



**WHOLESALE ELECTRICITY SPOT MARKET
RULES CHANGE COMMITTEE**

RESOLUTION NO. 2019-16

**Proposed Amendments to the WESM Manual on Dispatch Protocol for the
Optimal Timing of Market Runs**

WHEREAS, the Independent Electricity Market Operator of the Philippines (IEMOP) submitted the subject proposal to the Rules Change Committee (RCC) on 14 August 2019 to optimize the timing of dispatch scheduling activities considering system performance and System Operator (SO) requirements for the day-ahead projection (DAP), hour-ahead projection (HAP) and real-time dispatch (RTD) market runs;

WHEREAS, under DOE Circular No. DC2017-05-0009, the WESM Manual on Dispatch Protocol was revised to reflect the changes in the market processes in view of the reduction of the dispatch interval to five (5) minutes, and the improvements to the projections (i.e., more frequent conduct of day-ahead projections, inclusion of multiple scenarios in day-ahead projections, addition of hour-ahead projections);

WHEREAS, during the Parallel Operations Program (POP) that started in 26 April 2019, it was observed that the processing time of market runs for DAP, HAP and RTD differ from the estimates;

WHEREAS, the proponent's recommendation is to adopt minor adjustments on the timeline of market run activities for DAP, HAP and RTD as these will ensure that the market runs will be completed on-time in view of the observations during the POP and the additional requirement from the SO for the Market Operator (MO) to submit DAP, HAP, and RTD results to the SO one (1) minute earlier;

WHEREAS, the RCC approved the publication of the proposal in the PEMC website on 16 August 2019 to solicit comments from industry stakeholders and interested parties;

WHEREAS, following the 30-working day commenting period from publication date on 20 August 2019, comments were received from PEMC, Global Business Power Corp., SN Aboitiz Power, and Aboitiz Power Corp., which, together with the

proponent's responses to these comments, were considered in the RCC's deliberation during its 157th meeting on 18 October 2019;

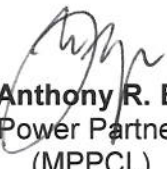
WHEREAS, the RCC approved the proposal, as amended, and its endorsement to the PEM Board;


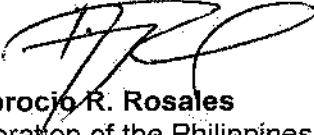
NOW THEREFORE, we, the undersigned in behalf of the sectors we represent, hereby resolve as follows:

RESOLVED, that the RCC approves Proposed Amendments to the WESM Manual on Dispatch Protocol for the optimal timing of market runs;

RESOLVED FURTHER, that the Proposed Amendments to the WESM Manual on Dispatch Protocol for the Optimal Timing of Market Runs (Annexes) are hereby endorsed to the PEM Board for approval and subsequent transmittal to the DOE for promulgation;

Done this 08 November 2019, Pasig City.

Approved by: THE RULES CHANGE COMMITTEE	
Independent Members:	
 Maila Lourdes G. de Castro Chairperson	 Francisco L.R. Castro, Jr.
 Allan C. Nerves	Concepcion I. Tanglao
Generation Sector Members:	
 Dixie Anthony R. Banzon Masinloc Power Partners Co. Ltd. (MPPCL)	 Abner B. Tolentino Power Sector Assets and Liabilities Management Corporation (PSALM)
(Resigned as of 08 October 2019) Jose Ildebrando B. Ambrosio NorthWind Power Development Corp. (NorthWind)	 Cherry A. Javier Aboitiz Power Corp. (APC)
Distribution Sector Members:	
 Virgilio C. Fortich, Jr. Cebu III Electric Cooperative, Inc. (CEBECO3)	 Ryan S. Morales Manila Electric Company (MERALCO)
Ricardo G. Gumalal Iligan Light and Power, Inc. (ILPI)	 Jose P. Santos Ilocos Norte Electric Cooperative, Inc. (INEC)
Supply Sector Member:	
 Lorreto H. Rivera TeaM (Philippines) Energy Corporation (TPEC)	

