



Republic of the Philippines
DEPARTMENT OF ENERGY

DEPARTMENT CIRCULAR NO. DC2018-05-0015 #

**ADOPTING FURTHER AMENDMENTS TO THE WHOLESALE ELECTRICITY
SPOT MARKET (WESM) RULES AND MARKET MANUALS FOR THE
IMPLEMENTATION OF ENHANCEMENTS TO WESM DESIGN AND
OPERATIONS
(Provisions for Metering, Market Trading Node and Scheduling Point)**

WHEREAS, Sections 30 and 37(f) of the Electric Power Industry Reform Act (EPIRA) provides that the DOE, jointly with the electric power industry participants, shall establish the Wholesale Electricity Spot Market (WESM) and formulate the detailed rules governing the operations thereof;

WHEREAS, on 28 June 2002, the DOE, with the endorsement of the electric power industry participants, promulgated the WESM Rules through Department Circular No. DC2002-06-003;

WHEREAS, any changes, amendments, and modifications to the WESM Rules including its Market Manuals shall be undertaken in accordance with the provisions of Chapter 8 thereof;

WHEREAS, the Rules Change Committee (RCC) received various proposed amendments to the WESM Rules and WESM Market Manuals in connection with metering standards and procedures and location of metering point submitted by the WESM-Technical Committee and Philippine Electricity Market Corporation (PEMC);

WHEREAS, the joint proposal of the Technical Committee and PEMC aims to address possible instances when main revenue meters fail, and enhance documentation and metering processes to address independent market operations audit findings;

WHEREAS, the PEMC's additional proposed amendments aim to enhance the performance rating of the WESM Metering Services Provider, clarify the location of metering points in the WESM for the improvement on the accounting of system losses, consider the implementation of enhancements to the design and operations of the WESM, and update the affected Market Manuals, which include Market Network Model Development and Maintenance – Criteria and Procedures and Registration, Suspension and De-registration Criteria and Procedures;

WHEREAS, on 27 April 2016, the RCC during its 113th RCC Meeting discussed the said joint proposal of the Technical Committee and PEMC on the metering standards and procedures and requirements for back-up meters, which thereafter approved its

publication in the WESM website to solicit comments from market participants and other interested parties;

WHEREAS, the said PEMC's additional proposed amendments concerning metering standards and procedures were submitted and presented to the RCC on 30 March 2016 (112th RCC Meeting), 07 December 2016 (122nd RCC Meeting), 07 July 2017 (131st RCC Meeting), respectively, which were subsequently published in the WESM website to solicit comments from market participants and other interested parties;

WHEREAS, the RCC reviewed and deliberated on the various proposed amendments on the metering standards and procedures during its regular meetings on 01 June 2016, (115th RCC Meeting), 03 August 2016 (117th RCC Meeting), 07 September 2016 (118th), 05 October 2016 (119th), 02 March 2017 (126th RCC Meeting), 19 May 2017 (129th RCC Meeting), 10 August 2017 (132nd RCC Meeting), and 14 September 2017 (133rd RCC Meeting), respectively, giving due course to the comments and recommendations received from the market participants and the DOE;

WHEREAS, on 06 October 2017, the RCC during its 134th RCC Meeting consolidated the proposed amendments, as revised, and approved as a single proposal for endorsement to the PEM Board;

WHEREAS, on 06 December 2017, after due evaluation and deliberation, the PEM Board during its 129th PEM Board Meeting, approved as revised, the RCC proposal for endorsement to the DOE;

WHEREAS, on 27 December 2017, the PEM Board-approved amendments to the WESM Rules and WESM Market Manuals on Metering Standards and Procedures, Market Network Model Development and Maintenance – Criteria and Procedures and Registration, Suspension and De-registration Criteria and Procedures were submitted to the DOE for final approval, in compliance with Chapter 8 of the WESM Rules;

WHEREAS, the DOE deemed the said PEM Board-approved proposal consistent with the objectives of the WESM and the DOE policies on the enhancements of WESM design and operations and made further revisions for consistency;

NOW THEREFORE, pursuant to its authority under the EPIRA and the WESM Rules, the DOE hereby adopts, issues, and promulgates the following amendments to the WESM Rules and its Market Manuals for the implementation of enhancements to WESM design and operations:

Section 1. Amendments to the WESM Rules. The following provisions in the WESM Rules are hereby amended:

(a) New Clause 2.3.1.9 under Generation Company is added to read as –

“2.3.1.9 A *Generation Company* shall register each of its *connection points* with the *Market Operator*.”

