

PUBLIC

IMEM Manual

Dispatch Protocol

Issue 1.0

Abstract	This document provides the timetable and procedures that the <i>IMEM Operator</i> and <i>Mindanao System Operator</i> follows in the preparation of the <i>Day-Ahead Schedules</i> and its implementation.
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SECTION 1 INTRODUCTION

1.1 PURPOSE

The purpose of this Manual is to provide:

- a) An overview of *IMEM* scheduling and dispatch processes;
- b) Pursuant to Clause 3.2.8.1 of the *IMEM Rules*, the methodology that the *IMEM Operator* shall use to derive the *Expected Demand* of an *Embedded IMEM Load Curtailment Resource*; and
- c) Pursuant to Clause 3.5.2.1, the grounds and procedures that the *Mindanao System Operator* shall use for departing from the provisions of Section 3.5.1 of the *IMEM Rules* (i.e., deviating from the *IMEM Merit Order Table*).

1.2 SCOPE

- 1.2.1 This *IMEM Manual* implements relevant provisions of Chapter 3 and Chapter 7 of the *IMEM Rules*.
- 1.2.2 Billing and settlement of *IMEM* transactions are not covered by this Manual as they are addressed in the *IMEM Billing and Settlement Manual*.

1.3 DEFINITIONS, REFERENCES AND INTERPRETATION

1.3.1 Definitions

Unless otherwise defined or the context implies otherwise, the italicized terms used in this *IMEM Manual* which are defined in the *IMEM Rules* will bear the same meaning as defined in the *IMEM Rules*.

1.3.2 Giving Notices

The guidelines set forth in Clause 9.1.4.1 of the *IMEM Rules* shall govern the giving of notices required in this *IMEM Manual*.

1.3.3 Organization of the Manual

This *IMEM Manual* is divided into seven (7) Sections as follows -

- a) Overview of *IMEM* Operations
- b) System information and determination of *IMEM Demand*
- c) Form, Submission and Validation of *IMEM Offers*
- d) Scheduling and Pricing
- e) In-Day Dispatch Instructions

- f) Publication requirements
- g) Market Intervention and Suspension

1.3.4 Interpretation

Any reference to a Section or Clause in any Chapter of this *IMEM Manual* shall refer to the particular Section or Clause of the same Section in which the reference is made, unless otherwise specified or the context provides otherwise.

1.4 RESPONSIBILITIES

1.4.1 The roles and responsibilities of the *IMEM Operator* and *Mindanao System Operator* are prescribed, respectively, in Section 1.2.1 and 1.2.2 of the *IMEM Rules*.

1.4.2 Additionally,

1.4.2.1 The *IMEM Operator* shall be responsible for the commercial transactions in the *IMEM*. In particular, the *IMEM Operator* shall be responsible for:

- a) Creating and disseminating the *Day-Ahead Schedules*, *Day-Ahead IMEM Schedules*, *IMEM Merit Order Tables* (MOTs) and, during *Insufficient Supply Conditions*, the *Load-to-Maintain* levels of each *IMEM Customer* pursuant to Chapter 3 of the *IMEM Rules*;
- b) Disseminating and publishing system information to *IMEM Members* as required under Chapter 3 of the *IMEM Rules*; and
- c) Calculating and disseminating the *Expected Demand of Embedded IMEM Load Curtailment Resources* pursuant to Clauses 3.1.2.10 and 3.2.8.1 of the *IMEM Rules*.

1.4.2.2 The *Mindanao System Operator* shall be responsible for:

- a) Coordinating the physical implementation of the *Day-Ahead Schedules* produced by the *IMEM Operator* in accordance with Chapter 3 of the *IMEM Rules*;
- b) Disseminating system information to *IMEM Members* and the *IMEM Operator* as required under Chapter 3 of the *IMEM Rules*;
- c) Monitoring the compliance of *IMEM Resources* with the *Day-Ahead Schedules* and the *In-Day Dispatch Instructions*;

- d) Ensuring the overall security of the *Mindanao Power System* during the implementation of the *Day-Ahead Schedules*; and
- e) Preparing and submitting reports in relation to the actual dispatch of *IMEM Resources* as required under Section 3 of the *IMEM Rules*.

1.4.2.3 *IMEM Trading Participants* shall be responsible for:

- a) Submitting all system information to the *IMEM Operator* and *Mindanao System Operator* as required under Chapter 3 of the *IMEM Rules*;
- b) Following their *Day-Ahead Schedules* or *In-Day Dispatch Instructions*, as applicable under Chapter 3 of the *IMEM Rules*; and
- c) Informing the *IMEM Operator* and *Mindanao System Operator* immediately of any event that would result or have resulted in its non-compliance with their *Day-Ahead Schedule* generated by the *IMEM Operator*.

1.4.2.4 *Mindanao Distribution Utilities* shall be responsible for:

- a) Submitting all system information to the *Mindanao System Operator* as required under Chapter 3 of the *IMEM Rules*;
- b) Relaying *In-Day Dispatch Instructions* from the *Mindanao System Operator* to *IMEM Load Curtailment Resources* directly connected to its system;
- c) Informing the *IMEM Operator* and *Mindanao System Operator* of any event that would result or have resulted in the non-compliance of an *IMEM Resource* within its *Distribution System* with its *Day-Ahead Schedule* generated by the *IMEM Operator*;
- d) Coordinating with the *Mindanao System Operator* in maintaining the security of the *Mindanao Power System*; and
- e) Following other instructions issued by the *Mindanao System Operator* that is pursuant to the *IMEM Rules*.

1.4.3 If the *IMEM Operator* or the *Mindanao System Operator* has reasonable grounds to believe that a breach of the *IMEM Rules* and/or this *Manual* has been committed by an *IMEM Member*, the *IMEM Operator* or the *Mindanao System Operator* shall submit a report of the alleged breach to the *IMEM Governance Committee* through the *Enforcement and Compliance Office* in accordance with the procedures set forth in the *IMEM Manual* on Investigation Procedure.

1.5 EFFECTIVITY AND PUBLICATION

This *IMEM Manual* shall take effect upon promulgation by the *DOE*. Thereafter, it shall be published on the *Market Information Website*¹.

¹[http://www.wesm.ph/inner.php/the_market/interim_mindanao_electricity_market_\(imem\)](http://www.wesm.ph/inner.php/the_market/interim_mindanao_electricity_market_(imem))

SECTION 2 OVERVIEW OF THE IMEM

2.1 SCOPE

This Chapter:

- a) Summarizes the objectives of the *IMEM*;
- b) Provides a brief overview of scheduling and dispatch processes that will be in place during the *IMEM* (further details and procedures on *IMEM* scheduling and dispatch processes are provided in subsequent Sections and the Appendices of this Manual); and
- c) Includes the timetable of *IMEM* operations pursuant to Section 3.1 of the *IMEM Rules*.

2.2 OBJECTIVES OF THE IMEM

- 2.2.1 Recognizing the urgent need to address the current supply shortage in Mindanao, the *Department of Energy (DOE)* directed the *Philippine Electricity Market Corporation (PEMC)* to develop and implement the *Interim Mindanao Electricity Market (IMEM)* to utilize spare generation capacity.
- 2.2.2 The *IMEM* is an interim market designed to efficiently utilize all available capacities (particularly in periods with high risk of supply shortfall). In the event the *IMEM Operator* determines that forecast load will exceed contracted capacity, this will be achieved by providing a venue for:
 - a) Generators to offer available capacity at a nominated price, and
 - b) Loads to curtail consumption at a nominated price.
- 2.2.3 Hence, pursuant to Clause 1.1.4 of the *IMEM Rules* the objectives of the *IMEM* are:
 - a) To facilitate the transparent and efficient utilization of all available capacities in Mindanao in order to minimize the perennial power shortages in the region;
 - b) To reflect the true cost of electric power in order to attract investment in new generating capacities in Mindanao; and
 - c) To ensure free and fair competition and public accountability.

2.3 OVERVIEW OF IMEM SCHEDULING AND DISPATCH PROCESSES

- 2.3.1 The *IMEM* is a venue for the transparent and efficient utilization of all available capacities in the *Mindanao Power System* to meet any supply deficiency.
- 2.3.2 The *IMEM* is an energy-only market and does not include the procurement of *Ancillary Services*.
- 2.3.3 For clarity and pursuant to Section 3.1.1.1 of the *IMEM Rules*:
- a) The *IMEM* shall operate on the basis of one-hour *IMEM Intervals*, ending on the hour;
 - b) *IMEM Intervals* in which a non-zero *IMEM Demand* is determined shall be designated as *IMEM Trading Intervals*; and
 - c) In addition, *IMEM Intervals* in which any *In-Day Dispatch Instruction* is issued to an *IMEM Resource* in relation to capacity covered in its *Offered Capacity* shall also be designated as *IMEM Trading Intervals*.
- 2.3.4 Briefly, the day-ahead scheduling and dispatch processes shall operate as follows²:
- 2.3.4.1 System Information Reports
- a) The *Mindanao System Operator* shall determine and submit to the *IMEM Operator* the *Week-Ahead System Generation Requirement Forecast* and *Week-Ahead Power System Information Report* based on information submitted by *IMEM Customers*.
 - b) Thereafter, *IMEM Generators* shall submit their week-ahead generator available capacity and *Week-Ahead Contract Allocations* to the *Mindanao System Operator*.
 - c) The *Mindanao System Operator* shall use all the above information to determine and submit:
 - i. To the *IMEM Operator*, the *Week-Ahead Contract Allocations Report*.
 - ii. To each *IMEM Customer*, their *Ex-Ante Contract Allocations*.

² Please refer to Section 2.4 of this Manual for details on the timelines associated with the operation of the *IMEM*.

- d) *IMEM Customers* shall submit their *Week-Ahead Customer IMEM Demand* to the *IMEM Operator* and the *Mindanao System Operator* after taking into consideration their *Customer Demand Forecast, Ex-Ante Contract Allocations* and *Expected ILP Reduction*.
- e) The *IMEM Operator* shall use the *Week-Ahead System Generation Requirement Forecast, Week-Ahead Contract Allocations Report* and the *Week-Ahead Customer IMEM Demand* to prepare and publish the *Week-Ahead IMEM Demand Report*.

2.3.4.2 Day-Ahead Schedules

- a) Pursuant to the relevant provisions of Chapter 3 of the *IMEM Rules*, the *IMEM Operator* shall determine, disseminate and/or publish the *Day-Ahead Schedules, Day-Ahead IMEM Schedules, IMEM Day-Ahead Price*, and the *IMEM Merit Order Table* for each *IMEM Interval* in the following day.
- b) Day-Ahead IMEM Schedule and IMEM Day-Ahead Price
 - i. The *Day-Ahead IMEM Schedule* is the instantaneous MW supply that an *IMEM Resource* is to supply from its *IMEM Offer* at the end of a particular *IMEM Interval*.
 - ii. The *IMEM Day-Ahead Price* is the price that is the basis for settlement payments to *IMEM Resources* during an *IMEM Trading Interval*, as set the preceding day in accordance with Section 3.4.2 of the *IMEM Rules*.
 - iii. For each *IMEM Interval*, the *IMEM Operator* shall determine the *Day-Ahead IMEM Schedule* of each *IMEM Resource* in accordance with the *IMEM Price Determination Methodology* approved by the *ERC*³.
 - iv. If there is insufficient capacity across all *IMEM Offers* to meet the *IMEM Demand*, the *IMEM Operator* shall fully schedule all *IMEM Offers* and declare an *Insufficient Supply Condition*.
- c) Day-Ahead Schedule⁴

³ Clause 3.4.1.1, *IMEM Rules*.

⁴ Clause 3.4.1.2, *IMEM Rules*.

- i. The *Day-Ahead Schedule* is the instantaneous MW supply that an *IMEM Resource* is to supply within the *Mindanao Power System* at the end of a particular *IMEM Interval*.
- ii. The *Day-Ahead Schedule* of an *IMEM Generator* in an *IMEM Interval* shall be its *Day-Ahead IMEM Schedule* plus its total *Ex-Ante Contract Allocation* for that *IMEM Interval*⁵.
- iii. The *Day-Ahead Schedule* of an *IMEM Load Curtailment Resource* in an *IMEM Interval* shall be equal to its *Day-Ahead IMEM Schedule* for that *IMEM Interval*. For clarity, the *Day-Ahead Schedule* of an *IMEM Load Curtailment Resource* is the MW quantity that it would curtail from its *Expected Demand*.

2.3.4.3 Dispatch

a) IMEM Merit Order Table

- i. The *IMEM Merit Order Table* is the table of ranked capacities with the associated information that is constructed by the *IMEM Operator* under Section 3.4.3 of the *IMEM Rules* for use by the *Mindanao System Operator* in managing the in-day dispatch of *IMEM Resources*.
- ii. The *IMEM Merit Order Table* is ranked based on the priority-dispatch of the *Ex-ante Contract Allocations*, *Unscheduled Contracted Capacities* (if there is any), and the *IMEM Offers*, respectively.
- iii. Clause 3.1.2.13 of the *IMEM Rules* state that, by 1600H, the *IMEM Operator* shall transmit the *IMEM Merit Order Table* to the *Mindanao System Operator* who shall use the *IMEM Merit Order Table* for real-time imbalance correction pursuant to Clause 1.1.3.5 of the *IMEM Rules*.

- b) Pursuant to Clause 3.5.1 of the *IMEM Rules*, the *Mindanao System Operator* shall use the *IMEM Merit Order Table* as reference when issuing *In-Day Dispatch*

⁵ Clause 3.4.2.2, *IMEM Rules*.

