



Republic of the Philippines
DEPARTMENT OF ENERGY
(Kagawaran ng Enerhiya)

DEPARTMENT CIRCULAR NO. DC2024-01-0003 *OK*

**ADOPTING FURTHER AMENDMENTS TO THE WHOLESALE ELECTRICITY
SPOT MARKET (WESM) RULES AND VARIOUS WESM MANUALS**

(Provisions on Maximum Available Capacity)

WHEREAS, Sections 30 and 37(f) of Republic Act (RA) No. 9136, or the “Electric Power Industry Reform Act of 2001” (EPIRA), provide that the Department of Energy (DOE), jointly with the electric power industry participants, shall establish the 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 (DC) 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, it is the market design principle and characteristic of the WESM that it is a gross pool, where each Scheduled Generation Company offers its maximum available capacity, Non-Scheduled Generation Company submits a standing nomination of loading levels, and Generation Company with must dispatch and priority dispatch generating units submits projected outputs, for central scheduling and dispatch to ensure system security and a level playing field among generators;

WHEREAS, in order to prevent the withholding of capacity, Trading Participants in the WESM are obliged to observe the ‘Must Offer Rule’ (MOR), as provided under Clause 3.5.11.6 and Appendix A1.1 of the WESM Rules and which requires that generation offers shall not be less than the maximum available capacity for every dispatch interval and that reasons or circumstances shall be provided whenever bids or offers are cancelled or less than the registered capacity;

WHEREAS, on 06 July 2023, the PEM Board, in compliance with Chapter 8 of the WESM Rules, submitted its proposed amendments to the WESM Rules and various WESM Manuals, which amendments propose to harmonize all provisions on maximum available capacity, and reinforce the obligation of Trading Participants to comply with the Must Offer Rule;

WHEREAS, the DOE, recognizing that the intent of the proposal is consistent with the objectives of the EPIRA and the WESM, drafted a circular to solicit comments and recommendations from interested parties, posted the same on the DOE website on 07 August 2023 and conducted the following public consultations:

Leg	Date	Venue
Luzon	23 August 2023	Taguig City
Visayas	06 September 2023	Cebu City
Mindanao	30 August 2023	General Santos City

NOW, THEREFORE, after careful review of the PEM Board proposal and the comments and recommendations received from other stakeholders, the DOE, pursuant to its authority under the EPIRA and the WESM Rules, hereby adopts, issues, and promulgates the following amendments to the WESM Rules, the WESM Manual on Dispatch Protocol, the WESM Manual on Registration, Suspension and De-registration Criteria and Procedures, the WESM Manual on Market Network Model Development and Maintenance – Criteria and Procedures, the WESM Manual on Price Determination Methodology, the WESM Manual on Protocol for Central Scheduling and Dispatch of Energy and Contracted Reserves and the WESM Penalty Manual:

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

3.5.5 Generation Offers and Data

3.5.5.1 Each Generation Company including Generation Companies with *bilateral contracts* shall submit a standing market offer equivalent to the *maximum stable load (Pmax)* or *available capacity*, for each of its *scheduled generating units*, *battery energy storage systems*, or *pumped-storage units* for each *dispatch interval* in each *trading day* of the week in accordance with the *timetable*. If the submitted offer reflects a capacity that is less than the *maximum stable load (Pmax)*, the *Generation Company* shall include the reason for such in its standing offer. The standing market offer shall apply until revised or updated by the *Generation Company*.

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3.5.11 Revision of Market Offers/Bids, Nomination of Loading Levels, and Projected Outputs

3.5.11.1 Each *Trading Participant* which has submitted standing offers or bids for each of its *scheduled generating unit*, *battery energy storage system*, or *pumped-storage unit* may revise any of its *market offers* or *market bids* equivalent to the *available capacity* and shall take into account the conditions under Clause 3.5.11.5 and Clause 3.5.11.6, for any *dispatch interval* in any trading day of the current week-ahead *market horizon*. Each revised *market offer* or *market bid* shall be submitted in accordance with the *timetable* subject to Clause 3.5.11.4, and contain all the information set out in Appendix A1.

