

PROJECT BRIEF

Joint Conduct of 7th Market Operations Audit and 4th Review of Metering Installations & Arrangements

PEM Audit Committee

November 2019

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1. REQUIREMENT

The Philippine Electricity Market Corporation (PEMC) is seeking to engage the services of a third-party expert to conduct the following:

- 1.1. Independent audit of the:
 - a. Wholesale Electricity Spot Market (WESM) operations and the Market Operator;
 - b. Retail Competition and Open Access (RCOA) and the Central Registration Body (CRB); and
 - c. PEMC's Market Monitoring, Assessment and Compliance Monitoring
- 1.2. Review of metering installations and arrangements; and
- 1.3. Market operations maturity assessment, in reference to applicable maturity assessment model/s.

2. BACKGROUND

2.1. The WESM

2.1.1. The Electric Power Industry Reform Act of 2001 (EPIRA) mandates the establishment of the Wholesale Electricity Spot Market (WESM) that will facilitate a competitive market environment in the Philippine electricity industry. Pursuant to the EPIRA, the Department of Energy (DOE) and the electric power industry participants are mandated to jointly formulate the detailed rules governing the operations of the WESM. On 28 June 2002, the DOE, upon the joint endorsement of the electric power industry participants, promulgated the WESM Rules through DOE Department Circular No. 2002-06-003.

2.1.2. Section 30 of the EPIRA provides, among others, that the Department of Energy (DOE) will constitute an autonomous group, with equitable representation from electric power industry participants, to act as the Market Operator. On November 2003, the DOE constituted the Philippine Electricity Market Corporation (PEMC), a non-stock and non-profit organization, to operate the WESM. After several months of trial operations, the WESM commercial operations commenced in Luzon on 26 June 2006. Four years into the commercial operations in Luzon, the Visayas grid was integrated into the WESM and commenced commercial operations on 26 December 2010.

2.1.3. On 18 January 2018, DOE issued the Department Circular No. 2018-1-0002 which endorses and sets out the guidelines on the transition to an independent market operator. PEMC thereafter entered into an Operating Agreement with the Independent Market Operator of the Philippines last 19 September 2019 which details the transfer of the market operator functions to the Independent Market Operator of the Philippines (IEMOP). IEMOP assumed the market operations

functions of the WESM on 26 September 2018. PEMC retains its role as the WESM governing entity. For purposes hereof, IEMOP shall be hereinafter alternatively referred to as “Market Operator”.

- 2.1.4. Governed by the WESM Rules, the WESM is a venue for trading electricity as a commodity. It serves as a clearing house to reflect the economic value of electricity as indicated by the spot price. The WESM uses the concept of a gross pool where all electricity output of the generators is centrally coordinated for scheduling and dispatch. Generators, as well as buyers of bulk electricity, compete for a share of this pool to be dispatched and scheduled to meet the electricity demand in real time. The members of the WESM include Generation Companies, Customers, Trading Participants, Network Service Providers, and Metering Services Providers.
- 2.1.5. With respect to policy and regulatory oversight over the WESM, such functions are carried out by the DOE and the Energy Regulatory Commission (ERC). The functions of the DOE involve the formulation of the country's overall energy policy, the development and improvement of the WESM design, as well as the promulgation of the WESM Rules and Manuals, including changes thereto.
- 2.1.6. On the other hand, the ERC enforces the provisions of the EPIRA and its implementing rules and regulations, and have investigative and quasi-judicial powers over any market participant for violations of the EPIRA, its implementing rules and regulations, and the WESM Rules. The ERC also approves, among others, the market fees being collected by the market operator from the market participants to recover the cost of administering and operating the WESM.

