

MINUTES OF THE RULES CHANGE COMMITTEE 144th REGULAR MEETING (No. 2018-08)	
Meeting Date & Time:	07 September 2018, 9:00 AM to 11:00 AM
Meeting Venue:	19/F Conference Room, Robinsons Equitable Tower, Ortigas Center, Pasig City
Attendance List	
In-Attendance	Not In-Attendance
Rules Change Committee	
Principal Members:	
Maila Lourdes G. de Castro, Chairperson – Independent Francisco Leodegario R. Castro, Jr. – Independent Allan C. Nerves–Independent Abner B. Tolentino – Generation (PSALM) Jose Ildebrando B. Ambrosio – Generation (Northwind) Cherry A. Javier – Generation (APC) Dixie Anthony R. Banzon – Generation (MPPCL) Ciprinilo C. Meneses – Distribution (MERALCO) Jose P. Santos – Distribution (INEC) Virgilio C. Fortich, Jr. – Distribution (CEBECO3) Lorreto H. Rivera – Supply (TPEC) Ambrocio R. Rosales – System Operator (NGCP) Isidro E. Cacho – Market Operator (PEMC)	Concepcion I. Tanglao – Independent
Other attendees:	
Chief Governance Officer	
Rauf A. Tan	
PEMC – Market Assessment Group (MAG)	
Carlito C. Claudio	

Elaine D. Gonzales
Geraldine A. Rodriguez
Romellen C. Salazar
Divine Gayle C. Cruz
Aldjon Kenneth M. Yap

PEMC – Legal Department

Marian Venussa S. Dela Fuente
Sheryll M. Dy

DOE Observers

Ferdinand B. Binondo
Ryan Jaspher Villadiego

NGCP

Amelia L. Cumpas
Francis S. Vicencio
Jayson J. Abraham

1 There being a quorum, Chairperson Maila Lourdes G. de Castro called the meeting to order at
2 around 9:25 AM.

3 **1. Adoption of the Proposed Agenda**

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5 The RCC adopted the provisional agenda as proposed.

6 **2. Review of the Minutes of the Previous Meeting**

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8 Mr. Ambrocio R. Rosales (NGCP-SO) provided edits in the draft minutes, specifically on the
9 review of the minutes of the July 6 meeting:

10
11 *Atty. de Castro led the review of the minutes of the RCC meeting held on 06 Jul 2018.*

12
13 *On the discussion regarding the concerns of the DOE on cross-grid power supply agreements,*
14 *during which the **PEMC** RCC, recommended, among other things the upgrading of the high*
15 *voltage direct current (HVDC) interconnection and submarine cables to address the concerns*

16 affecting the calculation of Line Rental Trading Amounts (LRTA), Mr. Ambrocio R. Rosales, ~~who~~
17 ~~at the time of the discussions on this matter was no longer around,~~ submitted his comments
18 through email and again raised his concerns during the discussion of the July 06, 2018 minutes
19 of the meeting. ~~on the said recommendation.~~ He cited that if the recommendation is to upgrade
20 the Leyte-Luzon HVDC, the recommendation should also include the benefits quantified in
21 monetary terms such as the equivalent savings for the reduction of the LRTA of cross-grid BCQ
22 transactions. He said that ~~the~~ such upgrading of the high voltage direct current (HVDC)
23 submarine cable would entail huge capital expenditures (CAPEX) on the part of the network
24 provider (in which the customers shall be the one to bear the cost of the upgrading), in order to
25 satisfy a positive result on line rental calculation. He thus requested for the permission of the
26 body to delete the said recommendation from the minutes of the meeting.

27
28 Mr. Meneses recommended to the body The RCC, in its response, agreed to still retain the
29 recommendation on the upgrading of the high voltage direct current (HVDC) interconnection
30 and submarine cables, noting that said recommendation was what actually agreed-presented
31 by PEMC during the said meeting. The RCC, instead agreed to note that during the review of
32 said minutes, Mr. Rosales in the review portion of the minutes of the 143rd meeting of the RCC,
33 aired his reservations and concerns on the said recommendation due to cost consideration.

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35 The RCC adopted Mr. Rosales' edits and approved the minutes as amended.
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37

Agreements/Action Plans
The RCC approved the minutes as amended.

38 3. Matters Arising from the Previous Meeting

39 40 Draft RCC Discussion Paper on DOE's Concerns on Cross-grid Power Supply 41 Agreements (PSAs)

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43 Mr. Aldjon Kenneth M. Yap from PEMC-Market Assessment Group (PEMC-MAG) presented
44 the latest draft RCC discussion paper on the DOE's concerns on Cross-grid Power Supply
45 Agreements and Line Rental Trading Amounts (LRTA), for further inputs of the body. Mr. Yap
46 provided the updated outline of the contents of the paper as follows:

- 47
48 I. Background
49 II. Objective of the Discussion Paper
50 III. Discussion
51 A. Settlement Process in the WESM
52 i. Normal Pricing Condition
53 ii. Trading Intervals with Pricing Errors and Market Intervention Suspension

- iii. Trading Intervals with Regional Issuance of Pricing Errors and Market Intervention Suspension
- iv. Summary of Pricing Conditions
- B. Cross-grid Power Supply Agreement
- C. Provision of Power Supply Agreements
- IV. Summary and Recommendations

The following points were raised after the presentation:

- Mr. Rosales reiterated the position that high LRTAs should not be solely equated to constraints and congestion in the HVDC and submarine cables. He stated that the physical state of submarine cables and power flow do not really affect LRTAs since cross-grid PSAs could still be in effect even when the HVDC is unavailable. He cited that there are other factors that may contribute to high LRTAs such as the entire power system being not fully modelled due to missing network data pertaining to the distribution system.