Instructions to IMEM Resources for any IMEM Interval to meet any changes in system requirements.

- c) The *Mindanao System Operator* shall log *In-Day Dispatch Instructions* pursuant to Clause 3.5.5.1 of the *IMEM Rules*.
- d) The *Mindanao System Operator* shall submit to the *IMEM Operator* an in-day dispatch report pursuant to Clause 3.5.5.2 of the *IMEM Rules*.

2.3.5 Figure 1 shows a simple overview of the operational arrangements in the *IMEM*.

Interim Mindanao Electricity Market Dispatch Protocol

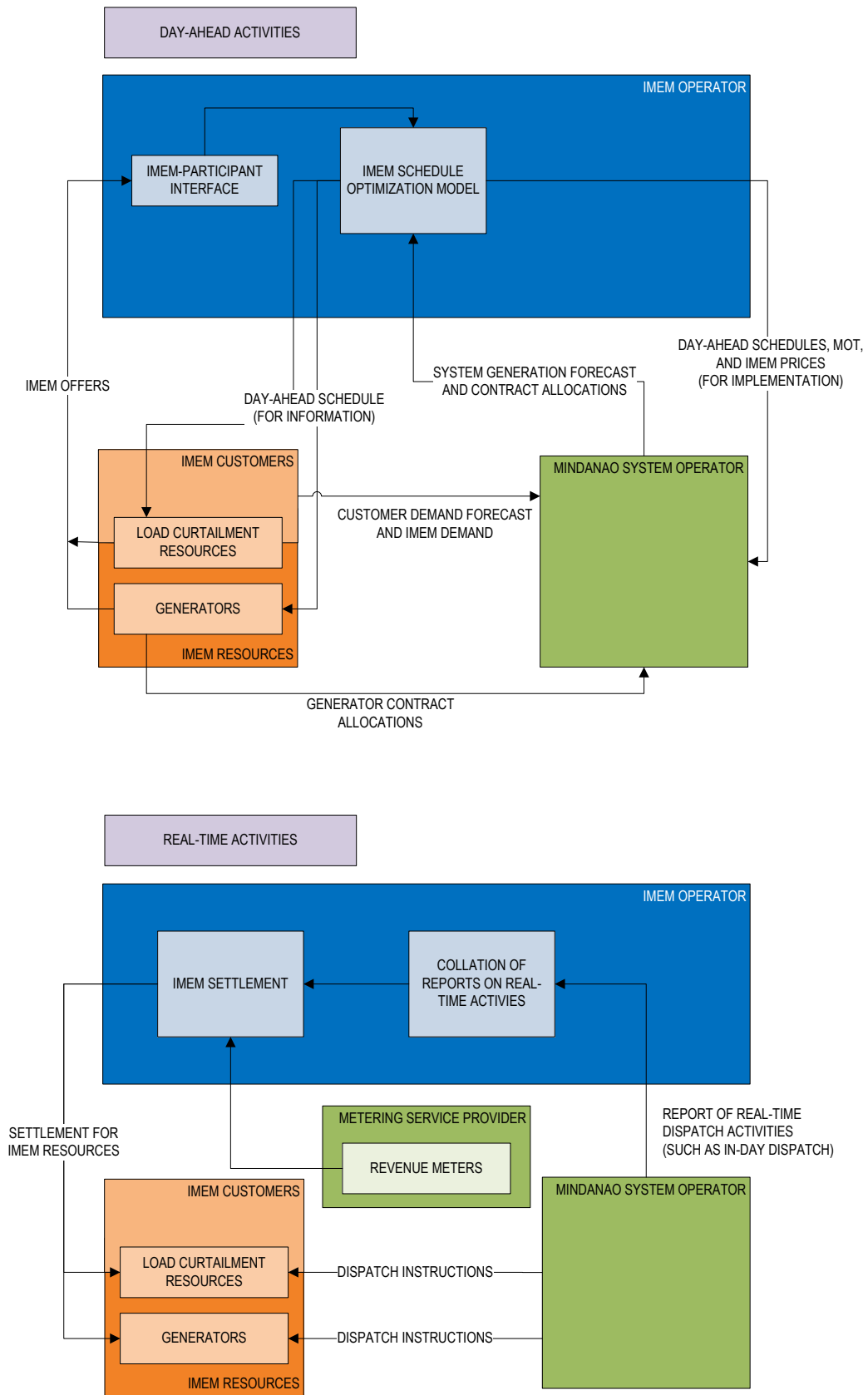


Figure 1. Conceptual Overview of IMEM Operations

2.4 IMEM TIMETABLE

2.4.1 Day-Ahead Activities

The *IMEM* timetable provides an overall schedule of activities pursuant to Section 3.1 of the *IMEM Rules*. Table 1 shows the daily activities to be performed during the commercial operations of the *IMEM*. These daily activities are used to prepare the *Day-Ahead IMEM Schedule*, *Day-Ahead Schedule* and *IMEM Merit Order Table* that shall be used for the next day. Moreover, these daily activities are used to determine the *IMEM Day-Ahead Price* applicable to *IMEM* transactions on the following day.

Table 1. Day-Ahead Activities Timetable

ITEM	TIME	ACTIVITY	DESCRIPTION	Rule Reference	FROM	TO
1	By 0900H	Submission of <i>Week-Ahead Customer Demand Forecast</i>	The <i>Customer Demand Forecast</i> is an estimate of the instantaneous demand at the end of each interval. It shall exclude the contributions of any embedded generation or load curtailment	3.1.2.1	<i>IMEM Customer</i>	<i>Mindanao System Operator</i>
2	By 0900H	Submission of <i>Week-Ahead Distribution Network Information Report</i>	This information shall include (a) any planned outage of distribution network equipment, (b) any forced outages of distribution network equipment during the previous day; and (c) any other information requested by the <i>IMEM Operator</i> or the	3.1.2.2	<i>Mindanao Distribution Utility</i>	<i>Mindanao System Operator</i>

Interim Mindanao Electricity Market Dispatch Protocol

ITEM	TIME	ACTIVITY	DESCRIPTION	Rule Reference	FROM	TO
			<i>Mindanao System Operator</i>			
3	By 1000H	Submission of <i>Week-Ahead System Generation Requirement Forecast</i>	The <i>System Generation Requirement Forecast</i> shall be an estimate of total generation required to meet demand (total load plus losses) in the <i>Mindanao Power System</i> for each <i>IMEM Interval</i> . This shall be based on the total <i>Customer Demand Forecast</i> , plus the losses incurred in the system	3.1.2.3	<i>Mindanao System Operator</i>	<i>IMEM Operator</i>
4	By 1000H	Submission of <i>Week-Ahead Power System Information Report</i>	This information shall include information on (a) any planned outage of <i>Mindanao Grid</i> equipment, (b) any forced outages of <i>Mindanao Grid</i> equipment during the previous day; and (c) any other <i>Mindanao Grid</i> information requested by the <i>IMEM Operator</i> or the <i>Mindanao System Operator</i>	3.1.2.4	<i>Mindanao System Operator</i>	<i>IMEM Operator</i>

Interim Mindanao Electricity Market Dispatch Protocol

ITEM	TIME	ACTIVITY	DESCRIPTION	Rule Reference	FROM	TO
5	By 1030H	Publishing of <i>Week-Ahead System Generation Requirement Forecast and Week-Ahead Power System Information Report to the Market Information Website</i> ⁶	Information described in Items 3 and 4 shall then be published to the public through the <i>Market Information Website</i> ⁷ .	3.1.2.5	<i>IMEM Operator</i>	Public
6	By 1100H	Submission of <i>Week-Ahead Generator Contract Allocations</i>	It shall include the <i>Ex-Ante Contract Allocation</i> to each <i>IMEM Customer</i> for each <i>IMEM Interval</i>	3.1.2.6	<i>IMEM Generator</i>	<i>Mindanao System Operator</i>
7	By 1200H	Submission of <i>Week-Ahead Contract Allocations Report</i> and <i>Ex-Ante Contract Allocations</i> to each <i>IMEM Customer</i>	It shall include all of the information for the <i>Week-Ahead Generator Contract Allocations</i> including the (a) total <i>Ex-Ante Contract Allocation</i> for each <i>IMEM Generator</i> , (b) total <i>Ex-Ante Contract Allocation</i> for each <i>IMEM Customer</i> , (c) the <i>Expected ILP Reduction</i> for each <i>IMEM Customer</i> and (d) <i>Uncontracted</i>	3.1.2.7	<i>Mindanao System Operator</i>	<i>IMEM Operator</i>
				3.1.2.8		<i>IMEM Customer</i>

⁶[http://www.wesm.ph/inner.php/the_market/interim_mindanao_electricity_market_\(imem\)](http://www.wesm.ph/inner.php/the_market/interim_mindanao_electricity_market_(imem))

⁷[http://www.wesm.ph/inner.php/the_market/interim_mindanao_electricity_market_\(imem\)](http://www.wesm.ph/inner.php/the_market/interim_mindanao_electricity_market_(imem))

Interim Mindanao Electricity Market Dispatch Protocol

ITEM	TIME	ACTIVITY	DESCRIPTION	Rule Reference	FROM	TO
			<i>Demand for each IMEM Customer</i>			
8	By 1300H	Submission of <i>Week-Ahead Customer IMEM Demand</i>	Each <i>IMEM Customer</i> shall, based on its <i>Customer Demand Forecast</i> submitted to the <i>Mindanao System Operator</i> and their total <i>Ex-Ante Contract Allocation</i> , determine the quantity they intend to purchase from the <i>IMEM</i>	3.1.2.9	<i>IMEM Customer</i>	<i>Mindanao System Operator</i> <i>IMEM Operator</i>
9	By 1330H	Submission of <i>Expected Demands</i> to each <i>Embedded IMEM Load Curtailment Resource</i>	The <i>Expected Demand</i> of each <i>Embedded IMEM Load Curtailment Resource</i> shall be determined by the <i>IMEM Operator</i> ⁸	3.1.2.10	<i>IMEM Operator</i>	<i>Embedded IMEM Load Curtailment Resource</i>
10	By 1500H	Calculation and Publication of <i>Week-Ahead IMEM Demand Report</i>	The <i>IMEM Demand Report</i> shall include the (a) total generation required to meet demand, (b) total system demand covered by <i>Ex-Ante Contract Allocations</i> ; and (c) total <i>IMEM Demand</i>	3.1.2.11	<i>IMEM Operator</i>	Public
11	1500H	Gate Closure for <i>IMEM Offers</i>	Cut-off period for the <i>IMEM Resources'</i> submission of	3.1.2.12	<i>IMEM Resources</i>	<i>IMEM Operator</i>

⁸ Clause 3.2.8.1, *IMEM Rules*.

Interim Mindanao Electricity Market Dispatch Protocol

ITEM	TIME	ACTIVITY	DESCRIPTION	Rule Reference	FROM	TO
			offers to the <i>IMEM</i>			
12	By 1600H	Calculation and Publication of <i>IMEM Day-Ahead Price</i>	Publication of <i>IMEM Day-Ahead Prices</i> shall be made through the <i>Market Information Website</i> ⁹	3.1.2.13	<i>IMEM Operator</i>	Public
13	By 1600H	Transmittal of the <i>Day-Ahead Schedules, Day-Ahead IMEM Schedules, IMEM Merit Order Table, and Load-to-Maintain</i> matrices	The <i>IMEM Operator</i> shall transmit the <i>Day-Ahead Schedules, Day-Ahead IMEM Schedule, and Load-to-Maintain</i> matrix of each <i>IMEM Resource</i> and the <i>IMEM Merit Order Table</i> for each <i>IMEM Interval</i> of the relevant day	3.1.2.14	<i>IMEM Operator</i>	<i>Mindanao System Operator</i>
14	By 1600H	Transmittal of the <i>Day-Ahead Schedule</i> to <i>IMEM Resources</i>	The <i>IMEM Operator</i> shall transmit to each <i>IMEM Resource</i> their respective <i>Day-Ahead Schedule</i> for each <i>IMEM Interval</i> of the relevant day	3.1.2.15	<i>IMEM Operator</i>	<i>IMEM Resources</i>
15	By 1600H	Transmittal of the <i>Day-Ahead Schedules</i> to <i>Mindanao Distribution Utilities</i>	The <i>Mindanao Distribution Utilities</i> shall receive the <i>Day-Ahead Schedules</i> of <i>IMEM Resources</i> directly connected to their facilities	3.1.2.16	<i>IMEM Operator</i>	<i>Mindanao Distribution Utility</i>

⁹[http://www.wesm.ph/inner.php/the_market/interim_mindanao_electricity_market_\(imem\)](http://www.wesm.ph/inner.php/the_market/interim_mindanao_electricity_market_(imem))

2.4.2 In-Day and Day-After Activities

This section provides the in-day and day-after activities performed in the *IMEM* in relation to the implementation of the *Day-Ahead Schedules*.

2.4.2.1 *IMEM Rules* Clause 3.1.2.17 states that the *Mindanao System Operator* shall perform *In-Day Dispatch* of *IMEM Resources* up to ten (10) minutes before the start of each *IMEM Interval* in accordance with Section 3.5.1 of the *IMEM Rules* and Section 6.2 of this *IMEM Manual*.

2.4.2.2 In addition and pursuant to Clause 3.1.2.18 of the *IMEM Rules*, the *IMEM Operator* shall publish the *Day-Ahead Schedules* and *Day-Ahead IMEM Schedules* for each *IMEM Trading Interval* in the *Market Information Website*¹⁰ two (2) *Business Days* after the publication of the *IMEM Day-Ahead Price*.

