

**WHOLESALE ELECTRICITY SPOT MARKET
RULES CHANGE COMMITTEE**

RESOLUTION NO. 2015-02

**Proposal for Amendments to the WESM Rules and Market Manual on the
Registration of Ramp Rates**

WHEREAS, the Proposal for Amendments to the WESM Rules and Manual on the Registration of Ramp Rates intends to require Generators to submit a graph/curve of ramp up and ramp down rates, showing the change in MW versus time, as part of the registration requirements. This information is suggested to be submitted to the NGCP-SO to guide them in gauging the response of a Generator to certain dispatch instructions over a trading interval;

WHEREAS, the Proposal for Amendments to the WESM Rules and Market Manual on the Registration of Ramp Rates was approved by the Rules Change Committee on 03 April 2013 through RCC Resolution No. 2013-01;

WHEREAS, the Proposal was endorsed to the PEM Board for approval and was taken up at the Board Review Committee Meeting on 17 April 2013;

WHEREAS, the Board Review Committee recommended endorsing the matter to the WESM Tripartite for decision;

WHEREAS, the RCC in its letter to the DOE dated 20 March 2014 requested for updates on status of the Proposed Amendments that were endorsed to the WESM Tripartite Committee, including the Proposed Amendments to the WESM Rules and Market Manual on the Registration of Ramp Rates;

WHEREAS, the DOE, in its letter dated 22 April 2014, informed the RCC that during the ERC meeting with DOE and PEMC, on the proposed amendments to the Certificate of Compliance (COC) Rules, the body agreed that all technical information of the generators, such as P_{max} , P_{min} , and Ramp Rates shall be included in the Generation Company's COC;

WHEREAS, on 15 September 2014, the ERC issued Resolution No. 16, series of 2014, *"A Resolution Adopting the Revised Rules for the Issuance of Certificates of Compliance (COCs) for Generation Companies, Qualified End-Users and Entities with Self-Generation Facilities;*

WHEREAS, ERC Resolution No. 16, series of 2014, Article I Section 2(iv) stipulates that *"XXX The terms and conditions of the COC and the technical description of the Generation Facilities, including, but not limited to the maximum stable load (P_{max} in MW), minimum stable load (P_{min} in MW), ramp up rate, (MW/Min), ramp down rate (MW/Min), and heat rate (Btu/kWh; kJ/kWh; kCal/kWh) shall be submitted to and contained in a document which is made an integral part of the issued COC;"*

WHEREAS, following the ERC's issuance of the COC guidelines, and in consideration of the previous communication from the DOE, the RCC discussed the Proposal and agreed to the publish the same for comments;

WHEREAS, the Proposed Amendments to the WESM Rules and Market Manual on the Registration of Ramp Rates was re-posted in the WESM market information website on 08 January 2015 to solicit comments of participants and interested parties;

WHEREAS, the SN Aboitiz Power and the DOE submitted their comments in response to the RCC's call for comments;

WHEREAS, the DOE's comments are essentially an agreement to the Proposed Amendments;

WHEREAS, SNAP's comments, in general, expressed that (1) the MPI does not yet support the required data submission relative to the proposal; (2) the step ladder ramp rates do not apply to its Generating Units; and (3) the proposal raised issues in relation to the validation of submitted ramp rates, as well as in the protocols in addressing issues stemming from mis-declaration of ramp rates, PENs, among others;

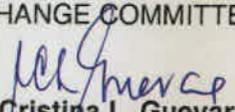
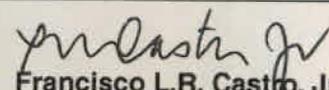
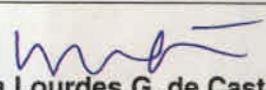
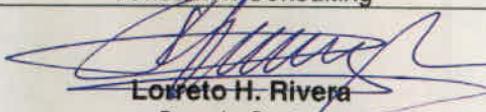
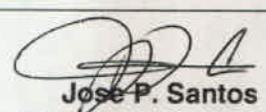
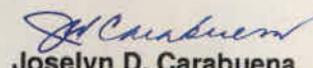
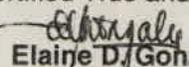
WHEREAS, the RCC gave due course to the comments received;

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

RESOLVED, that the Proposal for Amendments to the WESM Rules and the Market Manual on the Registration of Ramp Rates (ANNEX A), is hereby adopted and approved by the RCC;

RESOLVED FURTHER, that the attached Proposal for Amendments to the WESM Rules and the Market Manual on the Registration of Ramp Rates is hereby endorsed to the PEM Board for approval.

Done this 04 March 2015, Pasig City.

