ORCP-WM-WR-26-07
Date Received by Secretariat: 27 November 2026

REQUEST FOR MARKET RULES AND MANUALS AMENDMENTS

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

This request for amendments should be submitted to:

Rules Change Committee
Attention: WESM Governance Committee Secretariat
Philippine Electricity Market Corporation
21st and 22nd Floor One Filinvest,
Ortigas Avenue cor. ADB Avenue and Sapphire Road,
Ortigas Center, Pasig City
Email address: mag_rrd@wesm.ph

[In accomplishing and submitting this form, you give your consent for PEMC to collect, record, organize, and update your personal data as herein provided as part of your information for purposes of rules change process.]

I. Proponent's Information

Name	[redacted] Robinson P. Descanzo
Designation	[redacted]
Company	Independent Electricity Market Operator of the Philippines Inc.
Company Address	[redacted]
	[redacted]
Telephone No.	[redacted]
Email Address	[redacted]

II. Amendment Information

Proposed Amendments to the (please tick the box):

☒ WESM Rules ☐ Retail Rules

☒ Market Manual:	WESM Manual on Metering Standards and Procedures Issue No. 16
Topic:	Market Operator's Metering Processes and Determination of Site-Specific Loss Adjustment

Proposed Classification of Amendments (please tick the box):

☒ General ☐ Minor ☐ Urgent

If Urgent, reason for urgency:

III. SUMMARY OF THE PROPOSED RULES CHANGE

The Proposed Amendments is being submitted by the Market Operator to comply with the directive and guidance of the Department of Energy in its letter dated 12 January 2026 directing it to submit to the Rules Change Committee the said proposed amendments to utilize the Transformer Loss formula prescribed in the WESM Manual on Metering Standards and Procedures (WESM Metering Manual) Issue No. 11 utilizing the specific core loss and copper loss parameters of the equipment with transformer capacities falling outside the tabulated range of 1,000 to 10,000kVA provided under the WESM Manual on Metering Standards and Procedures Issue No. 16.

Furthermore, the Proposed Amendments intends to institutionalize and document the metering processes practiced in the WESM.

IV. BACKGROUND

As provided in Appendix K of the WESM Metering Manual Issue No. 16, the percent transformer loss indicated in the table below shall be used to determine the total transformer loss:

Capacity (kVA)	Percent Transformer Loss (%)
1000	1.9
2000	1.8
3000	1.7
4000	1.6
5000	1.5
10000	1.4

For in-between capacities, interpolation shall be performed to calculate the Percent Transformer Loss

The Market Operator, however, noted that the provision in the current WESM Metering Manual only covers transformer loss percentage calculation within the capacities listed. However, transformer with capacities beyond the listed range (1000 kVA to 10000kVA) are increasingly being utilized in our power transmission grids.

The Market Operator further noted that it has identified limitations in using the current table for out-of-range capacities and computed the corresponding percent transformer loss using extrapolation, and the resulting percent transformer loss for various capacities. However, based on the extrapolation results for out-of-range transformer capacity ratings, certain transformer capacities tend to provide inaccurate transformer loss percentage, including negative percentages.

To address this, the Market Operator proposed to the DOE to use the Transformer Loss formula based on the previous WESM Metering Manual Issue No. 11 for

transformer capacity ratings <1000 kVA and >10000 kVA, and maintain Appendix K – Transformer Loss Table of the current WESM Metering Manual Issue No. 16 for transformer capacity ratings within the 1000 kVA to 10000 kVA values.

In its letter dated 12 January 2026 to the IEMOP, the DOE noted its implementation of the following hybrid interim solution:

1. For transformer capacities less than 1000 kVA and greater than 10000 kVA: The calculation shall utilize the Transformer Loss formula prescribed in the WESM Metering Issue No. 11, utilizing the specific core loss and copper loss parameters of the equipment; and
2. For transformer capacities within 1000 kVA to 10000 kVA: The calculation shall continue to use the "Percent Transformer Loss" table and interpolation method as explicitly prescribed in found in Appendix K of the WESM Metering Manual Issue No. 16.

The DOE further noted that the WESM Metering Manual Issue No. 11 formula remains valid because it has not been replaced in any subsequent WESM Metering Manual, and Issue 16 only introduced a table for a specific capacity range without revoking the earlier formula. Issue 11 therefore remains the most recent approved methodology for out-of-range transformer sizes and continues to align with standard engineering practices.

In the same letter, the DOE directed IEMOP to formally submit to the Rules Change Committee the corresponding amendments to incorporate the methodology in the WESM Metering Manual Issue No. 11.

Upon review of the WESM Rules and WESM Metering Manual Issue No. 11, the Market Operator observed that certain metering provisions need to be updated to align with the existing practices in the industry. Specifically, in addition to the adoption of the methodology for determination of the site specific loss adjustment for out-of-range capacities, the Market Operator deems it proper to adopt the following amendments to the WEMS Rules and WESM Metering Manual provisions on metering to align the same with the latest rules and regulations, as well as to institutionalize and adopt in the WESM Rules and Market Manuals the metering practices observed in the WESM.

V. THE PROPOSED RULES CHANGE

The following are the rationale of the proposal:

- *To comply with the DOE's directive to submit to the Rules Change Committee the corresponding amendments to incorporate the methodology for the determination of the site-specific loss adjustment for out-of-range transformer sizes to the WESM Metering Manual.*
- To harmonize the terminologies across the documents.

- To harmonize and update references to other documents or government issuances.
- To clarify the respective responsibilities of the Market Operator and Metering Service Providers in terms of meter access and data provision and retrieval
- To clarify the respective roles of the Market Operator and Governance Arm in developing process and imposition of penalties and sanctions for metering service providers.

The following consequences are foreseen to occur and affect the market participants, the Market Operator and the Governance Arm if the proposal will not be adopted in the WESM Rules and WESM Metering Manual:

- *The market participants will have not reference in determining the site specific loss adjustment for equipment with less than 1000 kVA and greater than 10000 kVA.*
- *There will be inaccuracies in references across certain provisions of the documents.*
- *The responsibilities of the Market Operator, the Governance Arm and Metering Service Providers will not be clearly defined under the rules and manuals.*

VI. BACKGROUND AND DESCRIPTION OF THE PROPONENT

The proponent is the Independent Electricity Market Operator of the Philippines, Inc. (IEMOP), the Market Operator of the WESM.

Executive Committee
Robinson P. Descanzo – President and CEO
Isidro E. Cacho, Jr. – Vice President for Trading and Operations
Salvador D. Subaran – Vice President for Information Systems and Technology
Arthur P. Pintado – Vice President for Internal Audit
Sheryll M. Dy – Vice President for Legal
Mary Anne T. Santiago – Vice President for Finance
Sherwin T. Casidsid – Vice President for Administration

VII. CONCLUSIONS AND RECOMMENDATIONS

The amendments to the WESM Rules and WESM Metering Manual are proposed to comply with the directives of the Department of Energy and to align the same with the latest rules and regulations, as well as to institutionalize and adopt in the WESM Rules and Market Manuals the metering practices observed in the WESM.

VIII. REFERENCES

1. WESM Rules
2. WESM Metering Manual Issue No. 11
3. WESM Metering Manual Issue No. 16

Market Operator's Metering Processes and Determination of Site-Specific Loss Adjustment

(The following tables are to be used as applicable to the proposal.)

WESM Rules				
Title	**Clause**	**Provision**	**Proposed Amendment**	**Rationale**
Election of a Metering Services Provider by a Trading Participant	4.3.2.1 (c)	Provide the Market Operator with the relevant details of the metering installation in accordance with Appendix B2 within 10 business days of entering into an agreement with the Metering Services Provider(s) under Clause 4.3.4(b).	Provide the Market Operator with the relevant details of the metering installation in accordance with Appendix B2 within 10 business days of entering into an agreement with the Metering Services Provider(s) ~~under Clause 4.3.4(b).~~	For deletion; Clause 4.3.4(b) is no longer incorporated in the latest WESM Rules (posted on 3 September 2025).
Use of Meters	4.5.4.3 (b)	The Metering Services Provider shall coordinate with the entities that use the metering installation for such other purposes to ensure that Clause 4.4.4.3 (a) is complied with.	The Metering Services Provider shall coordinate with the entities that use the metering installation for such other purposes ~~to ensure that Clause 4.4.4.3 (a) is complied with.~~	For deletion; Clause 4.4.4.3 (a) is no longer incorporated in the latest WESM Rules posted on 3 September 2025.
Data Transfer and Collection	4.6.2.1	The MSP that is contracted by the MTP for a particular metering point shall retrieve the metering data from the meter and transmit the data to the Market Operator for billing and settlement. However, the MSP shall not make, cause or allow any alteration to the original stored meter data as retrieved in the metering installation.	The MSP that is contracted by the MTP for a particular metering point shall retrieve the metering data from the meter and transmit the data to the Market Operator for billing and settlement. However, the MSP shall not make, cause or allow any alteration to the original stored meter data as retrieved in the metering installation.	We suggest deleting this statement since the Market Operator does not have the capability to directly retrieve meter data.

WESM Rules				
Title	**Clause**	**Provision**	**Proposed Amendment**	**Rationale**
		At its option, the Market Operator may also directly retrieve the meter data. The MSP with a Certificate of Authority from ERC and registered with MO must be capable of sending meter data in the required format of MO. An MSP must have its own Meter Data Retrieval System and compatible with the MO Meter Data Collection System.	~~At its option, the Market Operator may also directly retrieve the meter data.~~ The MSP with a Certificate of Authority from ERC and registered with MO must be capable of sending meter data in the required format of MO. An MSP must have its own Meter Data Retrieval System and compatible with the MO Meter Data Collection System.	
Data Transfer and Collection	4.6.2.5	Without prejudice to the generality of this Clause 4.5, the Metering Services Provider shall ensure that each of its metering installations have adequate communication facility that will enable the Market Operator to obtain remote access to the metering data from the metering database. This requirement, however, may be relaxed during the initial operation of the WESM.	Without prejudice to the generality of this Clause 4.5, the Metering Services Provider shall ensure that each of its metering installations have adequate communication facility ~~that will enable the Market Operator to obtain remote access to the metering data from the metering database.~~ This requirement, however, may be relaxed during the initial operation of the WESM.	Delete this statement since it is the function of the MSPs to provide metering data to the Market Operator, while the latter does not directly and remotely access the meter installations.
Sanctions for inaccurate metering information	4.7.2	The Market Operator shall develop a process of penalties and sanctions for Meter Services Providers and WESM Participants whose	The ~~Market Operator~~ **WESM Governance Arm** shall develop a process of penalties and sanctions for Meter Services Providers and WESM Participants whose meter data	Penalties and sanctions are duties of the WESM Governance Arm

WESM Rules				
Title	**Clause**	**Provision**	**Proposed Amendment**	**Rationale**
		meter data is incorrect beyond reasonable limits for whatever reason.	is incorrect beyond reasonable limits for whatever reason.	
Notice following material breach of WESM Rules	4.7.3	If a Metering Services Provider materially breaches the WESM Rules, the Market Operator shall send to that Metering Services Provider notice in writing setting out the nature of the breach and if the Metering Services Provider remains in breach for a period of more than 7 business days after notice from the Market Operator, the Market Operator may deregister the Metering Services Provider.	If a Metering Services Provider materially breaches the WESM Rules, the ~~Market Operator~~ **WESM Governance Arm** shall send to that Metering Services Provider notice in writing setting out the nature of the breach and if the Metering Services Provider remains in breach for a period of more than 7 business days after notice from the ~~Market Operator~~ **WESM Governance Arm**, the **Governance Arm** may request the Market Operator ~~may~~ **to** deregister the Metering Services Provider.	Monitoring of breach of WESM Rules are under the jurisdiction of the WESM Governance Arm
Deregistration following unethical act	4.7.4	The Market Operator may deregister a Metering Services Provider for unethical act or behavior.	The Market Operator, **upon the order of the WESM Governance Arm or the ERC,** may deregister a Metering Services Provider for unethical act or behavior.	The proposed amendment is to recognize that ruling on unethical act or behavior of MSPs is within the jurisdiction of the WESM Governance Arm and ERC.

WESM Rules				
Title	**Clause**	**Provision**	**Proposed Amendment**	**Rationale**
Metering Database	4.8.2.2	The metering database shall include metering data, energy data, data substituted in accordance with this Clause 4.7 and all calculations made for settlement purposes.	The metering database shall include metering data, energy data, data substituted ~~in accordance with this Clause 4.7~~ and all calculations made for settlement purposes.	For deletion; Clause 4.7 is about deregistration of Metering Services Providers.
Confidentiality	4.8.4	Subject to Clause 4.7.3, metering data is confidential and each WESM Member and Metering Services Provider shall ensure that such data is treated as confidential information in accordance with the WESM Rules.	~~Subject to Clause 4.7.3, m~~ **M**etering data is confidential and each WESM Member and Metering Services Provider shall ensure that such data is treated as confidential information in accordance with the WESM Rules.	For deletion; Clause 4.7.3 is about notice following material breach of WESM Rules.
DATA VALIDATION AND SUBSTITUTION	4.9	The Market Operator is responsible for the validation and substitution of metering data after being furnished settlement-ready metering data by the Metering Services Provider and shall develop data validation procedures in consultation with WESM Participants and in accordance with Appendix B1.2 (d).	The Market Operator is responsible for the validation ~~and substitution~~ of metering data after being furnished settlement-ready metering data by the Metering Services Provider and shall develop data validation procedures in consultation with WESM Participants and in accordance with Appendix B1.2 (d). **The Metering Services Provider is responsible for the substitution of metering data before submission to the Market Operator.**	To reflect the changes in the Manual that the duty of the Market Operator is to validate the metering data submitted by the MSP and the substitution process should be done by the MSP. All MSPs have their own access to the Market Operator's system used in the submission of metering data.