Mr. Ciprinilo C. Meneses (MERALCO) concurred that cross-grid PSAs are more financial rather than physical arrangements since electricity from the Visayas could not physically flow towards Luzon. He explained that the benefit of cross-grid PSAs lies on allowing suppliers to acquire cheaper power from a different region for its customers, regardless of the physical condition of the transmission lines and even the power plants.

However, Dr. Allan C. Nerves (Independent) remarked that nodal prices, which are used in the calculation of LRTAs, do depend on the physical conditions of the transmission lines as the market and the power system are modelled based on the physical transmission network. Therefore, one cannot say that the physical state of the transmission lines does not affect LRTAs. Dr. Nerves stated that on matters regarding LRTA, there is actually a coupling between the physical and the financial aspects of the market. He added that the point of mentioning the upgrade of the submarine cables in the paper is to merely suggest to improve the market as a whole, and may be used by NGCP as additional justification to the ERC in increasing its capital expenditures.

Noting the foregoing discussion, the RCC agreed with Mr. Yap's suggestion to revise one of the recommendations cited in the paper to state that the 'transmission network', rather than using the more specific 'submarine cables', could be upgraded to address high LRTAs. Mr. Yap also clarified that Mr. Rosales' previous comment regarding on-going and planned resiliency projects to upgrade the transmission system was already incorporated in the paper.

- On a related note, Mr. Virgilio C. Fortich, Jr. (CEBECO3) stated that there might be a need for more transparency in the calculation of LRTAs as there are times where the Distribution Utilities receive big spikes in their LRTA without being given an explanation.

Ms. Lorreto H. Rivera (TPEC) clarified that if the DUs' own suppliers do not automatically provide information on LRTAs, the Market Operator actually does provide that information by request, including reasons why there are price spikes.

- For the information of the Committee, Mr. Isidro E. Cacho, Jr. (PEMC-MO) reminded that provisions pertaining to the separate calculation of line rental was taken out of the WESM Rules since the calculation for the same is already embedded in the calculation of Total Trading Amounts.

Mr. Cacho additionally explained that, per a recent ERC ruling, the net settlement surplus, which is an externality of line congestion, is flowed back to those who paid for line loss and congestion charges on a pro-rata basis, thereby minimizing the LRTAs' impact to the consumers.

- Mr. Meneses and Ms. Cherry A. Javier (APC) commented that cases when the submarine cables were unavailable while declaration of bilateral contract quantities (BCQ) were still allowed should also be raised in the discussion paper. With this being said, it shall be evident that the market is not just a physical market but also a financial market.

There being no other matters for discussion, the RCC approved the draft RCC Discussion Paper for transmittal to the PEM Board, subject to further revisions to be incorporated in the paper, as discussed by the committee.

Agreements/Action Plans

Subject to further revisions based on the discussions, the RCC approved the draft Discussion Paper for transmittal to the PEM Board.
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4. Other Matters

4.1. Governance thrust of PEMC after Transition to Independent Market Operator Structure

Mr. Rauf A. Tan (PEMC) briefly met with the RCC to clarify his role and responsibilities as Chief Governance Officer (CGO) of PEMC in relation to the work of the Committee.

Mr. Tan explained that as CGO, he will functionally report to the PEM Board and administratively report to the PEMC President. He stated that he was tasked to oversee both

the Market Assessment Group (MAG) and the Enforcement and Compliance Office (ECO). Mr. Tan added that he would be the “go-between” between the PEM Board and the MAG and ECO, and also between the PEM Board and the Governance Committees. To answer Atty. de Castro’s inquiry regarding the extent of the CGO’s involvement with the work of the RCC, Mr. Tan remarked that he would prefer being already apprised of or be able to provide inputs during the RCC’s discussions before its outputs are submitted to the Board Review Committee and the PEM Board.

As regards the RCC Secretariat, Mr. Tan relayed that the Rules Review Division (RRD) under the MAG was formed to provide dedicated administrative and technical support to the RCC. Such support would now include conduct of studies if necessary to aid the Committee during its deliberations of proposals. He informed that, in furtherance of PEMC’s thrust to make the rules change process more pro-active, the RRD is also mandated to itself develop and initiate proposals based on its assessment of what rules changes need to be introduced.

The RCC noted the Mr. Tan’s clarifications.

4.2. NGCP-MSPs Concerns regarding DOE-approved Amendments to the WESM Manual on Metering Standards and Procedures

The Secretariat informed the RCC that the National Grid Corporation of the Philippines – Metering Services Provider (NGCP-MSP) had earlier met with the ERC and DOE on 26 July 2018 regarding its concerns on the DOE-approved amendments to the WESM Manual on Metering Standards and Procedures, where they agreed on initial ways forward.

NGCP-MSP subsequently wrote PEMC on 14 August 2018 to further seek clarifications on their issues which led to a meeting between both on 17 August 2018.

