

Annex A

Supplemental Operating Guidelines for the Commercial Operations of the Reserve Market

Effectivity Date: 05 August 2024

The following operating guidelines are intended to supplement the procedures defined in the existing WESM Rules and Market Manuals for the commercial operations of the Reserve Market.

A. Supplemental Guidelines on Scheduling and Dispatch

1. Submission of Offers with Mode of Operations

- 1.1. By 0830H of each trading day, Ancillary Service (AS) Providers, which are generating units and Energy Storage Systems (ESS) certified to provide any type of operating reserve (i.e., regulation, contingency, or dispatchable), shall have submitted generation and reserve offers for each trading hour of the following trading day in the Market Management System's (MMS) Market Participant Interface (MPI). In submitting such offers, the AS Providers shall also comply with the following requirements, as may be applicable:
 - 1.1.1. For AS Facilities that have multiple AS certifications, submit one type of reserve in each trading hour;
 - 1.1.2. Indicate their mode of operation for each trading hour.
- 1.2. The AS Providers' mode of operations shall be:
 - 1.2.1. AGC to represent Automatic Generation Control;
 - 1.2.2. Governor to represent Governor Control Mode (GCM). ESS facilities operating on Active Power Frequency Control (APFC) shall also declare Governor in the MMS-MPI; or
 - 1.2.3. Manual to represent dispatch by the facility's plant operator.
- 1.3. AS Providers submitting a reserve offer for their AS Facility to provide Regulation or Contingency Reserve shall declare to operate only either via AGC or Governor provided that they are certified to operate such service in their declared mode of operations (for example, if a generator is only certified to provide regulation via AGC, then it should only declare AGC and not Governor when offering to provide regulation). AS Providers submitting a reserve offer for their AS Facility to provide Dispatchable Reserve shall only declare Manual as its mode of operations in the MMS-MPI. The following table provides a guide on how to declare the mode of operations based on AS certifications obtained from the System Operator.

Table 1. Guide on Declaring Mode of Operations

	Reserve Offered for Regulation	Reserve Offered for Contingency	Reserve Offered for Dispatchable
Certified for both AGC and GCM/APFC	Declare AGC or Governor	Declare AGC or Governor	N/A
Certified for AGC	Declare AGC	Declare AGC	N/A

	Reserve Offered for Regulation	Reserve Offered for Contingency	Reserve Offered for Dispatchable
Certified for GCM/APFC	Declare Governor	Declare Governor	N/A
Certified for Manual Dispatch	N/A	N/A	Declare Manual

- 1.4. All non-AS Providers shall declare "Manual" as their mode of operations in the MMS-MPI.
- 1.5. At 1800H of each trading day, AS Providers contracted with the System Operator shall update their generation and reserve offers for the next trading day considering the Day-Ahead Ancillary Service Schedule (DAASS) from the System Operator. Contracted AS Providers shall declare their mode of operations consistent with the DAASS from the System Operator.

2. Supplemental Guidelines on the Real-Time Dispatch of Ancillary Services

The following guidelines shall supplement the procedures for the scheduling and dispatch of ancillary services in the WESM Dispatch Protocol.

- 2.1. The System Operator is responsible for the overall coordination and dispatch of scheduled AS Facilities in real-time considering the output generated by the MMS as RTD Reserve Schedules.
- 2.2. AS Providers are expected to dispatch each of their AS Facilities to deliver their scheduled Ancillary Services in consideration of the System Operator’s dispatch instruction (i.e., AGC, Local Control via GCM or APFC, or SO-communicated dispatch instruction).
- 2.3. AS Providers whose AS Facilities obtained non-zero RTD Reserve Schedules shall ensure that their plant operations and controls are set immediately prior to the start of the dispatch interval (e.g., for 0930H RTD, plant operations and controls should be set right before 09:25 AM).
 - 2.3.1. AS Facilities scheduled for Regulating Reserve and operating on AGC shall have its dead-band setting at +/- 0.3 Hz or higher as may be agreed with SO.
 - 2.3.2. AS Facilities scheduled for Contingency Reserve and operating on AGC shall have its dead-band setting at - 0.3 Hz or lower as may be agreed with SO.
 - 2.3.3. AS Facilities operating on GCM or APFC shall have dead-band and droop settings set based on the values indicated in the respective AS Certification
 - 2.3.4. AS Facilities scheduled to provide Dispatchable Reserve shall be ready to synchronize to the grid within 15 minutes after receipt of instruction from the System Operator.