WESM Rules				
Title	**Clause**	**Provision**	**Proposed Amendment**	**Rationale**
Process and Overview	4.10	The Market Operator shall undertake a periodic review of the provisions of this chapter 4 in accordance with the public consultation procedures, including but not limited to: (a) New technologies and the impact of new technologies on and in relation to technical standards for metering in the WESM Rules, the Grid Code and Distribution Code; (b) Contestability in the provision and types of meters used; and (c) Whether the provisions of this chapter 4 have the effect of eliminating the use of alternative types of meters.	~~The Market Operator shall undertake a periodic review of the provisions of this chapter 4 in accordance with the public consultation procedures, including but not limited to:~~ ~~(a) New technologies and the impact of new technologies on and in relation to technical standards for metering in the WESM Rules, the Grid Code and Distribution Code;~~ ~~(b) Contestability in the provision and types of meters used; and~~ ~~(c) Whether the provisions of this chapter 4 have the effect of eliminating the use of alternative types of meters.~~	We suggest removing this provision. Any interested stakeholder may review the WESM Rules and Market Manuals, and propose amendments as may be necessary.

WESM Manual on Metering Standards and Procedures, Issue No.16				
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**
RESPONSIBILITIES	1.6.4.	The Market Operator shall periodically review, at least once a year, the provisions of the WESM Rules Chapter 4 in accordance with	~~The Market Operator shall periodically review, at least once a year, the provisions of the WESM Rules Chapter 4 in accordance with the~~	We suggest removing this provision. Any interested stakeholder may review the WESM Rules and Market

WESM Manual on Metering Standards and Procedures, Issue No.16				
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**
		the public consultation procedure, as needed, including but not limited to: a. new technologies and the impact of new technologies on and in relation to technical standards for metering in the WESM Rules, the Grid Code and Distribution Code; b. contestability in the provision and types of meters used; and c. whether the provisions of WESM Rules Chapter 4 have the effect of eliminating the use of alternative types of meters.	~~public consultation procedure, as needed, including but not limited to:~~ ~~a. new technologies and the impact of new technologies on and in relation to technical standards for metering in the WESM Rules, the Grid Code and Distribution Code;~~ ~~b. contestability in the provision and types of meters used; and~~ ~~c. whether the provisions of WESM Rules Chapter 4 have the effect of eliminating the use of alternative types of meters~~	Manuals, and propose amendments as may be necessary.
METERING INSTALLATION STANDARDS	2.2. LOCATION OF THE METERING POINT	The location of the metering point shall adhere to the applicable provisions of the WESM Rules, the Philippine Grid Code (PGC), the Philippine Distribution Code (PDC), and other relevant issuances of the Energy Regulatory Commission (ERC) and the Department of Energy (DOE). In accordance with the DOE Department Circular No. DC2016-05-	The location of the metering point shall adhere to the applicable provisions of the WESM Rules, the Philippine Grid Code (PGC), the Philippine Distribution Code (PDC), and other relevant issuances of the Energy Regulatory Commission (ERC) and the Department of Energy (DOE). In accordance with the DOE Department Circular No. DC2016-05-0007, the market trading node, metering point and its metering	Update the Clause; Added additional sentence for consistency with the WESM operations and to align with the SSLA definition which defines SSLA as "Procedure developed for determining the amount of electrical losses between the metering point and the market trading node."

WESM Manual on Metering Standards and Procedures, Issue No.16				
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**
		0007, the market trading node, metering point and its metering installations shall be located at the connection point. In accordance with WESM Rules Clause 3.2.2.2 (e), the metering point and metering installations shall be located and installed within 500 meters from the connection point, as defined in the PGC and PDC. For non-compliant metering point that is located more than 500 meters from the connection point, Site-Specific Loss Adjustment (SSLA) shall be applied to the meter data for the full distance from the connection point representing the energy produced or consumed by the Trading Participant at that metering point for determining the quantities to be settled in the WESM. If the metering point is located within 500 meters from the connection point, no Site-Specific Loss Adjustment (SSLA) shall be applied."	installations shall be located at the connection point. In accordance with WESM Rules Clause 3.2.2.2 ~~(e)~~ **(c)**, the metering point and metering installations shall be located and installed within 500 meters from the connection point, as defined in the PGC and PDC. For non-compliant metering point that is located more than 500 meters from the connection point, Site-Specific Loss Adjustment (SSLA) shall be applied to the meter data for the full distance from the connection point representing the energy produced or consumed by the Trading Participant at that metering point for determining the quantities to be settled in the WESM. If the metering point is located within 500 meters from the connection point, no Site-Specific Loss Adjustment (SSLA) shall be applied.~~"~~ **Provided, that connection point in the WESM is determined as the location of the associated Market Trading Node.**	

<table>
<tr><th colspan="5">WESM Manual on Metering Standards and Procedures, Issue No.16</th></tr>
<tr><th>Title</th><th>Section</th><th>Provision</th><th>Proposed Amendment</th><th>Rationale</th></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td>2.5.5.2. Not to Exceed Nameplate Ratings</td><td>The measurement shall verify the actual burdens in service that do not exceed the rated burden limits specified under Section 2.5.4.1.</td><td>The measurement <u>of calculation</u> shall verify the actual burdens in service that do not exceed the rated burden limits specified under Section 2.5.4.1.</td><td>Add “of calculation” to complete the sentence.</td></tr>
<tr><td>SITE AND EQUIPMENT IDENTIFICATION LABEL (SEIL)</td><td>3.2.1</td><td>Revenue Metering Installation
Metering Installation shall be labeled as:
A-BBB-CCCC-XX
where:<table><tr><td>A</td><td>Shall be a one (1) letter designation of the purpose or function of the metering. Please refer to Table 8 for the designation of the Meter Purpose.</td></tr><tr><td>BBB</td><td>Shall be a three (3) letter initial designation of Substation or Plant ID. Please refer to Procedure 1 and Table 9 for Standard Site ID.</td></tr><tr><td>CCCC</td><td>Shall be a four (4) letter initial designation of the Metered Metering Standards and</td></tr></table></td><td>Revenue Metering Installation
Metering Installation shall be labeled as:
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where:<table><tr><td>A</td><td>Shall be a one (1) letter designation of the purpose or function of the metering. Please refer to Table 8 for the designation of the Meter Purpose.</td></tr><tr><td>BBB</td><td>Shall be a three (3) letter initial designation of Substation or Plant ID. Please refer to Procedure 1 and Table 9 for Standard Site ID.</td></tr><tr><td>CCCC</td><td>Shall be a four (4) letter initial designation of the Metered Metering Standards and Procedures Page 23 of 160 Participant ID. Please refer to</td></tr></table></td><td>For consistency of labels.</td></tr>
</table>

Title	Section	Provision	Proposed Amendment	Rationale
		<table><tr><td></td><td>Procedures Page 23 of 160 Participant ID. Please refer to Procedure 2 and Table 10 for Metered Participant ID.</td></tr><tr><td>NN</td><td>Shall be a two (2) digit number to designate the delivery/receiving point number</td></tr></table> xxx	<table><tr><td></td><td>Procedure 2 and Table 10 for Metered Participant ID.</td></tr><tr><td>~~NN~~**XX**</td><td>Shall be a two (2) digit number to designate the delivery/receiving point number</td></tr></table> xxx	
4.3 REQUIREMENTS FO RREGISTRATION OF METERING INSTALLATIONS	4.3.2	To initiate the registration of a metering installation, the WESM Metering Services Provider, on behalf of its Trading Participant, shall submit the following to the Market Operator: a. Accomplished Metering Installation Form signed or confirmed by both the Metering Service Provider and the Trading Participant; b. Metering Installation Specifications;	To initiate the registration of a metering installation, the WESM Metering Services Provider, on behalf of its Trading Participant, shall submit the following to the Market Operator: a. Accomplished Metering Installation Form signed or confirmed **electronically** by both the Metering Service Provider and the Trading Participant; b. Metering Installation Specifications; ~~c. Load Profile (Forecast, Historical Data, including Maximum and Minimum Demand)~~ d. Data of Connected Transformers (Core & Copper Loss)	To streamline requirements and retain those that will impact transactions in the WESM

WESM Manual on Metering Standards and Procedures, Issue No.16				
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**
		c. Load Profile (Forecast, Historical Data, including Maximum and Minimum Demand) d. Data of Connected Transformers (Core & Copper Loss) e. Data of Radial Lines from the Market Trading Node to the Metering Point. f. Drawing of the Location Plan of the Metering Point; g. Single Line Diagrams from Grid Substation to the Metering Point h. Detailed Wiring Diagram of the Metering Installation i. ERC's Certification on Meter Test Results (with ERC Seal) j. Test and calibration reports of Instrument Transformers and Meters; k. Metering Service Agreement between Metered Entity and its MSP; and	e. Data of Radial Lines from the Market Trading Node to the Metering Point. f. Drawing of the Location Plan of the Metering Point; g. Single Line Diagrams from Grid Substation to the Metering Point ~~h. Detailed Wiring Diagram of the Metering Installation~~ ~~i. ERC's Certification on Meter Test Results (with ERC Seal)~~ ~~j. Test and calibration reports of Instrument Transformers and Meters;~~ k. Metering Service Agreement between Metered Entity and its MSP~~; and~~ ~~l. Other Special Features of the Meter~~.	

WESM Manual on Metering Standards and Procedures, Issue No.16				
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**
		I. Other Special Features of the Meter.		
4.3 REQUIREMENTS FO RREGISTRATION OF METERING INSTALLATIONS	Section 4.3.6	New	**In case of any changes in the connection of a WESM meter, the relevant Metering Service Provider shall inform the WESM Customer of the new connection.** **In case there are retail customers under that WESM meter, the WESM Customer, such as a Distribution Utility, in turn, shall inform the affected retail customers or their respective Retail Suppliers of the new connection which may affect the designated MTN.**	To indicate that it is MSP's responsibility to inform participants of the changes in connection of WESM Customers and it is the responsibility of that WESM Customer to inform the retail customers under a particular WESM meter.
METERING DATA COLLECTION	5.2.2	5.2.2. Market Operator's Metering Database Pursuant to WESM Rules Clause 4.8.3, the only entities entitled to have either direct or remote access to metering data on a read-only basis from the metering database or the metering register in relation to a metering point are the following: a. Trading Participants whose settlement amounts are determined	5.2.2. Market Operator's Metering Database Pursuant to WESM Rules Clause 4.8.3, the only entities entitled to have ~~either direct or remote~~ access to metering data **in relation to a metering point** on a read-only basis ~~from the metering database or the metering register~~ **through the systems and interfaces designated by the Market Operator** ~~in relation to a metering point~~ are the following: a. Trading Participants whose settlement amounts are determined by reference to	Added a sentence at the end of the provision to clarify that the database access is not direct but thru a system or interface of the Market Operator.

Title	Section	Provision	Proposed Amendment	Rationale
		by reference to quantities of energy flowing through that metering point; b. The Metering Services Provider who is responsible for the metering installation at that metering point; c. The Network Service Provider associated with the metering point; d. The Market Operator and its authorized agents; e. Any customer with respect to the metering data in relation to the metering point registered to it; f. The Market Surveillance Committee; g. The ERC; and h. The DOE.	quantities of energy flowing through that metering point; b. The Metering Services Provider who is responsible for the metering installation at that metering point; c. The Network Service Provider associated with the metering point; d. The Market Operator and its authorized agents; e. Any customer with respect to the metering data in relation to the metering point registered to it; f. The Market Surveillance Committee; g. The ERC; and h. The DOE.	
	Installation Database	5.2.3. Installation Database Pursuant to WESM Rules Clause 4.8.1.1, the Metering Services Provider shall create, maintain and	5.2.3. Installation Database Pursuant to WESM Rules Clause 4.8.1.1, the Metering Services Provider shall create,	Change "sixteen months" to sixteen (16) months to be consistent to the document convention.

WESM Manual on Metering Standards and Procedures, Issue No.16				
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**
		administer an installation database in relation to all its metering installations. The installation database shall contain the information specified in Appendix B2 of the WESM Rules. [2] The Metering Services Provider shall ensure that the affected Participant and the Market Operator are given access to the information in its installation database at all reasonable times, as may be applicable, as follows: a. In the case of data sixteen months old or less, within seven (7) business days from receiving written notice from the person or entity seeking access; and b. In the case of data more than sixteen months old, within thirty (30) days from receiving written notice from the person or entity seeking access.	maintain and administer an installation database through in relation to all its metering installations. The installation database shall contain the information specified in Appendix B2 of the WESM Rules.[2] The Metering Services Provider shall ensure that the affected Participant and the Market Operator are given access to the information in its installation database at all reasonable times **through a designated system or agreed-upon electronic means**, as may be applicable, as follows: a. In the case of data sixteen (16) months old or less, within seven (7) business days from receiving written notice from the person or entity seeking access; and b. In the case of data more than sixteen **(16)** months old, within thirty (30) days from receiving written notice from the person or entity seeking access.	Added a sentence at the end of the provision to clarify how the access/data will be provided.