2.4.2.3 Moreover, Clause 3.5.5.2 of the *IMEM Rules* and Section 6.7 of this *IMEM Manual* provide that the *Mindanao System Operator* shall submit to the *IMEM Operator* and the *DOE* a report on in-day dispatch events by 1500H the day after the implementation of the relevant *Day-Ahead Schedules*.

2.5 SCHEDULING OF NPC/PSALM GENERATING PLANTS AND NPC-IPP PLANTS

2.5.1 The state-owned National Power Corporation, or NPC, and the Power Sector Assets and Liabilities Management, Corp. (PSALM) either manages or contracts majority of the capacity in Mindanao. The list of *Generating Plants* that is managed by NPC/PSALM in the *IMEM* are provided in Appendix A.

2.5.2 Each day no later than 0945H, PSALM shall submit the hourly *Week-Ahead Ancillary Services Nomination* to the *Mindanao System Operator* for a maximum of 40MW for the *Regulating Reserve (RR)* and a maximum of 30MW for *Contingency Reserve (CR)*. The reserve requirement for regulation and contingency shall be based on the *System Generation Requirement Forecast* prepared by the *Mindanao System Operator*.

2.5.3 Each day no later than 0945H, PSALM shall also submit the hourly *Week-Ahead Generation Available Capacity Nomination* net of the hourly *Week-Ahead Ancillary Services Nomination* of each of the *NPC/PSALM Generating Plants* and *NPC IPP Plants* to the *Mindanao System Operator*.

2.5.4 Each day no later than 1000H, the *Mindanao System Operator* shall confirm and submit to PSALM the *Notice of Ancillary Services Schedule (NASS)* indicating the quantity of ancillary services and the period

¹⁰[http://www.wesm.ph/inner.php/the_market/interim_mindanao_electricity_market_\(imem\)](http://www.wesm.ph/inner.php/the_market/interim_mindanao_electricity_market_(imem))

covered. The confirmed NASS shall be the basis for the NPC/PSALM Generating Plants and NPC IPP Plants' ancillary service dispatch by the *Mindanao System Operator*.

- 2.5.5 Each day no later than 1000H, the *Mindanao System Operator* shall also submit to PSALM the hourly Week-Ahead Security Constrained Generation Schedule (WASCGS) net of confirmed Ancillary Services.
- 2.5.6 Each day no later than 1030H, PSALM shall submit its hourly *Week-Ahead Generator Contract Allocations* to the *Mindanao System Operator* and to each of the *IMEM Customers* that it is contracted with. PSALM may declare its *Ex-Ante Contract Allocations* on a portfolio basis. That is, PSALM may declare the *Ex-Ante Contract Allocations* of its managed *Generating Plants* using a single *IMEM Generator* name that refers to its portfolio (e.g., NPC/PSALM).
- 2.5.7 Each day no later than 1030H, PSALM shall submit any additional Week-Ahead Ancillary Services Nomination to the *Mindanao System Operator*
- 2.5.8 Should there be excess capacity beyond NPC/PSALM's total *Ex-ante Contract Allocation* and Week-Ahead Ancillary Services Nomination, it shall be included in the *IMEM Merit Order Table* as unscheduled capacity. Clause 5.4.2 of this Manual describes how this capacity is ranked in the *IMEM Merit Order Table*.
- 2.5.9 NPC/PSALM shall also submit to the *Mindanao System Operator* a reference on the economic dispatch of their capacities (e.g. each generating facility's production cost). This shall serve as a guide for the *Mindanao System Operator* for the determination of the security-constrained schedules, as well as for *In-Day Dispatch Instructions*.

2.6 NON-NPC/PSALM GENERATING FACILITIES

- 2.6.1 Non-NPC/PSALM *Generating Plants*¹¹ shall submit their nominated capacities to the *Mindanao System Operator* by 1100H.
- 2.6.2 The *Mindanao System Operator* shall then immediately perform a security-constrained dispatch considering the nominated capacities of the Non-NPC/PSALM *Generating Facilities*.
- 2.6.3 The *Mindanao System Operator* shall submit the security-constrained schedules obtained in Clause 2.6.2 to the Non-NPC/PSALM *Generating*

¹¹ Capacities not managed or contracted by NPC/PSALM

Facilities by 1130H, which shall then be used for their *Ex-ante Contract Allocation*.

SECTION 3 SYSTEM INFORMATION REPORTS AND EXPECTED DEMAND

3.1 SCOPE

This Chapter provides:

- a) The procedures and guidelines that the *IMEM Operator, Mindanao System Operator* and *IMEM Trading Participants* must follow in the preparation, transmittal and dissemination of system information reports required under Section 3.2 of the *IMEM Rules*; and
- b) The methodology that the *IMEM Operator* shall use to calculate the *Expected Demand of Embedded IMEM Load Curtailment Resources* (pursuant to Clause 3.2.8.1 of the *IMEM Rules*).

3.2 SYSTEM INFORMATION REPORTS

This Section summarizes the procedures that the *IMEM Operator, Mindanao System Operator* and *IMEM Trading Participants* must follow in the daily preparation, transmittal and dissemination of system information required under Section 3.2 of the *IMEM Rules*.

Table 2 summarizes the guidelines and procedures for the various information and reports that must be prepared under Section 3.2 of the *IMEM Rules*.

Table 2. Guidelines for Preparing and Disseminating System Information

Report	Description	Responsible Party	Procedures and Guidelines	Mode of submission
<i>Week-Ahead Customer Demand Forecast</i>	The <i>Customer Demand Forecast</i> for the following seven days provided by an <i>IMEM Customer</i> in accordance with Section 3.2.1 of the <i>IMEM Rules</i> .	<i>IMEM Customer</i>	<ul style="list-style-type: none"> • Each day by 0900H, each <i>IMEM Customer</i> shall submit to the <i>Mindanao System Operator</i> their <i>Week-Ahead Customer Demand Forecast</i>. • The report shall contain the information specified in Section 3.2.3 of the <i>IMEM Rules</i>. • Each <i>IMEM Customer</i> shall use the template prescribed in Appendix A in submitting the same. • In the event that an <i>IMEM Customer</i> fails to submit a <i>Week-Ahead Customer Demand Forecast</i> by 0900H, its <i>Customer Demand Forecasts</i> for the next day shall be those in the last submitted <i>Week-Ahead Customer Demand Forecast</i>. If the last submitted <i>Week-</i> 	<ul style="list-style-type: none"> • Secure File Transfer Protocol (SFTP) • Electronic Mail if SFTP fails

Interim Mindanao Electricity Market Dispatch Protocol

Report	Description	Responsible Party	Procedures and Guidelines	Mode of submission
			<i>Ahead Customer Demand Forecast</i> does not include <i>Customer Demand Forecasts</i> for the next day, the <i>Customer Demand Forecasts</i> for that day shall be those on the similar day in the last submitted <i>Week-Ahead Customer Demand Forecast</i> .	
<i>Week-Ahead Distribution Network Information Report</i>	The report on outages and conditions for the following seven days in the <i>Distribution Network</i> of an <i>IMEM Network Service Provider</i> , provided in accordance with Section 3.2.3 of the <i>IMEM Rules</i> .	<i>Mindanao Distribution Utility</i>	<ul style="list-style-type: none"> Each day by 0900H, each <i>Mindanao Distribution Utility</i> shall submit to the <i>Mindanao System Operator</i> their <i>Week-Ahead Distribution Network Information Report</i>. Each <i>IMEM Customer</i> shall use the template prescribed in Appendix C in submitting the same. 	<ul style="list-style-type: none"> SFTP Electronic Mail if SFTP fails
<i>Week-Ahead System Generation Requirement Forecast</i>	The report on generation requirement for the following seven (7) days, provided by the <i>Mindanao System Operator</i> in accordance with Section 3.2.2 of the <i>IMEM Rules</i> .	<i>Mindanao System Operator</i> to prepare and submit to the <i>IMEM Operator</i> , who will then publish the information	<ul style="list-style-type: none"> Each day by 1000H, the <i>Mindanao System Operator</i> shall prepare the <i>Week-Ahead System Generation Requirement Forecast</i> and submit the same to the <i>IMEM Operator</i>. The <i>Mindanao System Operator</i> shall prepare the <i>Week-Ahead System Generation Requirement Forecast</i> in accord with Section 3.2.2 of the <i>IMEM Rules</i>. Each day by 1030H, the <i>IMEM Operator</i> shall publish the <i>Week-Ahead System Generation Requirement Forecast</i> 	<ul style="list-style-type: none"> SFTP from <i>Mindanao System Operator</i> to <i>IMEM Operator</i> (or Electronic Mail if SFTP fails) <i>Market Information Website</i>¹² for general publication.
<i>Week-Ahead Power System Information Report</i>	The report on outages and conditions for the following seven (7) days in the <i>Mindanao Power System</i> , provided by the <i>Mindanao System Operator</i> in accordance with Section 3.2.4 of the <i>IMEM Rules</i> .	<i>Mindanao System Operator</i> to prepare and submit to the <i>IMEM Operator</i> , who will then publish the information	<ul style="list-style-type: none"> Each day by 1000H, the <i>Mindanao System Operator</i> shall prepare the <i>Week-Ahead Power System Information Report</i> and submit the same to the <i>IMEM Operator</i>. The <i>Mindanao System Operator</i> shall prepare the <i>Week-Ahead Power System Information Report</i> in accord with Section 3.2.4 of the <i>IMEM Rules</i>. 	<ul style="list-style-type: none"> SFTP from <i>Mindanao System Operator</i> to <i>IMEM Operator</i> (or Electronic Mail if SFTP fails) <i>Market Information</i>

¹²[http://www.wesm.ph/inner.php/the_market/interim_mindanao_electricity_market_\(imem\)](http://www.wesm.ph/inner.php/the_market/interim_mindanao_electricity_market_(imem))

Interim Mindanao Electricity Market Dispatch Protocol

Report	Description	Responsible Party	Procedures and Guidelines	Mode of submission
			<ul style="list-style-type: none"> Each day by 1030H, the <i>IMEM Operator</i> shall publish the <i>Week-Ahead Power System Information Report</i> 	<p><i>Website</i>¹³ for general publication.</p>
<i>Week-Ahead Generator Contract Allocation</i>	The specification of <i>Ex-Ante Contract Allocations</i> for the following seven days provided by an <i>IMEM Generator</i> in accordance with Section 3.2.5 of the <i>IMEM Rules</i> .	<i>IMEM Generator</i>	<ul style="list-style-type: none"> Each day by 1100H, each <i>IMEM Generator</i> shall submit to the <i>Mindanao System Operator</i> their <i>Week-Ahead Generator Contract Allocation</i> Each <i>IMEM Generator</i> shall follow the guidelines prescribed in Section 3.2.5 of the <i>IMEM Rules</i> in preparing their <i>Week-Ahead Generator Contract Allocation</i> Each <i>IMEM Generator</i> shall use the template prescribed in Appendix F of this Manual when transmitting their <i>Week-Ahead Generator Contract Allocation</i> to the <i>Mindanao System Operator</i>. In the event that an <i>IMEM Generator</i> fails to submit a <i>Week-Ahead Generator Contract Allocation</i> by 1100H, its <i>Ex-Ante Contract Allocations</i> for the next day shall be those in the last submitted <i>Week-Ahead Generator Contract Allocation</i>. If the last submitted <i>Week-Ahead Generator Contract Allocation</i> does not include <i>Ex-Ante Contract Allocations</i> for the next day, the <i>Ex-Ante Contract Allocations</i> for that day shall be those on the similar day in the last submitted <i>Week-Ahead Generator Contract Allocation</i>. 	<ul style="list-style-type: none"> SFTP Electronic Mail if SFTP fails
<i>Week-Ahead Contract Allocations Report</i>	The report summarizing <i>Week-Ahead Generator</i> contract allocations, provided by the <i>Mindanao System Operator</i> to the <i>IMEM Operator</i> in accordance with	<i>Mindanao System Operator</i>	<ul style="list-style-type: none"> Each day by 1200H, the <i>Mindanao System Operator</i> shall submit to the <i>IMEM Operator</i> the <i>Week-Ahead Contract Allocations Report</i>. The <i>Mindanao System Operator</i> shall follow Section 3.2.6 of the <i>IMEM Rules</i> in 	<ul style="list-style-type: none"> SFTP Electronic Mail if SFTP fails

¹³[http://www.wesm.ph/inner.php/the_market/interim_mindanao_electricity_market_\(imem\)](http://www.wesm.ph/inner.php/the_market/interim_mindanao_electricity_market_(imem))

