



Philippine Electricity
Market Corporation

WHOLESALE ELECTRICITY SPOT MARKET RULES CHANGE COMMITTEE

RESOLUTION NO. 2019-14

Proposed Amendments to the WESM Rules and WESM Manuals for the Implementation of the DOE Circular Providing the Framework Governing the Operations of Embedded Generators

WHEREAS, the DOE promulgated DOE Department Circular No. 2019-02-0003 dated 01 April 2019 providing the framework governing the operations of embedded generators;

WHEREAS, under Section 11.1 of said circular, the DOE directed the Market Operator to accordingly propose changes to the WESM Rules and Market Manuals to incorporate the policy provided in the same;

WHEREAS, in compliance, the Independent Electricity Market Operator of the Philippines (IEMOP) submitted to the Rules Change Committee (RCC) on 10 June 2019 the proposed amendments to the following documents for the implementation of DOE DC 2019-02-0003:

- 1) WESM Rules;
- 2) WESM Manual on Registration, Suspension and De-registration Criteria and Procedures (for enhanced market design); and
- 3) WESM Manual on Metering Standards and Procedures (for enhanced market design)

WHEREAS, the proposal seeks to incorporate reflect the following changes pursuant to the department circular:

- 1) Refer all metering installations standards for embedded generators (i.e., meter, instrument transformers, grounding, communication link, security, redundant metering) to the Philippine Distribution Code with additional requirement for 5-minute interval metering;
- 2) Mandatory registration of embedded generators that meet the following criteria:

- (a) Pmax equal to or above the following regional thresholds: 10 MW for Luzon and 5 MW for Visayas and Mindanao; or
 - (b) Pmax below regional thresholds but embedded generator has bilateral contract outside its host distribution utility; or
 - (c) generating unit is under the Feed-In Tariff (FIT) system
- 3) Voluntary registration of embedded generators that do not meet the criteria above;

WHEREAS, the proposal also called for using the same Pmax regional thresholds for registering embedded generators in classifying non-scheduled generating units since these thresholds are the minimum generation level that may significantly affect the frequency of the grid, as determined by NGCP;

WHEREAS, the RCC approved the publication of the proposal in the PEMC website on 21 June 2019 to solicit comments from industry stakeholders and interested parties;

WHEREAS, following the 30-working day commenting period from publication date on 25 June 2019, comments were received from PEMC, the Technical Committee, NGCP, Panasia/Millennium Energy, Inc. and MERALCO which, together with the proponent's responses to these comments, were considered in the RCC's deliberation during its 155th meeting on 16 August 2019;

WHEREAS, the RCC agreed with the following revisions to the proposed amendments:

- 1) Use the term 'embedded generator' instead of "facilities connected to a distribution system" since the term is already defined in the WESM Rules;
- 2) Replace the term 'maximum stable load' with 'Pmax' since the latter is used in Certificates of Compliance;
- 3) For clarity, provide that embedded generators whose Pmax fall below the appropriate regional thresholds but intends to sell to the WESM or inject power to the transmission system are also mandated to register in the market;
- 4) Provide that a WESM Member who intends to de-register in the market must also notify the Network Service Provider aside from the Market Operator; and
- 5) Reflect clerical enhancements.

WHEREAS, there being no other matters left for deliberation, the RCC approved the endorsement of the proposal to the PEM Board;


RCC-RESO-19-14

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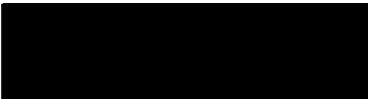





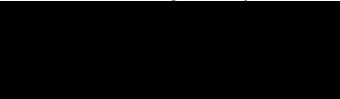
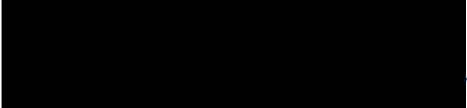
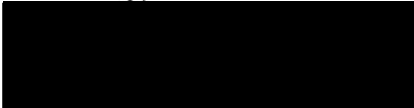
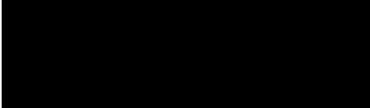
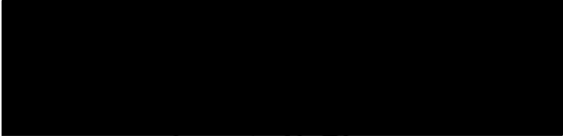
NOW THEREFORE, we, the undersigned in behalf of the sectors we represent, hereby resolve as follows:


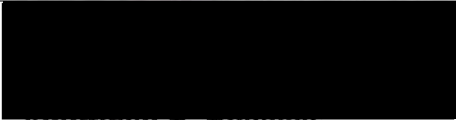
RESOLVED, that the RCC approves the Proposed Amendments to the WESM Rules and WESM Manuals for the Implementation of the DOE Circular Providing the Framework Governing the Operations of Embedded Generators;

RESOLVED FURTHER, that the Proposed Amendments to the WESM Rules and WESM Manuals for the Implementation of the DOE Circular Providing the Framework Governing the Operations of Embedded Generators (Annexes) are hereby endorsed to the PEM Board for approval and subsequent transmittal to the DOE for promulgation;



Done this 20 September 2019, Pasig City.

Approved by: THE RULES CHANGE COMMITTEE	
Independent Members:	
 Manila 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)
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 B. 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:	
	
Amorocio K. Rosales National Grid Corporation of the Philippines (NGCP)	

Annex A

Proposed Amendments for the Implementation of DOE Circular Providing the Framework Governing the Operations of Embedded Generators

WESM Rules				
Title	Clause	Provision	Proposed Amendment	Rationale
Categories of WESM Member – Generation Company	2.3.1.1	A <i>Generation Company</i> with facilities connected to a <i>transmission or distribution system</i> shall register with the <i>Market Operator</i> as a <i>WESM member</i> .	A <i>Generation Company</i> with facilities connected to a <i>transmission or distribution system</i> shall register with the <i>Market Operator</i> as a <i>WESM member</i> . <u>A <i>Generation Company of an Embedded Generator</i> shall register with the <i>Market Operator</i> as a <i>WESM member</i> if it meets the criteria under Clause 2.3.1.10; otherwise, it may register as a <i>WESM Member</i> on a voluntary basis.</u>	To incorporate the general framework for WESM registration of embedded generators provided under Sections 6.1 and 6.2 of DOE DC2019-02-0003
Categories of WESM Member – Generation Company	2.3.1.3	<i>Subject to Clauses 2.3.1.5 and 2.3.1.6, a generating unit or a group of generating units</i> connected at a common connection point with a nameplate rating or a combined nameplate rating of greater than or equal to one tenth of one percent (> 0.1%) of the peak load in a particular reserve region shall be classified as a <i>scheduled generating unit</i> .	<i>Subject to Clauses 2.3.1.5 and 2.3.1.6, a generating unit or a group of generating units</i> connected at a common connection point with a nameplate rating or a combined nameplate rating of greater than or equal to <u>the following regional thresholds</u> one-tenth of one percent (> 0.1%) of the peak load in a particular reserve region shall be classified as a <i>scheduled generating unit</i> ; <u>(a) 10 MW for Luzon Grid;</u>	The regional threshold provided in the under Section 6.1.1 of DOE DC2019-02-0003 is based on the minimum generation level that may significantly affect the frequency of the grid, as determined by NGCP. The same level is proposed to be used for classifying non-scheduled generating units for consistency.