For the information of the RCC, the Secretariat relayed the agreements during the August 17 meeting, which includes among others the submission of rules change proposal to the RCC. Additional discussions are included in the table below:

NGCP Concerns	Agreements/Action Plans (Aug 17 PEMC-NGCP Meeting)	Discussions/Clarifications (Sep 07 RCC Meeting)
There needs to be guidelines regarding exemptions on the prescribed location of Metering Points	Guidelines on exemptions to be requested for approval of the ERC through GMC, as follows: Metering equipment may be installed within 500m from the market trading node if it is physically difficult, impractical or uneconomical for the same to be installed at the market trading node.	

NGCP Concerns	Agreements/Action Plans (Aug 17 PEMC-NGCP Meeting)	Discussions/Clarifications (Sep 07 RCC Meeting)
Revenue and back-up meters to have different brands is not generally accepted industry practice; existing main and back-up meters have the same make and model	<ul style="list-style-type: none"> It was clarified to NGCP that the revenue and back-up meters to have different brands is not an absolute requirement (i.e., preferred only). PEMC raised an actual previous occurrence where both main and back-up meters having the same brand and firmware failed, thus data cannot be gathered from both. To be clarified further from the Technical Committee. 	
Some specifications for Transmission Revenue Meters in Appendix L of the Metering Manual are inconsistent with the 2016 Grid Code	It was clarified with NGCP that the Metering Manual states that the specifications for the main and back-up meters must adhere to the prevailing requirements of the 2016 Grid Code.	
<p>Requirement for main meter mass memory data storage capacity:</p> <p>Metering Manual - 60 days of recording of 5-min demand interval</p> <p>Grid Code - 60 days of recording at 15-min interval</p>	Existing meters that are non-compliant with the required data retention capacity (i.e., 60 days) will just be replaced with WESM-compliant meters when they become defective or are due for replacement.	NGCP-MSP clarified that all WESM-registered main meters are already configured for 5-min intervals, but the back-up meters are still programmed to record 15-min intervals. However, the main meters can only store up to 16 days of data due to the 5-min interval configuration instead of the required 60 days.
IPP-ECA meters of PSALM may need to be exempted from the requirement for instrument transformers supplying revenue meters to be solely used for purposes of WESM revenue metering and not for any other purposes (Sec. 2.5.2).	For clarification with PSALM.	<ul style="list-style-type: none"> Mr. Abner B. Tolentino (PSALM) stated that IPP-ECA arrangements usually have two meters, the PPA meters and WESM meters. Mr. Francis S. Vicencio (NGCP-MSP) added that IPP-ECA meters are legacy meters installed pre-WESM. He relayed NGCP's recommendation to have a clause for the instrument transformers of the IPP-ECA meters to be exempted from Sec. 2.5.2.

NGCP Concerns	Agreements/Action Plans (Aug 17 PEMC-NGCP Meeting)	Discussions/Clarifications (Sep 07 RCC Meeting)
		<ul style="list-style-type: none"> Mr. Ferdinand B. Binondo (DOE) recommended NGCP-MSP to formally submit proposed amendments to the RCC.
Recommendation: If no daily meter data is received by 0800H due to external factors, the Market Operator shall consider the MSP's estimated meter data until such time the MSP is able to collect and submit the meter data.	PEMC is amenable to the NGCP's recommendation.	
The daily Meter Trouble Report is sufficient to comply with the required report on discrepancies between the monthly and daily metering data values.		
<p>Section 6.4.3 – Meter Data from Back-up Meter xxx</p> <p><i>(b) if more than four (4) intervals of main meter are missing or have invalid data, the values from the back-up meter may be directly substituted...</i></p> <p>Should be 12 intervals to be applicable for 5-min programming</p>	For submission as rules amendment.	
The Customer rather than the MSP should notify the Market Operator of occurrences of outages (pertaining to Sec. 7.2.1).	For submission as rules amendment	
The prescribed timeline of 2 business days for the MSP to submit the corrected meter data is	For submission as rules amendment	

NGCP Concerns	Agreements/Action Plans (Aug 17 PEMC-NGCP Meeting)	Discussions/Clarifications (Sep 07 RCC Meeting)
not practical as there are metering points that are geographically difficult to access. NGCP recommends 10 business days within which MSP must submit the corrected data.		
NGCP recommends that the Market Operator should prepare the certification on adjusted metering data with concurrence of the MSP and Trading Participant.	To be deliberated by PEMC.	
The network parameters required to be submitted to the Market Operator per the Market Network Model Development and Maintenance Manual ("MNM Manual") are sufficient to comply with the required submissions in Sec. 8.6.1 of the Metering Manual.	Conductor and power transformer data to be submitted by the Network Service Provider to the Market Operator is for further discussion between NGCP and the Market Operator.	Mr. Cacho sought clarification from NGCP if the suggested reduction in the network parameter data that the NSP must submit to the MO will affect the MO's calculation of Site Specific Loss Adjustment being performed for metering points not located in the connection point. Mr. Vicencio responded that the NSP/MSP's compliance with the required submissions per the MNM Manual would remove the necessity of submitting other network parameter information specified in the Metering Manual.
General concerns regarding MSP Performance Measures	NGCP was informed that PEMC's Metering Department is currently undertaking a review and revision of the MSP Performance Standards.	