Interim Mindanao Electricity Market Dispatch Protocol

Report	Description	Responsible Party	Procedures and Guidelines	Mode of submission
	Section 3.2.6 of the <i>IMEM Rules</i> .		<p>preparing the <i>Week-Ahead Contract Allocations Report</i>.</p> <ul style="list-style-type: none"> The <i>Mindanao System Operator</i> shall use the template prescribed in Appendix G of this Manual when transmitting the <i>Week-Ahead Contract Allocations Report</i> to the <i>IMEM Operator</i>. 	
<i>Ex-Ante Contract Allocation</i>	<i>IMEM Customer's Ex-Ante Contract Allocation</i> prepared by the <i>Mindanao System Operator</i> in accordance with Section 3.2.6 of the <i>IMEM Rules</i>	<i>Mindanao System Operator</i>	<ul style="list-style-type: none"> Each day by 1200H, the <i>Mindanao System Operator</i> shall use the results from the <i>Week-Ahead Contract Allocations Report</i> to submit to each <i>IMEM Customer</i> their <i>Ex-Ante Contract Allocations</i> for the next seven (7) days The <i>Mindanao System Operator</i> shall use the template prescribed in Appendix H of this Manual when transmitting the <i>Ex-Ante Contract Allocations</i> to each <i>IMEM Customer</i>. 	<ul style="list-style-type: none"> SFTP Electronic Mail if SFTP fails
<i>Week-Ahead Customer IMEM Demand</i>	The specification of <i>IMEM Demand</i> for the following seven days provided by an <i>IMEM Customer</i> in accordance with Section 3.2.7 of the <i>IMEM Rules</i> .	<i>IMEM Customer</i>	<ul style="list-style-type: none"> Each day by 1300H, each <i>IMEM Customer</i> shall submit to the <i>Mindanao System Operator</i> and to the <i>IMEM Operator</i> their <i>Week-Ahead Customer IMEM Demand</i>. Each <i>IMEM Customer</i> shall follow Section 3.2.7 of the <i>IMEM Rules</i> in preparing their <i>Week-Ahead Customer IMEM Demand</i>. Each <i>IMEM Customer</i> shall use the template prescribed in Appendix I of this Manual when transmitting their <i>Week-Ahead Customer IMEM Demand</i> to the <i>IMEM Operator</i>. In the event that an <i>IMEM Customer</i> fails to submit a <i>Week-Ahead Customer IMEM Demand</i> by 1300H, its <i>IMEM Demand</i> for all <i>IMEM Intervals</i> the next day shall be zero (0). 	<ul style="list-style-type: none"> SFTP Electronic Mail if SFTP fails
<i>Expected Demands (for Embedded)</i>	The value determined in accordance with Section 3.2.8 of the <i>IMEM Rules</i> and	<i>IMEM Operator</i>	<ul style="list-style-type: none"> Each day by 1330H, the <i>IMEM Operator</i> shall transmit the <i>Expected Demands</i> calculated under Clause 3.2.8.1 to each 	<ul style="list-style-type: none"> SFTP Electronic Mail if SFTP fails

Report	Description	Responsible Party	Procedures and Guidelines	Mode of submission
<i>IMEM Load Curtailment Resource</i>)	Section 3.3 of this Manual for <i>IMEM Load Curtailment Resources</i> , which is the instantaneous MW amount which that the <i>IMEM Load Curtailment Resource</i> is forecast to consume at the end of an <i>IMEM Interval</i> , expressed as a positive number.		<p><i>Embedded IMEM Load Curtailment Resource</i></p> <ul style="list-style-type: none"> The <i>IMEM Operator</i> shall follow the methodology prescribed in Section 3.3 of this Manual when calculating the <i>Expected Demand of Embedded IMEM Load Curtailment Resources</i> 	
<i>Week-Ahead IMEM Demand Report</i>	The report on <i>IMEM Demand</i> for the following seven days, provided by the <i>IMEM Operator</i> in accordance with Section 3.2.8 of the <i>IMEM Rules</i> .	<i>IMEM Operator</i>	<ul style="list-style-type: none"> Each day by 1500H, the <i>IMEM Operator</i> shall prepare and publish the <i>Week-Ahead IMEM Demand Report</i>. The <i>IMEM Operator</i> shall follow Section 3.2.8 of the <i>IMEM Rules</i> in preparing the <i>Week-Ahead IMEM Demand Report</i>. The <i>IMEM Operator</i> shall use the template prescribed in Appendix J of this Manual when preparing and publishing the <i>Week-Ahead IMEM Demand Report</i>. 	<ul style="list-style-type: none"> <i>Market Information Website</i>¹⁴

3.3 EXPECTED DEMAND

3.3.1 Basis and Scope

Pursuant to Clause 3.2.8.1 of the *IMEM Rules*, the *IMEM Operator* shall calculate the *Expected Demand* for *Embedded IMEM Load Curtailment Resources*. This Section prescribes the methodology that the *IMEM Operator* shall use when calculating the *Expected Demand* for *Embedded IMEM Load Curtailment Resources*.

3.3.2 Procedure

3.3.2.1 *Embedded IMEM Load Curtailment Resources* shall submit the following historical information to use as validation tools in preparing the day-ahead *Expected Demand* forecasts in Section 3.3.2 of this Manual. *Embedded IMEM Load Curtailment Resources* shall ensure that such historical

¹⁴[http://www.wesm.ph/inner.php/the_market/interim_mindanao_electricity_market_\(imem\)](http://www.wesm.ph/inner.php/the_market/interim_mindanao_electricity_market_(imem))

information should be the latest information obtained from at least the past six (6) months, or at most the past two (2) years.

- a) Load Curtailment instructions from the *Mindanao Distribution Utilities* that should at least specify the amount of energy curtailed for each *Mindanao Distribution Utility* and *Grid-Connected End User*,
- b) Load dropping by *Mindanao Distribution Utilities* as a response to “Load-to-Maintain” instructions from the *Mindanao System Operator*,
- c) Hourly Load Profiles of *IMEM Load Curtailment Resources* for weekdays and weekends,
- d) Local Weather information, and
- e) Holiday or any other significant periods that impact the demand profile.

3.3.2.2 The *IMEM Operator* shall utilize the following non-exhaustive list of information to prepare the day-ahead (D+1) *Expected Demand* for *Embedded IMEM Load Curtailment Resources* on day D, pursuant to Clause 3.2.8.1 of the *IMEM Rules*:

- a) Projected Weather Information for day D+1;
- b) *Week-Ahead System Generation Requirement Forecast* received by the *IMEM Operator* for day D+1 pursuant to Clause 3.1.2.3 of the *IMEM Rules*;
- c) Planned activities that may affect the consumption of *Embedded IMEM Load Curtailment Resources*.
 - i. Typical activities that affect the *Load Curtailment Resource’s* consumption are shown but are not limited to the following.
 - a. Facility shutdown (forced or maintenance)
 - b. Equipment problem
 - ii. *IMEM Load Curtailment Resources* shall, upon request, provide the *IMEM Operator* with any information required with respect to any planned activities that will have an impact on their daily/hourly demand.
 - iii. The *IMEM Operator* shall coordinate with the host *Distribution Utility* of the *Embedded IMEM Load Curtailment Resources* to confirm the planned

activities of the *Embedded IMEM Load Curtailment Resource*.

- 3.3.2.3 The *IMEM Operator* shall, prior to 1330H, determine the *Expected Demand of Embedded IMEM Load Curtailment Resources* through curve fitting and data analysis as follows:
- a) The *IMEM Operator* shall choose most recent similar days that have same characteristics (weather and load profile) and shall:
 - i. Consider Load Curtailment information obtained under Section 3.3.2.1 of this Manual; and
 - ii. Consider the thermal capacities of the equipment from which the *Embedded Load Curtailment Resource* draws power¹⁵.
 - b) Apply factors to associate the curves developed in Section 3.3.2.3(a) of this Manual with the relevant day of the *Week-Ahead System Generation Requirement Forecast*.
 - c) Use statistical tools to determine the *Expected Demand of IMEM Load Curtailment Resources* given the curves obtained in Clause 3.3.2.3(b) and the projected information obtained in Clause 3.3.2.2 of this Manual.
- 3.3.2.4 Transmit the *Expected Demand* calculated under Clause 3.3.2.3(c) of this Manual to each *Embedded IMEM Load Curtailment Resource* by 1330H pursuant to Clauses 3.1.2.10 and 3.2.8.1 of the *IMEM Rules*.

¹⁵ The thermal capacities of equipment connecting the *IMEM Load Curtailment Resource* to the *Mindanao Distribution Utility* shall be obtained upon registration of the said *IMEM Load Curtailment Resource* to the *IMEM*.

SECTION 4 SUBMISSION AND VALIDATION OF IMEM OFFERS

4.1 SCOPE

This Chapter summarizes guidelines and procedures related to the:

- a) Submission of *IMEM Offers* by *IMEM Resources*; and
- b) Validation of *IMEM Offers* by the *IMEM Operator*.

4.2 FORM OF OFFERS

- 4.2.1 Section 3.3.1 of the *IMEM Rules* prescribes the content and form of all *IMEM Offers*, in which it shall consist of the following:
 - a) The *Offer Type*;
 - b) The *Contracted Capacity*, if applicable;
 - c) The *Unavailable Capacity*, if any, including a reason for the unavailability;
 - d) The *Offered Capacity*; and
 - e) The *Offer Price*.
- 4.2.2 The *Offer Type* of an *IMEM Generator* shall always be a *Standard Offer Type*. An *IMEM Load Curtailment Resource* may have an *All-or-Nothing Offer Type* if it is allowed by the *IMEM Operator* to have such an *Offer Type* in accordance with Chapter 2 of the *IMEM Rules*.
- 4.2.3 The *Contracted Capacity* of an *IMEM Resource* for an *IMEM Interval* shall be the sum of its *Ex-Ante Contract Allocations* for that *IMEM Interval* as provided by the *Mindanao System Operator* under Section 3.2 of this Manual.
- 4.2.4 The *Unavailable Capacity* of an *IMEM Resource* shall be declared to the *IMEM Operator* by the *IMEM Resource* through the submission of a *Regular IMEM Offer* before the relevant deadline provided in Section 2.4. If an *IMEM Resource* does not submit a *Regular IMEM Offer* before the deadline, the *IMEM Operator* shall refer to the *Standing IMEM Offer* of the *IMEM Resource* for its *Unavailable Capacity*.
- 4.2.5 The *Offered Capacity* of an *IMEM Generator* shall be determined by the *IMEM Operator* as the *Registered Capacity* of the *IMEM Resource* less its *Contracted Capacity* less its *Unavailable Capacity*¹⁶. If the *Offered*

¹⁶ Clause 3.3.1.6, *IMEM Rules*

Capacity calculated be lower than zero (i.e., the sum of its *Contracted Capacity* and *Unavailable Capacity* is greater than its *Registered Capacity*) then the *Offered Capacity* of that *IMEM Resource* shall be set to zero for the relevant *IMEM interval*.

- 4.2.6 The *Offered Capacity* of an *IMEM Load Curtailment Resource* shall be that in the latest *Regular IMEM Offer* of that *IMEM Load Curtailment Resource* for the relevant *IMEM Interval*. If an *IMEM Load Curtailment Resource* does not submit a *Regular IMEM Offer* before the deadline, the *IMEM Operator* shall refer to the *Standing IMEM Offer* of the *IMEM Load Curtailment Resource* for its *Offered Capacity*.
- 4.2.7 If the *Offered Capacity* of an *Embedded IMEM Load Curtailment Resource* for an *IMEM Interval* is greater than its *Expected Demand* forecasted by the *IMEM Operator* under Section 3.3 of this Manual for the same *IMEM Interval* then the *Offered Capacity* of that *Embedded IMEM Load Curtailment Resource* shall be its *Expected Demand* for that *IMEM Interval*.
- 4.2.8 The *Offer Price* shall not be greater than any limit that may be agreed upon by the *DOE*, the *ERC*, and the *IMEM Operator*¹⁷.
- 4.2.9 The *IMEM Operator* shall, prior to the launch of *IMEM* operations, publish on the *Market Information Website*¹⁸ a document containing instructions on how to submit *IMEM Offers* using a market participant interface.

4.3 STANDING OFFERS

- 4.3.1 Each *IMEM Generator* shall submit a *Standing IMEM Offer* for each *IMEM Interval* of each day of the week¹⁹.
- 4.3.2 Each *IMEM Load Curtailment Resource* may submit a *Standing IMEM Offer* for each *IMEM Interval* of each day of the week²⁰.
- 4.3.3 Each *Standing IMEM Offer* shall specify the day of the week and *IMEM Interval* to which it applies²¹.
- 4.3.4 A *Standing IMEM Offer* which does not specify an effective date:
- a) shall, if submitted before 1500H, take effect at 1500H on the day of submission;

¹⁷ Clause 3.3.1.10, IMEM Rules

¹⁸[http://www.wesm.ph/inner.php/the_market/interim_mindanao_electricity_market_\(imem\)](http://www.wesm.ph/inner.php/the_market/interim_mindanao_electricity_market_(imem))

¹⁹ Clause 3.3.2.1, IMEM Rules

²⁰ Clause 3.3.2.2, IMEM Rules

²¹ Clause 3.3.2.3, IMEM Rules

- b) shall, if submitted at or after 1500H, take effect at 1500H on the day following submission; and
- c) shall not affect any *Day-Ahead IMEM Schedule* which has already been published, or whose preparation has already been initiated at the time when the revised offer is accepted²².

4.3.5 A *Standing IMEM Offer* shall remain in effect until such time it is revised by the *IMEM Resource*²³, or until the *IMEM Resource* is deregistered from the *IMEM*²⁴.

4.3.6 *IMEM Resources* shall follow the guidelines prescribed in Section 3.3.2 of the *IMEM Rules* when submitting *Standing IMEM Offers*.

