Wholesale Electricity Spot Market

PUBLIC

WESM Manual

Guidelines on Significant Variations In and Between Trading Intervals Issue 4.0

Abstract	This document provides the guidelines and non-exhaustive list on significant variations in and between trading intervals.

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Document Approval

Issue No.	RCC Approval	RCC Resolution No.	PEM Board Approval	PEM Board Resolution No.	DOE Approval	DOE DC No.
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Reference Documents

Reference No.	Document Title
1	WESM Rules
2	Philippine Grid Code
3	WESM System Security and Reliability Guidelines Manual
4	WESM Dispatch Protocol Manual
5	Market Surveillance Compliance and Enforcement Manual
6	Dispute Resolution Manual

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SECTION 1 INTRODUCTION

1.1 BACKGROUND

1.1.1 In Clause 1.3.1.3 and 10.4.1 of the WESM Rules, the Market Operator, in consultation with WESM Trading Participants, is mandated to develop guidelines as to what constitutes a significant variation in and between trading intervals subject to the approval of the PEM Board.

1.1.2 Significant variations in and between trading intervals are changes in actions or behavior of Trading Participants, the System Operator or the Market Operator or any event that could lead to significant changes in the pricing outcome of the market. It should be noted that these changes in actions or events can be the result of a bona fide response to a bona fide change in the market or system condition or can be borne out of the gaming and anti-competitive behavior of the Trading Participant or inefficiency on the part of the Market Operator or the System Operator.

1.1.3 This document, therefore, focuses on the actions or significant events that may affect pricing outcome under normal market conditions[1]. It also provides a classification or description of mitigating measures provided for in WESM Rules and various market manuals. This document serves as reference to all WESM participants and the PEM Governance Committees. In this regard, this document shall be read with the provisions in the WESM Rules and other market manuals, particularly, the Market Surveillance Manual and the Dispute Resolution Manual.

1.2 PURPOSE

1.2.1 Defines what constitutes significant variations; and

1.2.2 Describes the guidelines and criteria to be followed by the Market Operator in determining significant variation in and between trading intervals.

1.3 SCOPE

This document provides guidance in the treatment and reporting of actions or events that are deemed to be significant variations in and between trading intervals.

[1] It is noted that these conditions may also occur or exist under Emergency conditions. However, under emergency conditions it should be noted that Administered Prices apply. (WESM Rules 6.2.3)

SECTION 2 DEFINITIONS AND REFERENCES

2.1 DEFINITIONS

2.1.1 **Significant Variation** – pertains to the action of a WESM Member, including the Market Operator and System Operator, or any event that has the potential to influence market prices, to accommodate real system changes or changes that may be associated with gaming and anti-competitive behavior on the part of trading participants.

2.1.2 All italicized terms in this document will have the same meaning as defined in the WESM Rules, unless the context provides otherwise.

2.2 REFERENCES

This document should be read together with the –

a) WESM Rules, as amended
b) Philippine Grid Code
c) WESM System Security and Reliability Guidelines
d) WESM Dispatch Protocol
e) Market Surveillance Compliance and Enforcement Manual
f) Dispute Resolution Manual

SECTION 3 RESPONSIBILITIES

3.1 MARKET OPERATOR

The Market Operator shall:

3.1.1 Develop and continuously review this document to ensure consistency with the objectives and provisions of the WESM Rules.

3.1.2 Identify any significant variations in or between trading intervals as part of its monitoring of the daily trading activities.[2]

3.1.3 Monitor significant variations including the variables listed in Section 4.1.2

[2] WESM Rules 1.3.1.2 (b)

3.1.4 Publish a daily report that contains information that will identify any significant variation. It should be published within ten (10) business days from cognizance of the event in the Market Information Website.[3]

3.1.5 Publish a monthly summary of the significant variations report covering a particular billing period in the Market Information Website.

3.1.6 Maintain an exhaustive list of possible significant variations in and between trading intervals such as those identified in Section 4.3 of this Market Manual.

3.1.7 Develop and continuously review this document to ensure consistency with the objectives and provisions of the WESM Rules.

3.2 SYSTEM OPERATOR

The System Operator shall provide written documentation to the Market Operator on any significant events in the power system pursuant to the reporting requirements of the WESM Dispatch Protocol.

3.3 WESM MEMBERS

The WESM Members shall provide period-specific facility information as may be requested by the Market Operator as part of its daily monitoring activities.

As soon as available, the WESM Members shall provide the period-specific facility information listed, but not limited to the following, through a data exchange facility as may be prescribed by the Market Operator:

a. Unit Outage
   - Capacity on outage
   - Reason for outage (indicate type: forced/planned; and specific reason: i.e. fuel restriction, maintenance, and leak)
   - Expected timeline of synchronization
b. Capacity Limitation
   - Capacity Limited
   - Reason for limitation (indicate specific reason: i.e. hotspot, fuel constraint)
   - Expected timeline of availability of limited capacity
c. Operational Mode (AGC, Free Governor, Manual Dispatch)
d. Reason for Dispatch Deviation beyond the prescribed dispatch tolerance for the relevant generator

WESM Members shall regularly provide updates to the Market Operator on their respective period-specific facility information.