WESM Manual on Metering Standards and Procedures, Issue No.16				
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**
Daily Process	5.3.2	b. All collected meter data shall be submitted by the Metering Services Provider to the Market Operator's Meter Data Warehouse on or before 0800H of the succeeding trading day. However, for metering facilities with failed communication capability, the Metering Services Provider shall conduct remote meter data retrieval and submit to the Market Operator not later than 1200H of the same day. The Metering Services Provider shall not make, cause or allow any alteration to the original stored meter data as retrieved in the metering installation.	All collected meter data shall be submitted by the Metering Services Provider to the Market Operator's Meter Data Warehouse on or before ~~0800H~~ **0900H** of the succeeding trading day. However, for metering facilities with failed communication capability, the Metering Services Provider shall conduct remote meter data retrieval and submit to the Market Operator **to resolve any Meter Trouble Report that may be issued resulting from the non-submission of meter data, considering the timeline provided in Section 7.**~~not later than 1200H of the same day~~. The Metering Services Provider shall not make, cause or allow any alteration to the original stored meter data as retrieved in the metering installation.	To provide MSPs with sufficient time to submit their daily MQ, considering that many start work at 08:00. This is also a request mentioned during the 4RMIA. To align the process and timeline in Section 7 (Meter Trouble Report).
	5.3.2. Daily Process	c. The Meter Data Retrieval System of the Metering Services Provider automatically exports the metering data of all its associated Trading Participants to the Meter Data Warehouse of the Market Operator daily through file transfer protocol.	c. The Meter Data Retrieval System of the Metering Services Provider automatically exports the metering data of all its associated Trading Participants to the Meter Data Warehouse of the Market Operator daily through ~~file transfer protocol~~ **the designated Meter Data Collection System of the Market Operator.**	Replaced "file transfer protocol" with "the designated system of the Market Operator" to reflect that the data submitted by the Metering Service Provider goes thru the MQ Uploader of the CRSS and not via FTP.

WESM Manual on Metering Standards and Procedures, Issue No.16				
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**
	5.3.2 Daily Process	d. In the event that no metering data was received by 0800H, the Market Operator shall immediately call the Metering Services Provider to resend the data through the same method.	~~d. In the event that no metering data was received by 0800H, the Market Operator shall immediately call the Metering Services Provider to resend the data through the same method.~~	For deletion: Since meter data submission is the responsibility of the MSP, and done thru a system, the Market Operator does not need to contact the MSPs for data submission. Further, a relevant Meter Trouble Report is issued to the MSP in case of non-submission of metering data.
Daily process	5.3.2 e	Upon receipt, the Meter Data Collection System of the Market Operator converts the metering data to the required file format for use in settlement.	Upon receipt, the Meter Data Collection System of the Market Operator converts the metering data to the required ~~file~~ format for use in settlement.	We suggest deleting the word "file" since the data is transmitted to the next process through the database
	5.3.3. Monthly Processes	a) Not later than three (3) business days after the end of the billing period, the Metering Services Provider shall submit, the Market Operator's electronic submission facility, monthly preliminary metering data of all metering points of its associated Trading Participants. In case the said facility is not available due to a Force Majeure Event, submission through email shall be accepted together with proof of the	a) Not later than three (3) business days after the end of the billing period, the Metering Services Provider shall submit, **through** the Market Operator's electronic submission facility, monthly preliminary metering data of all metering points of its associated Trading Participants. In case the said facility is not available due to a Force Majeure Event, submission through email shall be accepted together with proof of the Force Majeure Event. In addition, the Metering Services Provider shall submit a transmittal letter that	Added "through" before "the Market Operator's electronic submission facility

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		Force Majeure Event. In addition, the Metering Services Provider shall submit a transmittal letter that includes a tabulation of all associated metering points and their corresponding total metered quantity for the billing period.	includes a tabulation of all associated metering points and their corresponding total metered quantity for the billing period.	
Monthly meter process	5.3.3	d) The Metering Services Provider shall submit the corrected and final metering data to the Market Operator four (4) business days before the issuance of the final settlement.	The Metering Services Provider shall submit the corrected and final metering data to the Market Operator four (4) **five (5)** business days before the issuance of the final settlement.	This aims to align the deadline with retail customers, given that meter data processing begins with WESM customers
	5.3.3	e) The monthly metering data shall be submitted in a compressed format, encrypted with a password	~~e) The monthly metering data shall be submitted in a compressed format, encrypted with a password~~	Suggest deletion since the submission of metering data is through the Market Operator's system (MQ Uploader), consistent with c) above.
	5.4.1 Meter Data System Workflow	Send meter data to MMS system of MO	Send meter data to ~~MMS System~~ **designated Meter Data Collection System** of MO	To use a general term for MDCS or Meter Data Collection System
	5.4.1 Metering Data System Workflow	Apply Site-Specific Loss Adjustment factor	Apply Site-Specific Loss Adjustment ~~factor~~	Suggest deleting the term "factor" for consistency with other clauses

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	5.6. METER DATA COLLECTION SYSTEM	The MMS Meter Data Collection System of the Market Operator has two (2) different ways to communicate with the meters and communication system of the Metering Services Provider, to wit: a. Meter Data Retrieval of the Metering Services Provider to the Meter Data Collection System of the Market Operator; and b. Meter Data Flat File to the Meter Data Collection System of the Market Operator.	The ~~MMS~~ Meter Data Collection System of the Market Operator has two (2) different ways to communicate with the meters and communication system of the Metering Services Provider, to wit: a. Meter Data Retrieval of the Metering Services Provider to the Meter Data Collection System of the Market Operator; and b. Meter Data Flat File **Upload** to the Meter Data Collection System of the Market Operator.	Suggest deleting the term "MMS". Suggest adding the term "Upload" to clarify that the flat file is uploaded to the system
Work Flows	5.7.1 Meter Data Retrieval System of the Metering Services Provider to the Meter Data Collection System of the Market Operator	The data (Customer ID, Recorder ID, Device ID, Date and Time Series, raw Meter data) is automatically exported to MO's MDCS through file transfer protocol	The data (Customer ID, Recorder ID, Device ID, Date and Time Series, raw Meter data) is automatically exported to MO's MDCS ~~through file transfer protocol~~	Suggest removing the term "file transfer protocol" to avoid redundancy

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Work Flows	5.7.1 Meter Data Retrieval System of the Metering Services Provider to the Meter Data Collection System of the Market Operator	MO calls on the MSP to resend data (Customer ID, Recorded ID, Device ID, Date and Time Series, raw Meter data, etc)	~~MO calls on the MSP to resend data (Customer ID, Recorded ID, Device ID, Date and Time Series, raw Meter data, etc)~~	Suggest deleting since meter data submission is the responsibility of the MSP, and is done thru a system, the Market Operator does not need to contact the MSPs for data submission. A relevant Meter Trouble Report is issued to the MSP in case of non-submission of metering data.
Work Flows	5.7.1 Meter Data Retrieval System of the Metering Services Provider to the Meter Data Collection System of the Market Operator	MO's MDCS configures the raw Meter data into the required file format	MO's MDCS configures the raw Meter data into the required ~~file~~ format for use in settlement	Since the data is transmitted to the next process through the database

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Work Flows	5.7.1 Meter Data Retrieval System of the Metering Services Provider to the Meter Data Collection System of the Market Operator	Communication module	~~Communication module~~	Suggest deleting since the transfer of data is facilitated through the database
Work Flows	5.7.2 Meter Data Flat File to the Meter Data Collection System of the Market Operator	MO calls on the MSP to resend data (Customer ID, Recorded ID, Device ID, Date and Time Series, raw Meter data, etc)	~~MO calls on the MSP to resend data (Customer ID, Recorded ID, Device ID, Date and Time Series, raw Meter data, etc)~~	Suggest deleting since meter data submission is the responsibility of the MSP, and is done thru a system. The Market Operator does not need to contact the MSPs for data submission. A relevant Meter Trouble Report is issued to the MSP in case of non-submission of metering data.

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Work Flows	5.7.2 Meter Data Flat File to the Meter Data Collection System of the Market Operator	MO's MDCS configures the raw Meter data into the required file format	MO's MDCS configures the raw Meter data into the required ~~file~~ format **for purposes of settlement**	Suggest deleting since the transfer of data is facilitated through the database Suggest adding the phrase "for purposes of settlement" to clarify the use of the meter data
Work Flows	5.7.2 Meter Data Flat File to the Meter Data Collection System of the Market Operator	Communication module	~~Communication module~~	Suggest deleting since the transfer of data is facilitated through the database through the database
	5.7.2 Meter Data Flat File to the Meter Data Collection System of the Market Operator	The MDRS of MSP automatically exports the data (Customer ID, Recorder ID, Device ID, Date and Time Series, raw Meter data) to the MDCS of MO through file transfer protocol	The MDRS of MSP automatically exports the data (Customer ID, Recorder ID, Device ID, Date and Time Series, raw Meter data) to the MDCS of MO through ~~file transfer protocol~~ **the designated system of the Market Operator.**	Suggest removing the term "file transfer protocol" as the Market Operator does not facilitate this arrangement for collection of metering data. Instead, we suggest using the term "system".
Meter Data Retrieval /	5.8.1 Metering Services	5. Configure the raw meter data to Required file format	5. Configure the raw meter data to Required ~~file~~ format **for use in settlement**	Suggest deleting since the transfer of data is facilitated through the database

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Collection Procedure	Provider's Meter Data Retrieval System to the Meter Data Collection System of the Market Operator			Suggest clarifying the use of the meter data.
Meter Data Retrieval / Collection Procedure	5.8.2 Meter Data Flat File to Meter Data Collection of the Market Operator (In case of communicatio n failure)	Configuration of raw meter data to the required file format	5. Configure the raw meter data to Required ~~file~~ format **for use in settlement**	Since the data is transmitted to the next process through the database
	5.9.1 Work Flow to Address Failure of the Metering Services Provider's Meter Data Retrieval System	MO uploads the meter data to MDW of the MMS and process the data for billing and settlement	~~MO uploads the meter data to MDW of the MMS and process the data for billing and settlement~~ **In case that the MSP cannot upload the meter data, MSP may request the MO to upload on their behalf. MO will validate and process the data for billing and settlement**	Uploading of meter data is MSPs' responsibility. The Market Operator only uploads meter data on behalf of an MSP upon its request

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	5.9.2 Procedure to Address Failure of the Metering Services Provider's Meter Data Retrieval System Ref 4	Upon receipt of metered data, perform VEE and process the metered data for billing and settlement	Upon receipt of metered data, perform ~~VEE~~ validation and process the metered data for billing and settlement	To edit since MO does not edit nor estimate the metering data, it's the MSPs responsibility
	5.9.3 Workflow for the Market Operator Switching of Servers from the Main Site to the Emergency Back-up Site Ref 5	MO uploads the metered data and performs VEE process for billing and settlement	~~MO uploads the metered data and performs VEE process for billing and settlement~~ **MO will validate and process the data for billing and settlement**	Uploading of meter data is MSPs responsibility.
	5.9.4 Procedures for the Market Operator	Upload the meter data and perform VEE process for billing and settlement	~~Upload the~~	Uploading of meter data is MSPs responsibility,

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	Switching of Servers from Main Site to Emergency Back-up Site Ref 5		**Upon receipt of** metered data, ~~and~~ perform ~~VEE process~~ validation and process the metered data for billing and settlement	Uploading of meter data is MSPs responsibility and MO does not edit nor estimate the metering data, it's the MSPs responsibility
Coverage	6.1.1	Pursuant to WESM Rules Clause 4.9, the Market Operator shall validate and substitute the metering data after being furnished settlement-ready metering data by the WESM Metering Services Provider using the process set in this Section.	Pursuant to WESM Rules Clause 4.9, the Market Operator shall validate ~~and substitute~~ the metering data after being furnished settlement-ready metering data by the WESM Metering Services Provider using the process set in this Section.	Estimation and editing are the MSP's responsibility; only validation is performed by the Market Operator
SECTION 6 Data Validation, Estimation and Editing	6.2.1	All metering data received by the Market Operator shall be evaluated using the Validation, Estimation and Editing process described in this section. When metering data contains missing values, or exceeds the maximum capacity per dispatch interval, such metering data shall undergo estimation and editing where substitution of metering data shall be made using historical validated data.	All metering data received by the Market Operator shall be evaluated using the Validation, Estimation and Editing process described in this section. When metering data contains missing values, or exceeds the maximum capacity per dispatch interval, such metering data shall undergo estimation and editing **by the WESM Metering Service Provider** where substitution of metering data shall be made using historical validated data.	To highlight that the estimation and editing of the metering data are the MSPs responsibility. This is also consistent with the provisions of the Retail Manual on Metering Standards and Procedures Section 6.4 and Appendix D, and Retail Rules Section 4.6
	6.2.2	The Market Operator shall issue a Meter Trouble Report for all	The Market Operator shall issue a Meter Trouble Report for all metering data that fail	To correct the stated section with regards to the Meter Trouble

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		metering data that fail the validation categories of the Validation, Estimation and Editing process. When Meter Trouble Reports are issued, the WESM Metering Services Provider shall investigate the meter trouble and subsequently provide a report to the Market Operator. The WESM Metering Services Provider shall then correct the meter data. Procedures regarding Meter Trouble Reports are described in more detail in Section 8 of this Manual.	the validation categories of the Validation, Estimation and Editing process. When Meter Trouble Reports are issued, the WESM Metering Services Provider shall investigate the meter trouble and subsequently provide a report to the Market Operator. The WESM Metering Services Provider shall then correct the meter data. Procedures regarding Meter Trouble Reports are described in more detail in Section ~~8~~ **7** of this Manual.	Report which is Section 7 and not 8 (which pertains to SSLA)
	6.3.1.1	The Market Operator shall perform several checks upon receipt of metering data. These checks are described further in Section 6.3.1.2. Metering data that fail the checks will be reported according to four (4) error categories: a. Uncertain Values; b. Missing Values; c. Outside Historical Min/Max limits; and d. Orphan Values.	The Market Operator shall perform several checks upon receipt of metering data. These checks are described further in Section 6.3.1.2. Metering data that fail the checks will be reported according to ~~four (4)~~ **six(6)** error categories: a. **Estimated/**Uncertain Values; b. Missing Values; **c. Interval Gap/Zero Values;** **d. Exceeds Maximum Average;** **e. Below Minimum Average;** c. ~~Outside Historical Min/Max limits;~~ and ~~d~~ **f**. Orphan Values	To align the categories written in the Manual to the Meter Trouble Report categories the MSPs receive

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	6.3.1.2	The following checks will be performed by the Market Operator for the above validation error categories: a. Check for uncertain values; b. Check for missing values; c. Evaluate the meter's maximum and minimum readings; d. Verify the values of the metered data whose meter is not registered in the MMS master lists, which are known as the "Orphan Values"; and e. Review the historical meter readings which fall outside the defined parameters (max/min) of the historical data. The historical data used are as follows: i. Value during the same dispatch interval of the previous week; ii. Value during the same dispatch interval for the previous similar day (i.e., weekday or weekend); and iii. Average values during the previous days or previous week of the same dispatch interval.	The following checks will be performed by the Market Operator for the above validation error categories: a. Check for uncertain **or estimated** values; b. Check for missing values; c. ~~Evaluate the meter's maximum and minimum readings~~ **Check for no data or zero values;** d. ~~Verify the values of the metered data whose meter is not registered in the MMS master lists, which are known as the "Orphan Values"; and~~ ~~e.~~ Review the historical meter readings which fall outside the defined parameters (max/min) of the historical data. The historical ~~data used are as follows:~~ ~~i. Value during the same dispatch interval of the previous week;~~ ~~ii. Value during the same dispatch interval for the previous similar day (i.e., weekday or weekend); and~~ ~~iii. Average values during the previous days or previous week of the same dispatch interval.~~ value represents the average of the minimum and maximum data over a six-month period	To align with the categories written in the Manual to the Meter Trouble Report categories the MSPs receive. Furthermore, the validation category previously referred to as "Outside Historical Min/Max" has been renamed to "Exceeds Maximum Average / Below Minimum Average. In addition, the interval gap category is a variation of the "missing values" category wherein some intervals are not included in the uploaded MQ data, or there is no uploaded MQ for all intervals. On the other hand, a "missing value" category is issued when some intervals are in the uploaded MQ file but with blank data.