4.4 SUBMISSION OF OFFERS

4.4.1 When submitting a *Regular IMEM Offer* or a *Standing IMEM Offer* for a specified *IMEM Interval*, the *IMEM Resource* shall provide to the *IMEM Operator* the information required under Section 3.3.1 of the *IMEM Rules* in accordance with the electronic communication procedures in Section 6.1.2 of the *Rules*²⁵. In particular, *IMEM Resources* shall submit *IMEM Offers* using the *IMEM Participant Interface*²⁶

4.4.2 A *Regular IMEM Offer* for an *IMEM Interval* submitted after the deadline of submission of *Regular IMEM Offers* for that *IMEM Interval* specified in Clause 3.1.2.12 of the *IMEM Rules* (1500H) will be rejected by the *IMEM Operator* and the latest valid *Regular IMEM Offer* or *Standing IMEM Offer* shall apply²⁷.

4.4.3 The *IMEM Operator* shall, upon receipt of a valid *IMEM* from an *IMEM Resource*, issue an electronic confirmation of receipt immediately²⁸.

4.4.4 If an *IMEM Resource* does not receive confirmation of receipt under Clause 3.3.3.2 of the *IMEM Rules* and Clause 4.4.3 of this Manual from the *IMEM Operator*, the *IMEM Resource* shall communicate with the

²² Clause 3.3.2.7, *IMEM Rules*

²³ Clause 3.3.2.5, *IMEM Rules*

²⁴ Clause 3.3.2.8, *IMEM Rules*

²⁵ Clause 3.3.3.1, *IMEM Rules*

²⁶The *IMEM Operator* shall provide *IMEM Resources* with access to the *IMEM Market Participant Interface* upon successful registration (see also the *IMEM Registration Manual*).

²⁷ Clause 3.3.3.2, *IMEM Rules*

²⁸ Clause 3.3.3.3, *IMEM Rules*

IMEM Operator to determine whether or not the *IMEM Offer* was received²⁹.

4.5 VALIDATION OF OFFERS

- 4.5.1 To be valid, *IMEM Offers* shall be submitted by the relevant *IMEM Resource*:
- a) Prior to any relevant deadline;
 - b) Inclusive of the information specified in, and consistent with the requirements of Section 3.3.1 of the *IMEM Rules* and Section 4.2 of this Manual; and
 - c) Consistent with registered technical capabilities of the *IMEM Resource*³⁰.
- 4.5.2 The *IMEM Operator*, upon receipt of a valid *IMEM Offer* from an *IMEM Resource*, shall verify whether the *IMEM Offer* is valid in accordance with Clause 3.3.4.1 of the *IMEM Rules* and Clause 4.5.1 of this Manual and shall issue an electronic notification to the *IMEM Resource* indicating its validity³¹.
- 4.5.3 The *IMEM Operator* shall, if an *IMEM Offer* is determined not to be valid, include in the electronic notification sent under Clause 3.3.4.2 of the *IMEM Rules* and Clause 4.5.2 of this Manual the reason or reasons that the *IMEM Offer* is not valid so that the *IMEM Resource* may correct and resubmit the *IMEM Offer*³².

²⁹ Clause 3.3.3.4, *IMEM Rules*

³⁰ Clause 3.3.4.1, *IMEM Rules*

³¹ Clause 3.3.4.2, *IMEM Rules*

³² Clause 3.3.4.3, *IMEM Rules*

SECTION 5 DAY-AHEAD SCHEDULES AND MERIT ORDER TABLE

5.1 SCOPE

This Chapter prescribes the procedures that the *IMEM Operator* shall follow when:

- a) Determining the *Day-Ahead IMEM Schedules* and *IMEM Day-Ahead Price* under Clauses 3.4.1 and 3.4.4, respectively, of the *IMEM Rules*;
- b) Determining the *Day-Ahead Schedules* under Clause 3.4.2 of the *IMEM Rules*;
- c) Preparing the *IMEM Merit Order Table* under Clause 3.4.5 of the *IMEM Rules*;
- d) There is an *Insufficient Supply Condition* under Section 3.6.1 of the *IMEM Rules*.

5.2 DAY-AHEAD IMEM SCHEDULE AND IMEM DAY-AHEAD PRICE

5.2.1 Overview

5.2.1.1 For each *IMEM Interval*, the *IMEM Operator* shall determine the *Day-Ahead IMEM Schedule* of each *IMEM Resource* in accordance with the *IMEM Schedule Optimization Model* (IMEM-SOM) and the *IMEM Price Determination Methodology* approved by the *ERC*³³.

5.2.1.2 The *IMEM Day-Ahead Price* for an *IMEM Trading Interval* shall correspond to the highest *Offer Price* fully or partially scheduled by the *IMEM Schedule Optimization Model* for that *IMEM Trading Interval*³⁴.

5.2.1.3 Each day by 1600H, the *IMEM Operator* shall:

- a) Publish the *IMEM Day-Ahead Price* for each *IMEM Trading Interval* in the following day in the *Market Information Website*^{35,36}.
- b) Transmit via SFTP (or Electronic Mail if SFTP fails) the *Day-Ahead IMEM Schedule* and *Day-Ahead Schedule* of all *IMEM Resources* the *IMEM Merit Order Table* for

³³ Clause 3.4.1.1, IMEM Rules.

³⁴ Clause 3.4.4.1, IMEM Rules.

³⁵ Clause 3.1.2.13, IMEM Rules.

³⁶ [http://www.wesm.ph/inner.php/the_market/interim_mindanao_electricity_market_\(imem\)](http://www.wesm.ph/inner.php/the_market/interim_mindanao_electricity_market_(imem))

each *IMEM Interval* to the *Mindanao System Operator* in the following day³⁷.

- c) Transmit via SFTP (or Electronic Mail if SFTP fails) to each *IMEM Resource* its *Day-Ahead Schedule* for each *IMEM Interval* in the following day³⁸.
- d) Transmit via SFTP (or Electronic Mail if SFTP fails) to each *Mindanao Distribution Utility* that has *IMEM Resources* directly connected to its *Mindanao Distribution System* the *Day-Ahead Schedules* of those *IMEM Resources*³⁹.

5.2.1.4 The *IMEM Operator* shall publish the *Day-Ahead Schedules* and *Day-Ahead IMEM Schedules* for each *IMEM Trading Interval* in the *Market Information Website*⁴⁰ two (2) *Business Days* after the publication of the *IMEM Day-Ahead Price*⁴¹.

5.2.1.5 Information Requirements for the Day-Ahead IMEM Schedule
The *IMEM Operator* shall use the following information collected under SECTION 3 and SECTION 4 of this Manual as inputs into the *IMEM-SOM* to determine the *Day-Ahead IMEM Schedules* and calculate the corresponding *IMEM Day-Ahead Price*.

- a) The *IMEM Demand* from the *Week-Ahead IMEM Demand Report* produced under Section 3.2.8 of the *IMEM Rules* and Section 3.2 of this Manual; and
- b) *IMEM Offers* submitted by *IMEM Resources* under Section 3.3 of the *IMEM Rules* and Section 4.4 of this Manual.

5.2.2 The IMEM Schedule Optimization Model (IMEM-SOM)

5.2.2.1 The *IMEM Schedule Optimization Model* determines the *Day-Ahead IMEM Schedule* of each *IMEM Resource* for an *IMEM Trading Interval*⁴².

³⁷Clause 3.1.2.14, IMEM Rules.

³⁸Clause 3.1.2.15, IMEM Rules

³⁹Clause 3.1.2.16, IMEM Rules

⁴⁰[http://www.wesm.ph/inner.php/the_market/interim_mindanao_electricity_market_\(imem\)](http://www.wesm.ph/inner.php/the_market/interim_mindanao_electricity_market_(imem))

⁴¹ Clause 3.1.2.18, IMEM Rules

⁴² Clause 3.4.3.1, IMEM Rules

- 5.2.2.2 The objective of the *IMEM Schedule Optimization Model* shall be to minimize the total cost of purchasing energy from *IMEM Offers* in order to meet the *IMEM Demand*⁴³.
- 5.2.2.3 Further details about the *IMEM Schedule Optimization Model* is prescribed in Section 3.4.3 of the *IMEM Rules* and the *IMEM Price Determination Methodology*.

5.3 DAY-AHEAD SCHEDULE

- 5.3.1 For each *IMEM Interval*, the *IMEM Operator* shall determine the *Day-Ahead Schedule* of all *IMEM Resources* at the end of that *IMEM Interval*⁴⁴
- 5.3.2 *IMEM Resources* shall use all reasonable endeavors to achieve a linear ramp rate over an *IMEM interval* to reach the *Day-Ahead Schedule* by the end of that *IMEM interval*⁴⁵.
- 5.3.3 The *Day-Ahead Schedule* of an *IMEM Generator* in an *IMEM Interval* shall be its *Day-Ahead IMEM Schedule* determined in accordance with Section 3.4.1 of the *IMEM Rules* plus its total *Ex-Ante Contract Allocation* for that *IMEM Interval*⁴⁶.
- 5.3.4 The *Day-Ahead Schedule* of an *IMEM Load Curtailment Resource* in an *IMEM Interval* shall be equal to its *Day-Ahead IMEM Schedule* determined in accordance with Section 3.4.1 of the *IMEM Rules* for that *IMEM Interval*⁴⁷

5.4 IMEM MERIT ORDER TABLE

- 5.4.1 For each *IMEM Interval*, the *IMEM Operator* shall produce an *IMEM Merit Order Table* in accord with the provisions of Section 3.4.5 of the *IMEM Rules*.
- 5.4.2 The *IMEM Merit Order Table* shall consist of the following:
 - a) The *IMEM Offers* submitted for that *IMEM Interval* ranked in descending order of *Offer Price*, with the first row containing the highest-priced *IMEM Offer*; and

⁴³ Clause 3.4.3.2, *IMEM Rules*

⁴⁴ Clause 3.4.2.1, *IMEM Rules*

⁴⁵ Clause 3.4.6.4, *IMEM Rules*

⁴⁶ Clause 3.4.2.2, *IMEM Rules*

⁴⁷ Clause 3.4.2.3, *IMEM Rules*

- b) Below the lowest-priced *IMEM Offer*, the *Ex-ante Contract Allocations* of each *IMEM Generator* plus the remaining available capacity of the plants treated as unscheduled capacity⁴⁸.
- c) The *Ex-ante Contract Allocations* of each *IMEM Generator* shall be ranked based on economic dispatch reference obtained in Clause 2.5.9 of this Manual.
- d) The unscheduled capacity of each *IMEM Generator* shall also be ranked based on economic dispatch reference obtained in Clause 2.5.9 of this Manual.

5.4.3 Appendix K provides a sample *IMEM Merit Order Table* for a certain *IMEM Trading Interval*.

5.5 INSUFFICIENT SUPPLY CONDITION

5.5.1 In any *IMEM Trading Interval* for which the total *Offered Capacity* of all *IMEM Offers* is insufficient to meet the *IMEM Demand* in that *IMEM Trading Interval*, the *IMEM Trading Interval* shall be declared by the *IMEM Operator* as having an *Insufficient Supply Condition*⁴⁹.

5.5.2 The *IMEM Operator* shall include the above declaration in the *Day-Ahead Schedules* transmitted to *IMEM Resources* and the *Mindanao System Operator* under Clause 3.1.2 of the *IMEM Rules* and SECTION 5 of this Manual.

5.5.3 For clarity, in an *IMEM Trading Interval* with *Insufficient Supply Condition*, the *IMEM Day-Ahead Price* shall still be determined in accordance with Clause 5.2.1.2 of the *IMEM Rules*⁵⁰ and Clause 5.2.1.2 of this Manual.

5.5.4 In any *IMEM Trading Interval* for which an *Insufficient Supply Condition* has been declared, the *IMEM Operator* shall calculate a *Load-To-Maintain (LTM)* level for each *IMEM Customer*, which it shall submit to the *Mindanao System Operator* together with the *Day-Ahead Schedule* and *Day-Ahead IMEM Schedule* of all *IMEM Resources*⁵¹ and the *IMEM Merit Order Table*.

⁴⁸ The Unscheduled capacity managed or contracted by NPC shall form part of the reserve capacity

⁴⁹ Clause 3.6.1.1, *IMEM Rules*

⁵⁰ Clause 3.6.1.2, *IMEM Rules*

⁵¹ Clause 3.6.2.1, *IMEM Rules*

- 5.5.5 The *Load-To-Maintain* values shall be in megawatts (MW) expressed to a precision of one decimal place (0.1MW, or 100kW)⁵².
- 5.5.6 If an *IMEM Customer's* nominated *Customer IMEM Demand* is zero (0) then its *Load-To-Maintain* shall equal its total *Ex-Ante Contract Allocation*⁵³.
- 5.5.7 The *IMEM Operator* shall calculate each *IMEM Customer's Load-To-Maintain* by distributing the total *Offered Capacity* of all *IMEM Offers* across all *IMEM Customers* on a pro-rata basis based on their *Customer IMEM Demand* and adding the same to the total *Ex-Ante Contract Allocation* of each *IMEM Customer*⁵⁴.
- 5.5.8 The *IMEM Operator* shall transmit the *Load-to-Maintain* pertaining to each *IMEM Customer* to that *IMEM Customer* together with its *Day-Ahead Schedule* submitted under SECTION 5 of this Manual.
- 5.5.9 The *IMEM Operator* shall submit the *Load-To-Maintain* of all *IMEM Customers* to the *Mindanao System Operator* together with the *Day-Ahead Schedules, Day-Ahead IMEM Schedules, and the IMEM Merit Order Table* submitted under SECTION 5 of this Manual.