Annex A

WESM Rules				
Title	Clause	Provision	Proposed Amendment	Rationale
			<u>(b) 5 MW for Visayas Grid; and (c) 5 MW for Mindanao Grid.</u>	
Categories of WESM Member – Generation Company	2.3.1.4	<i>Subject to Clauses 2.3.1.5 and 2.3.1.6, a generating unit or a group of generating units connected at a common connection point with a nameplate rating or a combined nameplate rating of less than one tenth of one percent (< 0.1%) of the peak load in a particular reserve region, or less than ten percent (< 10%) of the size of interconnection facilities, whichever is lower, shall be classified as a non-scheduled generating unit, but may at its option be classified as a scheduled generating unit.</i>	<i>Subject to Clauses 2.3.1.5 and 2.3.1.6, a generating unit or a group of generating units connected at a common connection point with a nameplate rating or a combined nameplate rating of less than the regional thresholds provided in Clause 2.3.1.3 one tenth of one percent (< 0.1%) of the peak load in a particular reserve region, or less than ten percent (< 10%) of the size of interconnection facilities, whichever is lower, shall be classified as a non-scheduled generating unit, but may at its option be classified as a scheduled generating unit.</i>	For consistency with Section 6.1.1 of DOE DC2019-02-0003
Categories of WESM Member – Generation Company	<u>2.3.1.10</u>	(new)	<u>A Generation Company of an Embedded Generator shall register with the Market Operator if:</u>	To incorporate the criteria for mandatory WESM registration of embedded generators provided

Annex A

WESM Rules				
Title	Clause	Provision	Proposed Amendment	Rationale
			<p>a) <u>the Pmax of its generating unit is greater than or equal to 10 MW, if the generating unit is in the Luzon Grid, or 5 MW, if the generating unit is in the Visayas or Mindanao Grids; or</u></p> <p>b) <u>the Pmax of its generating unit is below the regional thresholds provided under clause 2.3.1.10(a) but it has a bilateral contract outside its host distribution utility, or intends to sell to the WESM, or inject power to the transmission system; or</u></p> <p>c) <u>its generating unit is under the Feed-In Tariff System.</u></p>	under Section 6.1 of DOE DC2019-02-0003
Glossary		(new)	<u>Pmax. The maximum demand in MW that a generating unit, or generating block or module in case of a combined cycle power plant, can reliably sustain for an indefinite period of time, based on the generator capability tests.</u>	To incorporate the definition of maximum stable load in the WESM Rules. The same definition is provided in Section 2(i) of DOE DC2019-02-0003 and the WESM Registration Manual.
Glossary		Non-Scheduled Generating Unit. A generating unit or a group of generating units connected at a common point with	Non-Scheduled Generating Unit. A generating unit or a group of generating units connected at a	For consistency with Section 6.1.1 of DOE DC2019-02-0003

Annex A

WESM Rules				
Title	Clause	Provision	Proposed Amendment	Rationale
		a nameplate rating and a combined nameplate rating of less than one tenth of one percent (<0.1%) of the peak load in a particular reserve region, or less than ten percent (<10%) of the size of the interconnection facilities, whichever is lower.	common point with a nameplate rating and a combined nameplate rating of less than the regional thresholds provided in clause 2.3.1.3. one tenth of one percent (<0.1%) of the peak load in a particular reserve region, or less than ten percent (<10%) of the size of the interconnection facilities, whichever is lower.	
Glossary		Scheduled Generating Unit. A <i>generating unit</i> so classified in accordance with clause 2.3.1.2 (a)(1). A <i>generating unit</i> or a group of <i>generating units</i> connected at a common connection point with a nameplate rating or a combined nameplate rating of greater than or one tenth of one percent (>0.1%) of the peak load in a particular <i>reserve region</i> .	Scheduled Generating Unit. A <i>generating unit</i> so classified in accordance with clause 2.3.1.2 (a)(1). A <i>generating unit</i> or a group of <i>generating units</i> connected at a common connection point with a nameplate rating or a combined nameplate rating of greater than or equal to the regional thresholds provided in clause 2.3.1.3. one tenth of one percent (>0.1%) of the peak load in a particular <i>reserve region</i>.	For consistency with Section 6.1.1 of DOE DC2019-02-0003

Annex B

Proposed Amendments for the Implementation of DOE Circular Providing the Framework Governing the Operations of Embedded Generators