Title	Section	Provision	Proposed Amendment	Rationale
			~~e. Verify the values of the metered data whose meter is not registered in the MMS master lists, which are known as the "Orphan Values"~~ **e. Check for orphan values or metered data associated with meters that are not registered in the MDCS.**	
	6.3.1.3	The Market Operator shall prepare a daily validation report containing the errors encountered for the day and their respective category.	The Market Operator shall prepare a daily validation report containing the errors encountered for the day and their respective category**. If there are failed validations, Meter Trouble Report (refer to Section 7) shall be issued by the Market Operator to the Metering Services Provider.**	To state that MTR will be issued daily when there are failed validations pursuant to Section 7.

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	6.3.2	d. The final metering data shall be formally transmitted to the Market Operator with a cover letter identifying all the metering points, through their Site Equipment Identification Number.	d. ~~The final metering data shall be formally transmitted to the Market Operator with a cover letter~~ **The Market Operator must be properly informed by communication tools like e-mail, and/or letter should there be any changes to the metering data to be used in the final** ~~identifying all the metering points, through their Site Equipment Identification Number.~~ d. The final metering data shall be ~~formally~~ transmitted to the Market Operator ~~with a cover letter identifying all the metering points,~~ through the designated Meter Data Collection System identifying all the metering points, through their Site Equipment Identification Number.	~~To provide more options on communicating changes/validation of the final metering data~~ to reflect the current process
Meter Value Approval	6.3.3	6.3.3 Meter Value Approval All meter data that are received must be approved by the Market Operator before they are used in the settlement process. These data are reviewed and verified using the methods as discussed in sections 6.3.1 and 6.3.2.	6.3.3 Meter Value ~~Approval~~ **Validation** All meter data that are received must be ~~approved~~ **validated** by the Market Operator before they are used in the settlement process. These data are reviewed and verified using the methods as discussed in sections 6.3.1 and 6.3.2.	The MO does not perform any approval; it only conducts validation

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Meter Value Export	6.3.4	6.3.4 Meter Value Export Settlement-ready values will be ready for transfer to the settlement process. Only approved values are transferable.	6.3.4 Meter Value ~~Export~~ **Transfer** Settlement-ready values will be ready for transfer to the settlement process. Only **validated** ~~approved~~ values are transferable.	Change export to transfer since the data is transmitted to the next process through the database The MO does not perform any approval; it only conducts validation
	Section 6.4.2.1.a	For each dispatch interval, the kWh delivered of the main meter shall be compared with the kWh delivered of the back-up meter. If the difference exceeds a predefined limit as described in Section 2.10.4, validation fails and a trouble call shall be issued. The process shall be repeated for kVArh delivered, kWh received and kVArh received of the main.	For each dispatch interval, the kWh delivered of the main meter shall be compared with the kWh delivered of the back-up meter. If the difference exceeds a predefined limit as described in Section ~~2.10.4~~ **2.10.3**, validation fails and a trouble call shall be issued. The process shall be repeated for kVArh delivered, kWh received and kVArh received of the main.	Changed Section 2.10.4 to Section 2.10.3 since the limits were specifically said in 2.10.3.
	6.4.4	The Market Operator shall update the metering data in the metering database to correct the values submitted by the WESM Metering Services Provider. This update shall include the actual metering data obtained, as well as estimated metering data from the main and	The ~~Market Operator~~ **Metering Services Provider** shall update the metering data in the metering database to correct the **erroneous** values ~~submitted by the~~. This update shall include the actual metering data obtained, as well as estimated metering data from the main	To clarify, the MSP shall be solely responsible for updating the metering data to ensure that the latest values are reflected in the final metering data.

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		back-up meters within the required period.	and back-up meters within the required period.	
Meter Data Reconciliation and Approval	6.4.5	The reconciliation date shall be held not later than four (4) business days before the issuance of the final settlement run.	The reconciliation date shall be held not later than ~~four (4)~~ **five (5)** business days before the issuance of the final settlement run.	This aims to align the deadline with retail customers, given that meter data processing begins with WESM customers
WORK FLOW FOR METERING DATA VALIDATION, ESTIMATION AND EDITING	6.5	VEE 01 MSP's MDRS sends meter data to MO's MDCS through file transfer protocol	VEE 01 MSP's MDRS sends meter data to MO's MDCS through ~~file transfer protocol~~ **the meter data collection system designated by the MO**	To reflect that the data submitted by the Metering Service Provider goes thru a system and not through FTP
	6.5	VEE 05B To complete the settlement for the day, estimate missing values. Edit uncertain values.	~~VEE 05B~~ ~~To complete the settlement for the day, estimate missing values. Edit uncertain values.~~	To remove the VEE 05B process since the MO does not estimate the missing values or edit uncertain values. Once the MDW flags the metering points with MTR categories, SSLA is applied.
	6.5 Workflow for Metering Data Validation, Estimation and Editing	VEE 06 Apply Loss Adjustment Factor	VEE 06 Apply **Site Specific** Loss Adjustment ~~Factor~~	To use site specific loss adjustment for consistency with other clauses

Title	Section	Provision	Proposed Amendment	Rationale
	6.6 VEE 01	Sending the meter data MSP's MDRS sends meter data to MO's MDCS 0745 H daily Meter data is in the shared folder for file transfer protocol in the MDCS terminal File Transfer Protocol	Sending the meter data MSP's MDRS sends meter data to MO's MDCS ~~0745~~ 0900 H daily Meter data is ~~in the shared folder for file transfer protocol in the MDCS terminal~~ stored in the MO's MDW database. ~~File Transfer Protocol~~ **Meter Data Upload**	To provide a broader timeframe in uploading and update the details for the process
Procedural Steps dor Validation, Estimation and Editing Process	6.6 VEE 02	Receiving the meter data MO's MDCS receives meter data in agreed format After meter data has been sent by the MSP Meter data is in 5-min interval by 24 hours with kWh and kVarh data. Meter ID is recognized by MDCS Masterfile None	Receiving the meter data MO's MDCS receives meter data in agreed format After meter data has been sent by the MSP Meter data is in 5-min interval by 24 hours with kWh and kVarh data. Meter ID is recognized by ~~MDCS Masterfile~~ **the MDCS database** None	To revise Masterfile to database
	6.6 VEE 03	Importing the meter data Meter data is imported by MDW and the files are transferred	~~Importing the meter data~~ ~~Meter data is imported by MDW and the files are transferred~~	To delete since the meter data is not being imported anymore. It is already stored in the database

Title	Section	Provision	Proposed Amendment	Rationale
		After meter data has been recognized by MDCS Masterfile Meter data is recognized by MDW Masterfile File import/transferred	~~After meter data has been recognized by MDCS Masterfile~~ ~~Meter data is recognized by MDW Masterfile~~ ~~File import/transferred~~	once the MSP uploads the meter data.
	6.6 VEE 04	MDW validation MDW validates the meter data for good, orphan, uncertain, and missing values. MDW Meter Registry includes maximum/minimum values for each Metering Point. After meter data has been imported by the MDW. Meter data with orphan, missing and/or uncertain values are indicated in the MDW interface Automatic validation	MDW validation MDW validates the meter data for good, orphan, uncertain/estimated, and missing values~~. MDW Meter Registry includes~~ as well as outside maximum/minimum values for each Metering Point. After meter data has been ~~imported by the MDW~~ submitted to the MDCS. Meter data with orphan, missing and/or uncertain values are indicated in the ~~MDW~~ MDCS interface Automatic validation	To update the details in the process
	6.6 VEE 05A	Marking the validated meter data with flags MDW flags meter data as orphan data, and meter data with missing and/or uncertain values	Marking the validated meter data with flags MDW flags meter data as orphan data, ~~and meter data~~ with missing and/or uncertain/estimated values, and for maximum and minimum values limit,	To update the details in the process

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		After meter data has been validated for maximum and minimum values limit. Meter data values with flags Automatic marking of flags	After meter data has been validated ~~for maximum and minimum values limit~~. Meter data values with flags Automatic marking of flags	
	6.6 VEE 05B	MDW Estimation and Editing for daily settlement Manual estimation and editing of meter data with missing and/or uncertain data. After meter data with flags are indicated in the MDW interface Estimated missing values and edited uncertain values Manual estimation and editing based on historical values	~~MDW Estimation and Editing for daily settlement~~ ~~Manual estimation and editing of meter data with missing and/or uncertain data.~~ ~~After meter data with flags are indicated in the MDW interface~~ ~~Estimated missing values and edited uncertain values~~ ~~Manual estimation and editing based on historical values~~	We suggest deleting this provision since the MO does not estimate nor edit the meter data that fails the validation checking. The MSP shall be the one to estimate or edit the meter data.
	6.6 VEE 05C	Returning the orphan meter data and meter data with uncertain and missing values MO issues a Meter Trouble Report to the MSP on all orphan data and meter data with uncertain and missing values	~~Returning the orphan meter data and meter data with uncertain and missing values~~ Meter Trouble Report Generation and Issuance MO generates and issues a Meter Trouble Report to the MSP on all ~~orphan data and meter data with uncertain and missing values~~ meter data that fails the validation check	To reflect the actual procedure implemented by the MO. update the process since IEMOP does not return any data to the MSPs since MO already uses the CRSS, a centralized system that includes meter data submission. The MO may no longer perform the substitution or editing since this

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		After meter data has been validated for maximum and minimum values limit Returned orphan data and meter data with uncertain and missing values in the Meter Trouble Report File transfer	After meter data has been validated ~~for maximum and minimum values limit~~ ~~Returned orphan data and meter data with uncertain and missing values in the Meter Trouble Report~~ MSPs are issued with Meter Trouble Report ~~File transfer~~ Meter Trouble Report Issuance	provision was only applicable when MO's settlement system is not yet in place. With the MO's settlement system already in place, all MSPs have their own credentials to access and submit meter data for use in WESM settlements
	6.6 VEE 05D	MSP validation MSP performs technical validation on the meter of the returned meter data Upon receipt of the returned meter data Re-validated meter data Per occurrence automatic validation	MSP validation MSP performs technical validation on the meter/s ~~of the returned meter data~~ indicated in the issued Meter Trouble Report by the MO Upon receipt of the ~~returned meter data~~ issued Meter Trouble Report Re-validated meter data Per occurrence ~~automatic validation~~ of MTR	To update the details in the process since MO already uses the CRSS, a centralized system that includes meter data submission. The MO may no longer perform the substitution or editing since this provision was only applicable when MO's settlement system is not yet in place. With the MO's settlement system already in place, all MSPs have their own credentials to access and submit meter data for use in WESM settlements
	6.6 VEE 05E	Resending the meter data MSP's MDRS resends re validated meter data to MO's MDCS	Resending the meter data MSP's MDRS resends re validated meter data to MO's MDCS	To update the details in the process

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		After the MSP validation on the meter of the returned meter data Re e-validated meter data File transfer	After the MSPs validation on the meter data of the ~~returned meter data~~ meter indicated in the Meter Trouble Report Re-validated meter data ~~File transfer~~ Meter Data reupload	
	6.6 VEE 06	VEE 06 Task Name Column Application of Loss Adjustment Factor	VEE 06 Task Name Column Application of **Site Specific** Loss Adjustment ~~Factor~~	To use site specific loss adjustment for consistency with other clauses
	6.6 VEE 06	VEE 06 Method Column Manual computation for loss adjustment factor	VEE 06 Method Column Manual computation for **site specific** loss adjustment ~~factor~~	To use site specific loss adjustment for consistency with other clauses
	6.6 VEE 06	Application of Loss Adjustment factor Row The site specific loss adjustment factor is computed for each metering point and is applied.	Application of Loss Adjustment factor Row The site specific loss adjustment factor is computed for each metering point and is applied. After validation, ~~estimation and editing~~ of meter data	To update since SSLA is done after validation and the MO does not estimate nor edit the meter data. SSLA is also done automatically in the interim tool