5.6 IMEM LOAD-TO-MAINTAIN MATRICES

- 5.6.1 For each *IMEM Interval*, the *IMEM Operator* shall prepare an *IMEM Load-to-Maintain* matrix for each *IMEM Customer*. The *IMEM Load-to-Maintain* matrix of each *IMEM Customer* shall provide the maximum MW quantity that an *IMEM Customer* may source from the *IMEM* at different levels of deficiency in the *IMEM*. Appendix M provides the prescribed format of the *IMEM Load-to-Maintain* matrix.
- 5.6.2 The *IMEM Operator* shall calculate each *IMEM Customer's IMEM Load-to-Maintain* at each level of deficiency by distributing the total *Offered Capacity* of all *IMEM Offers* across all *IMEM Customers* on a pro-rata basis based on their *Customer IMEM Demand*.
- 5.6.3 The *IMEM Operator* shall submit the *IMEM Load-to-Maintain* matrices of each *IMEM Customer* to the *Mindanao System Operator* together with the *Day-Ahead Schedules, the Day-Ahead IMEM Schedules and the IMEM Merit Order Tables*.

⁵² Clause 3.6.2.2, IMEM Rules

⁵³ Clause 3.6.2.3, IMEM Rules

⁵⁴ Clause 3.6.2.4, IMEM Rules

- 5.6.4 The *IMEM Operator* shall submit to each *IMEM Customer* its *IMEM Load-to-Maintain* matrix upon submission of the same to the *Mindanao System Operator*.
- 5.6.5 For clarity, the *IMEM Load-to-Maintain* matrix shall only provide the *Mindanao System Operator* and the *IMEM Customers* information on the maximum load that the *IMEM Customers* may operate at with respect to *Offered Capacities* in the *IMEM*. Information on the maximum load that *IMEM Customers* may operate at with respect to their contracted capacities will not be prepared by the *IMEM Operator*.

SECTION 6 IN-DAY DISPATCH OF IMEM RESOURCES

6.1 SCOPE

This Chapter outlines the procedures related to:

- a) The issuance of *In-Day Dispatch Instructions* by the *Mindanao System Operator* pursuant to Section 3.5.1 of the *IMEM Rules*;
- b) The issuance of *In-Day Dispatch Instructions* in exceptional circumstances by the *Mindanao System Operator* pursuant to Section 3.5.2 of the *IMEM Rules*; and
- c) Reporting requirements related to *In-Day Dispatch Instructions* and *Forced Outages*.

6.2 IN-DAY DISPATCH INSTRUCTIONS – NORMAL CONDITIONS

- 6.2.1 The *Mindanao System Operator* may issue *In-Day Dispatch Instructions* to *IMEM Resources* to meet any changes in system requirements up until ten (10) minutes prior to the start of each *IMEM Interval*⁵⁵.
- 6.2.2 The *Mindanao System Operator* shall issue *In-Day Dispatch Instructions* in accordance with Section 3.5.1 of the *IMEM Rules* and SECTION 6 of this Manual⁵⁶.
- 6.2.3 When issuing *In-Day Dispatch Instructions* to *Embedded IMEM Generators* or *Embedded IMEM Load Curtailment Resources*, the *Mindanao System Operator* shall also inform the host *Distribution Utility* of each *Embedded IMEM Generators* or *Embedded IMEM Load Curtailment Resources* of the *In-Day Dispatch Instruction* within thirty (30) minutes of the issuance of the *In-Day Dispatch Instruction* to the relevant *Embedded IMEM Generators* or *Embedded IMEM Load Curtailment Resources*.
- 6.2.4 Pursuant to Clause 1.1.3.5 of the *IMEM Rules* and subject to Section 3.5.2 of the *IMEM Rules* and Section 6.3 of this Manual, the purpose of the *In-Day Dispatch Instructions* shall be to provide real-time imbalance correction through the use of the *IMEM Merit Order Table*. In other words, subject to Section 3.5.2 of the *IMEM Rules* and Section 6.3 of this Manual, the *Mindanao System Operator* shall adhere to the order specified in the *IMEM Merit Order Table* when issuing *In-Day Dispatch Instructions*.
- 6.2.5 In issuing *In-Day Dispatch Instructions*, the *Mindanao System Operator* also take into account the *Offer Type* and ability to provide in-day dispatch

⁵⁵ Clause 3.5.1.1, *IMEM Rules*.

⁵⁶ Clause 3.5.1.1, *IMEM Rules*.

of the facilities⁵⁷. If the next *IMEM Resource* in the *IMEM Merit Order Table* has an *All-or-Nothing Offer Type* and the required addition or reduction in supply is less than the *Offered Capacity* of the *IMEM Resource*, the *Mindanao System Operator* shall still provide an *In-Day Dispatch Instruction* to that *IMEM Resource* to provide or reduce its full *Offered Capacity*.

- 6.2.6 An *In-Day Dispatch Instruction*⁵⁸ shall be either of the following:
- a) An *Upward Dispatch Instruction* to provide additional supply in excess of the *IMEM Resource's Day-Ahead IMEM Schedule*⁵⁹; or
 - b) A *Downward Dispatch Instruction* to reduce supply below the *IMEM Resource's Day-Ahead IMEM Schedule*⁶⁰.
- 6.2.7 For clarity, an *Upward Dispatch Instruction* to an *IMEM Load Curtailment Resource* is an instruction to curtail load more than its *Day-Ahead IMEM Schedule*, and a *Downward Dispatch Instruction* to an *IMEM Load Curtailment Resource* is an instruction to reduce the level of curtailment of its load from its *Day-Ahead IMEM Schedule*⁶¹.
- 6.2.8 An *In-Day Dispatch Instruction* shall specify the gross instantaneous MW value to be provided by the *IMEM Resource* at the end of the relevant *IMEM Interval* (the "*Dispatch Target*")⁶².
- 6.2.9 *In-Day Dispatch Instructions* may be issued for any *IMEM Interval* for which the *Mindanao System Operator* has received an *IMEM Merit Order Table*, including *IMEM Intervals* that are not *IMEM Trading Intervals* and so do not have an *IMEM Demand*⁶³.

6.3 IN-DAY DISPATCH INSTRUCTIONS – EXCEPTIONAL CIRCUMSTANCES

- 6.3.1 *In-Day Dispatch Instructions* are not intended to be used for services that would normally be provided through contracted *Ancillary Services*. However, in exceptional circumstances when it is necessary for the secure and reliable operation of the *Mindanao Power System*, the *Mindanao*

⁵⁷ Clause 3.5.1.2, IMEM Rules

⁵⁸An *In-Day Dispatch Instruction* shall specify the gross instantaneous MW value to be provided by the *IMEM Resource* at the end of the relevant *IMEM Interval* (the "*Dispatch Target*")

⁵⁹Clause 3.5.1.3(a), IMEM Rules

⁶⁰Clause 3.5.1.3(b), IMEM Rules

⁶¹Clause 3.5.1.5, IMEM Rules

⁶²Clause 3.5.1.4, IMEM Rules

⁶³Clause 3.5.1.6, IMEM Rules

System Operator may depart from the provisions of Section 3.5.1 of the *IMEM Rules* and Section 6.2 of this Manual by:

- a) Issuing an *In-Day Dispatch Instruction* that deviates from the order specified in the *IMEM Merit Order Table*; or by
- b) Issuing an *In-Day Dispatch Instruction* after the deadline set in Clause 3.5.1.1 of the *IMEM Rules* and Section 6.2.1 of this Manual, including within the *IMEM Interval* for which the *In-Day Dispatch Instruction* applies⁶⁴.

6.3.2 In issuing *In-Day Dispatch Instructions* under Clause 3.5.2.1 of the *IMEM Rules* and Section 6.3.1 of this Manual, the *Mindanao System Operator* shall follow the procedures set out in Section 6.3 of this Manual.

6.3.3 For each *In-Day Dispatch Instruction* issued under Clause 3.5.2.1 and Section 6.3.1 of this Manual, the *Mindanao System Operator* shall estimate the quantity, in MWh, that the *IMEM Resource* was expected to supply during that *IMEM Interval* if it had fully complied with the *In-Day Dispatch Instruction*.

6.3.4 Pursuant to Clause 3.5.2.2 of the *IMEM Rules*, in issuing *In-Day Dispatch Instructions*, the *Mindanao System Operator* shall only deviate from the *IMEM Merit Order Table* if the grounds and criteria are those summarized in Table 3.

Table 3. Grounds and Criteria for Deviating from IMEM Merit Order Table

Criteria	Description	Considerations
Thermal Limits of Transmission Line and Power Equipment	This refers to the dispatch limitations of generators affected by the actual condition of the transmission lines and/or power equipment.	<ul style="list-style-type: none"> ▪ Consider resulting limits of the transmission lines or the requirements of the power equipment
Local Calamities and Emergencies	Short-term incidents (i.e., flooding, etc.) that would require utilization of specific generators to avert or minimize damage to infrastructure and security of people living in affected localities	<ul style="list-style-type: none"> ▪ Consider requested quantities and pre-defined contingency plans
Fast Ramping Requirement	This refers to events when the next generating unit in the IMEM MOT cannot be ramped up or down due to ramping limitations, and instead another generating unit was directed by SO to do so. This event shall only be due to system reliability issues that shall be identified by SO.	<ul style="list-style-type: none"> ▪ Consider ramp rates of generating units

⁶⁴ Clause 3.5.2.1, IMEM Rules.

- 6.3.5 In the event that a *Distribution Utility* detects that a ground or criteria in Table 3 is present or will be present in its *Distribution System* with the implementation of the *Day-Ahead Schedules* or *In-Day Dispatch Instructions*, the *Distribution Utility* shall inform the *Mindanao System Operator* of the situation immediately. The *Mindanao System Operator* may then issue *In-Day Dispatch Instructions* in accordance with this Section 6.3.
- 6.3.6 If the *Mindanao System Operator* issues *In-Day Dispatch Instructions* under Section 3.5.2 of the *IMEM Rules* and Section 6.3 of this Manual, the *Mindanao System Operator* shall prepare a detailed report containing their reasons and criteria for deviating from the *IMEM Merit Order Table* and provide the same to the affected *IMEM Resources*, *IMEM Operator*, the *DOE*, and the *ERC* within seven (7) *Business Days* of issuing the relevant *In-Day Dispatch Instruction*.

6.4 IN-DAY DISPATCH INSTRUCTIONS FOR NPC/PSALM GENERATING FACILITIES

- 6.4.1 In case there are changes in the available generation capacity of any of the NPC/PSALM-managed *Generating Plants*, PSALM shall submit, no later than two (2) hours prior to the relevant *IMEM Interval*, a revision of the NPC/PSALM-managed *Generating Plants*' generation schedule to the *Mindanao System Operator*. Provided that, on aggregate, such revised generation schedule is equal to the total *Day-Ahead Schedules* of the NPC/PSALM-managed *Generating Plants* unless otherwise there is an occurrence of a *Forced Outage*.
- 6.4.2 The *Mindanao System Operator* shall screen the re-nominated schedules through security constraints and provide NPC/PSALM the revised security-constrained schedules at least one (1) hour prior to the relevant *IMEM Interval*.
- 6.4.3 The *Mindanao System Operator* shall issue *In-Day Dispatch Instructions* to NPC/PSALM *Generating Facilities* based on the security-constrained re-nominated schedules.
- 6.4.4 In the event that no capacity is available for upward in-day dispatch through the *Merit Order Table* and there is available capacity from NPC/PSALM due to the re-nomination of its *Generating Facilities*, the *Mindanao System Operator* may issue *In-Day Dispatch Instructions* to the NPC/PSALM *Generating Facilities*.

6.5 IMPLEMENTATION OF IN-DAY DISPATCH INSTRUCTIONS

- 6.5.1 If an *IMEM Resource* is issued an *In-Day Dispatch Instruction* by the *Mindanao System Operator*, it shall take all necessary actions to prepare

for implementing and complying with the instructions in the specified *IMEM Interval*⁶⁵.

- 6.5.2 If for any reason an *IMEM Resource* is unable to meet the *Dispatch Target* by the end of the specified *IMEM Interval*, it shall inform the *Mindanao System Operator* immediately⁶⁶.

6.6 FORCED OUTAGES

- 6.6.1 If an *IMEM Resource* suffers a *Forced Outage* which reduces its available capacity, it shall, as soon as possible, make a *Forced Outage Declaration* to the *Mindanao System Operator*, including a statement of the updated available capacity for that *IMEM Resource* excluding any capacity affected by the *Forced Outage*⁶⁷.
- 6.6.2 Upon receipt of a *Forced Outage Declaration*, the *Mindanao System Operator* shall not issue any further *In-Day Dispatch Instructions* to the affected *IMEM Resource* for any *IMEM Interval* for which the *Forced Outage* impacts the *IMEM Resource*'s capability to meet its *Day-Ahead Schedule*⁶⁸.
- 6.6.3 If an *IMEM Resource* becomes available for an *IMEM Interval* that it had declared to be affected by its *Forced Outage* as per its *Forced Outage Declaration*, the *IMEM Resource* may, upon coordination with the *Mindanao System Operator*, comply with its *Day-Ahead Schedule* for that *IMEM Interval*.
- 6.6.4 *Mindanao System Operator* shall re-instate affected *IMEM Resource* for *In-Day Dispatch Instructions*.
- 6.6.5 Upon receipt of a *Forced Outage Declaration*, the *Mindanao System Operator* shall immediately inform the *IMEM Operator* of such *Forced Outage Declaration*.
- 6.6.6 If a significant number of *IMEM Resources* are affected in a situation that requires departure from the provisions of *IMEM Rules* Clause 3.5.1, the *Mindanao System Operator* may opt to declare an *Emergency Condition* as defined in Chapter 7 of the *IMEM Rules*.