WESM Manual on Metering Standards and Procedures (amended per DOE DC 2018-05-0015 for enhanced market design and PEM Board Resolution No. 2019-14-07)				
Title	Section	Provision	Proposed Amendment	Rationale
METERING INSTALLATION STANDARDS – COMMUNICATION LINKS FOR THE METER	2.8	The communication link to be installed shall be a dedicated line for metering purposes (e.g. PLDT, Bayantel, Digitel lines or GSM Modem) of the MSP.	<p>The communication link to be installed <u>for metering installations of facilities directly connected to the transmission system</u> shall be a dedicated line for metering purposes (e.g. PLDT, Bayantel, Digitel lines or GSM Modem) of the MSP.</p> <p><u>The communication link to be installed for metering installations of Embedded Generators shall comply with the relevant provisions of the Philippine Distribution Code.</u></p>	To incorporate application of Philippine Distribution Code standards for embedded generators as provided under Section 5.2.2 of DC2019-02-0003.
METERING INSTALLATION STANDARDS – SECURITY OF METERING INSTALLATIONS AND DATA – <u>General Requirements</u>	<u>2.9.1</u>	(inserted)	<p><u>General Requirements</u></p> <p><u>Security of metering installations of facilities directly connected to the transmission system shall comply with the requirements of this Section 2.9.</u></p> <p><u>Metering installations of Embedded Generators shall comply with the security requirements of the Philippine Distribution Code.</u></p>	To incorporate application of Philippine Distribution Code standards for embedded generators as provided under Section 5.2.2 of DC2019-02-0003
METERING INSTALLATION STANDARDS – SECURITY OF	2.9.1 2.9.1.1 2.9.1.2	2.9.1 XXX 2.9.1.1 XXX 2.9.1.2 XXX	2.9.2 XXX 2.9.2.1 XXX 2.9.2.2 XXX	Proposed re-numbering with the insertion of new clause 2.9.1

Annex B

WESM Manual on Metering Standards and Procedures (amended per DOE DC 2018-05-0015 for enhanced market design and PEM Board Resolution No. 2019-14-07)				
Title	Section	Provision	Proposed Amendment	Rationale
METERING INSTALLATIONS AND DATA	2.9.1.3 2.9.1.4 2.9.1.5	2.9.1.3 XXX 2.9.1.4 XXX 2.9.1.5 XXX	2.9.2.3 XXX 2.9.2.4 XXX 2.9.2.5 XXX	
	2.9.1.6 2.9.1.7 2.9.2 2.9.2.1 2.9.2.2 2.9.2.3 2.9.2.4 2.9.2.5	2.9.1.6 XXX 2.9.1.7 XXX 2.9.2 XXX 2.9.2.1 XXX 2.9.2.2 XXX 2.9.2.3 XXX 2.9.2.4 XXX 2.9.2.5 XXX	2.9.2.6 XXX 2.9.2.7 XXX 2.9.3 XXX 2.9.3.1 XXX 2.9.3.2 XXX 2.9.3.3 XXX 2.9.3.4 XXX 2.9.3.5 XXX	
METERING INSTALLATION STANDARDS – REDUNDANT METERING INSTALLATION	<u>2.10.4</u>	(new)	<u>Facilities of Embedded Generators are not required to have alternate metering.</u>	To incorporate application of Philippine Distribution Code standards for embedded generators as provided under Section 5.2.2 of DC2019-02-0003

Proposed Amendments for the Implementation of DOE Circular Providing the Framework Governing the Operations of Embedded Generators

Registration, Suspension and De-Registration Criteria and Procedures (per DOE DC2018-05-0015 for enhanced market design)				
Title	Section	Provision	Proposed Amendment	Rationale
GENERAL GUIDELINES	<u>1.4.3</u>	(inserted)	<p><u>A Generation Company of an Embedded Generator shall register with the Market Operator if:</u></p> <p><u>a) the Pmax of its generating unit is greater than or equal to 10 MW, if the generating unit is in the Luzon Grid, or 5 MW, if the generating unit is in the Visayas or Mindanao Grids; or</u></p> <p><u>b) the Pmax of its generating unit is below the regional thresholds provided under clause 2.3.1.10(a) but it has a bilateral contract outside its host distribution utility, or intends to sell to the WESM, or inject power to the transmission system; or</u></p> <p><u>c) its generating unit is under the Feed-In Tariff System.</u></p>	To incorporate the criteria for mandatory WESM registration of embedded generators provided under Section 6.1 of DOE DC2019-02-0003
GENERAL GUIDELINES	1.4.3 1.4.4	1.4.3 XXX 1.4.4 XXX	1.4.4 XXX 1.4.5 XXX	Proposed re-numbering with the insertion of proposed clause 1.4.3
Generation Unit Classification	2.5.4.1	2.5.4.1 Generation Unit Classification a) An Applicant wishing to register as Generation Company shall, upon application, classify each of the generating	2.5.4.1 Generation Unit Classification a) An Applicant wishing to register as Generation Company shall, upon application, classify each of the generating unit or group	The regional threshold provided in the under Section 6.1.1 of DOE DC2019-02-0003 is based on the minimum generation level that may significantly affect the frequency of