The RCC noted that most of the concerns could be addressed through a rules change proposal which NGCP may itself propose to the RCC, with inputs from PEMC. The RCC also noted that technical concerns shall be referred to the Technical Committee, for their appropriate response.

4.3. PEM Board Updates

The Secretariat informed the RCC that the PEM Board during its 3rd Meeting on 30 August 2018 approved the following:

(i) endorsement to the DOE of the Proposed Amendments to the WESM Rules and Market Manuals regarding Market Surveillance, Enforcement and Compliance, as submitted by the RCC.

(ii) Re-appointment of the following RCC members:

1. Atty. Maila Lourdes G. De Castro – Independent Member (Chairperson)
2. Mr. Francisco L.R. Castro, Jr. – Independent Member
3. Dr. Allan C. Nerves – Independent Member

(iii) Appointment of the following new RCC members:

1. Ms. Cherry A. Javier – Generator Sector (Aboitiz Power Corp.)
2. Mr. Dixie Anthony R. Banzon – Generator Sector (Masinloc Power Partners Co., Ltd.)
3. Mr. Virgilio C. Fortich, Jr. – Distribution Sector (Cebu III Electric Cooperative, Inc.)

(iv) The Board Compensation Committee approved the increase in honoraria for RCC sector representatives subject to the approval of the 2019 budget.

Also, the pro-rating of honoraria for sector representatives will no longer be applied such that the member will receive the full amount of his/her monthly honorarium as long as he/she is able to attend at least one scheduled meeting in a month.



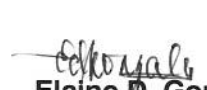
5. Next Meeting






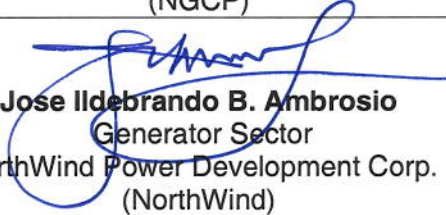



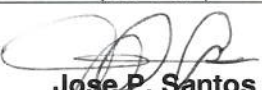

The RCC agreed to hold subsequent meetings on the following schedules:

- **05 October 2018**
- **09 November 2018**
- **07 December 2018**

6. Adjournment

There being no other matters for discussion, the meeting was adjourned at 10:59 AM.

Prepared By:	Reviewed By:	Noted By:
 Divine Gayle C. Cruz	 Geraldine A. Rodriguez	 Elaine D. Gonzales
Analyst – Market Governance Administration Unit	Assistant Manager – Market Governance Administration Unit	Manager – Market Data and Analysis Division
Market Assessment Group	Market Assessment Group	Market Assessment Group

<p>Approved by:</p> <p>RULES CHANGE COMMITTEE</p> <p> Maila Lourdes G. de Castro Chairperson Independent</p>	
<p>Members:</p>	
<p>Concepcion I. Tanglao Independent</p>	<p> Francisco L.R. Castro, Jr. Independent</p>
<p> Allan C. Nerves Independent</p>	<p>Isidro E. Cacho, Jr. Market Operator Philippine Electricity Market Corporation (PEMC)</p>
<p> Ambrocio R. Rosales System Operator National Grid Corporation of the Philippines (NGCP)</p>	<p> Abner B. Tolentino Generation Sector Power Sector Assets and Liabilities Management Corporation (PSALM)</p>
<p> Jose Ildebrando B. Ambrosio Generator Sector NorthWind Power Development Corp. (NorthWind)</p>	<p> Cherry A. Javier Generation Sector Aboitiz Power Corp. (APC)</p>
<p> Dixie Anthony R. Banzon Generation Sector Masinloc Power Partners Co. Ltd. (MPPCL)</p>	<p> Ciprinilo C. Meneses Distribution Sector (PDU) Manila Electric Company (MERALCO)</p>
<p> Jose P. Santos Distribution Sector (EC) Ilocos Norte Electric Cooperative, Inc. (INEC)</p>	<p> Virgilio C. Fortich, Jr. Distribution Sector (EC) Cebu III Electric Cooperative, Inc. (CEBECO3)</p>
<p>Lorreto H. Rivera Supply Sector TeaM (Philippines) Energy Corporation (TPEC)</p>	