Market Operator Member:	
 Isidro E. Cacho, Jr. Independent Electricity Market Operator of the Philippines (IEMOP)	
System Operator Member:	
 Ambrocio R. Rosales National Grid Corporation of the Philippines (NGCP)	

Proposed Amendments to the WESM Manual on Dispatch Protocol for the Optimal Timing of Market Runs

Dispatch Protocol No. 13			
Title	Clause	Provision (new)	Proposed Amendment The Market Operator shall review and update if necessary the WESM Timetable after the commencement of the full operations of the new Market Management System in accordance with DOE Department Circular Nos. 2016-10-0014 and 2018-04-0007.
Categories of WESM Timetable – Background	4.1.4		The Market Operator shall review and update if necessary the WESM Timetable after the commencement of the full operations of the new Market Management System in accordance with DOE Department Circular Nos. 2016-10-0014 and 2018-04-0007.
Categories of WESM Timetable – Day-Ahead Projection (DAP)	4.4.2	The activities that shall be performed for the DAP, within the time specified, using inputs for the covered study period of that specific DAP run, are provided in Table 2. The covered periods for all DAP runs within a day are provided in Table 3.	<p>The proposed changes will reflect the optimal timing of activities for the market runs considering the actual performance of the NMMS.</p> <p>The activities that shall be performed for the DAP, within the time specified, using inputs for the covered study period of that specific DAP run, are provided in Table 2. The covered periods for all DAP runs within a day are provided in Table 3.</p> <p>Specifically, the justifications for the proposed changes for the Day-Ahead Projection (DAP) run are as follows:</p> <ul style="list-style-type: none"> Before [STPH1* - 10 minutes]: Submission of self-scheduled nominations, bids/offers – To allow more processing time for market participant interface (MPI) transfer Before [STPH1 + 1 minute]: (a) Submission of load forecast and reserve requirement, (b) Submission of outage schedule,

Table 2. DAP Timeline

Timeline	Activity	Responsible Party
Before [STPH1* - 10 minutes]	Submit the most recent self-scheduled nominations, bids and offers for all relevant hours of the DAP run	Trading Participants
Before [STPH1 + 2 1 minutes]	Provide updates on the following, if any: 1. Outage Schedules 2. Contingency List 3. Over-riding Constraints 4. Reserve Requirements 5. Real-time system snapshot 6. VRE Aggregated Generation Forecasts 7. Forecasts on the loading levels of Must dispatch generating units	System Operator
Before [STPH1 + 2 minutes]	Submit load forecast for the covered period	Market Operator
Before [STPH1 + 2 minutes]	Execute DAP	Market Operator

