and c) Average value of the values during the same hour of the same day of the three (3) previous weeks recorded by the same meter. <p>This method of estimation is not applicable for variable load whose historical load profile is indeterminate.</p>	<p>If the above methods do not provide reasonable values, the following historical data from the main meter may be used for estimating missing values:</p> <ul style="list-style-type: none"> a) Values during the same hour <u>dispatch interval</u> of the previous day with the same day type (i.e., weekday or weekend), b) Values during the same hour <u>dispatch interval</u> of the same day last week recorded by the same meter (i.e. Saturday, Sunday, Holidays), and c) Average value of the values during the same hour <u>dispatch interval</u> of the same day of the three (3) previous weeks recorded by the same meter. <p>This method of estimation is not applicable for variable load whose historical load profile is indeterminate.</p>	Consistent with the implementation of 5-minute dispatch interval and the determination of trading amounts every settlement interval from the aggregate of trading amounts per dispatch interval

Note: For convenience, please underline and put in bold letters the proposed changes to the WESM Manual.

IV. Proposed Scheme to Monitor the Effectiveness of the Proposed Changes to the WESM Manual

V. Referral

MAG Date Received: DEC 16 2016 *[Signature]* 7:28 PM

Proposed Amendment: ☐ Urgent ☐ Minor ☒ General

A. For Urgent Amendment (For the use of PEMC President only)

Date Referred to PEMC President	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Certifies as urgent	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Convene the RCC within 48 hrs.		
Remarks:		

B. For Minor and General Amendment (For the use of RCC only)

Date Referred to RCC:	
Remarks:	
Action taken:	
Request for comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Request written comments from: <input type="checkbox"/> DRG <input type="checkbox"/> MSC <input type="checkbox"/> PA <input type="checkbox"/> MO <input type="checkbox"/> ECO <input type="checkbox"/> RCC <input type="checkbox"/> TC <input type="checkbox"/> Other PEM Board Committees <input type="checkbox"/> Other Interested Parties
For further review of the Technical Sub-Committee:	<input type="checkbox"/> Yes Assigned to: <input type="checkbox"/> SO Sub-Committee <input type="checkbox"/> MO Sub-Committee <input type="checkbox"/> Metering Sub-Committee <input type="checkbox"/> Billing and Settlement Sub-Committee <input type="checkbox"/> Legal and Regulatory Sub-Committee <input type="checkbox"/> No
For public consultation:	<input type="checkbox"/> Yes <input type="checkbox"/> No
RCC Resolution:	<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved
RCC Resolution No.:	
Date of Resolution:	
RCC Meeting No.	
Date of endorsement to the PEM Board:	