SUBJECT		PROVISION ON WESM MANUAL ON METERING STANDARDS AND PROCEDURES Issue No. 12	NGCP's CLARIFICATION/ COMMENTS	DISCUSSIONS DURING 26 JULY 2018 MEETING
1	Location of Metering Points	<p>Section 2 – Metering Installation Standards</p> <p>2.2 Location of Metering Point</p> <p>The metering point shall be located at the market trading node and shall be in accordance with the WESM Rules, the Grid Code, and the Distribution Code, unless the installation of the metering equipment is physically difficult, uneconomical or not practical.</p> <p>If the metering point is not located at the market trading node, an agreed site specific loss adjustment (SSLA) shall be applied to the meter data representing the energy consumed by the Customer at that metering point for determining the quantities to be settled in the WESM.</p>	<ul style="list-style-type: none"> The WESM Manual recognizes an exemption to the requirement of the WESM Rules, PGC, and PDC pertaining to the prescribed location of the metering point if the installation of the metering equipment is physically difficult, uneconomical or not practical. <p>In this regard, NGCP would like to seek clarification on whether there is an existing guideline or protocol (reportorial/approval process) for the exemption of such metering points.</p>	<ul style="list-style-type: none"> The exemption to the requirement of the WESM Rules, PGC, and PDC pertaining to the prescribed location of the metering point shall be requested for approval of the ERC thru GMC.
2	Applicability of Equipment	<p>2.3.1 Applicability to Equipment</p> <p>This standard applies to the following metering equipment, devices and accessories:</p> <ul style="list-style-type: none"> a. Meters; b. ... h. Rigid Conduit System in accordance with the Philippine Electrical Code (PEC); i. ... k. Other components for checking the voltage and current; and l. ... 	<ul style="list-style-type: none"> NGCP is of the view that this provision provides the use of rigid steel, aluminum, or other equivalent material suitable to the location of the metering installation especially to highly corrosive environment like near geothermal plants and coastal area. NGCP would like to seek clarification on the intent of "other components"? Is it for power quality, harmonics, and the like? 	<ul style="list-style-type: none"> To be clarified by the PEMC Technical Committee. To be clarified by the PEMC Technical Committee.
3	Requirement of Back-up Revenue Meter	<p>2.4.1 Requirements for Transmission Grid Revenue Meters</p> <p>There shall be a main and a back-up revenue meter preferably of different brand (make and model). Meters installed as the main revenue</p>	<ul style="list-style-type: none"> NGCP recommends to remove the term "preferably of different brand (make and model)" as this is not a generally accepted industry practice. Interchangeability will be lost and forecasting of spare 	<ul style="list-style-type: none"> PEMC presented a scenario on a failure of main and back-up meters which have the same firm software and brand. To be clarified by the PEMC Technical Committee.



SUBJECT		PROVISION ON WESM MANUAL ON METERING STANDARDS AND PROCEDURES Issue No. 12		NGCP's CLARIFICATION/ COMMENTS		DISCUSSIONS DURING 26 JULY 2018 MEETING			
		<p><i>meter and back-up meter shall adhere to the prevailing requirements of the Philippine Grid Code.</i></p> <p>2.4.2 Requirements for Revenue Meters for Embedded Generators Registered as WESM Participants</p> <p>For Embedded Generators registered as WESM Participants, meters installed as the main revenue meter and back-up meter shall adhere to the prevailing requirements of the Philippine Grid Code.</p>		<p>requirements would be impractical and uneconomical.</p> <ul style="list-style-type: none">As to the cost implication of the back-up revenue meters, NGCP would like to highlight that with the total number of 1,270 metering points, the estimated cost of back-up meters amounts to PhP130,810,000.00 (equipment only).					
4	Specifications for Transmission Revenue Meters	<p>Appendix L</p> <p>No. of Channels</p> <p>a) Main</p> <p><i>The 8 channels are as follows:</i></p> <ol style="list-style-type: none">1. KWH (Delivered)2. KWH (Received)3. KVARH (Quadrant 1)4. KVARH (Quadrant 2)5. KVARH (Quadrant 3)6. KVARH (Quadrant 4)7. KVAH (Delivered)8. KVAH (Received) <p>b) Back-up</p> <p><i>Minimum requirements of 4 channels as follows:</i></p> <ol style="list-style-type: none">1. KWH (Delivered)2. KWH (Received)3. KVARH (Quadrant 1)4. KVARH (Quadrant 2)		<p>NGCP recommends to validate these channels with Chapter GRM 9.2.3.3 of the PGC 2016 Edition.</p> <p>Chapter 9.2.3.3 of the PGC 2016 Edition provides the following:</p> <table><tr><td>Minimum measured parameters recorded in the Load Profile Memory as interval data</td><td><ul style="list-style-type: none">• Date and Time• kWh Delivered• kVARh Delivered• kWh Received• kVARh Received• kW Delivered• Phase Voltages and Currents with angles</td></tr></table>		Minimum measured parameters recorded in the Load Profile Memory as interval data	<ul style="list-style-type: none">• Date and Time• kWh Delivered• kVARh Delivered• kWh Received• kVARh Received• kW Delivered• Phase Voltages and Currents with angles	<ul style="list-style-type: none">▪ It shall be harmonized with the PGC 2016 Edition.▪ To be clarified by the PEMC Technical Committee.	
Minimum measured parameters recorded in the Load Profile Memory as interval data	<ul style="list-style-type: none">• Date and Time• kWh Delivered• kVARh Delivered• kWh Received• kVARh Received• kW Delivered• Phase Voltages and Currents with angles								