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3.5.11.5 *Market bids* or *market offers* for any *dispatch interval* shall be revised by *Trading Participants* prior to gate closure in

accordance with the *timetable* if these offers no longer represent a reasonable estimate of:

- (a) the *status* of the relevant *generating unit* (e.g., generator circuit breaker status, *outage*) or *scheduled load* for that *dispatch interval*; or
- (b) the capacity that can be attained taking into account the *ramp rate* limitations of the *generating unit* during the relevant dispatch interval; or
- (c) the *demand bids* or offers likely to apply for the real-time *dispatch optimization* of that *dispatch interval*.

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Chapter 11 GLOSSARY

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Availability. The duration of time over a specified period that a plant unit is ready to be in service or operational.

Available capacity. Equal to the registered maximum stable load (Pmax) of the (aggregate) unit less forced unit *outages*, scheduled unit *outages*, derating, generator *technical constraints* and weather disturbance that cause damage to the unit or that would otherwise limit the units capability to inject power to the *grid*.

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Generator Technical Constraint. Refers to plant equipment-related failure limitations encountered during *start-up/shutdown* procedure, effects of ambient temperature, and resource-related *constraints* due to the following:

- a) water elevation and diversion requirements for domestic or irrigation use for impounding hydro plants and water flow from rivers for run-of-river hydro power plants;
- b) steam quality (chemical composition, condensable and non-condensable gases, steam pressure and temperature) for geothermal plants;
- c) unavailability of fuel resources that are not within the control of the *Generation Company* for biomass power plants; and
- d) steam flow limitations, station *load*, and electricity demand of its *energy host*, in the case of the co-generation systems.

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Projected Output. The *loading level* nominated by a *Generation Company* for its *must dispatch generating units* or *priority dispatch generating units*

indicating the forecasted output of its *must dispatch generating unit* or *priority dispatch generating unit* at the end of a *dispatch interval*. In the case of geothermal or impounding hydro plant which is classified as *priority dispatch generating unit*, *projected output* shall refer to its *available capacity*, as defined in *WESM Rules* or *Market Manual*.

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APPENDICES

Appendix A1. Information to be Supplied with Offers to Supply and to Buy Electricity

A1.1 Generation Offers

Generation offers:

- a) May include up to ten (10) *generation offer blocks* per (aggregate) unit, and the maximum combined capacity of *generation* and *reserve offers* must not be less than the *available capacity* of the generator;

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A1.4 Battery Energy Storage System Offer

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- c) May include up to ten (10) *energy offer blocks* per (aggregate) unit. The maximum combined capacity of *generation* and *reserve offers* must not be less than the *available capacity* of the generator;

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Section 2. Amendments to the WESM Manual on Dispatch Protocol. The following provisions of the WESM Manual on Dispatch Protocol are hereby amended:

Section 2 Definitions, References and Interpretation

2.1. Definitions

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2.1.2. The following words and phrases as used in this *Market Manual* shall have the following meaning:

- a. Ancillary Service Procurement Agreement. xxx xxx xxx
- b. Automatic Generation Control (AGC). xxx xxx xxx
- c. Automatic Load Dropping (ALD). xxx xxx xxx
- d. Bid. xxx xxx xxx
- e. Capability. xxx xxx xxx
- f. Cascading Outages. xxx xxx xxx