(b) New Clause 2.3.2.4 under Customer is added to read as –

“2.3.2.4 A *Customer* shall register each of its *connection points* with the *Market Operator*. For each *Contestable Customer*, all connection points shall be registered under the same *Contestable Customer*.”

(c) Clause 3.2.2.1 under Market Trading Nodes is amended to read as –

“3.2.2.1 A *market trading node* is a designated point in the *market network model* where *energy* is bought or sold based on the prices determined by the *market dispatch optimization model*.”

(d) Clause 3.2.2.2 under Market Trading Nodes is amended to read as –

“3.2.2.2 Each *market trading node* defined under Clause 3.2.2.1 shall:

- (a) Be assigned to a *Trading Participant* that intends to buy or sell *energy* and is capable of complying with the *settlement* requirements in the WESM;
- (b) Be associated with a revenue *metering* capable of measuring all relevant incoming and outgoing energy deliveries for the purpose of *settlement* in the WESM; and
- (c) As much as possible, represent the *connection point* between the *Network Service Provider* and the *Trading Participant*. For this purpose, the revenue metering or the *metering equipment* for the *market trading node* shall be installed no more than 500 meters from the *connection point*.

(e) Clause 3.2.2.3 under Market Trading Nodes is amended to read as –

“3.2.2.3 A *scheduling point* is a designated point in the *market network model* where *dispatch* schedules are determined by the *market dispatch optimization model*. The *scheduling point* of a *generating unit* shall be at the location of its remote telemetering facility. The *scheduling points* of a *Customer* shall be at its *connection points*; however, if the system of a *Customer* is included in the *market network model*, the *scheduling points* of the *Customer* shall be at the withdrawal points within its system.”

(f) Clause 3.2.2.5 under Market Trading Node is amended to read as –

“3.2.2.5 The *Market Operator* shall maintain, publish, and continuously update a register of *market trading nodes* and *scheduling points*, defined in accordance with Clauses 3.2.2.1 and 3.2.2.3 so as to accurately reflect changes in the market network model and the *WESM Member* responsible for each *market trading node* and *scheduling point*.”

(g) Clause 3.2.3.4 under Customer Pricing Zones is amended to read as –

"3.2.3.4 The *Market Operator* shall, in consultation with *WESM Participants*, continuously review the procedures for determining the *market network model*, *market trading nodes*, *scheduling points*, and *customer pricing zones* set out in this Chapter 3 and, to the extent the *Market Operator* considers it to be reasonably necessary to promote the *WESM objectives*, the *Market Operator* may recommend changes to these procedures in accordance with the rule change process set out in Chapter 8."

(h) Clause 3.5.4 under Load Forecasting is amended to read as –

"3.5.4 All *load forecasts* at each *Customer scheduling point* in the *market network model* shall be specified in units of megawatt (MW) and will apply to the end of the relevant *dispatch interval* unless otherwise stated."

(i) Clause 3.5.4.1 under Load Forecasting is amended to read as –

"3.5.4.1 Each *Customer* may submit a forecast in respect of each *dispatch interval* for each of its registered *load facilities* for each *trading day* of the week in accordance with the *timetable*.

xxx xxx xxx

If the *Customer* fails to submit a forecast of his load facilities in accordance with the timetable, the forecast prepared by the *Market Operator* at the *scheduling point* where the *Customer* is located shall be used.

xxx xxx xxx"

(j) Clause 3.6.1.4 under Model Definition is amended to read as –

"3.6.1.4 In formulating the *market dispatch optimization model*, the *Market Operator* and *System Operator* shall ensure that the *dispatch* for each *dispatch interval* is made subject to:

xxx xxx xxx

(c) Energy balance equations for each node in the market network model ensuring that the net load forecast for the end of the *dispatch interval* at each *scheduling point* as determined by the *Market Operator* is met;

xxx xxx xxx"