2.2. Retail Competition and Open Access (RCOA)

- 2.2.1. Section 31 of the EPIRA mandates the implementation of RCOA not later than three (3) years upon the effectivity of the law. Following the certification by the ERC that the conditions for the implementation of RCOA as stated in the EPIRA have already been met, the RCOA operations started commercially on 26 June 2013.
- 2.2.2. Subsequently, the DOE issued Department Circular No. 2013-01-0002 promulgating the Retail Rules for the Integration of RCOA in the WESM (Retail Rules). The PEMC was designated as the Central Registration Body (CRB) and settlement agent for the RCOA implementation by virtue of DOE Department Circular No. 2012-02-0002 upon the recommendation of the RCOA Steering Committee,¹ which is headed by the DOE and composed of key industry players. Thereafter, DOE issued its Department Circular No. 2019-07-011² dated 29 July 2019 which designated the

¹ RCOA Steering Committee Resolution No. 2012-02 dated 02 January 2012.

² “Amending Various Issuances on the Implementation of the Retail Competition and Open Access”.

independent market operator as the CRB, thus amending provisions of Department Circular No. 2013-01-0002 designating PEMC as the CRB.³

- 2.2.3. Upon assuming market operations on 26 September 2018, the IEMOP likewise assumed the functions of the CRB for the RCOA.

2.3. Metering Services in the WESM and RCOA

- 2.3.1. A Metering Service Provider (MSP) is defined by the WESM Rules to be “a person or entity authorized by the ERC to provide metering services and registered with the Market Operator in that capacity”, in accordance with Clause 2.3.6 of the WESM Rules. Currently, the National Grid Corporation of the Philippines (NGCP) is the “Wholesale Electricity Spot Market Metering Services Provider” pursuant to the authorization issued by the ERC on 23 May 2011, as well as MSP for Directly Connected Contestable Customers.
- 2.3.2. Under Section 4.6 (i) of the “Guidelines on the Collection of the Feed-in Tariff Allowance (FIT-All) and Disbursement of the FIT-All Fund” , the Distribution Utilities (DUs) shall provide metering service to Eligible RE Plants connecting to the distribution system in accordance with the metering service agreement entered into with the Eligible RE Plant.
- 2.3.3. As regards retail competition and open access, Clause 4.2.1 of the Retail Rules provides that the default Retail MSP shall be the Distribution Utility (DU) with respect to the Contestable Customers within its franchise area. Other than the DUs, all other Retail MSPs shall register with the WESM and the CRB in accordance with Section 2 of the Retail Rules before being allowed to provide metering services for RCOA settlement purposes.

2.4. Basis for the Audit

- 2.4.1. The PEM Board established the PEM Audit Committee under the WESM Rules, which is mandated, on its own or through appointment of external auditors, to conduct, coordinate and supervise effective and independent audits of the operations of the market and of the Market Operator in order to reinforce Trading Participants’ confidence in the transparency and adequacy WESM operations. This mandate is provided under Clause 1.5 of the WESM Rules, as amended, and under Section 3.1 of the PEM Audit Market Manual.
- 2.4.2. For the review of metering installations and arrangements, Clause 4.5.5.4 of the WESM Rules provides that the PEM Audit Committee, in consultation with PEMC and MSPs, shall review the security arrangements and requirement of metering

³ See Section 3 of DOE Circular No. 2019---07-011.

installations. This requirement is further detailed in Section 11 of the PEM Audit Market Manual.

- 2.4.3. Further, Clause 4.8 of the Retail Rules likewise requires the PEM Audit Committee to conduct review and audit of the metering arrangements and compliance of the Retail MSPs and the CRB annually or for such other period as determined by the PEM Board.
- 2.4.4. Further, under the PEM Audit Market Manual Section 11.4.1, the PEM Auditor, supported by the Technical Committee, is tasked to conduct an audit regarding the following:
 - a) Compliance with requirements of metering installations;
 - b) Compliance with security arrangements associated to metering systems and processes; and
 - c) Adequacy of security arrangements by the Market Operator and work procedures by MSPs.
- 2.4.5. Under Retail Rules 1.4.3, the PEM Audit Committee is mandated to conduct the audit of the CRB and the systems, processes and procedures and other matters relevant to its operations and the performance of its functions as set forth in the Retail Rules and test and check any new items or new versions of market-related software used or provided by it for use by WESM members.
- 2.4.6. To ensure sufficient and adequate expertise, the services of independent persons, teams or companies, who shall act as the External Auditor, will be engaged for the said audit, in accordance with Section 3.2.2 of the PEM Audit Manual.