[3] WESM Rules 1.3.1.4

SECTION 4 GUIDELINES AND CRITERIA

4.1 MONITORING CRITERIA

4.1.1 To determine the actions that would effect a significant change in the pricing outcome, the following inputs of the Market Operator, the System Operator or the Trading Participants to the Market Dispatch Optimization Model (MDOM) would have to be considered.

a) Inputs provided by the Market Operator
   - Load Forecast
   - Load Pattern
   - Reserve Requirements
   - Changes to the Market Network Model

b) System information provided by the System Operator which includes:
   - System Snapshot
   - Outage schedules
   - Transmission Limits
   - Security Limits
   - Contingency List

c) Re-Dispatch instructions from the System Operator
d) Energy and Reserve Offers of Scheduled Generators and Interruptible Loads
e) Compliance to the Dispatch Schedule of Scheduled Generators and Interruptible Loads
f) Demand Bids of Dispatchable Loads
g) Customer Load Forecast
h) Nomination of loading levels from non-scheduled generating units
i) Projected outputs from must-dispatch and priority dispatch generating units

4.2 TREATMENT OF SIGNIFICANT VARIATIONS IN AND IN BETWEEN TRADING INTERVALS

The following principles will guide the Market Operator in identifying and reporting significant variations in and between trading intervals.

4.2.1 Changes or variation in any action, such as bids or offers submissions, by a Trading Participant prior to gate closure do not necessarily constitute a significant variation that maybe associated with gaming or anti-competitive behaviour. It is recognized that variations prior to gate closure provide opportunities to Trading Participants to respond to changes in conditions, or to the competitive behaviour of other participants.

4.2.2 Changes or variation in action provided by a Customer through the optional load forecast prior to gate closure does not necessarily constitute a significant variation that maybe associated with gaming or anti-competitive behaviour.

4.2.3 Trading participants may initiate any action after gate closure to account for bona fide changes in physical conditions of their facilities, or in response to an emergency condition, or as maybe instructed by the System Operator. These actions, however, may be subject to identification and reporting by Market Operator and subsequent investigation by the Market Surveillance Committee.

4.2.4 The Market Operator may provide changes to load forecast in response to real system changes up until prior to the execution of the market run.

4.2.5 The System Operator may issue re-dispatch instructions and provide system updates as part of its responsibility to maintain system security and reliability, and to mitigate emergency conditions, in accordance with relevant operating procedures.

4.3 LIST OF POSSIBLE SIGNIFICANT VARIATIONS IN AND BETWEEN TRADING INTERVALS

The following list contains the possible significant variations in and between trading intervals that are typically observed in the WESM. The Market Operator may include cases of other variations that is evaluated to have significantly affected the market results.

Responsible	Action/Event	Identification of a Possible Significant Event
Market Operator	Regional Forecast	Forecast error is greater than the forecast error tolerance defined in the Market Operator Performance Standards (MOPS)
	Nodal Forecast	
	Latest Snapshot Not Processed By MMS	Real-time power system configuration not reflected in the Market Network Model
	Changes to the Market Network Model	Updates to the representation of the Market Network Model
System Operator	Submission of: ▪ Outage Schedule ▪ Security Limits ▪ Transmission Limits ▪ Contingency Lists	Submitted information provided by the System Operator that eventually affected the market results.

Responsible	Action/Event	Identification of a Possible Significant Event
	Dispatch instructions that deviate by more than the dispatch tolerance.	Dispatch instructions that significantly deviate from dispatch targets issued by the MMS.
	Unscheduled Tripping and/or switching of T/L	Reconfiguration of MNM and instigation of transmission constraint
	Unscheduled Tripping of Major Transmission line that results in an Electrical Islanding condition, Over-generation, Under-generation etc.	MDOM results indicate the application of Constraint Violation Coefficients.
	Unscheduled Generator shut down	Generator shut down significantly impacts market prices.
	Non-updating system snapshot	Real-time configuration and state is not captured in the real-time dispatch process.
	Automatic/Manual Load Shedding	Automatic or Manual Load Shedding affected the resulting prices and schedules.
Generators and Interruptible Loads	Offer and Bid Submission	Submitting generation offers less than their respective registered capacity
	Cancellation of Bids/offers	Cancellation of bids/offers.
	Dispatch schedule	Non-compliance to dispatch instructions
Customers	Submission of Customer Forecast	Submitting low demand forecast (just above allowable forecasting threshold) and actually using high demand level as reflected in the snapshot.
	Reconfiguration of Sub transmission system	Unscheduled switching of Distribution lines not reflected in market network model resulting to re-distribution of nodal demand in real-time

SECTION 5 AMENDMENT, PUBLICATION AND EFFECTIVITY

5.1 AMENDMENTS TO THIS MANUAL

Any amendments to this Manual shall be approved by the DOE, following the procedures for changes to Market Manual set out in the WESM Rules and in the relevant Market Manual.

5.2 PUBLICATION AND EFFECTIVITY

This Market Manual, as it may be amended from time to time, shall be published in the market information website maintained by the Market Operator.

This Market Manual or any amendments thereto shall become effective upon approval of the DOE in accordance with the WESM Rules Clause 8.6.4. The date of effectivity shall be indicated in this document.