SUBJECT		PROVISION ON WESM MANUAL ON METERING STANDARDS AND PROCEDURES Issue No. 12		NGCP's CLARIFICATION/ COMMENTS	DISCUSSIONS DURING 26 JULY 2018 MEETING			
5	Specifications for Transmission Revenue Meters	Appendix L Mass Memory a. Main Meter Minimum 60 days recording of a 5-minute time-stamped demand interval for 8 recording channels b. Back-up Meter Same as main meter		<ul style="list-style-type: none">NGCP recommends to validate this requirement with Chapter GRM 9.2.3.3 of the PGC 2016 Edition. <p>Chapter 9.2.3.3 of the PGC 2016 Edition provides a minimum load profile data storage capacity of 60 days at 15-minute intervals.</p> <table><tr><td>Minimum profile storage capacity</td><td>Load data</td><td>60 days at 15-minute interval</td></tr></table> <ul style="list-style-type: none">NGCP would like to seek clarification on whether the enclosure refers to meter cover or meter box. <p>The PGC 2016 Edition provides the specific requirement for meter security enclosure (meter box) under Chapter GRM 9.2.2.4.</p> <p>No provision in the PGC 2016 Edition for the specific requirements for meter cover. NGCP recommends for a Minimum Ingress Protection Rating of IP51 or NEMA 3.</p>	Minimum profile storage capacity	Load data	60 days at 15-minute interval	<ul style="list-style-type: none">The Mass Memory requirement (minimum of 60 days recording on a 5-minute interval) for the Revenue Meters will be applicable to the new installations only.The existing revenue meters will be replaced only if it is defective or due for replacement.
Minimum profile storage capacity	Load data	60 days at 15-minute interval						
6	Specifications for Transmission Revenue Meters	Appendix L Enclosure a. Main Meter Minimum requirements Indoor: Protected against dust limited ingress (no harmful deposit) and Protection against vertically falling drops of water e.g. condensation Outdoor: Totally protected against dust and Protection against vertically falling drops of water e.g. condensation b. Back-up Meter Same as main meter		<ul style="list-style-type: none">NGCP recommends an exemption clause for MPs affected by IPP-ECA contracts with PSALM because this has existing contracts and may take time to resolve. Another option is to allow registration of these IPP-ECA meters to comply with this clause. There are around thirty-two (32) MPs with shared IPP-ECA meters.	<ul style="list-style-type: none">It shall be harmonized with the PGC 2016 Edition.To be clarified by the PEMC Technical Committee.			
7	Use of Instrument Transformers	2.5 Instrument Transformers 2.5.2 Use of Instrument Transformers Instrument transformer supplying the revenue meter shall be used solely for the purposes of Instrument transformers supplying the revenue meter shall be used solely for the purposes of revenue metering and not for any other purposes, including, but not limited to, the attachment of other devices.			<ul style="list-style-type: none">For clarification with PSALM as regards to their WESM compliance.			

SUBJECT		PROVISION ON WESM MANUAL ON METERING STANDARDS AND PROCEDURES Issue No. 12	NGCP's CLARIFICATION/ COMMENTS	DISCUSSIONS DURING 26 JULY 2018 MEETING
8	Selection of Current Transformer Ratios	<p><i>The following schemes shall not be allowed:</i></p> <p>a. <i>The use of an instrument transformer for meters other than the registered WESM Meters; and</i></p> <p>b. <i>Paralleling of current transformers.</i></p> <p>2.5.3 Instrument Transformer Ratios</p> <p>2.5.3.1 Selection of Current Transformer Ratios</p> <p>Current transformer ratios shall be selected according to the following factors:</p> <p>a. <i>The maximum sustained primary current in a current transformer shall not exceed the primary tap multiplied by the primary factor of the current transformer, and ...</i></p>	<ul style="list-style-type: none"> NGCP would like to seek clarification on whether the primary factor refers to rating factor. <p>Rating factor is the commonly used in the international standards.</p>	<ul style="list-style-type: none"> To be clarified by the PEMC Technical Committee.
9	Other Requirements Relating to Accuracy	<p>2.5.4 Accuracy Requirements</p> <p>2.5.4.4 Other Requirements Relating to Accuracy</p> <p>Where accuracy tests are required, they shall comply with the following requirements:</p> <p>a. Tests shall be carried by a third-party agency using equipment traceable to International Standards.</p> <p>b.</p>	<ul style="list-style-type: none"> NGCP would like to seek clarification on whether the accuracy test being referred to pertains to the periodic test or to the referee test. <p>✓ If it refers to periodic testing, the MSP shall conduct the testing per PGC 2016 Edition.</p> <p>✓ If it refers to referee test, then, it shall be conducted by the ERC based on PGC 2016 Edition.</p>	<ul style="list-style-type: none"> To be clarified by the PEMC Technical Committee.
10	General Requirements for Grounding System	<p>2.5.6. General Requirements for Grounding System</p> <p>2.5.6.1. The installation shall be in accordance but not limited to the following provisions of the Philippine Electrical Code:</p> <p>f. <i>The minimum size of copper conductor to be used for metering grounding shall be 8 mm².</i></p>	<ul style="list-style-type: none"> NGCP would like to seek clarification on whether the meter grounding refers to grounding of instrument transformer or secondary wiring for the revenue meters. 	<ul style="list-style-type: none"> To be clarified by the PEMC Technical Committee.