2.5. Objective of the Audit

- 2.5.1. **Independent audit of WESM/RCOA operations and Market Operator/CRB** - the general objectives of the audit are to:
 - a) Review and assess adequacy of the procedures and working processes of the Market Operator/CRB;
 - b) Review and assess the usefulness and appropriateness of settlement systems and data management used by the Market Operator/CRB to administer the WESM/RCOA;
 - c) Review and assess the usefulness and appropriateness of the interfaces and exchange of information of the Market Operator with the System Operator (SO), Metering Service Provider (MSP) and other service providers in relation to generation scheduling, constraints, dispatch, prices and settlement, metering and registration through the Central Registration and Settlement System (CRSS);

- d) Review and assess the compliance of the Market Operator/CRB with the WESM Rules, Retail Rules and Market Manuals;
- e) Review and assess the appropriateness of actions taken by the Market Operator and MSPs to address previous audit findings;
- f) Identify room for improvement in the current systems and processes with the view to enhance the competitive level of the WESM and the RCOA; and
- g) Review and assess Market Operator's performance in line with standards established by the DOE and recommend improvements in the said standards.

2.5.2. Review of Metering Installations & Arrangements - the general objectives of the RMIA are to:

- a) Assess the adequacy of the metering standards, security systems, procedures and working processes in the WESM/RCOA;
- b) Confirm that the metering arrangements and installations comply with the WESM Rules, Retail Rules, associated Market Manuals and other directives from ERC and DOE
- c) Identify and report any possible non-compliance;
- d) Recommend best practices of MSPs ;
- e) Review and assess the appropriateness of actions taken by the MSPs to address previous audit findings.

2.5.3. Review of Market Monitoring and Assessment, and Compliance Monitoring – the general objectives are to:

- a) Review and assess adequacy of the procedures and working processes used by PEMC in market monitoring and assessment, Market Operator performance monitoring, and trading participant compliance monitoring; and
- b) Review and assess the usefulness and appropriateness of systems and data management used by PEMC.

2.5.4. Market Maturity Assessment – the general objective is to provide a holistic review of market operations and metering installations and arrangements.

2.6. Applicable Rules

The following shall guide the External Auditor in the conduct of the audit:

- 1) WESM Rules and its Market Manuals;
- 2) Retail Rules and its Market Manuals;
- 3) ERC Guidelines for the Issuance of Certificate of Authority for WESM Metering Service Providers;
- 4) Philippine Grid Code;
- 5) Philippine Distribution Code;

- 6) Philippine Electrical Code;
- 7) Market Operations Performance Standards approved by the DOE; and
- 8) Relevant Circulars, Orders and other Issuances or directives of the DOE and ERC.

3. AUDIT SCOPE

3.1. Period Covered

This audit shall cover market operations, metering activities and transactions for the period 26 June 2016 to 25 December 2019, as applicable:

Scope of Work	Tasks
Market Operations Audit	Task 1.1 – Market Software and Systems Review Task 1.2.1 – Process and Compliance Review for Current Market Design Task 1.3 – Bid-to-Bill Analysis
Review of Metering Installations & Arrangements	All tasks
Market Monitoring and Assessment and Market Operator performance monitoring	Task 3.1 Procedures/Process and Compliance Review (for current market design)

3.2. Parties to be Audited

- 3.2.1. Market Operator/CRB for WESM operations and RCOA;
- 3.2.2. PEMC for market monitoring and assessment, compliance monitoring and Market Operator performance monitoring; and
- 3.2.3. All MSPs and Market Operator/CRB for the metering review.

3.3. Scope of Work

3.3.1. Market Operations Audit

Task 1.1 – Market Software and Systems Review

This task shall cover the review of the market impacting significant changes to the market operations systems, tools and programs introduced during the covered period under the current market design. This task shall also include review of the reliability of communication link and interfaces of the Market Operator with the SO, MSP and other

service providers in relation to registration, generation scheduling, constraints, dispatch, prices and settlement, and metering.