Registration, Suspension and De-Registration Criteria and Procedures (per DOE DC2018-05-0015 for enhanced market design)				
Title	Section	Provision	Proposed Amendment	Rationale
		<p>unit or group of generating units which form part of the generation system it owns or operates or controls or from which it otherwise sources electricity as either –</p> <ul style="list-style-type: none"> • <i>Scheduled generating unit/s</i> for unit/s that are connected to a common connection point with a nameplate rating or a combined nameplate rating of greater than or one tenth of one percent of the peak load in a particular reserve region. 14 • <i>Non-scheduled generating unit/s</i> for unit/s that are connected at a common connection point with a nameplate rating and a combined nameplate rating of less than one tenth of one percent of the peak load in a particular reserve region, or less than ten percent (10%) of the size of the interconnection facilities whichever is lower. However, the <i>Generation Company</i> may also elect to have such unit/s classified as <i>scheduled generating unit/s</i>. <p>XXX</p>	<p>of generating units which form part of the generation system it owns or operates or controls or from which it otherwise sources electricity as either –</p> <ul style="list-style-type: none"> • <i>Scheduled generating unit/s</i> for unit/s that are connected to a common connection point with a nameplate rating or a combined nameplate rating of greater than or <u>equal to the following regional thresholds:</u> one tenth of one percent of the peak load in a particular reserve region. <ul style="list-style-type: none"> ○ <u>10 MW for Luzon Grid;</u> ○ <u>5 MW for Visayas Grid; and</u> ○ <u>5 MW for Mindanao Grid.</u> • <i>Non-scheduled generating unit/s</i> for unit/s that are connected at a common connection point with a nameplate rating and a combined nameplate rating of less than <u>the regional thresholds for scheduled generating unit/s</u> one tenth of one percent of the peak load in a particular reserve region, or less than ten percent (10%) of the size of the interconnection facilities whichever is lower. However, the <i>Generation</i> 	<p>the grid as determined by NGCP. The same level is proposed to be used for classifying non-scheduled generating units for consistency.</p>

Annex C

Registration, Suspension and De-Registration Criteria and Procedures (per DOE DC2018-05-0015 for enhanced market design)				
Title	Section	Provision	Proposed Amendment	Rationale
			Company may also elect to have such unit/s classified as <i>scheduled generating unit/s</i> .	
			XXX	
CESSATION OF REGISTRATION Requirements for Cessation of Registration/ Notice to the Market Operator	5.2.1.1	A <i>WESM member</i> wishing to cease to be registered in any one or more of the categories in which it is registered shall notify the <i>Market Operator</i> in writing.	A <i>WESM member</i> wishing to cease to be registered in any one or more of the categories in which it is registered shall notify the <i>Market Operator</i> and the <u>Network Service Provider</u> in writing.	To also notify the Network Service Providers (e.g., distribution utilities) of the cessation of membership of an embedded generator within its franchise area.
CESSATION OF REGISTRATION	<u>5.2.1.5</u>	(new)	<u>A voluntary WESM Member may de-register by following the procedures in this Section 5.2.1.</u>	To clarify that generation companies that register voluntarily in the WESM (including those whose contract outside its host DU has expired) may cease its membership any time but must adhere to the proper procedures.