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11	<p>Redundant Metering Installation</p> <p>2.10 Redundant Metering Installation</p> <p><i>2.10.3 The metering data recorded by the main and back-up meters must not deviate by more than 0.6% of the monthly average values recorded by the meters for 3 consecutive billing periods.</i></p>	<ul style="list-style-type: none"> NGCP would like to seek clarification on whether the deviation refers to the main and back-up meter or the deviation of the meter current data against their historical meter data recordings. 	<ul style="list-style-type: none"> The deviation refers to the main and back-up meter.
12	<p>Metering Installation – Existing</p> <p><i>An existing Metering Installation that does not fully comply with the requirement of this standard will be permitted by the Market Operator to remain in service subject to the following conditions:</i></p> <p>a. <i>The meter shall have a mass memory capable of recording the 5-minute required demand interval data for a period of at least 60 days and have communication ports for remote and manual data retrieval;</i></p> <p>b. ...</p> <p>c. <i>All non-compliant meters shall be replaced within six (6) months from the effectivity of registration in the WESM. All non-compliant instrument transformers shall be replaced within the period of two (2) years from the effectivity of registration in the WESM.</i></p> <p><i>Continued non-compliance of metering installations shall be subject to sanctions or penalties.</i></p>	<ul style="list-style-type: none"> NGCP is of the position that the six (6) month-requirement for NGCP to replace all non-compliant meters is no longer applicable for those non-compliant meters that have been registered to the WESM prior to the effectivity of the amended Manual. NGCP suggests a three (3)-year period for it to replace the non-compliant meters. NGCP has requested derogation request to the GMC requesting for a 10-year period to install compliant Instrument Transformers. The remaining value of the non-compliant metering facilities subject of replacement must still be recovered by the MSP. 	<ul style="list-style-type: none"> For non-compliant revenue meters, same as item 5. For the non-compliant instrument transformer, a compliance plan shall be submitted to DOE if the required two (2) years is not achievable. The submitted compliance plan may be presented to the external auditors of PEMC.
13	<p>Site Equipment Identification (SEIN)</p> <p>Section 3 – Site Equipment Identification Number (SEIN)</p> <p>3.2 General Procedures</p>	<ul style="list-style-type: none"> NGCP is of the position that the assignment of the SEIN for embedded generators and load customers must be the WMSP. 	<ul style="list-style-type: none"> PEMC will assign the SEIN for embedded generators with have DUs that act as their MSP.

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		<i>The assignment of the Site Equipment Identification Number (SEIN) shall be done by the Metering Service Provider. For embedded generators and load customers to be registered in the WESM, the responsibility to assign the SEIN is with the Market Operator.</i>		
14	Collection and Submission Procedure	<p>Section 5 – Metering Data Collection</p> <p>5.3 Collection and Submission Procedure</p> <p>5.3.1 Requirements</p> <p>a. Data The metering data shall contain the following:</p> <p>i. ... ii. The meter data in kWh (Active Energy), kvarh (reactive energy), voltage per phase and current per phase in their assigned channel iii. ... vii. Resolution (every 15 minute)</p>	<ul style="list-style-type: none"> ▪ This provision applies to daily meter data delivery only. ▪ With the planned implementation of the 5-minute interval program, necessary changes shall be reflected accordingly. Resolution (every 5 and/or 15 minute). 	<ul style="list-style-type: none"> ▪ To be clarified by the PEMC Technical Committee.
15		<p>5.3.2 Daily Process</p> <p>d. In the event that no metering data was received by 0800H, the Market Operator shall immediately call the Metering Services Provider to resend the data through the same method.</p>	<ul style="list-style-type: none"> ▪ NGCP is of the view that if no meter data received by 0800H due to external factors, MO shall consider the estimated meter data of the affected Metering Point/s until such time that MSP collected the meter data remotely/manually submitted by MSP. However, MO shall inform the affected customer of the temporary estimation made 	
16	Provision of Monthly	5.3.3 Monthly Process	<ul style="list-style-type: none"> ▪ NGCP is of the view that the daily MTR is sufficient to comply with the required 	



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	preliminary data	a. <i>Not later than three (3) business days after the end of the billing period, the Metering Services Provider shall submit, via a compact disk, monthly preliminary metering data of all metering points of its associated Trading Participants. In addition, Metering Services Provider shall submit a transmittal letter that includes a tabulation of all associated metering points and their corresponding total metered quantity for the billing period. The Metering Services Provider shall also report to the Market Operator all discrepancies between the monthly metering data and the daily metering data values with justifications for the discrepancies.</i>	report on discrepancies between the monthly and daily metering data values.	
17	Meter Data Estimation and Editing	<p>Section 6 – Data Validation, Estimation and Editing</p> <p>6.4. VEE – Essential Indicators</p> <p>6.4.3 Meter Data Estimation and Editing</p> <p>6.4.3.1 <i>When validation indicates that the data from the main meter are missing or have an invalid data, the values shall be estimated and substituted by the Metering Services Provider for Settlement purposes.</i></p> <p><i>The following shall be hierarchy of methods to be used by the Metering Services Provider for meter data estimation and editing:</i></p> <p>a. ...</p> <p>b. <i>Meter Data from Back-up Meter</i></p> <p><i>If more than four (4) intervals of main meter are missing or have invalid data, the</i></p>	<ul style="list-style-type: none"> NGCP is of the view that the requirement is only applicable to the 15-minute programming. With the planned implementation of the 5-minute programming, the four (4) intervals of main meter shall now become 12 intervals. 	<ul style="list-style-type: none"> PEMC confirmed that the provision for Section 6.4.3.1 (b) is applicable only to 15-minute interval. The values from the back-up meter may directly be substituted if the missing or invalid data is in span of one (1) hour or twelve (12) intervals for 5-minute program.