(k) Clause 3.7.5.1 under Published Information is amended to read as –

"3.7.5.1 Based on the information referred to in Clause 3.7.4, each *market projection published* by the *Market Operator* in accordance with the *timetable* specified in the relevant *Market Manuals* shall contain the following information for each *dispatch interval* or one (1) hour interval, as applicable, in the period covered by the *market projection*:

(a) The assumed *net load forecast* at each *scheduling point*, plus required *reserves* for each *reserve region*;

xxx xxx xxx

- (d) Projected aggregate dispatch of *scheduled generating units, must dispatch generating units, priority dispatch generating units, non-scheduled generating units, and scheduled load* at each *scheduling point*;

xxx xxx xxx”

- (l) Clause 3.8.1 under Published Information is amended to read as –

“3.8.1 Responsibilities of the Market Operator

Prior to commencement of each *dispatch interval*, the *Market Operator* shall, in consultation with the *System Operator*, and in accordance with the *timetable* prescribed in the *relevant Market Manuals*:

xxx xxx xxx

- (b) Prepare a forecast of the *unrestrained net load* expected at each *scheduling point* for the end of that *dispatch interval*;

xxx xxx xxx”

- (m) Clause 3.9.2 under Treatment Of Load Shedding, Excess Generation and Reserve Violation is amended to read as –

“3.9.2 Market Operator Advice on Nodal Loss of Load

In the event that:

- (b) *dispatch optimization* performed under Clause 3.8, indicates that nodal loads are expected to be reduced by the presence of non-zero nodal *energy constraint violation variables* or *nodal energy dispatch prices* which are expected to be equal to, or exceed, the *nodal value of lost load* at any *Customer scheduling point* in the *market network model*, then the *Market Operator* shall immediately inform the *System Operator* of the presence of nodal loss of *load*.”

- (n) Clause 3.13.6 under Settlement Quantities and Amounts is amended to read as –

“3.13.6 Defining the Gross Energy Settlement Quantity for Market Trading Nodes

xxx xxx xxx

- (c) If the *market trading node* defined under Clause 3.2.2.2 is a *Customer market trading node* located on the interface between *networks*, or equipment operated by parties other than the *System Operator*, the

gross energy settlement quantity for the *market trading node* is the negative of the amount determined for the corresponding *generator market trading node* in Clause 3.13.6 (b).

- (d) The *gross energy settlement quantity* of a *market trading node* of a *Customer* who is a *Distribution Utility* with a *contestable customer* connected to its *distribution system* shall be determined in accordance with *Retail Rules* Clause 3.3.3.3.
 - (e) The *gross energy settlement quantity* of a *market trading node* of a *contestable customer* shall be determined in accordance with *Retail Rules* Clause 3.3.4.
 - (f) If the net metered flows registered through a *meter* is inconsistent with the expected power flow to the *market trading node* to which that *meter* is associated, the *Metering Services Provider* shall determine and shall notify the *Market Operator* and the relevant *Trading Participant* the appropriate manner of determining the *gross settlement quantity* for that *market trading node*.
 - (g) If a *market trading node* is associated with a single revenue *meter* and is shared by multiple *generating units*, the *gross energy settlement quantity* for each *generating unit* at that *market trading node* shall be the net metered flow into the *power system* operated by the *System operator* through the associated meter of the *market trading node* pro-rated to each *generating unit* based on the measurements of the remote telemetering facility of each *generating unit* at the end of the *dispatch interval*. For purposes of *settlement*, each *generating unit* shall be considered to have individual *market trading nodes* at the shared *market trading node*.”
- (o) Clause 3.13.7 under Settlement Quantities and Amounts is amended to read as –

“3.13.7 Energy Settlement Quantity Adjustments for Bilateral

For *settlement* purposes, the *energy trading amount* for each *trading participant* and *settlement interval* will be determined as the aggregate in all *dispatch intervals* within that *settlement interval* of the:

- (a) Sum of the product of the final *nodal energy dispatch prices* and the *gross energy settlement quantity* (in MWh) of all *market trading nodes* of the *trading participant*; less
 - (b) Reference final *nodal energy dispatch price* multiplied by the corresponding *bilateral contract quantity* (in MWh) as determined under Clause 3.13.1.1 of all *bilateral contract* declarations associated with the *trading participant*.”
- (p) Clause 3.13.13.2 under Settlement Amounts for Trading Participants is amended to read as –

"3.13.13.2 The aggregate *trading amount* for a *Trading Participant* for a *settlement interval* equals the sum of:

- (a) the *energy trading amounts* for that *Trading Participant* calculated in accordance with Clause 3.13.8 (which may be positive or negative for any *Trading Participant*); plus

xxx xxx xxx"

- (q) Clause 4.8.3 under Databases is amended to read as –

"4.8.3 Rights of Access to Metering Data

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:

xxx xxx xxx

- (g) The ERC; and
- (h) The DOE."

- (r) The definitions of the following terms under Glossary Chapter 11 are amended to read –

"Active Energy. The integral of the Active Power with respect to time, measured in Watthour (Wh) or multiples thereof. Unless otherwise qualified, the term "Energy" refers to Active Energy.

Metering Point. Location where the Metering Equipment is installed, which should be located at the Market Trading Node.

National Transmission Corporation or "TRANSCO". The government-owned and controlled corporation created pursuant to RA 9136 to acquire all transmission assets of the National Power Corporation.

Reactive Energy. The integral of the Reactive Power with respect to time, measured in VARh or multiples thereof."

- (s) The following definition of terms are hereby added under Glossary Chapter 11

–

"Metering Equipment. The apparatus necessary for measuring electrical real and Reactive Power and Energy, inclusive of a multi-function meter and the necessary instrument potential, current and phase shifting Transformers and all wiring and communication devices as provided.

Scheduling Point. A designated point in the market network model where dispatch schedules are determined by the Market Dispatch Optimization Model.”

Section 2. Amendments to the WESM Market Manual on Registration, Suspension and De-registration Criteria and Procedures. The following provisions in the Registration, Suspension and De-registration Criteria and Procedures are hereby amended:

(a) Section 2.5.1.1 under Categories and Qualifications is amended to read as –

“2.5.1.1 Generation Company

xxx xxx xxx

c) *A Generation Company shall register each of its connection points with the Market Operator.*”

(b) Section 2.5.1.2 under Categories and Qualifications is amended to read as –

“2.5.1.2 Customers

xxx xxx xxx

c) *A Customer shall register each of its connection points with the Market Operator. For each Contestable Customer, all connection points shall be registered under the same Contestable Customer.*”

Section 3. Amendments to the WESM Market Manual on Metering Standards and Procedures. The WESM Market Manual on Metering Standards and Procedures Issue No. 12.0 and presented as Annex A to this Circular is hereby approved and adopted.

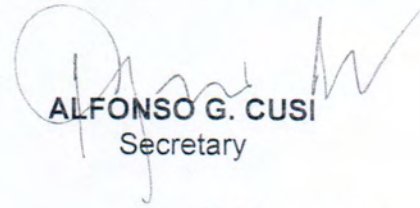
Section 4. Amendments to the WESM Market Manual on Market Network Model Development and Maintenance. The WESM Market Manual on Market Network Model Development and Maintenance – Criteria and Procedures Issue No. 4.0 and presented as Annex B to this Circular is hereby approved and adopted.

Section 5. Transitory Provisions. The foregoing amendments to the WESM Rules and Market Manuals as set forth in this Circular shall be used for the development of the WESM’s New Market Management System (NMMS) and the implementation of the enhancements to WESM design and operations.

Section 6. Separability Clause. If for any reason, any section or provision of this Circular is declared unconstitutional or invalid, such parts not affected shall remain valid and subsisting.

Section 7. Effectivity. This Circular shall take effect 15 days following its complete publication in at least two (2) newspapers of general circulation and shall remain in effect until otherwise revoked.

Issued this ____ May 2018 at the DOE, Energy Center, Rizal Drive, Bonifacio Global City, Taguig City, Metro Manila.


ALFONSO G. CUSI
Secretary



16 MAY 2018