Dispatch Protocol No. 13				
Title	Clause	Provision	Proposed Amendment	Rationale
		<p>Before [STPH1 + 15 minutes]</p> <p>Market Operator</p> <p>Transmit DAP Results to System Operator</p> <p>Market Operator</p> <p>*STPH1 refers to the Start Time of the first Projected Hour (1) covered by the DAP run. For example, the Projected Hour of 0900H has a start time of 08:00 AM and an end time of 09:00 AM.</p> <p>(DAP Timeline Illustration)</p> <p>Figure 3. DAP Timeline</p>	<p>Publish DAP Results in the MPI</p> <p>Transmit DAP Results to System Operator</p> <p>Market Operator</p> <p>Market Operator</p> <p>*STPH1 refers to the Start Time of the first Projected Hour (1) covered by the DAP run. For example, the Projected Hour of 0900H has a start time of 08:00 AM and an end time of 09:00 AM.</p> <p>(DAP Timeline Illustration)</p> <p>Figure 3. DAP Timeline</p>	<p>contingency list, overriding constraints and (c) Execution of DAP run - To align the processes to be as close as possible to the Start Time of the first Projected Hour (1) covered by the DAP run</p> <ul style="list-style-type: none">Before [STPH1 + 25 minutes]: (a) Publish DAP Results in the MPI and (b) Transmit DAP Results to System Operator – To allow sufficient time for the performance of five (5) DAP run scenarios (1 base DAP run, 4 different load scenarios) which may take up to four (4) minutes each
Categories of WESM Timetable – Hour-Ahead Projection (HAP)	4.5.2	<p>The following activities shall be performed for the HAP, within the time specified, using inputs for the covered study period of that specific HAP run.</p> <p>(DAP Timeline Illustration)</p> <p>Figure 3. DAP Timeline</p>	<p>The following activities shall be performed for the HAP, within the time specified, using inputs for the covered study period of that specific HAP run.</p> <p>(DAP Timeline Illustration)</p> <p>Figure 3. DAP Timeline</p>	<p>For the Hour-Ahead Projection (HAP) run, the following changes are proposed to consider actual system performance and accommodate SO's requirement:</p> <ul style="list-style-type: none">Before [STPH1 – 9 minutes]: Submit the most recent self-scheduled nominations, bids and offers for all relevant hours of the HAP run – To ensure timely processing
		<p>Before [STPH1 + 15 minutes]</p> <p>Market Operator</p> <p>Transmit DAP Results to System Operator</p> <p>Market Operator</p> <p>*STPH1 refers to the Start Time of the first Projected Hour (1) covered by the DAP run. For example, the Projected Hour of 0900H has a start time of 08:00 AM and an end time of 09:00 AM.</p> <p>(DAP Timeline Illustration)</p> <p>Figure 3. DAP Timeline</p>	<p>Publish DAP Results in the MPI</p> <p>Transmit DAP Results to System Operator</p> <p>Market Operator</p> <p>Market Operator</p> <p>*STPH1 refers to the Start Time of the first Projected Hour (1) covered by the DAP run. For example, the Projected Hour of 0900H has a start time of 08:00 AM and an end time of 09:00 AM.</p> <p>(DAP Timeline Illustration)</p> <p>Figure 3. DAP Timeline</p>	
		<p>Before [STPH1 + 15 minutes]</p> <p>Market Operator</p> <p>Transmit DAP Results to System Operator</p> <p>Market Operator</p> <p>*STPH1 refers to the Start Time of the first Projected Hour (1) covered by the DAP run. For example, the Projected Hour of 0900H has a start time of 08:00 AM and an end time of 09:00 AM.</p> <p>(DAP Timeline Illustration)</p> <p>Figure 3. DAP Timeline</p>	<p>Publish DAP Results in the MPI</p> <p>Transmit DAP Results to System Operator</p> <p>Market Operator</p> <p>Market Operator</p> <p>*STPH1 refers to the Start Time of the first Projected Hour (1) covered by the DAP run. For example, the Projected Hour of 0900H has a start time of 08:00 AM and an end time of 09:00 AM.</p> <p>(DAP Timeline Illustration)</p> <p>Figure 3. DAP Timeline</p>	