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		After validation, estimation and editing of meter data Adjusted metering data Manual computation for loss adjustment factor.	Adjusted metering data ~~Manual~~ Automatic computation for loss adjustment factor.	
	6.6 Procedural Steps for Validation, Estimation and Editing Process	VEE 07 When After application of loss adjustment factor	VEE 07 When After application of **site specific** loss adjustment ~~factor~~	To use site specific loss adjustment for consistency with other clauses
	6.6 VEE 07	Settlement Import Settlement imports corrected meter data for preliminary settlement After application of loss adjustment factor Meter data is stored in the MDW --	~~Settlement Import~~ **Processed Meter Data Transfer to Settlement** ~~Settlement imports corrected~~ **Metering transfer the processed meter data to settlement for** ~~preliminary~~ **the specific settlement run** After application of **site-specific** loss adjustment ~~factor~~ Meter data is stored in the MDW --	To update the details in the process

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Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**
SECTION 7 Meter Trouble Report	7.2	The Market Operator issues an MTR to the Metering Services Provider for each meter for which it is responsible with data that fail the validation process, including missing data. MTRs are initiated by the said Metering Group, Metering Services Provider and/or Trading Participant who experience difficulties communicating with a Metering Installation or validation of meter data. A Metering Services Provider and/or Trading Participant may inform and request the Market Operator to issue an MTR. Where the Market Operator determines that an MTR is not required, it notifies the Trading Participant and/or Metering Services Provider of its decision. The market rules contain strict timelines with respect to MTR processing. These timelines are required to ensure prompt resolution of all MTRs and maintain the integrity of the settlements process.	The Market Operator issues an MTR to the Metering Services Provider for each meter for which it is responsible with data that fail the validation process, including missing data. ~~MTRs are initiated by the said Metering Group, Metering Services Provider and/or Trading Participant who experience difficulties communicating with a Metering Installation or validation of meter data. A Metering Services Provider and/or Trading Participant may inform and request the Market Operator to issue an MTR. Where the Market Operator determines that an MTR is not required, it notifies the Trading Participant and/or Metering Services Provider of its decision~~. The market rules contain strict timelines with respect to MTR processing. These timelines are required to ensure prompt resolution of all MTRs and maintain the integrity of the settlements process. MSPs are expected to meet these timelines ~~and all exceptions are tracked by the Market Operator.~~	To delete since MTR generation is automatic and issued to the MSPs on a daily/monthly basis. MTR issuance is based on validation rules and affected meter identification within the system, eliminating the need for manual requests and discretionary determination by the Market Operator. To delete since the validation is automated via CRSS, all meter data uploads are validated by the system and there is no exception.

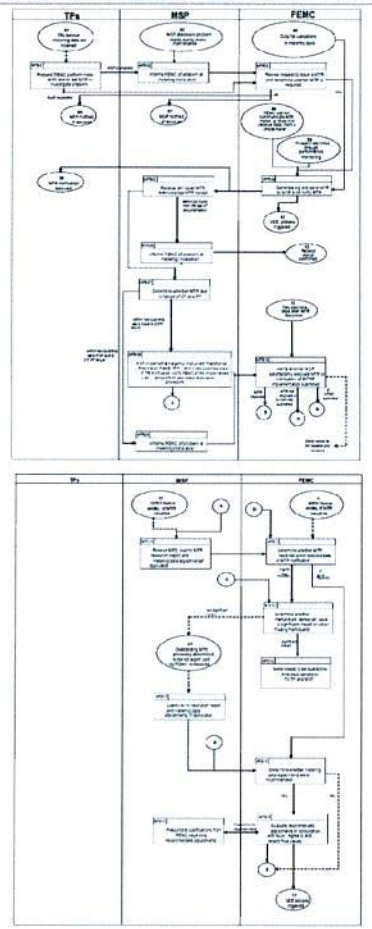
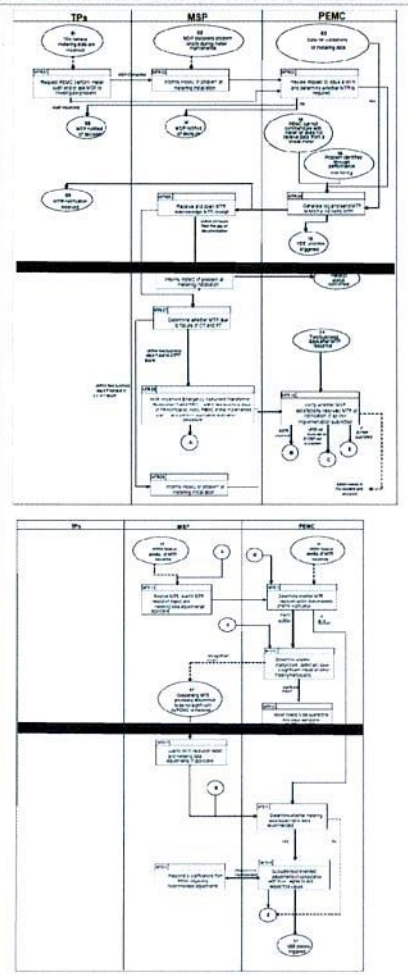
WESM Manual on Metering Standards and Procedures, Issue No.16				
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**
		MSPs are expected to meet these timelines and all exceptions are tracked by the Market Operator.		
SECTION 7 Meter Trouble Report	7.2	A Meter Trouble Report may be initiated due to the following: a. a metering data error is detected through the validation process described in Section 6 of this Manual; or b. a Metering Services Provider or a Trading Participant requests the Market Operator to issue a Meter Trouble Report to the Metering Services Provider due to difficulties in communicating with a metering installation, or validation of metering data. The Market Operator shall notify the Metering Services Provider or a Trading Participant of its decision within twenty-four (24) hours.	A Meter Trouble Report may be initiated due to ~~the following:~~ ~~a.~~ a metering data error is detected through the validation process described in Section 6 of this Manual~~; or~~ b~~. a Metering Services Provider or a Trading Participant requests the Market Operator to issue a Meter Trouble Report to the Metering Services Provider due to difficulties in communicating with a metering installation, or validation of metering data. The Market Operator shall notify the Metering Services Provider or a Trading Participant of its decision within twenty-four (24) hours.~~	To delete since the validation is automated via CRSS, all meter data uploads are validated and difficulties in communication with a metering installation which results to non-submission of metering data is already covered in the validation (missing or interval gap).
SECTION 7 Meter Trouble Report	7.2	Issuance of Meter Trouble Report shall be suspended by the Market Operator in cases where a massive communication link failure affects large areas due to force majeure	~~Issuance of Meter Trouble Report shall be suspended by the Market Operator in cases where a massive communication link failure affects large areas due to force majeure and TELCO related problems which are beyond the~~	The MTR process is fully system-driven and MSP may answer the MTRs when unable to provide data.

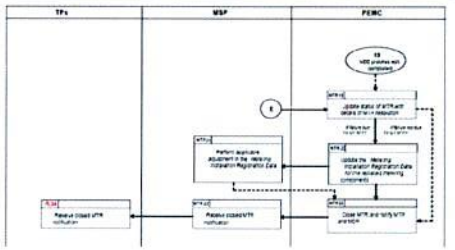
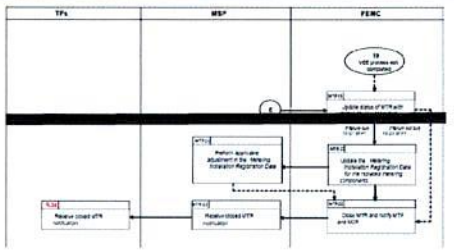
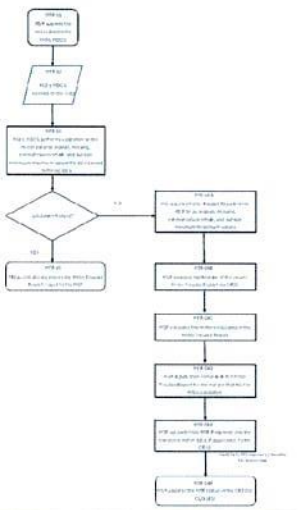
WESM Manual on Metering Standards and Procedures, Issue No.16				
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**
		and TELCO related problems which are beyond the control of the Metering Services Provider. In cases that Metering Services Provider still fails to deliver the meter data of the remaining Metering Point/s to the Market Operator, the Market Operator shall consider the estimation of meter data of the affected Metering Point/s until such time that the Metering Services Provider has collected the meter data remotely or manually and transmitted to the Market Operator. In such cases, the Market Operator shall inform the affected customer of the temporary estimation made by the Metering Services Provider.	~~control of the Metering Services Provider.~~ In cases that Metering Services Provider ~~still~~ fails to deliver the meter data of the remaining Metering Point/s to the Market Operator **due to a massive communication link failure**, ~~the Market Operator shall consider the~~ estimation of meter data **can be applied by the Metering Services Provider to** ~~of~~ the affected Metering Point/s until such time that the Metering Services Provider has collected the meter data remotely or manually and transmitted to the Market Operator. In such cases, the **Metering Services Provider may submit the estimated meter data and tag the same as estimated.** ~~Market Operator shall inform the affected customer of the temporary estimation~~ made by the Metering Services Provider.	
	Section 7.2.1	In case of outages, a Trading Participant and/or its Metering Services Provider shall notify the Market Operator and the Metering Services Provider within 24 hours after its occurrence. Trading Participants may use the Metering Outages Form to notify their Metering Services Provider and the	In cases of outages **or other issues that prevent the MSP from providing actual metering data, Meter Trouble Reports (MTRs) shall be issued.** **To resolve the MTRs, the Metering Services Provider shall respond to the issued trouble reports and indicate the reason for the identified error or failed validation prior to**	To delete since MTR is auto-generated and no outage form is required as the MSP may answer the issued MTRs to them. Highlight the closure details of MTR and timeline in resolving it.

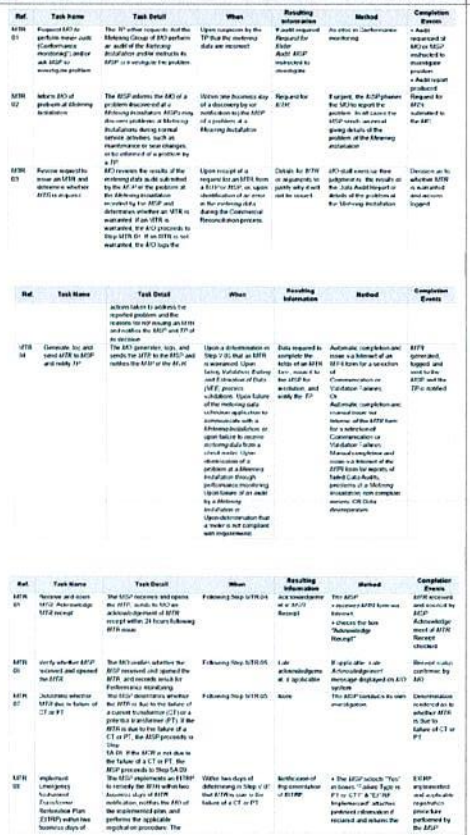
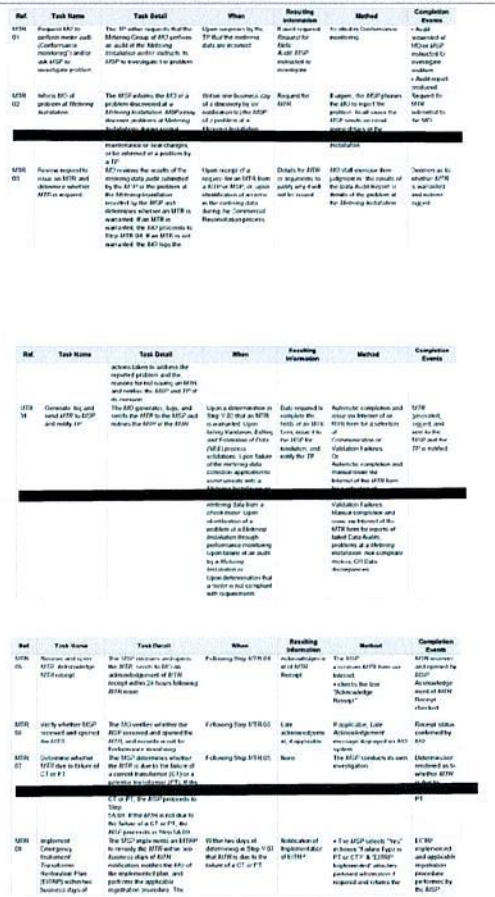
WESM Manual on Metering Standards and Procedures, Issue No.16				
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**
		Market Operator of any outages that may affect the metering data. The Metering Services Provider will use this information to resolve MTRs that have been issued. A sample of the form and instructions for completion may be found in the Appendices. To access the MTR system, individuals in a Trading Participant or Metering Services Provider organization require a User ID and password. To obtain a User ID, download the form from the market information website and complete it as directed, including the appropriate signatures. Return the completed form to the Market Operator. The Information Systems Group of the Market Operator will notify the user of the assigned User ID and password.	**closure within two (2) business days after the issuance of the MTR.** ~~a Trading Participant and/or its Metering Services Provider shall notify the Market Operator and the Metering Services Provider within 24 hours after its occurrence. Trading Participants may use the Metering Outages Form to notify their Metering Services Provider and the Market Operator of any outages that may affect the metering data. The Metering Services Provider will use this information to resolve MTRs that have been issued. A sample of the form and instructions for completion may be found in the Appendices.~~ ~~To access the MTR system, individuals in a Trading Participant or Metering Services Provider organization require a User ID and password. To obtain a User ID, download the form from the market information website and complete it as directed, including the appropriate signatures. Return the completed form to the Market Operator. The Information Systems Group of the Market Operator will notify the user of the assigned User ID and password.~~	