Table 2. Expected Settings of AS Facilities

	Dead-band Settings	Droop Settings
Scheduled for Regulating Reserve and Operating on AGC	+/- 0.3 Hz or higher as may be agreed with SO	Lower than 5%

	Dead-band Settings	Droop Settings
Scheduled for Contingency Reserve and Operating on AGC	- 0.3 Hz or lower as may be agreed with SO	Lower than 5%
Operating on GCM/APFC	Based on AS Certificate	Based on AS Certificate

- 2.4. The System Operator may request AS Providers to change their AS Facility's mode of operations and/or plant operations and controls (i.e., dead-band and droop settings) in consideration of the reliable dispatch of all ancillary services.
- 2.4.1. Unless the relevant AS Facility has technical limitations, AS Providers shall immediately comply with the request of the System Operator.
- 2.4.2. The System Operator shall record these requests in their SO Dispatch Instruction Report.
- 2.5. AS Providers shall request prior clearance from the System Operator if they intend to switch their AS Facility's mode of operation from AGC to GCM/APFC, or vice versa, at least 15 minutes before the target time. Upon receipt of clearance from the System Operator, the AS Provider shall immediately update its AS Facility's expected mode of operations for the relevant trading hours in the MMS-MPI. Immediately prior to switching from GCM/APFC to AGC, AS Facilities should ensure that their AGC set-point at that plant side is near their current actual MW loading.
- 2.6. AS Facilities that obtained a non-zero energy and reserve schedule shall immediately dispatch their facility to meet their energy schedule, at the minimum, and respond to frequency-driven events or dispatch instructions based on their reserve schedule. This includes facilities scheduled for dispatchable reserve service.
- 2.7. If an AS facility has a combined energy and reserve schedule below its technical Pmin for a certain dispatch interval.
- 2.7.1. Trading Participants shall update their offers appropriately for the next dispatch intervals so that such an incident may not recur.
- 2.7.2. If it is currently running or dispatched, then it should operate at its technical Pmin for that dispatch interval unless otherwise instructed by the System Operator.
- 2.7.3. If it is currently off-line, then it should remain off-line for that dispatch interval unless otherwise instructed by the System Operator.

B. Supplemental Guidelines on Pricing and Settlement

1. Use of Reserve Market Primary Price Cap

Reserve prices for each reserve type in each dispatch interval shall be capped to the reserve offer cap currently set at Php32,000/MWh until otherwise set by the ERC.

2. Guidelines on Replacement of Contracted AS Capacities

- 2.1. Should a contracted AS Facility become unavailable, the relevant AS Provider which owns the unavailable AS Facility may opt to buy replacement AS capacity from other AS Providers or from the WESM.

- 2.2. An AS Provider may be allowed to buy replacement AS capacity from another AS Provider provided that an AS Capacity Replacement Protocol has been duly agreed upon among the Buying AS Provider, Selling AS Provider and the System Operator. The AS Capacity Replacement Protocol shall include the following terms:
 - 2.2.1. Timeline and procedures for the replacement of AS capacities.
 - 2.2.2. Settlement procedures among the System Operator, buying AS Providers, and selling AS Providers.
 - 2.2.3. Should an AS Provider buy replacement AS capacity from another AS Provider, the Buying and Selling AS Providers shall update their generation and reserve offers to reflect their arrangement which includes, but is not limited to, the cancellation by the Buying AS Provider of its generation and reserve offers for the unavailable AS Facility.
- 2.3. In cases where a contracted AS Provider bought AS capacity from another AS Provider (third-party AS Provider), the System Operator shall declare the reserve bilateral contract quantity (RBCQ) to the third-party AS Provider.
- 2.4. In cases where a contracted AS Provider bought AS capacity from the WESM, the System Operator shall continue to declare the reserve bilateral contract quantity to the buying AS Provider.