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| Approved by: RULES CHANGE COMMITTEE  Rowena Cristina L. Guevara Chairperson Independent University of the Philippines (UP) | |
| Members: | |
|  Concepcion K. Tanglao Independent |  Francisco L.R. Castro, Jr. Independent Tensaiken Consulting |
|  Maila Lourdes G. de Castro Independent |  Loreto H. Rivera Supply Sector TeaM (Philippines) Energy Corporation |
|  Jose P. Santos Distribution Sector (EC) Ilocos Norte Electric Cooperative, Inc. (INEC) | Ciprinilo C. Meneses Distribution Sector (PDU) Manila Electric Company (MERALCO) |
| Sulpicio C. Lagarde Jr. Distribution Sector (EC) Central Negros Electric Cooperative, Inc. (CENECO) | Gilbert A. Pagobo Distribution Sector Mactan Electric Company (MECO) |
|  Jose Ferlino P. Raymundo Generation Sector SMC Global |  Joselyn D. Carabuena Generation Sector Power Sector Assets and Liabilities Management Corporation (PSALM) |
|  Ambrojo B. Rosales Transmission Sector National Grid Corporation of the Philippines (NGCP) | Theo C. Sunico Generation Sector 1590 Energy Corporation |
|  Isidro E. Cacho, Jr. Market Operator Philippine Electricity Market Corporation (PEMC) | |
| | Certified True and Correct:  Elaine D. Gonzales RCC Secretary PEMC |

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Annex A
Proposed Amendments to WESM Rules and Manual on the Registration of Ramp Rates

A. WESM Rules

| Title | Section | Provision | Proposed Amendment | Rationale |
|--|-------------------------------------|---|---|--|
| Appendix A1. Information to be Supplied with Offers to Supply and to Buy Electricity | Appendix A1.1 (g) Generation Offers | Shall include maximum up/down <i>ramp rates</i> ; | Shall include maximum up/down ramp rates, <u>consistent with the registered maximum ramp up and ramp down rate, minimum ramp up and ramp down rate and ramp rate capability curve of each generation unit or aggregated generation units;</u> | To require generators to submit a graph/curve of ramp up and ramp down rates, showing the change in MW versus time, as part of the registration requirement. Said information will also be submitted to NGCP-SO to guide the latter in gauging the response of a generator to certain dispatch instructions over a trading interval. Further, this will provide the MO with the reference for internal validation of the submitted values. |
| Chapter 11 | Glossary | (New Provision) | <u>Ramp Rate capability curve. This is the chart showing the ramping capability of a generating unit/s or aggregate generating unit/s. It provides data on the minimum and maximum ramp-up and ramp-down rate and the MW break-points for each generating unit/s or aggregate generating unit/s.</u> | To define or describe ramp rate capability curve. |

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Annex A
 Proposed Amendments to WESM Rules and Manual on the Registration of Ramp Rates

B. Registration Manual

| Title | Section | Provision | Proposed Amendment | Rationale |
|---|--|--|---|---|
| <p>2.5. Registration of Direct WESM Members and Trading Participants</p> | <p>2.5.4.4 Generation Registered Capacities</p> | <p>A <i>Generation Company</i> shall include in its application the <i>maximum stable load (Pmax)</i>, the <i>minimum stable load (Pmin)</i>, the <i>ramp up rate</i>, and <i>ramp down rate</i> of each <i>generation unit</i> or aggregated <i>generation units</i> that are included in its application. The information provided to the <i>Market Operator</i> must be consistent with the information contained in the <i>Certificate of Compliance</i> issued by the <i>ERC</i> as well as submissions made to the <i>ERC</i> in relation to the issuance of its <i>Certificate of Compliance</i>.</p> | <p>A <i>Generation Company</i> shall include in its application the <i>maximum stable load (Pmax)</i>, the <i>minimum stable load (Pmin)</i>, the <u>maximum ramp up and ramp down rate, minimum ramp up and ramp down rate and ramp rate capability curve</u> of each <i>generation unit</i> or aggregated <i>generation units</i> that are included in its application <u>in accordance with Appendix B</u>. The information provided to the <i>Market Operator</i> must be consistent with the information contained in the <i>Certificate of Compliance</i> issued by the <i>ERC</i> as well as submissions made to the <i>ERC</i> in relation to the issuance of its <i>Certificate of Compliance</i>.</p> | <p>To make the Manual consistent with the WESM Rules provision on ramp rates, as above discussed.</p> |

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Appendix B

Generator Name: _____

Unit Number: _____

Date: _____

**Schedule 1
STABLE LOAD**

| | | |
|----------------------------|----|--|
| Maximum Stable Load (Pmax) | MW | |
| Minimum Stable Load (Pmin) | MW | |

**Schedule 2
RAMP RATES**

| | Breakpoints (BP) in MW | | | |
|------------------------|------------------------|----------------------------------|-------|------------------------|
| | Pmin-BP ₁ | BP ₁ -BP ₂ | | BP _n - Pmax |
| Maximum Ramp Up Rate | | | | |
| Maximum Ramp Down Rate | | | | |
| Minimum Ramp Up Rate | | | | |
| Minimum Ramp Down Rate | | | | |

Submitted by: _____

Approved by: _____

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