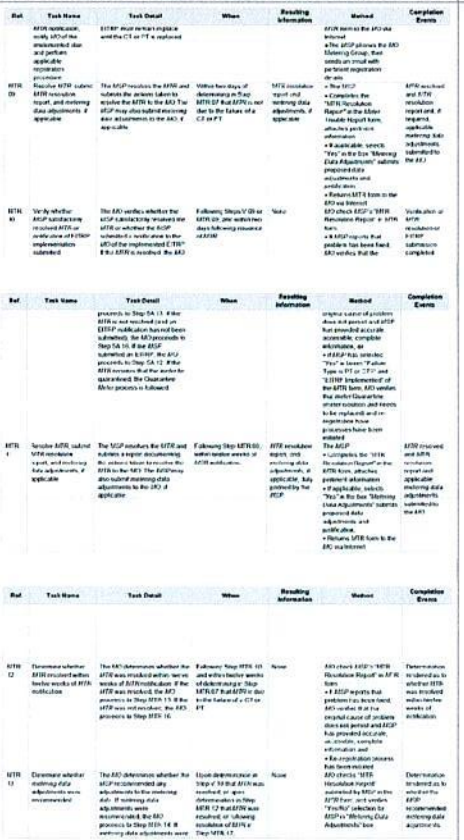
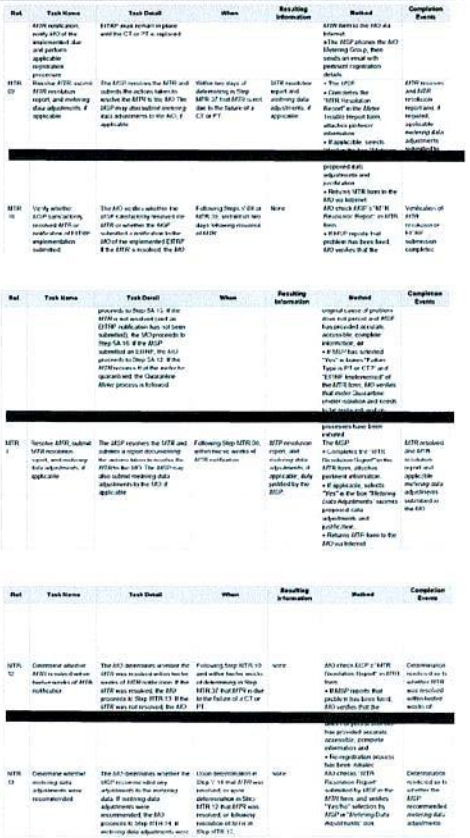
WESM Manual on Metering Standards and Procedures, Issue No.16				
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**
	7.3	The Market Operator shall issue a Meter Trouble Report to the Metering Services Provider and, for information, its associated Trading Participant within twenty-four (24) hours after detection or request.	The Market Operator shall issue a Meter Trouble Report to the Metering Services Provider and, for information, its associated Trading Participant **through the failed validation tagging in the MQ report** within twenty-four (24) hours after detection ~~or request.~~	To delete reference to request since MTR is auto-generated and issued on a daily and monthly basis, without the need for requests.
	7.3.1	The Metering Services Provider shall submit the correct metering data to the Market Operator within the timeline provided below:	The Metering Services Provider shall submit the correct metering data **and Meter Trouble Report Response** to the Market Operator within the timeline provided below:	To edit so that the MTR response is included in the timeline.
	7.3.2	a. Estimation If a Meter Trouble Report is still unresolved after the designated timeline in Section 7.3.1, the Market Operator shall implement the estimation and editing of metering data in accordance with Section 6 of this Manual.	a. Estimation If a Meter Trouble Report is still unresolved after the designated timeline in Section 7.3.1, the ~~Market Operator~~ **Metering Services Provider (MSP)** shall implement the estimation and editing of metering data in accordance with Section 6 of this Manual **and submit the estimated metering data to the MDCS**.	To edit since MO does not edit nor estimate the metering data, it's the MSPs responsibility. This is also consistent with the provisions of the Retail Manual on Metering Standards and Procedures Section 6.4 and Appendix D, and Retail Rules Section 4.6
Unresolved Meter Trouble Reports	7.3.2	b. The Metering Services Provider may still resolve a Meter Trouble Report and provide metering data acceptable to the Market Operator after the deadline set in Section 7.3.1. For late resolutions, the	The Metering Services Provider may still resolve a Meter Trouble Report and provide metering data acceptable to the Market Operator after the deadline set in Section 7.3.1. For late resolutions, the deadline to be reflected in the final settlement statement	This aims to align the deadline with retail customers, given that meter data processing begins with WESM customers

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Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**
		deadline to be reflected in the final settlement statement shall be four (4) business days prior to the issuance of the final settlement statement.	shall be ~~four (4)~~ **five (5)** business days prior to the issuance of the final settlement statement.	
Unresolved Meter Trouble Reports	7.3.2	c. If the Metering Services Provider resolves the Meter Trouble Report and submits metering data later than four (4) business days prior the issuance of the final settlement statement of the affected trading day, the Market Operator shall use the submitted metering data for the determination of the gross energy settlement quantities in its settlement revisions under Clause 3.14.9.2 of WESM Rules.	If the Metering Services Provider resolves the Meter Trouble Report and submits metering data later than ~~four (4)~~ **five (5)** business days prior the issuance of the final settlement statement of the affected trading day, the Market Operator shall use the submitted metering data for the determination of the gross energy settlement quantities in its settlement revisions under Clause 3.14.9.2 of WESM Rules.	This aims to align the deadline with retail customers, given that meter data processing begins with WESM customers
	7.5 Workflow for Meter Trouble Report			To align with the current process in the CRSS, in consideration of Section 6

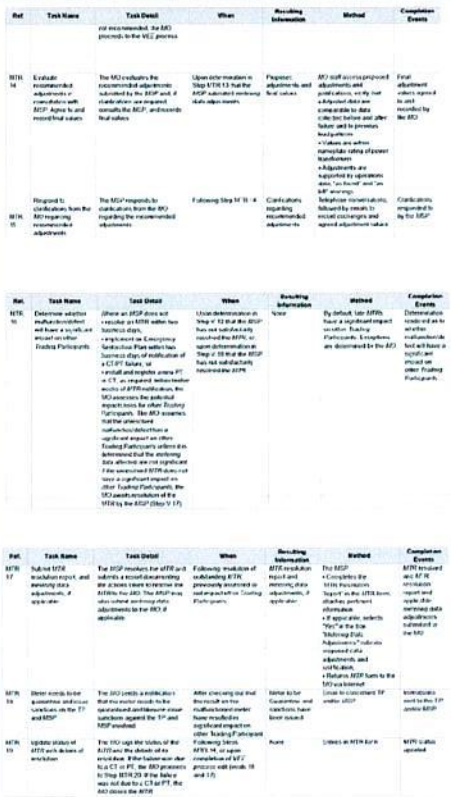
Title	Section	Provision	Proposed Amendment	Rationale
				

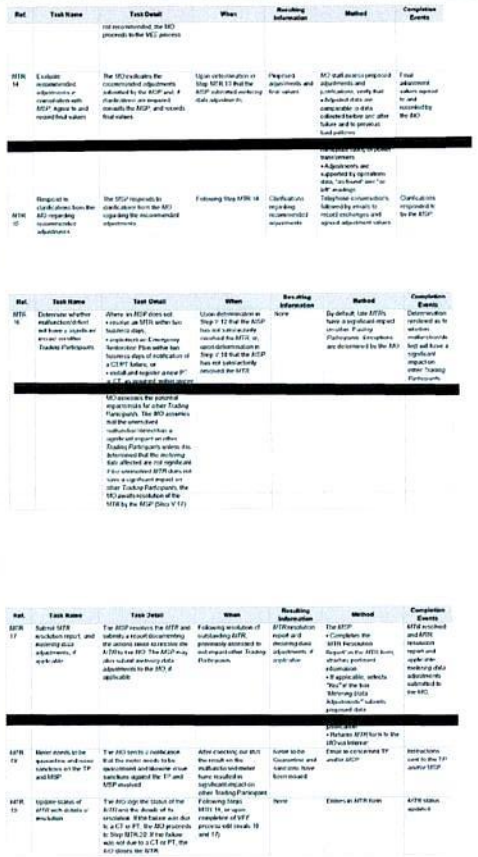
WESM Manual on Metering Standards and Procedures, Issue No.16				
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**
			 	

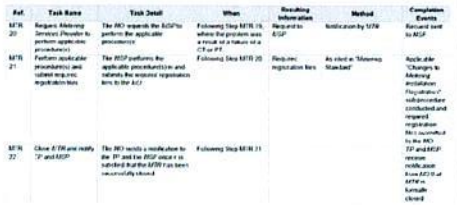
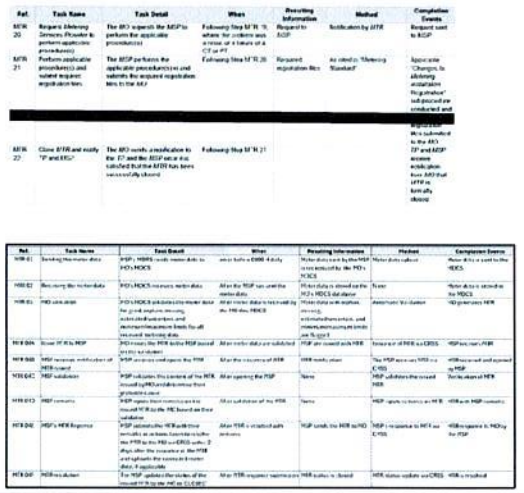
Title	Section	Provision	Proposed Amendment	Rationale
	7.6 Procedural Steps for Meter Trouble Reports			To align with the current process in the CRSS, in consideration of Section 6

Title	Section	Provision	Proposed Amendment	Rationale
				

Title	Section	Provision	Proposed Amendment	Rationale





Title	Section	Provision	Proposed Amendment	Rationale
				
	Section 8.2	8.2. PURPOSE This is an interim procedure which shall be used to adjust the Trading Participant's meter data to compensate for the electrical losses in the components that come between the Metering Point and the MTN. The power and energy registered at the Metering Point shall be adjusted to reflect meter readings that would have been obtained if the revenue meter is physically located at the MTN. Hence, all Metering Services Providers shall endeavor to	8.2. PURPOSE This is an interim procedure which shall be used to adjust the Trading Participant's meter data to compensate for the electrical losses in the components that come between the Metering Point and the MTN**, except for DU-connected Retail Customers**. The power and energy registered at the Metering Point shall be adjusted to reflect meter readings that would have been obtained if the revenue meter is physically located at the MTN. Hence, all Metering Services Providers shall endeavor to harmonize the location of the	To clarify that DU-connected Retail Customers are not subjected to SSLA, consistent with the Retail Rules Clauses 3.3.2.1 and 3.3.2.3 provisions on the determination of gross energy settlement quantity or GESQ for the billing of Retail Customers and Retail Suppliers.

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Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**
	---------- Section 8.3	harmonize the location of the metering point in accordance with their compliance plan as specified in the DOE Department Circular No. DC2016-05-0007 in order to eliminate the adjustments in the metered quantity and better efficiency in the WESM. ---------- - This interim procedure shall only apply to all revenue *metering installations* of *Trading Participants* in the *WESM*, where the Metering Point is non-compliant with the required location and physically located more than 500m from the *Connection Point* as determined by the *Metering Services Provider*.	WESM metering point in accordance with their compliance plan as specified in the DOE Department Circular No. DC2016-05-0007 in order to eliminate the adjustments in the metered quantity and better efficiency in the WESM. ---------- This interim procedure shall only apply to all revenue *metering installations* of *Trading Participants* in the *WESM*, where the Metering Point is non-compliant with the required location and physically located more than 500m from the ~~*Connection Point* as determined by the *Metering Services Provider*.~~ **location of the associated Market Trading Node (MTN).**	Since not all connection points are collocated with the MTN, this revision will establish that the reference points of the Site-Specific Loss Adjustment (SSLA) are between the location of the metering point of the Trading Participants and the associated MTN.
Site – Specific Loss Adjustment	Section 8.5.1.1	The *Network Service Provider* shall submit to the *Metering Services*	The *Network Service Provider* shall submit to the *Metering Services Provider* all data	The list of information was updated to reflect the actual data