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		values from the back-up meter may directly be substituted to the main meter provided that the data passed the validation based on the checks performed on Section 6.3.1.2. If the average deviation between the main and back-up meter is greater than 0.2% but not to exceed 0.6%, a correction factor shall be applied.		
18	Collection and Submission Procedure Improving Efficiency in resolving MTRs	<p>Section 7 – Meter Trouble Report</p> <p>7.2 Initiation</p> <p>7.2.1 Improving Efficiency in Resolving MTRs</p> <p>In case of outages, a Trading Participant and/or its Metering Services Provider shall notify the Market Operator within 24 hours after its occurrence. Trading Participants may use the Metering Outages Form to notify their Metering Services Provider and the Market Operator of any outages that may affect the metering data. The Metering Services Provider will use this information to resolve MTRs that have been issued. A sample of the form and instructions for completion may be found in the Appendices.</p>	<ul style="list-style-type: none"> NGCP is of the view that the Trading Participant is responsible to notify the Market Operator during its outages within 24 hours after occurrence <p>7.2.1. Improving Efficiency in Resolving MTRs</p> <p>In case of outages, a Trading Participant and/or its Metering Services Provider shall notify the Market Operator and Metering Service Provider within 24 hours after its occurrence.</p>	
19	Timeline	<p>7.3 Issuance</p> <p>7.3.1 Timeline</p> <p>Upon receipt of the Meter Trouble Report, the Metering Services Provider shall submit the correct metering data to the Market Operator within two (2) business days.</p>	<ul style="list-style-type: none"> NGCP is of the view that the two (2) business days is not practical in submitting the corrected meter data considering the geographical location of the MPs especially in the Visayas and Mindanao if onsite meter data retrieval is required. Ten (10) business days is reasonable. 	
20	Certification	<p>7.3.2 Unresolved Meter Trouble Reports</p> <ul style="list-style-type: none"> Certification 	<ul style="list-style-type: none"> NGCP is of the view that, to be consistent with 7.3.2.a. Estimation, the Certification 	

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		<i>The Metering Services Provider shall provide a certification on the adjusted metering data showing the agreement of all affected parties and the Market Operator.</i>	on the adjusted metering data should be prepared by the MO with concurrence of the MSP and TP.	
21	Roles and Responsibilities	<p>Section 8 – Site-Specific Loss Adjustment 8.6 Roles and Responsibilities 8.6.1 Network Service Provider</p> <p><i>The Network Service Provider shall submit to the Market Operator every six months all significant conductor and power transformer data between the metering point and the market trading node and as often as it implements significant changes in the actual physical configuration of the conductor and power transformer between the metering point and the market trading node.</i></p> <p>a. Conductor Data</p> <ul style="list-style-type: none"> i. Conductor size ii. Conductor Type iii. Number of conductors per circuit iv. Line Length (km) v. Line Voltage vi. Line Configuration <p>b. Power Transformer Data</p> <ul style="list-style-type: none"> i. Rated kVA ii. Core Loss (Open Circuit Test result) iii. Full-load Copper Loss (Short-Circuit Test result) iv. Percent Impedance (% Z) v. x/r ratio 	<ul style="list-style-type: none"> ▪ NGCP is of the view that the submission of the network parameters as required in the Market Network Model Development and Maintenance is sufficient enough to comply with this requirement. ▪ The network parameters to be submitted by the NSP should be harmonized to the requirements set in WESM Manual and Market Network Model Development and Maintenance 	<ul style="list-style-type: none"> ▪ The required information of the Market Operator is the same with following requested data indicated its recent letter to NGCP: <ul style="list-style-type: none"> ✓ Resistance (R) ✓ Reactance (X) ✓ Susceptance (b)
22	Performance Measures	<p>Section 9 – Metering Services Provider Performance Measurement</p> <p>9.4 Performance Measures</p> <p>9.4.1 Service Delivery</p>	<ul style="list-style-type: none"> ▪ NGCP is of the view that the metering point on shutdown or suspended should not be included in the total number of registered metering installations. ▪ NGCP is of the view that MPs with TELCO network problem should not be 	

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	<p>9.4.1.1 Data Meter Data Delivery</p> <p><i>Daily Meter Data Delivery or Meter Retrieval Success is the ratio of number of metering installation successfully communicated to the total number of registered metering installations. Required average daily result shall be greater than or equal to 95% as reported.</i></p> <p>9.4.1.2 Integrity of Metering Data</p> <p><i>Integrity of Metering Data is the valid meter data that passed the validation process as set forth by WESM. This measures the ratio of the number of metering installations for which the data passes the validation process to the total number of metering installation successfully retrieved (communicated). Required average daily result shall be greater than or equal to 95% as reported.</i></p> <p>9.4.1.4 Timeliness and Percentage Resolution to the Monthly Meter Trouble Report</p> <p><i>The MTR issued (for each metering installation) based on the submitted monthly compact disc containing all meter data for the billing period shall be resolved and corrected within 2 business days. Required result shall be greater than or equal to 90% as reported.</i></p>	<p>considered in the computation, since this is beyond the control of the MSP.</p> <ul style="list-style-type: none"> NGCP is of the view that the estimation of daily meter data of affected MPs of external factors should be considered as temporary meter data until such time that the prevailing condition has been resolved. NGCP suggests to consider the submission of data through File Transfer Protocol (FTP) 	
23 Requirement on Distribution Utilities that act as Metering		<ul style="list-style-type: none"> NGCP suggest that other MSP should secure a Certificate of Authority as WMSP in accordance with ERC Resolution No. 28, Series of 2006. 	<ul style="list-style-type: none"> PEMC confirms that there are default MSPs for FIT generators that have no 'Certificate of Authority'.