⁶⁵Clause 3.5.3.1, *IMEM Rules*

⁶⁶ Clause 3.5.3.4, *IMEM Rules*

⁶⁷ Clause 3.5.4.1, *IMEM Rules*

⁶⁸ Clause 3.5.4.2, *IMEM Rules*

6.7 REPORTING

- 6.7.1 The *Mindanao System Operator* shall keep a log that includes, at a minimum, all *In-Day Dispatch Instructions* issued to *IMEM Resources* within the preceding six (6) months⁶⁹.
- 6.7.2 Each day by 1500H, the *Mindanao System Operator* shall submit a report to the *IMEM Operator* based on the prescribed format of Appendix Lin this *IMEM Manual*. The report includes the following⁷⁰:
- a) *In-Day Dispatch Instructions* that it issued on the preceding day;
 - b) Energy estimates computed in accordance with Clause 3.5.1.2 of the *IMEM Rules*;
 - c) *Actual Loadings* for each *IMEM Generator* at the end of each *IMEM Interval* on the preceding day; and
 - d) *Forced Outage Declarations* made by *IMEM Resources* for each *IMEM Trading Intervals* in the *Billing Period*.

⁶⁹ Clause 3.5.5.1, IMEM Rules

⁷⁰ Clause 3.5.5.2, IMEM Rules

SECTION 7 PUBLICATION REQUIREMENTS

This Chapter summarizes the *Market Information* reports that the *IMEM Operator* and *Mindanao Operator* shall publish through Table 4. All reports covered in this Section shall be published on the *Market Information Website*⁷¹.

Table 4. Guidelines for Preparing the IMEM Reports

Report	Description	Responsible Party	Procedures and guidelines
System Status Report	This report shall pertain to the System Advisories issued by the <i>Mindanao System Operator</i> pertaining to the anticipated condition of the <i>Mindanao Power System</i>	<ul style="list-style-type: none"> • <i>Mindanao System Operator</i> shall prepare the report • <i>IMEM Operator</i> shall publish the report 	<ul style="list-style-type: none"> • System advisories contain all information pertaining to the status of the transmission network managed by the <i>Mindanao System Operator</i>. • These are messages issued by the <i>Mindanao System Operator</i> depicting particular issues regarding existing or anticipated status of the <i>Mindanao Power System</i>. • System advisories are issued only upon the occurrence of a significant event. Such events must have a substantial impact to the <i>Mindanao Grid</i> operations and the <i>IMEM</i> in the succeeding trading intervals.
Daily Operations Report	This report highlights the significant activities for the relevant operating day including all the information required by the <i>IMEM Operator</i> and the <i>Mindanao System Operator</i>	<i>IMEM Operator</i> and <i>Mindanao System Operator</i>	<ul style="list-style-type: none"> • The <i>IMEM Operator</i> shall closely monitor <i>IMEM</i> operations on an hourly basis every day. Likewise, they shall record and verify all significant events • At the end of every day, the <i>IMEM Operator</i> shall prepare a report containing the summary of its operations on an hourly basis of the previous day which includes the following: <ul style="list-style-type: none"> ➢ Hourly <i>IMEM</i> Offers ➢ Hourly <i>IMEM</i> Demand ➢ Hourly Ex-Ante Contract Allocations ➢ Market Suspension ➢ Market Intervention ➢ System Security Threat ➢ Contingency and Emergency Actions • The <i>Mindanao System Operator</i> shall submit to the <i>IMEM Operator</i> their DOR, which contains the results of the previous operating day, not later than 1200H of the current day.
Post-Dispatch Report	This report summarizes the <i>IMEM</i> results and other significant events that transpired during the previous trading day.	<i>IMEM Operator</i>	<ul style="list-style-type: none"> • <i>IMEM Trading Participants</i> (TPs) shall have an access to reports containing the following information through the <i>Market Information Website</i> <ul style="list-style-type: none"> ➢ Reports of significant events ➢ System Conditions • The following are the typical information required from the <i>MSO</i> for this report

⁷¹[http://www.wesm.ph/inner.php/the_market/interim_mindanao_electricity_market_\(imem\)](http://www.wesm.ph/inner.php/the_market/interim_mindanao_electricity_market_(imem))

Interim Mindanao Electricity Market Dispatch Protocol

Report	Description	Responsible Party	Procedures and guidelines
			<ul style="list-style-type: none"> a. Situations in which it became necessary for dispatch instructions to deviate from the Scheduled Targets determined by the IMEMO during the IMEM trading interval; b. Network constraints which affected dispatch during the IMEM trading interval c. Security constraints which affected dispatch during the IMEM trading interval; d. Operational irregularities arising during the <i>IMEM Interval</i> including, but not limited to, any circumstances in which there was prima facie evidence of a failure to follow the <i>Day-Ahead Schedules</i> or <i>In-Day Dispatch Instructions</i>. <ul style="list-style-type: none"> • The <i>MSO</i> shall also provide/notify the <i>IMEMO</i> regarding participants not complying with <i>In-Day Dispatch Instructions</i> or deviating from their <i>Day-Ahead Schedules</i> • Actions taken by the <i>MSO</i> in response to contingencies or emergencies that occur in the system within the trading interval shall also be reported to the <i>IMEMO</i>. The <i>MSO</i> shall furnish the <i>IMEMO</i> with the Disturbance Report which details the cause and reasons for such actions. • In the event of market suspension or intervention, the <i>IMEMO</i> shall provide a detailed account of events which led to the suspension or intervention, including the actions taken towards the resumption of normal market conditions.

SECTION 8 MARKET INTERVENTION AND SUSPENSION

8.1 SCOPE

This Section implements the relevant provisions of Chapter 7 of the *IMEM Rules* and prescribes the procedures to be followed by the *IMEM Operator*, the *Mindanao System Operator* and *IMEM Members* during *Market Intervention* and suspension.

8.2 OVERVIEW

- 8.2.1 The *ERC* may declare the operation of the *IMEM* to be suspended in any situation which competent governmental authorities declare to be a local, national, or international emergency, and which will render the *IMEM* ineffective⁷².
- 8.2.2 The *IMEM Operator* and the *Mindanao System Operator* may intervene in the operation of the *IMEM* for any *IMEM Interval* for which:
- a) The *Mindanao System Operator* has declared an *IMEM Emergency* under Clause 7.2.1.1 or Clause 7.3.2.1 of the *IMEM Rules*; or
 - b) The *IMEM Operator* has notified a *Force Majeure Event* under Clause 7.4.2.2 of the *IMEM Rules*⁷³.
- 8.2.3 Regardless of whether the beginning or end of an *IMEM Emergency* or *Force Majeure Event* is declared or notified before, at, or after the actual beginning or end of the event, the *IMEM Operator* and the *Mindanao System Operator* may declare an *IMEM Intervention* in any *IMEM Interval* to which the *IMEM Emergency* or *Force Majeure Event* applies⁷⁴.
- 8.2.4 In the event of suspension, *IMEM Members* and *Pending IMEM Members* shall follow all directions of the *ERC*. If the *ERC* makes no specific direction, *IMEM Members* and *Pending IMEM Members* shall follow the same protocols as are in place for *IMEM Intervention*⁷⁵.
- 8.2.5 In the event of an *IMEM Intervention*⁷⁶:

⁷²Clause 7.1.1.1, *IMEM Rules*

⁷³Clause 7.1.1.2, *IMEM Rules*

⁷⁴Clause 7.1.1.3, *IMEM Rules*

⁷⁵Clause 7.1.1.4, *IMEM Rules*

⁷⁶Clause 7.1.1.5, *IMEM Rules*

- a) The *Mindanao System Operator* shall be responsible for giving directions to and coordinating the actions of *IMEM Network Service Providers*;
- b) *IMEM Network Service Providers* are responsible for giving directions to and coordinating the actions of *IMEM Trading Participants* directly connected to their system; and
- c) The *Mindanao System Operator* and the *IMEM Operator* shall coordinate their actions to restore normal operation of the *Mindanao Power System* and the *IMEM*.

8.3 GROUNDS FOR MARKET INTERVENTION

8.3.1 The *IMEM Operator* may declare an *IMEM Intervention* on, but are not limited to, the following conditions:

- a) Communication network breakdown,
- b) Computer systems failure,
- c) Site-related emergencies, and
- d) Effects of *Force Majeure Events*.

8.3.2 The *Mindanao System Operator* may declare an *IMEM Intervention* on, but are not limited to, the following conditions:

- a) Un-implementable *IMEM Results*,
- b) Total System Collapse,
- c) Grid Islanding or Isolation,
- d) Multiple Forced Outages,
- e) Threat to System Security,
- f) Communication network breakdown,
- g) Computer systems failure, and
- h) Site-related emergencies.

8.4 DECLARATION OF MARKET SUSPENSION AND INTERVENTION

8.4.1 When the *ERC* declares the suspension of the *IMEM*, the *ERC* shall notify the *IMEM Operator* as soon as possible⁷⁷.

⁷⁷Clause 7.1.3.1, IMEM Rules

- 8.4.2 When the *IMEM Operator* is notified that the *IMEM* has been suspended, the *IMEM Operator* shall notify *IMEM Members* and *Pending IMEM Members* as soon as possible⁷⁸.
- 8.4.3 The *IMEM* is deemed suspended at the start of the *IMEM Interval* in which the *ERC* advises the *IMEM Operator* that the *IMEM* is suspended⁷⁹.
- 8.4.4 Following a declaration by the *ERC* under Clause 7.1.1.1 of the *IMEM Rules* and Section 8.2.1 of this Manual, the *IMEM* is to remain suspended until the *ERC* notifies the *IMEM Operator* that *IMEM* operations may resume⁸⁰.
- 8.4.5 When the *IMEM Operator* is notified that *IMEM* operations may resume, the *IMEM Operator* shall promptly notify *IMEM Members* and *Pending IMEM Members* of the resumption, and of the *IMEM Interval* in which *IMEM* operations will resume⁸¹.
- 8.4.6 The *IMEM* is deemed to resume at the start of the *IMEM Interval* which the *IMEM Operator* has notified to *IMEM Members* and *Pending IMEM Members*⁸².
- 8.4.7 Notwithstanding the suspension, the *Mindanao System Operator* may issue directions in the event of an *IMEM Emergency* to *IMEM Members* and *Pending IMEM Members*⁸³.
- 8.4.8 When the *IMEM Operator* determines that it needs to intervene in the operation of the *IMEM*, it shall notify the *Mindanao System Operator* and *IMEM Trading Participants* as soon as possible⁸⁴.

8.5 EFFECT OF SUSPENSION

- 8.5.1 During an *IMEM Interval* in which the *IMEM* is suspended, the *IMEM Rules* will continue to apply with such modifications as the *IMEM Operator* reasonably determines to be necessary, taking into consideration the circumstances and conditions giving rise to the suspension⁸⁵.

⁷⁸Clause 7.1.3.2, *IMEM Rules*

⁷⁹Clause 7.1.3.3, *IMEM Rules*

⁸⁰Clause 7.1.3.4, *IMEM Rules*

⁸¹Clause 7.1.3.5, *IMEM Rules*

⁸²Clause 7.1.3.6, *IMEM Rules*

⁸³Clause 7.1.3.7, *IMEM Rules*

⁸⁴Clause 7.1.3.8, *IMEM Rules*

⁸⁵Clause 7.1.4.1, *IMEM Rules*.

- 8.5.2 Notwithstanding the suspension, the *IMEM Operator* may declare any *IMEM Interval* in which the *IMEM* is suspended to be an *IMEM Trading Interval* if capacity from an *IMEM Offer* will be utilized by the *Mindanao System Operator*⁸⁶.
- 8.5.3 In the event of *IMEM Intervention*, the *IMEM Rules* will continue to apply, and all *IMEM* processes shall remain in place, except that the *Mindanao System Operator* is not required to consider the *IMEM Merit Order Table* when issuing *In-Day Dispatch Instructions* for *IMEM Trading Intervals* affected by the *IMEM Intervention*⁸⁷. In particular, in the event of *IMEM Intervention*, all *IMEM Members* shall continue to comply with the relevant provisions of Chapter 3 of the *IMEM Rules*, unless incapable or otherwise prohibited from doing so.
- 8.5.4 During any *IMEM Trading Interval* in which the *IMEM* is suspended, or in which *IMEM Intervention* has occurred, the *IMEM Operator* shall determine the *Settlement Quantities* and *Settlement Amounts* in accordance with Chapter 5 of the *IMEM Rules*⁸⁸.
- 8.5.5 If the *IMEM Operator* reasonably believes that, due to the circumstances of the market suspension or *IMEM Intervention*, it is inappropriate to apply the pricing and settlement provisions of the *IMEM Rules* to a particular *IMEM Trading Interval*, the *IMEM Operator* shall determine appropriate alternate mechanisms for pricing and settlement in those *IMEM Trading Intervals*, and shall seek approval of same from the *IGC* and the *ERC*⁸⁹.
- 8.5.6 If the *IMEM Operator* is seeking approval to apply alternate pricing and settlement mechanisms for an *IMEM Trading Interval*, and the alternate pricing and settlement mechanisms have not been approved in time to allow the *IMEM Operator* to meet the settlement timetable for the affected *Billing Period*, the *IMEM Operator* shall issue *Settlement Statements* for the affected *Billing Period* excluding any amounts for the affected *IMEM Trading Interval*⁹⁰.