- g. Contingency. xxx xxx xxx
- h. Contingency Reserve. xxx xxx xxx
- i. Demand Control. xxx xxx xxx
- j. Demand Control Imminent Warning. xxx xxx xxx
- k. Dispatchable Reserve. xxx xxx xxx
- l. Disturbance. xxx xxx xxx
- m. Frequency Control. xxx xxx xxx
- n. Generator. xxx xxx xxx
- o. Islanding Operation. xxx xxx xxx
- p. Islanding Operation. xxx xxx xxx
- q. Manual Load Dropping. xxx xxx xxx
- r. Market Management System (MMS). xxx xxx xxx
- s. MMS-Market Participant Interface (MPI). xxx xxx xxx
- t. Multiple Outage Contingency. xxx xxx xxx
- u. Normal State. xxx xxx xxx
- v. Offer. xxx xxx xxx
- w. Operating Margin. xxx xxx xxx
- x. Preferential Dispatch Units. xxx xxx xxx
- y. Real-Time Data. xxx xxx xxx
- z. Real-Time Dispatch. xxx xxx xxx
- aa. Red Alert. xxx xxx xxx
- bb. Regulating Reserve. xxx xxx xxx
- cc. Security. xxx xxx xxx
- dd. Self-scheduled Nomination. xxx xxx xxx
- ee. Shutdown. xxx xxx xxx
- ff. Stability. xxx xxx xxx
- gg. Start-up. The synchronization of a *generating unit* to the *grid* from its *outage* state (closing of *generator* circuit breakers).
- hh. System Integrity Protection Scheme (SIPS). xxx xxx xxx
- ii. System Operator System Advisories. xxx xxx xxx
- jj. Voltage Control. xxx xxx xxx
- kk. Voltage Instability. xxx xxx xxx
- ll. Voltage Sag. xxx xxx xxx

Section 6 Bids, Offers and Data Submission and Processing

6.1 Background

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- 6.1.8. WESM Rules Clause 3.5.11.5 requires *Trading Participants* to revise their bids or offers if they no longer represent a reasonable estimate of either the *status* (e.g., *generator* circuit breaker status, offline state) for the *dispatch interval* of the relevant *generating unit*, the capacity that can be attained taking into account the *ramp rate* limitations of the *generating unit* during the relevant *dispatch interval*, or *scheduled load* or *bids* or *offers* likely to apply in the *real-time dispatch* optimization for the *dispatch interval*.

6.1.9 Pursuant to WESM Rules Clause 3.5.11.6, *Trading Participants* that cancel their *bids* or *offers*, or submit *bids* or *offers* less than the *maximum stable load (Pmax)* or *available capacity* of their *facility* or *generating unit* are required to provide justifiable reasons or circumstances of such cancellation or submission.

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6.9 Format and Contents of Submissions

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6.9.2 *Trading Participants* shall provide the following information when submitting *market offers*:

- a. May include up to ten (10) *market offer* blocks per (aggregate) unit. The maximum combined capacity of *generation* and *reserve offers* must not be less than the *available capacity* of the *generator*,

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6.9.3 *Trading Participants* shall provide the following information when submitting *battery energy storage* system offers:

- a. May include up to ten (10) *energy offer* blocks per (aggregate) unit. The maximum combined capacity of *generation* and *reserve offers* must not be less than the *available capacity* of the *generator*,

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6.13 Revisions of Self-scheduled Nominations, Bids and Offers Based on Reasonable Estimates

Trading Participants shall revise their *self-scheduled nominations, bids, or offers*, if the *self-scheduled nominations, bids or offers* submitted no longer represent a reasonable estimate of either the following:

- a. The *status* (e.g., generator circuit breaker status, outage) for the *dispatch interval* of the relevant *generating unit* or *scheduled load*; or
- b. The capacity that can be attained taking into account the *ramp rate* limitations of the *generating unit* during the relevant *dispatch interval*; or
- c. The *loading level, projected output, bid or offer* likely to apply in the *real-time dispatch* optimization for the *dispatch interval*.

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Section 21 Monitoring the Effective Provision of Ancillary Services

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21.4 Measuring the Reserve Effectiveness Factor of Regulating Reserves on Governor Control Mode

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21.4.2 Measuring REF based on Accuracy

The REF for a *Regulating Reserve* facility on GCM with respect to its accuracy shall be based on its static gain. The static gain shall be computed as such:

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Where:

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Capacity of the Generating Unit; refers to the *available capacity* of the *reserve facility* at *dispatch interval* i

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Section 3. Amendments to the WESM Manual on Registration, Suspension and De-registration Criteria and Procedures. The following provisions of the WESM Manual on WESM Manual on Registration, Suspension and De-registration Criteria and Procedures are hereby amended:

2.5. Registration of Direct WESM Members and Trading Participants

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2.5.4.7 Modelling of Generating Unit's Availability

Upon registration, *Trading Participants* shall specify if the availability of its *generating unit* shall be based on the real-time status of its generator circuit breaker, or on the availability of its *market offers*.