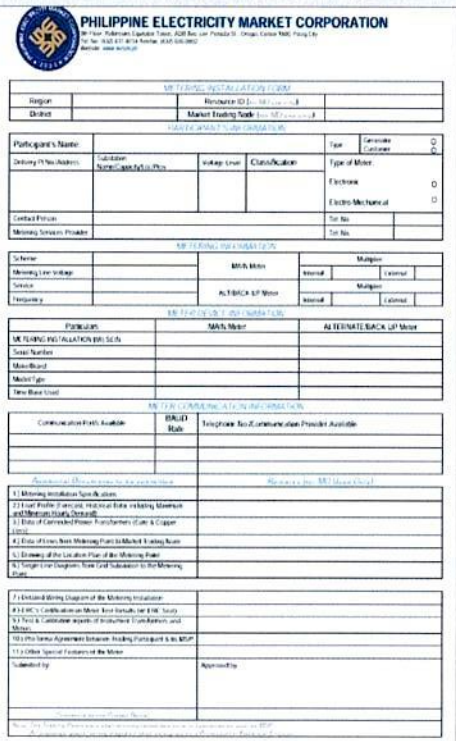
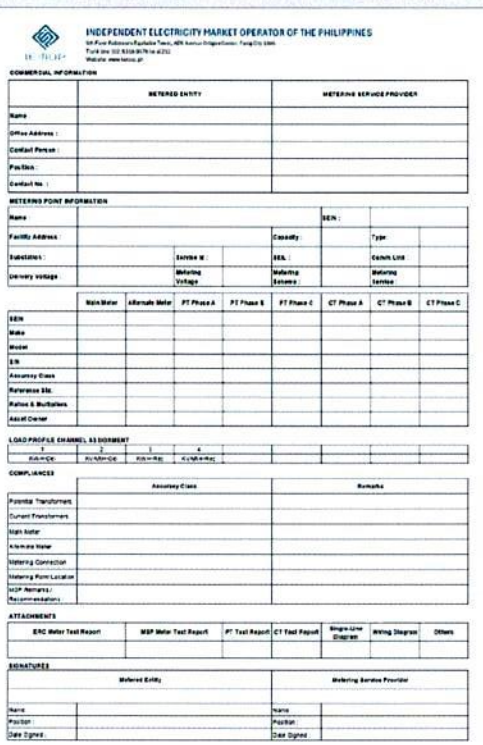
Title	Section	Provision	Proposed Amendment	Rationale
		Provider all data necessary in the preparation of the following information that may affect the SSLA computation not later than 20 calendar days, upon implementation of modification in the actual physical configuration of the conductor and power transformer between the metering point and the *Connection Point*: a. Transformer Resistance, R (ohms) b. Transformer Reactance, X(ohms) c. Transmission Line Circuit Branch Resistance, R (ohms) d. Transmission Line Circuit Branch Reactance, X (ohms) e. Transmission Line Circuit Total Branch Susceptance, B (siemens) f. Single Line Diagram showing metering point location and distance from the connection point	necessary in the preparation of the following information that may affect the SSLA computation not later than 20 calendar days, upon implementation of modification in the actual physical configuration of the conductor and power transformer between the metering point and the ~~*Connection Point*~~ **Market Trading Node:** ~~a. Transformer Resistance, R (ohms)~~ **a. KVA Rating of the transformer (kVA)** ~~b. Transformer Reactance, X(ohms)~~ **b. Rated Core Loss of the transformer (kW) (For Transformer with less than 1 MVA rating or more than 10 MVA Rating)** **c. Rated Copper Loss of the transformer (kW) (For Transformer with less than 1 MVA rating or more than 10 MVA Rating)** ~~c.~~ d. Transmission Line Circuit Branch Resistance **per length,** R (ohms**/km**) ~~d.~~ e. Transmission Line Circuit Branch Reactance **per length,** X (ohms**/km**) ~~e. Transmission Line Circuit Total Branch Susceptance, B (siemens)~~ f. Single Line Diagram showing metering point location and distance from the ~~connection~~	necessary in the SSLA computation. This is consistent with the DOE's directive to use the formula for determining the transformer losses from the Issue 11 of the same WESM-MSP Manual, if the KVA rating does not have a corresponding Percent Transformer Loss. To further clarify, based on the latest WESM-MSP manual, the KVA rating of the transformer is used to identify the corresponding Percent Transformer Loss for the determination of the total transformer loss.

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Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**
			~~point~~ **location of the Market Trading Node (MTN)**	
Site – Specific Loss Adjustment	Section 8.5.2.1	The *Metering Services Provider* shall submit to the *Market Operator* the list of the *metering points* that will be subject to the computation of Site-Specific Loss Adjustment (SSLA) including associated single line diagrams and significant line and transformer parameters between the *metering point* and the *connection point,* upon registration of the *metering installation* and as often as it implements significant changes in the actual physical connections between the *metering point* and the *market trading node*. a. Transformer Resistance, R (ohms) b. Transformer Reactance, X(ohms) c. Transmission Line Circuit Branch Resistance, R (ohms) d. Transmission Line Circuit Branch Reactance, X (ohms)	The *Metering Services Provider* shall submit to the *Market Operator* ~~the list of the *metering points* that will be subject to the computation of Site-Specific Loss Adjustment (SSLA) including~~ the associated single line diagrams and significant line and transformer parameters between the *metering point* and the ~~*connection point*~~ **market trading node,** upon registration of the *metering installation* and as often as it implements significant changes in the actual physical connections between the *metering point* and the *market trading node*. ~~a. Transformer Resistance, R (ohms)~~ **a. KVA Rating of the transformer (kVA)** ~~b. Transformer Reactance, X(ohms)~~ **b. Rated Core Loss of the transformer (kW) (For Transformer with less than 1 MVA rating or more than 10 MVA Rating)** **c. Rated Copper Loss of the transformer**	The list of information was updated to reflect the actual data necessary in the SSLA computation. The MSP's provision of the list of metering points with SSLA was omitted since the Market Operator is the one who identifies which metering points will be subjected to the computation of the Site-Specific Loss Adjustment (SSLA).

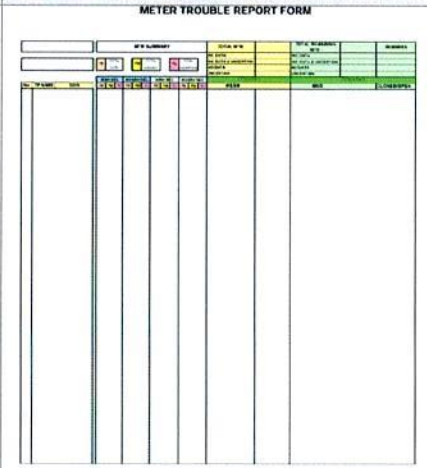
WESM Manual on Metering Standards and Procedures, Issue No.16				
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**
		e. Transmission Line Circuit Total Branch Susceptance, B (siemens)	**(kW) (For Transformer with less than 1 MVA rating or more than 10 MVA Rating)** ~~c.~~ d. Transmission Line Circuit Branch Resistance **per length**, R (ohms**/km**) ~~d.~~ e. Transmission Line Circuit Branch Reactance **per length**, X (ohms**/km**) ~~e. Transmission Line Circuit Total Branch Susceptance, B (siemens)~~ **f. Single Line Diagram showing metering point location and distance from the Market Trading Node (MTN)**	
Site – Specific Loss Adjustment	Section 8.5.4.1	The *Market Operator* shall use the latest conductor and power transformer data and list of metering points that will be subject to SSLA submitted by the *Metering Services Provider*. For any data discrepancy raised by the *Network Service Provider* or *Trading Participant*, the *Market Operator* shall immediately conduct reconciliation to determine the corrected data agreed by the *Market Operator, the Network Service Provider,* the *Metering Services Provider* and the *Trading Participant*. The *Market Operator*	The *Market Operator* shall use the latest conductor and power transformer data ~~and list of metering points that will be subject to SSLA~~ submitted by the *Metering Services Provider*. For any data discrepancy raised by the *Network Service Provider* or *Trading Participant*, the *Market Operator* shall ~~immediately~~ conduct reconciliation **within seven (7) business days upon receipt of information on the raised data discrepancy** to determine the corrected data agreed by the *Market Operator, the Network Service Provider,* the *Metering Services Provider* and the *Trading Participant*. The *Market Operator*	The MSP's provision of the list of metering points with SSLA is proposed to be omitted since the Market Operator is the one who identifies which metering points will be subjected to the computation of the Site-Specific Loss Adjustment (SSLA). There shall be a concrete timeline for the reconciliation of the data discrepancy raised by the Market participants.

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Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**
		shall use the reconciled data starting on the current billing month only, then progressively for the succeeding billing months until a new conductor and power transformer data is submitted.	shall use the reconciled data starting on the ~~current~~ billing month **on which the reconciled data was approved** only, then progressively for the succeeding billing months until a new conductor and power transformer data is submitted.	
Table of Contents	8.6	Site Specific Loss Factor Calculation	Site Specific Loss ~~Factor~~ **Adjustment** Calculation	To use Adjustment instead of factor for consistency with other clauses
	8.6 Site Specific Loss Factor Calculation	Site Specific Loss Factor Calculation	Site Specific Loss ~~Factor~~ **Adjustment** Calculation	To use Adjustment instead of factor for consistency with other clauses
Loss Calculation	8.6.1	Loss Calculation Losses across power system components between the Revenue meter(s) and the Market Trading Nodes (MTN) shall be computed using suitable mathematical model for the components and applying basic circuit analysis principles. This variable shall be referred to as $PLoss$. Sample cases for calculating	Loss Calculation Losses across power system components between the Revenue meter(s) and the Market Trading Nodes (MTN) shall be computed using suitable mathematical model for the components and applying basic circuit analysis principles. This variable shall be referred to as ~~$PLoss$~~ **$TotalkW-Loss$, which is the sum of the line loss and transformer loss. Provided, that the transformer loss component shall be computed for all**	To align with the term used in Appendix K to indicate the losses and to further clarify the application of SSLA, particularly for cases where there is a transformer loss between the MTN and the meter, regardless of line data

Title	Section	Provision	Proposed Amendment	Rationale
		PLoss are presented in the Appendix.	**Revenue meters with transformers of any capacity rating and the Revenue meter is not coincident with the MTN, regardless of line data**. Sample cases for calculating ~~***PLoss***~~ ***TotalkW−Loss*** are presented in the Appendix.	
METERING SERVICES PROVIDER REGISTRATION FORM	APPENDIX A	 APPENDIX A **METERING SERVICES PROVIDER REGISTRATION FORM** A. General Information **1. Name** Name of Organization to be Registered: _____ Short Name: _____ **2. Business/ Office Address** No. Street City: Province: Postal/Zip Code: Phone Number: FAX Number: E-mail Address:		For deletion since the form is no longer necessary. MSP registration is done via CRSS.
	APPENDIX B	Old format of MIRF	Revision format for MIRF	

Title	Section	Provision	Proposed Amendment	Rationale
				Update the MIRF format based on the current MIRF being submitted by the MSPs
Metering Outage Form	E	Instructions to MTPs for completion of Metering Outage Form	~~Instructions to MTPs for completion of Metering Outage Form~~	Appendix E may be omitted as the Metering Outage Form is not operationally used and has been

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Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**
		This form will be used by your MSPs to resolve issued MTRs. This will reduce the time spent by your MSPs in confirming metering outages and the associated costs. 1) MTPs should complete the top portion only (MSP Metering Outage Reporting Form - Notification). This form should be completed on the start day of the metering outage. Please ensure all meter points affected are included. 2) If the outage is complete enter the end time. 3) Submit the form to your MSPs with a copy to the MO for reference purposes. 4) If the outage is ongoing, complete the end time on day of completion and resubmit form to your MSPs. 5) The Outage Verification section is for the MSPs only.	~~This form will be used by your MSPs to resolve issued MTRs. This will reduce the time spent by your MSPs in confirming metering outages and the associated costs.~~ ~~1) MTPs should complete the top portion only (MSP Metering Outage Reporting Form - Notification). This form should be completed on the start day of the metering outage.~~ ~~Please ensure all meter points affected are included.~~ ~~2) If the outage is complete enter the end time.~~ ~~3) Submit the form to your MSPs with a copy to the MO for reference purposes.~~ ~~4) If the outage is ongoing, complete the end time on day of completion and resubmit form to your MSPs.~~ ~~5) The Outage Verification section is for the MSPs only.~~ **"Intentionally blank"**	superseded by the Metering Trouble Report (MTR) process. All metering outages and cases of non-submission of data are now formally documented and resolved through MTR issuance, response, and closure. The MSPs can fully track their affected meters through issued MTRs and respond to them accordingly. ~~Note: Appendices will be re-numbered in view of the suggested deletion of some appendices~~ This section may be left with "intentionally blank" remarks to avoid renumbering of succeeding appendices (Appendix F to Q) and citations of the said appendices in the document.

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Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**
Meter Trouble Report Form	APPENDIX F		 METER TROUBLE REPORT ~~FORM~~	To update the MTR Format based on what the MSPs receive from the MO as well as change the Appendix Title to Meter Trouble Report
SITE EQUIPMENT IDENTIFICATION LABEL (SEIL)	Appendix I Table 9	SITE EQUIPMENT IDENTIFICATION LABEL (SEIL)	SITE **AND** EQUIPMENT IDENTIFICATION LABEL (SEIL)	Updates on this list should be done by NGCP for new generation stations/substations; Suggest to also update the Title for consistency
SITE EQUIPMENT IDENTIFICATION LABEL (SEIL)	Appendix I Table 10	SITE EQUIPMENT IDENTIFICATION LABEL (SEIL)	SITE **AND** EQUIPMENT IDENTIFICATION LABEL (SEIL)	Updates on this list should be done by NGCP for new metered participants; Suggest to also update the Title for consistency
Site – Specific Loss Adjustment	Appendix K Section A	i. Calculation of Line Losses	. Calculation of Line Losses	The active and reactive Line $_{kW-Loss}$ items are indicated separately in the formula. Also, the descriptions of the following terms in the formula were inserted in the respective items.