3. Guidelines on the Determination of the Reserve Bilateral Contract Quantity to be Used for Settlement

- 3.1. The System Operator shall be responsible for submitting the Reserve Bilateral Contract Quantity (RBCQ) for each contracted AS facility for a specific reserve type and dispatch interval.
- 3.2. No later than 2359H of each trading day, the System Operator is expected to submit all the RBCQs of the previous trading day.
- 3.3. The RBCQs to be submitted by the System Operator shall consider the following:
 - 3.3.1. The initial contracted reserve capacity (ICRC) shall be equal to the Day-Ahead Ancillary Service Schedule (DAASS), or as revised during the day based on the agreement between the SO and the ASP.
 - 3.3.2. If the RTD Reserve Schedule is greater than or equal to the ICRC, then the Final Reserve BCQ shall be equal to the DAASS.
 - 3.3.3. If the RTD Reserve Schedule is less than the ICRC, then the Final Reserve BCQ shall be determined based on the following conditions.
 - a. If the reserve quantity offered at P0/MWH is greater than or equal to the ICRC, then the Final Reserve BCQ shall be the minimum between the RTD Reserve Schedule and the ICRC.
 - b. If the reserve quantity offered at P0/MWH is less than the ICRC, then the Final Reserve BCQ shall be the sum of the following:
 - o Difference between the reserve quantity offered at P0/MWH and the ICRC
 - o Minimum between the RTD Reserve Schedule and the reserve quantity offered at P0/MWH.
- 3.4. The Final RBCQ determined in item 3.3 of this section shall be used for settlement of reserve transactions in the WESM.

- 3.5 Should the System Operator be unable to submit RBCQ as provided in Sections 3.1 to 3.3 and only as an interim measure, the Market Operator shall facilitate the implementation of said provisions. This interim arrangement shall be in place until 25 September 2024 unless otherwise extended by the DOE.

4. Guidelines on the Calculation of Ancillary Service Incidental Energy

- 4.1. The Ancillary Service Incidental Energy (ASIE) of each AS Facility is measured in MWH and shall be obtained as the difference between the metered quantity (or MQ, which is the actual energy delivered of the facility expressed in MWH) and the expected energy-only quantity.

$$\text{ASIE of AS Facility} = \text{MQ} - \text{EnQ_only}$$

Where: EnQ_only refers to the energy-only quantity of the AS Facility

- 4.2. The energy-only quantity shall be equal to the RTD energy schedule less the capacity scheduled for regulation down, if there is any, for the relevant 5-minute dispatch interval.

$$\text{EnQ_only of AS Facility} = \frac{\text{RTD Schedule} - \text{Regulation Down Schedule}}{12}$$

- 4.3. If the ASIE is less than zero, then the ASIE shall be set to zero.
- 4.4. The contracted ASIE of an AS Facility shall not be more than the maximum between its scheduled contracted AS Capacity or its RTD Reserve Schedule. For clarity, the following formula shall be used to determine the ASIE of a contracted AS Facility.

$$\text{ASIE of Contracted AS Facility} = \min [\max(\text{Reserve BCQ}, \text{RTD_Reserve_Schedule}), \text{ASIE}]$$

- 4.5. The spot quantity for the ASIE of an AS Facility shall then be equal to the difference between the ASIE and the contracted ASIE as determined in clause 4.4 of this guideline.

5. Guidelines on the Determination of Additional Compensation Quantity for Ancillary Service Providers

- 5.1. Section 10 of the WESM Manual on Billing and Settlement indicates the use of Ancillary Service Incidental Energy (ASIE) in the determination of the Additional Compensation Quantity in cases of:
- 5.1.1. Market suspension or intervention
 - 5.1.2. Designation as must-run unit or re-dispatch as a constrain-on generator
 - 5.1.3. Identified as a constrained-on generator during the application of the Price Substitution Methodology; and
 - 5.1.4. Qualified Trading Participants in dispatch intervals when price mitigation measure was applied

- 5.2 However, the ASIE shall be equal to the contracted ASIE determined in the previous guideline on the “Calculation of Ancillary Service Incidental Energy” during cases of:
 - 5.2.1. Market suspension or intervention; and
 - 5.2.2. During the application of the Price Substitution Methodology