Dispatch Protocol No. 13																		
Title	Clause	Provision	Rationale															
		<table><tr><td></td><td>3. Over-riding Constraints 4. Reserve Requirements 5. Real-time system snapshot</td><td></td></tr><tr><td>Before [STD11 – 7 minutes] [STD11 – 7 minutes]</td><td>Submit load forecast for the covered period Execute HAP</td><td>Market Operator Market Operator</td></tr><tr><td>Before [STD11 – 1 minute]</td><td>Publish HAP Results in the MPI Transmit HAP Results to System Operator</td><td>Market Operator Market Operator</td></tr></table> <p>*STD11 refers to the Start Time of the first dispatch interval (1) covered by the HAP run. For example, the 0815H dispatch interval has a start time of 08:10 AM and an end time of 08:15 AM. And if this is the first dispatch interval of the HAP run, then it will cover the period until 09:10 AM.</p>		3. Over-riding Constraints 4. Reserve Requirements 5. Real-time system snapshot		Before [STD11 – 7 minutes] [STD11 – 7 minutes]	Submit load forecast for the covered period Execute HAP	Market Operator Market Operator	Before [STD11 – 1 minute]	Publish HAP Results in the MPI Transmit HAP Results to System Operator	Market Operator Market Operator	<p>prior to HAP run execution considering actual system performance</p> <ul style="list-style-type: none">Before [STD11 – 2 minute]: Transmit HAP Results to System Operator – To accommodate SO's request that results shall be submitted two (2) minutes before the start of the dispatch interval in order to allow processing time for different SO applications						
		3. Over-riding Constraints 4. Reserve Requirements 5. Real-time system snapshot																
Before [STD11 – 7 minutes] [STD11 – 7 minutes]	Submit load forecast for the covered period Execute HAP	Market Operator Market Operator																
Before [STD11 – 1 minute]	Publish HAP Results in the MPI Transmit HAP Results to System Operator	Market Operator Market Operator																
Categories of WESM Timetable – Real-Time Dispatch Schedule (RTD)	4.6.2	<p>The following activities shall be performed for the RTD, within the time specified, using inputs for the covered study period of that specific RTD run:</p> <p>Table 5. RTD Timeline</p> <table><tr><th>Timeline</th><th>Activity</th><th>Responsible Party</th></tr><tr><td>Before [STD11* – 8 minutes]</td><td>Submit self-scheduled nominations, bids and offers for all relevant hours of the RTD run</td><td>Trading Participants</td></tr><tr><td>Before [STD1 – 7 minutes]</td><td>Provide updates on the following, if any: 1. Outage Schedules 2. Contingency List 3. Over-riding Constraints 4. Reserve Requirements 5. Real-time system snapshot</td><td>System Operator</td></tr><tr><td>Before [STD1 – 7 minutes] [STD1 – 7 minutes]</td><td>Submit load forecast for the relevant dispatch interval Execute RTD</td><td>Market Operator Market Operator</td></tr><tr><td></td><td>Publish RTD Results in the MPI</td><td>Market Operator</td></tr></table>	Timeline	Activity	Responsible Party	Before [STD11* – 8 minutes]	Submit self-scheduled nominations, bids and offers for all relevant hours of the RTD run	Trading Participants	Before [STD1 – 7 minutes]	Provide updates on the following, if any: 1. Outage Schedules 2. Contingency List 3. Over-riding Constraints 4. Reserve Requirements 5. Real-time system snapshot	System Operator	Before [STD1 – 7 minutes] [STD1 – 7 minutes]	Submit load forecast for the relevant dispatch interval Execute RTD	Market Operator Market Operator		Publish RTD Results in the MPI	Market Operator	<p>For the Real-Time Dispatch (RTD) run, the following changes are proposed to consider actual system performance and accommodate SO's requirement:</p> <ul style="list-style-type: none">Before [STD11 – 9 minutes]: Submit the most recent self-scheduled nominations, bids and offers for all relevant hours of the RTD run – To ensure timely processing prior to RTD run execution considering actual system performanceBefore [STD11 – 2 minute]: Transmittal of Energy and Reserve Schedules, and
Timeline	Activity	Responsible Party																
Before [STD11* – 8 minutes]	Submit self-scheduled nominations, bids and offers for all relevant hours of the RTD run	Trading Participants																
Before [STD1 – 7 minutes]	Provide updates on the following, if any: 1. Outage Schedules 2. Contingency List 3. Over-riding Constraints 4. Reserve Requirements 5. Real-time system snapshot	System Operator																
Before [STD1 – 7 minutes] [STD1 – 7 minutes]	Submit load forecast for the relevant dispatch interval Execute RTD	Market Operator Market Operator																
	Publish RTD Results in the MPI	Market Operator																

Dispatch Protocol No. 13				
Title	Clause	Provision		Rationale
		Before [STDI – 1 minute]	Transmittal of Energy and Reserve Schedules, and WESM Merit Order Table to the System Operator	WESM Merit Order Table to the System Operator – To accommodate SO's request that results shall be submitted two (2) minutes before the start of the dispatch interval in order to allow processing time for different SO applications
		Before [STDI – 4 minutes]	Transmittal of Energy and Reserve Schedules, and WESM Merit Order Table to the System Operator	