Title	Section	Provision	Proposed Amendment	Rationale
		$$kW_{Meter} = \frac{kWh_{Meter}}{t}$$ $$kVAR_{Meter} = \frac{kVARh_{Meter}}{t}$$ $$pf = \frac{kW_{Meter}}{\sqrt{(kW_{Meter})^2 + (kVAR_{Meter})^2}}$$ $$I_{Line} = \frac{kW_{Meter}}{\sqrt{3} \times V_{Rated} \times pf}$$ $$Line_{kW-Loss} = \frac{(I_{Line})^2 \times R_T}{1000}$$	$$kW_{Meter} = \frac{kWh_{Meter}}{t}$$ $$kVAR_{Meter} = \frac{kVARh_{Meter}}{t}$$ $$pf = \frac{kW_{Meter}}{\sqrt{(kW_{Meter})^2 + (kVAR_{Meter})^2}}$$ $$I_{Line} = \frac{kW_{Meter}}{\sqrt{3} \times V_{Rated} \times pf}$$ $$Active\ Line_{kW-Loss} = \frac{(I_{Line})^2 \times R_T}{1000}$$ $$Reactive\ Line_{kW-Loss} = \frac{(I_{Line})^2 \times X_T}{1000}$$ **Where:** t = duration of a dispatch interval, in hours R_T = Total resistance of the line conductor per line, in ohms X_T = Total Reactance of the Line Conductor per line, in ohms pf = Power Factor kWh_{Meter} = Active energy derived from the meter registration, in kWh $kVARh_{Meter}$ = Reactive energy derived from the meter registration, in kVARh	

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Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**
			$\underline{kW_{Meter}}$ = Demand (Active Power) derived from the meter registration, in kW **$\underline{kVAR_{Meter}}$ = Reactive Power derived from the meter registration, in kVAR** **$\underline{I_{Line}}$ = Current along the line, in Ampere** **$\underline{V_{Rated}}$ = Rated voltage of the line, in kV** **Active $\underline{Line_{kW-Loss}}$ = the active loss along the line, in kW** **Reactive $\underline{Line_{kW-Loss}}$ = the reactive loss along the line, in kVAR**	
Site – Specific Loss Adjustment	Appendix K Section A	ii. Calculation of Transformer Losses: For the calculation of the transformer losses, the following percent transformer loss (% Transformer Loss) shall be used to determine the total transformer losses. For in between capacities, interpolation shall be performed to	ii. Calculation of Transformer Losses: **a.** For the calculation of the transformer losses, the following percent transformer loss (% Transformer Loss) shall be used to determine the total transformer losses.	Since there are no additional guidelines for calculating the Percent Transformer Loss for out-of-range Transformer kVA Ratings, the proposed amendment will aid in the determination of the transformer loss of other Transformer kVA Ratings.

Title	Section	Provision	Proposed Amendment	Rationale
		calculate the Percent Transformer Loss. When translating power (and energy) metered at the secondary side to the primary side, the following formula shall be used: $kW_{P-Meter} = \frac{kW_{Meter}}{(1-\frac{\%Transformer_{Loss}}{100})}$ $kVAR_{P-Meter} = \frac{kVAR_{Meter}}{(1-\frac{\%Transformer_{Loss}}{100})}$ Conversely, power (and energy) that is metered at the primary side shall be translated to the secondary side using the formula: $kW_{S-Meter} = kW_{Meter}(1-\frac{\%Transformer_{Loss}}{100})$ $kVAR_{S-Meter} = kVAR_{Meter}(1-\frac{\%Transformer_{Loss}}{100})$ $Transformer_{kW-Loss} = kW_{Meter} - kW_{S-Meter}$	<table><tr><th>Capacity (kVA)</th><th>Percent Transformer Loss (%)</th></tr><tr><td>1,000</td><td>1.9</td></tr><tr><td>2,000</td><td>1.8</td></tr><tr><td>3,000</td><td>1.7</td></tr><tr><td>4,000</td><td>1.6</td></tr><tr><td>5,000</td><td>1.5</td></tr><tr><td>10,000</td><td>1.4</td></tr></table> For in between capacities, interpolation shall be performed to calculate the Percent Transformer Loss. When translating power (and energy) metered at the secondary side to the primary side, the following formula shall be used:$kW_{P-Meter} = \frac{kW_{Meter}}{(1-\frac{\%Transformer_{Loss}}{100})}$ $kVAR_{P-Meter} = \frac{kVAR_{Meter}}{(1-\frac{\%Transformer_{Loss}}{100})}$ $Transformer_{kW-Loss} = kW_{P-Meter} - kW_{Meter}$ Conversely, power (and energy) that is metered at the primary side shall be translated to the secondary side using the formula:	The descriptions of the following terms in the formula were inserted in the respective items

Title	Section	Provision	Proposed Amendment	Rationale
			$kW_{S-Meter} = kW_{Meter}(1 - \frac{\%Transformer_{Loss}}{100})$ $kVAR_{S-Meter} = kVAR_{Meter}(1 - \frac{\%Transformer_{Loss}}{100})$ $Transformer_{kW-Loss} = kW_{Meter} - kW_{S-Meter}$ **Where:** **$kW_{P-Meter}$ = Translated active power at the primary side of transformer, in kW** **$kVAR_{P-Meter}$ = Translated reactive power at the primary side of transformer, in kVAR** **$kW_{S-Meter}$ = Translated active power at the secondary side of the transformer, in kW** **$kVAR_{S-Meter}$ = Translated reactive power at the secondary side of the transformer, in kVAR** **$\%\ TransformerLoss$ = Percent Transformer Loss**	

Title	Section	Provision	Proposed Amendment	Rationale
			b. For kVA ratings below or above the kVA capacity ratings in the table, the following formula shall be utilized for the calculation of the transformer loss of the meter: **Core Loss = $T_{Core\ Loss}$** **Copper Loss = $\left(\frac{\left(\frac{kW_{Meter}}{pf}\right)}{\text{kVA Rating}}\right)^2 \times P_{Short\ Circuit}$** **Transformer $Loss_{kW\text{-}Loss}$ = Core Loss + Copper Loss** **Where:** **$T_{Core\ Loss}$ = Rated Core Loss of the Transformer** ***kW_{Meter}* = Demand (Active Power) derived from the meter registration, in kW** ***pf* = Power Factor** **kVA Rating = Apparent power of the Transformer, in kVA** **$P_{Short\ Circuit}$ = Rated Copper Loss of the Transformer**	To relate the proposed formula under item ii.b (Calculation of Transformer Losses) with the formula under item iii (Calculation of Adjusted Energy), additional formula will be included. The term 'kW reading' was also renamed to 'kW_{meter}' for consistency in the description. Core Loss = $T_{Core\ Loss}$ Copper Loss = $\left(\frac{\left(\frac{kW_{Meter}}{pf}\right)}{\text{kVA Rating}}\right)^2 \times P_{Short\ Circuit}$ Transformer$_{kW\text{-}Loss}$ = Core Loss + Copper Loss
Site – Specific Loss Adjustment	Appendix K Section A	iii. Calculation of Adjusted Energy $Total_{kW-Loss} = Line_{kW-Loss} + Transformer_{kW-Loss}$ $Adjusted_{kW} = kW_{Meter} \pm Total_{kW-Loss}$ (+) = if the *connection point* is located before the metering point (i.e., the line current initially passes	iii. Calculation of Adjusted Energy $Total_{kW-Loss} = \textbf{Active}\ Line_{kW-Loss} + Transformer_{kW-Loss}$ $Adjusted_{kW} = kW_{Meter} \pm Total_{kW-Loss}$ (+) = if the ~~*connection point*~~ **Market Trading Node** is located before the metering point (i.e., the line current initially passes through the	The term 'Connection point' was replaced by the term 'Market Trading Node' to harmonize the reference point of the application of SSLA in the manual. The descriptions of the other terms in the formula were inserted in the respective items.

Title	Section	Provision	Proposed Amendment	Rationale
		through the *connection point* then the metering point) (-) = if the *connection point* is located after the metering point (i.e., the line current initially passes through the metering point then the *connection point*) $Adjusted_{kWh} = Adjusted_{kW} \times t$ Where: R_T = Total resistance of the line conductor per line, in ohms X_L = Total Reactance of the Line Conductor per line, in ohms pf = Power Factor kWh_{Meter} = Active energy derived from the meter registration, in kWh $kVARh_{Meter}$ = Reactive energy derived from the meter registration, in kVARh	~~*connection point*~~ **Market Trading Node** then the metering point) (-) = if the ~~*connection point*~~ **Market Trading Node** is located after the metering point (i.e., the line current initially passes through the metering point then the ~~*connection point*~~ **Market Trading Node**) $Adjusted_{kWh} = Adjusted_{kW} \times t$ Where: ~~R_T = Total resistance of the line conductor per line, in ohms~~ ~~X_L = Total Reactance of the Line Conductor per line, in ohms~~ ~~pf = Power Factor~~ ~~kWh_{Meter} = Active energy derived from the meter registration, in kWh~~ ~~$kVARh_{Meter}$ = Reactive energy derived from the meter registration, in kVARh~~	

Title	Section	Provision	Proposed Amendment	Rationale
		kW_{Meter} = Demand (Active Power) derived from the meter registration, in kW $kVAR_{Meter}$ = Reactive Power derived from the meter registration, in kVAR I_{Line} = Current along the line, in Ampere V_{Rated} = Rated voltage of the line, in kV $Line_{kW-Loss}$ = the active loss along the line, in kW $kW_{P-Meter}$ = Translated active power at the primary side of transformer, in kW $kVAR_{P-Meter}$ = Translated reactive power at the primary side of transformer, in kVAR $kW_{S-Meter}$ = Translated active power at the secondary side of the transformer, in kW	~~$kVAR_{Meter}$ = Reactive Power derived from the meter registration, in kVAR~~ ~~I_{Line} = Current along the line, in Ampere~~ ~~V_{Rated} = Rated voltage of the line, in kV~~ **Active** $Line_{kW-Loss}$ = the active loss along the line, in kW ~~$kW_{P-Meter}$ = Translated active power at the primary side of transformer, in kW~~ ~~$kVAR_{P-Meter}$ = Translated reactive power at the primary side of transformer, in kVAR~~ ~~$kW_{S-Meter}$ = Translated active power at the secondary side of the transformer, in kW~~ ~~$kVAR_{S-Meter}$ = Translated reactive power at the secondary side of the transformer, in kVAR~~ ~~$\%TransformerLoss$ = Percent Transformer Loss~~ $Transformer_{kW-Loss}$ = Total loss in the transformer, in kW	

Title	Section	Provision	Proposed Amendment	Rationale
		$kVAR_{S-Meter}$ = Translated reactive power at the secondary side of the transformer, in kVAR % $TransformerLoss$ = Percent Transformer Loss $Transformer_{kW-Loss}$ = Total loss in the transformer, in kW $Total_{kW-Loss}$ = Total active loss for a metering point, in kW $Adjusted_{kW}$ = Adjusted active power, in kW t = duration of a dispatch interval, in hours $Adjusted_{kWh}$ = Adjusted active energy, in kWh	$Total_{kW-Loss}$ = Total active loss for a metering point, in kW kW_{Meter} = Demand (Active Power) derived from the meter registration, in kW $Adjusted_{kW}$ = Adjusted active power, in kW t = duration of a dispatch interval, in hours $Adjusted_{kWh}$ = Adjusted active energy, in kWh	
Site – Specific Loss Adjustment	Appendix K Section B	B. Cases for Loss Calculation Note: The following illustrations and computations are sample cases only. Other actual detailed cases	B. Cases for Loss Calculation Note: The following illustrations and computations are sample cases only. **There are other sample cases available in the**	The term 'Connection point' was replaced by the term 'Market Trading Node' to harmonize the reference point of the application of SSLA in the manual.

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		may use more than one sample case and may be discussed with the Trading Participants, Metering Services Provider, and Network Service Provider if necessary.	**Issue 11 of the WESM – MSP Manual.** Other actual detailed cases may use more than one sample case and may be discussed with the Trading Participants, Metering Services Provider, and Network Service Provider if necessary.	
Site – Specific Loss Adjustment	Appendix K Section B	i. Line Loss Only Case 1: A connection point is located before the metering point Figure L1 and G1) (In this case, the line current initially passes through the connection point, then the metering point).	i. Line Loss Only Case 1: A ~~connection point~~ **market trading node** is located before the metering point Figure L1 and G1) (In this case, the line current initially passes through the ~~connection point~~ **market trading node**, then the metering point).	The term 'Connection point' was replaced by the term 'Market Trading Node' to harmonize the reference point of the application of SSLA in the manual.
Site – Specific Loss Adjustment	Appendix K Section B	Case 2: A connection point is located after the metering point (Figure L2 and G2) (In this case, the line current initially passes through the metering point then the connection point)	Case 2: A ~~connection point~~ **market trading node** is located after the metering point (Figure L2 and G2) (In this case, the line current initially passes through the metering point then the ~~connection point~~ **market trading node**)	The term 'Connection point' was replaced by the term 'Market Trading Node' to harmonize the reference point of the application of SSLA in the manual.
Site – Specific Loss Adjustment	Appendix K Section B	ii. Transformer Loss Only Case 1: A connection point is located before the metering point (Figure L3 and G3) (In this case, the line current initially passes through the connection point then the metering point)	ii. Transformer Loss Only Case 1: A ~~connection point~~ **market trading node** is located before the metering point (Figure L3 and G3) (In this case, the line current initially passes through the ~~connection point~~ **market trading node** then the metering point)	The term 'Connection point' was replaced by the term 'Market Trading Node' to harmonize the reference point of the application of SSLA in the manual.

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Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**
SPECIFICATIONS FOR TRANSMISSION REVENUE METERS	APPENDIX L	Minimum requirements • KWH (Delivered) • KWH (Received) • KVARH (Quadrant 1) • KVARH (Quadrant 2) • KVARH (Quadrant 3) • KVARH (Quadrant 4) • KVAH (Delivered) • KVAH (Received) • Max KW (Delivered) • Max KW (Received)	Minimum requirements • KWH (Delivered) • KWH (Received) • KVARH (~~Quadrant 1~~ **Delivered**) • KVARH (~~Quadrant 2~~ **Received**) ~~• KVARH (Quadrant 3) • KVARH (Quadrant 4)~~ • KVAH (Delivered) • KVAH (Received) • ~~Max~~ KW (Delivered) • ~~Max~~ KW (Received)	For deletion/revision since No Reference in PGC 2016

Note: For convenience, please underline and put in bold letters the proposed additions and strikethrough the proposed deletions.