8.6 MARKET SUSPENSION REPORTS

- 8.6.1 Within ten (10) *Business Days* following a declaration of market suspension under Clause 7.1.1.1 of the *IMEM Rules* and Section 8.2.1 of

⁸⁶ See also Clause 7.1.4.2, *IMEM Rules*.

⁸⁷ Clause 7.1.4.3, *IMEM Rules*.

⁸⁸ Clause 7.1.4.4, *IMEM Rules*.

⁸⁹ Clause 7.1.4.5, *IMEM Rules*.

⁹⁰ Clause 7.1.4.6 *IMEM Rules*.

this Manual, the *IMEM Operator* shall prepare a market suspension report using the guidelines prescribed in Clause 7.1.5.3 of the *IMEM Rules*⁹¹.

- 8.6.2 The *Mindanao System Operator* shall submit to the *IMEM Operator* an assessment of the impact of the market suspension to the *Mindanao Grid* within seven (7) *Business Days* following a declaration of market suspension under Clause 7.1.1.1 of the *IMEM Rules* and Section 8.2.1 of this Manual⁹².
- 8.6.3 The *IMEM Operator* shall provide a copy of the market suspension report to the *IGC*, the *ERC*, and the *DOE* upon completion of the report⁹³.
- 8.6.4 The *IMEM Operator* shall provide a copy of the market suspension report to *IMEM Members* and other interested persons on request⁹⁴.
- 8.6.5 When requested, the *IMEM Operator* shall provide the *DOE* any other report regarding the market suspension as early as practicable⁹⁵.

8.7 MARKET INTERVENTION REPORTS

- 8.7.1 Within ten (10) *Business Days* following any *IMEM Intervention* under Clause 7.1.1.2 of the *IMEM Rules* and Section 8.2.2 of this Manual, the *IMEM Operator* shall prepare an *IMEM Intervention* report using the guidelines prescribed in Clause 7.1.6.3 of the *IMEM Rules*⁹⁶.
- 8.7.2 The *Mindanao System Operator* shall submit to the *IMEM Operator* an assessment of the impact of the *IMEM Intervention* to the *Mindanao Grid* within seven (7) *Business Days* following a declaration of *IMEM Intervention* under Clause 7.1.1.2 of the *IMEM Rules* and Section 8.2.2 of this Manual⁹⁷.
- 8.7.3 The *IMEM Operator* shall provide a copy of the *IMEM Intervention* report to the *IGC*, the *ERC*, and the *DOE* upon completion of the report⁹⁸.

⁹¹Clause 7.1.5.1, *IMEM Rules*.

⁹²Clause 7.1.5.2, *IMEM Rules*.

⁹³Clause 7.1.5.4, *IMEM Rules*.

⁹⁴Clause 7.1.5.5, *IMEM Rules*.

⁹⁵ Clause 7.1.5.6, *IMEM Rules*

⁹⁶Clause 7.1.6.1, *IMEM Rules*.

⁹⁷Clause 7.1.6.2, *IMEM Rules*.

⁹⁸Clause 7.1.6.4, *IMEM Rules*.

- 8.7.4 *The IMEM Operator shall provide a copy of the IMEM Intervention report to IMEM Members and other interested persons on request*⁹⁹.
- 8.7.5 When requested, the *IMEM Operator* shall provide the *DOE* any other report regarding the *IMEM Intervention* as early as practicable¹⁰⁰.

⁹⁹Clause 7.1.6.5, IMEM Rules.

¹⁰⁰ Clause 7.1.6.6, IMEM Rules

Appendix A List of NPC/PSALM-Managed Generating Plants

Generating Plant	IMEM Facility ID	Classification
Agus 1	RESAGUS1	NPC-Owned
Agus 2	RESAGUS2	NPC-Owned
Agus 4	RESAGUS4	NPC-Owned
Agus 5	RESAGUS5	NPC-Owned
Agus 6	RESAGUS6	NPC-Owned
Agus 7	RESAGUS7	NPC-Owned
Pulangi IV	RESPULA4	NPC-Owned
Mt. Apo Geothermal 1	RESMAGP1	NPC-IPP
Mt. Apo Geothermal 2	RESMAGP2	NPC-IPP
Southern Power Philippines Corporation Diesel Plant	RESSPPC	NPC-IPP
STEAG Coal Plant	RESSTEAG	NPC-IPP
Western Mindanao Power Corporation Diesel Plant	RESWMPC	NPC-IPP

Appendix B Week-Ahead Customer Demand Forecast

Pursuant to Clause 3.1.2.1 of the *IMEM Rules*, each day by 0900H, each *IMEM Customer* shall submit to the *Mindanao System Operator* their *Week-Ahead Customer Demand Forecast*. Each *IMEM Customer* shall use the template below when submitting their *Week-Ahead Customer Demand Forecast*.

Date	Hour	Customer Name	Demand Forecast	If any, Expected ILP Reduction	Remarks
D+1	1				
D+1	2				
D+1	3				
D+1	4				
D+1	5				
---	---				
---	---				
D+7	21				
D+7	22				
D+7	23				
D+7	24				

Appendix C Week-Ahead Distribution Network Information Report

Pursuant to Clause 3.1.2.2 of the *IMEM Rules*, 3.1.2.2, each day by 0900H, each *Mindanao Distribution Utility* shall submit to the *Mindanao System Operator* their *Week-Ahead Distribution Network Information Report*. Each *Mindanao Distribution Utility* shall use the template below when submitting their *Week-Ahead Distribution Network Information Report*.

Equipment	Status	Start Date	End Date	Remarks

Appendix D Week-Ahead System Generation Requirement Forecast

Pursuant to Clause 3.1.2.3 of the *IMEM Rules*, each day by 1000H, the *Mindanao System Operator* shall prepare the *Week-Ahead System Generation Requirement Forecast*, and submit the same to the *IMEM Operator*. The *Mindanao System Operator* shall use the template below when submitting the *Week-Ahead System Generation Requirement Forecast*.

A. Customer Demand Forecasts

Date	Hour	Customer Name	Demand Forecast	If any, Expected ILP Reduction	Remarks
D+1	1				
D+1	2				
D+1	3				
D+1	4				
D+1	5				
---	---				
---	---				
D+7	21				
D+7	22				
D+7	23				
D+7					

Note: As per IMEM Rules Clause 3.2.2.1, the Customer Demand Forecasts table in the System Generator Requirements Forecast shall include all IMEM Customers.

B. Total Requirement

Date	Hour	System Generation Requirement Forecast
D+1	1	
D+1	2	
D+1	3	
D+1	4	
D+1	5	
---	---	
---	---	
D+7	21	
D+7	22	
D+7	23	
D+7	24	

Appendix E Week-Ahead Power System Information Report

Pursuant to Clause 3.1.2.4 of the *IMEM Rules* 3.1.2.4, each day by 1000H, the *Mindanao System Operator* shall submit the *Week-Ahead Power System Information Report* to the *IMEM Operator*. The *Mindanao System Operator* shall use the template below when submitting their *Week-Ahead Power System Information Report*.

Equipment	Status	Start Date	End Date	Remarks

Appendix F Week-Ahead Generator Contract Allocation

Pursuant to Clause 3.1.2.6 of the *IMEM Rules*, each day by 1100H, each *IMEM Generator* shall submit to the *Mindanao System Operator* their *Week-Ahead Generator Contract Allocation*. Each *IMEM Generator* shall use the template below when submitting their *Week-Ahead Generator Contract Allocation*.

Date	Hour	Generator Name	Customer Name	Contracted Capacity (MW)	Customer Off-Take Quantity (MW)
D+1	1				
D+1	2				
D+1	3				
D+1	4				
D+1	5				
---	---				
---	---				
D+7	21				
D+7	22				
D+7	23				
D+7	24				

Appendix G Week-Ahead Contract Allocations Report for the IMEM Operator

Pursuant to *IMEM Rules* Clause 3.1.2.7, each day by 1200H, the *Mindanao System Operator* shall submit to the *IMEM Operator* the *Week-Ahead Contract Allocations Report*. The *Mindanao System Operator* shall use the template below when submitting the *Week-Ahead Contract Allocations Report*.

Date	Hour	Facility Name	Total Ex-Ante Contract Allocation	Expected Reduction	ILP	Uncontracted Demand	If any, detailed of alteration
D+1	1						
D+1	2						
D+1	3						
D+1	4						
D+1	5						
---	---						
---	---						
D+7	21						
D+7	22						
D+7	23						
D+7	24						

Appendix H Ex-Ante Contract Allocations for IMEM Customers

Pursuant to Clause 3.1.2.8 of the *IMEM Rules*, each day by 1200H, the *Mindanao System Operator* shall provide each IMEM Customer with their *Ex-Ante Contract Allocation*. The Mindanao System Operator shall use the template below for the *Ex-Ante Contract Allocations*.

Date	Hour	Customer Name	Contracted Generator	Customer Off-Take (MW)
D+1	1			
D+1	2			
D+1	3			
D+1	4			
D+1	5			
---	---			
---	---			
D+7	21			
D+7	22			
D+7	23			
D+7	24			

Appendix I Week-Ahead Customer IMEM Demand

Pursuant to Clause 3.1.2.9 of the *IMEM Rules*, each day by 1300H, each *IMEM Customer* shall submit to the *Mindanao System Operator* and to the *IMEM Operator* their *Week-Ahead Customer IMEM Demand*. Each *IMEM Customer* shall use the template below when submitting their *Week-Ahead Customer IMEM Demand*.

Date	Hour	Customer Name	IMEM Demand
D+1	1		
D+1	2		
D+1	3		
D+1	4		
D+1	5		
---	---		
---	---		
D+7	21		
D+7	22		
D+7	23		
D+7	24		

Appendix J Week-Ahead IMEM Demand Report

Pursuant to Clause 3.1.2.11 of the *IMEM Rules*, each day by 1500H, the *IMEM Operator* shall prepare and publish the *Week-Ahead IMEM Demand Report*. The *IMEM Operator* shall use the template below.

Date	Hour	System Generation Requirement Forecast	Total Generator Ex-Ante Contract Allocation	Total IMEM Demand
D+1	1			
D+1	2			
D+1	3			
D+1	4			
D+1	5			
---	---			
---	---			
D+7	21			
D+7	22			
D+7	23			
D+7	24			

Note: As per IMEM Rules Clause 3.2.9.2, the total IMEM Demand for an IMEM Interval is the sum of the Customer IMEM Demand submitted for the same IMEM Interval.

Appendix K Sample IMEM Merit Order Table

Pursuant to Clause 3.1.2.14 of the *IMEM Rules*, each day by 1600H, the *IMEM Operator* shall transmit the *IMEM Merit Order Table*, *Day-Ahead IMEM Schedule* and *Day-Ahead Schedule* of all *IMEM Resources* for each *IMEM Interval* to the *Mindanao System Operator* in the following day. There shall be one *IMEM Merit Order Table* file for each *IMEM interval*. Below is a sample *IMEM Merit Order Table*.

RESOURCE	TYPE	IN-DAY UP	IN-DAY DN	OFFER MW	CUMULATIVE	SCHEDULED MW	AVAIL UP	AVAIL DN
IMEM_E	STANDARD	YES	YES	10	1370	0	10	10
IMEM_D	STANDARD	YES	YES	30	1360	0	0	30
IMEM_C	ALL	YES	NO	5	1330	0	5	0
IMEM_B	STANDARD	YES	YES	40	1325	0	40	40
IMEM_A	STANDARD	YES	NO	14	1285	9	0	0
IMEM_5	ALL	YES	NO	15	1271	0	15	0
IMEM_4	STANDARD	YES	YES	9	1256	9	0	9
IMEM_3	ALL	YES	YES	7	1247	7	0	7
IMEM_2	ALL	YES	YES	25	1240	25	0	25
IMEM_1	STANDARD	YES	YES	20	1215	20	0	20
IMEM_N	UNSCHEDULED NPC	YES	YES	345	1195	345	0	345
IMEM_A	CONTRACTED	YES	YES	100	850	100	0	100
IMEM_C	CONTRACTED	YES	YES	300	750	300	0	300
IMEM_5	CONTRACTED	YES	YES	200	450	200	0	200
IMEM_2	CONTRACTED	YES	YES	150	250	150	0	150
IMEM_1	CONTRACTED	YES	YES	100	100	100	0	100

Appendix L Daily In-Day Dispatch Report

Pursuant to Clause 3.5.5.1 of the *IMEM Rules*, the *Mindanao System Operator* shall keep a log that includes, at a minimum, all *In-Day Dispatch Instructions* issued to *IMEM Resources* within the preceding six (6) months. Section 6.7.2 of this *IMEM Manual* states that each day by 1500H, the *Mindanao System Operator* shall submit a report to the *IMEM Operator* based on the following prescribed format.

Date	IMEM Interval	IMEM Resource	Day-Ahead Schedule	Revised MW Supply	Actual Loading	Criteria	Reason	Remarks	Time Issued

Appendix M IMEM Load-to-Maintain Matrix

In accordance with Section 5.6 of this Manual, the *IMEM Operator* shall prepare an *IMEM Load-to-Maintain* matrix for each *IMEM Customer* and submit the same to the *Mindanao System Operator* and the corresponding *IMEM Customer*. The *IMEM Operator* shall prepare the *IMEM Load-to-Maintain* matrix using the following prescribed format.

Date							
Customer							
	Load-to-Maintain per IMEM Deficiency						
Interval	10	20	30	40	50	60	70
0100H							
0200H							
0300H							
⋮							
2200H							
2300H							
2400H							

Note: Gradation of IMEM Deficiency may be varied by the IMEM Operator.