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Section 4. Amendments to the WESM Manual on Market Network Model Development and Maintenance – Criteria and Procedures. The following provisions of the WESM Manual on Market Network Model Development and Maintenance – Criteria and Procedures are hereby amended:

Section 3 Responsibilities

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3.2 System Operator and Trading Participants

The *System Operator* and the *Generation Companies* shall ensure that their facilities for real-time monitoring are available and that they accurately reflect the state of their generation (i.e., MW/MVAR output and generator circuit breaker status).

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Section 6 Modelling of Market Resources

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6.5 Generator Market Resource

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6.5.3 During the registration of the generator resource, *Trading Participants* shall specify if its availability shall be based on the real-time status of its generator circuit breaker, or on the availability of its *market offers*.

Section 5. Amendments to the WESM Manual on Price Determination Methodology. The following provisions of the WESM Manual on Price Determination Methodology are hereby amended:

Section 1 Introduction

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1.2 Purpose

The price determination methodology and *settlement* formula in this *Market Manual* shall ensure that the following market design principles and characteristics of the WESM are achieved:

- a. Gross pool, where each *Scheduled Generation Company* offers its *available capacity*, *Non-Scheduled Generation Company* submits a standing nomination of *loading levels*, and *Generation Company*, with must *dispatch generating units* and priority dispatch generating units, submits projected outputs, for central scheduling and *dispatch* to ensure *system security* and a level playing field among *generators*;

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Section 6. Amendments to the WESM Manual on Protocol for Central Scheduling and Dispatch of Energy and Contracted Reserves. The following provisions of the WESM Manual on Protocol for Central Scheduling and Dispatch of Energy and Contracted Reserves are hereby amended:

Section 4 Central Scheduling of Reserve Capacities

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4.4 Day-Ahead Scheduling of Reserves by the System Operator

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4.4.2 *Trading Participants* shall submit their *available capacity* to the WESM, inclusive of *reserve offers* based on the approved day-ahead ancillary schedule.

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4.5 Submission of Generation and Reserve Offers for the Real-Time Dispatch (RTD)

4.5.1 All *Trading Participants* shall submit *generation offers* that represent their *available capacity* pursuant to the provisions of *WESM Rules* Clause 3.5.5.2.

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Section 7. Amendments to the WESM Penalty Manual. The following provisions of the WESM Penalty Manual are hereby amended:

Section 5 Schedule of Breach and Penalties

No	Breach	Market Rule Breached & Associated Market Manual	Applicable Penalty	Level 2 - Financial Penalty	Level 3 - Escalated Financial Penalty
1	Failure of generation company to submit valid generation and/or reserve offers, or failure to submit valid generation and/or reserve offers that is equivalent to the maximum stable load (Pmax) or available capacity of their generating units at any dispatch interval; xxx xxx	xxx	xxx	xxx	xxx

No	Breach	Market Rule Breached & Associated Market Manual	Applicable Penalty	Level 2 - Financial Penalty	Level 3 - Escalated Financial Penalty
	The obligation is to submit offers equivalent to available capacity, as defined in the WESM Rules. For purposes of determining breach, the constraints considered in determining maximum capacity are considered as exempting circumstances.				

Section 8. Repealing Clause. The provisions of other circulars, orders, issuances, rules, and regulations which are inconsistent with the provisions of this Circular, are hereby repealed, amended, modified, or superseded accordingly.

Section 9. 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 10. Effectivity. This Circular shall take effect fifteen (15) days after its publication in at least two (2) newspapers of general circulation. A copy of this Circular shall be filed with the University of the Philippines Law Center – Office of the National Administrative Register.

Issued this JAN 12 2024 at the DOE, Energy Center, Rizal Drive cor. 34th Street, Bonifacio Global City, Taguig City, Metro Manila.



RAPHAEL P.M. LOTILLA
Secretary