Task 1.2 – Process and Compliance Review

Task 1.2.1 Current Market Design

This task includes the following:

- a) Review the Market Operator's compliance with its obligations in the WESM Rules, Retail Rules, Market Manuals, relevant Circulars, Orders and other Issuances of the DOE and ERC and existing Internal Business Procedure (IBP);
- b) Review consistency of Market Operator's current IBP with the WESM Rules, Retail Rules, Market Manuals, relevant Circulars, Orders and other Issuances of the DOE and ERC.

Task 1.2.2 Enhanced WESM Design

This task includes review of the consistency of Market Operator's IBPs with the WESM Rules, Retail Rules, Market Manuals, relevant Circulars, Orders and other Issuances of the DOE and ERC amended for the Enhanced WESM Design and Operations.

Task 1.3 – Bid-to-Bill Analysis

This task includes the conduct of chronological testing of the market processes from the trading participants' registration, submission of offers up to invoicing and payment by the Market Operator. The number of sample trading intervals shall be agreed upon by the PEM Audit Committee and the External Auditor.

This task shall likewise include other relevant Market Operator activities that are covered by the specific requirements under the WESM Rules, Manuals and other relevant Protocols, such as participant suspension and de-registration, market suspension, intervention, pricing error and price substitution methodology (PSM) for congestion.

3.3.2. Review of Metering Installations & Arrangements

Task 2.1 – Procedures/Process and Compliance Review

- a) Assess the compliance of the WESM and RCOA Metering Service Providers ("MSPs") with its obligations under the applicable rules;
- b) Assess the consistency of MSP's IBPs with the WESM Rules, Retail Rules and relevant Market Manuals;
- c) Review the adequacy of and assess the compliance of the MSPs with its documented internal procedures/protocols, including but not limited to, the

processes for meter data collection/retrieval of data, secured metered quantity and its daily and monthly transmission to the Market Operator/CRB, specifically for manual retrieval of meter data in times remote communication failure. In the absence of internal procedures, recommend necessary procedures;

- d) Check the availability of recovery plan and procedures in case of erased or corrupted metering data and of an off-site data storage location;
- e) Assess the adequacy and conformance of MSPs with the applicable rules and standards for preventive maintenance performed on metering equipment, including completeness of maintenance programs, test results and sealing records;
- f) Check the timeliness of the MSPs in addressing Meter Trouble Reports (MTRs) and verify the causes of MTRs and corrective actions taken;
- g) Check the availability of information dissemination to the Market Operator during meter trouble;
- h) Assess the adequacy of metering data adjustment process and variables with respect to the metering installation's physical configuration in relation to Task 2.3 (b);
- i) Review the validity and completeness of meter test results conducted during the metering review period;
- j) Review the MSP's compliance with the testing schedules to be conducted on metering components in accordance with the applicable Rules and Manuals; and
- k) Review and assess the adequacy of actions undertaken by the Market Operator-MBSD and MSPs to address previous metering audit findings.

Task 2.2 – Review of Systems Used by Metering Service Providers

- a) Assess the reliability of the meter communication links and interfaces to the meter data collection system of MSPs ;
- b) Review the availability, accuracy and reliability of software, tools and programs used by MSPs in meter data collection, processing and database (e. g. MV-90);
- c) Assess the reliability of communication link and interfaces between MSPs and the Market Operator;
- d) Check the availability of back-up systems in the event of power failures as well as the Business Continuity Plan (BCP) and Disaster Recovery Plan (DRP);
- e) Assess the adequacy of remote monitoring facilities of the MSP to alert the Market Operator of any failure of any components of the metering installation including a review of the Incident, Problem and Change Management process;
- f) Check the adequacy of physical and logical access security of metering data held in metering installations and metering database; and
- g) Review the adequacy of the Availability Plan and Capacity Plan of the metering infrastructure.

Task 2.3 – Review of Metering Installations (On-site Inspection)

The on-site inspection will cover the Luzon and Visayas registered metering sites. The sample metering sites shall be determined pursuant to the PEM Audit Manual and will be deliberated upon by the PEM Audit Committee with the support of the Technical Committee. The review of metering installations will include, but not limited to the following:

- a) Assessment of whether the design, technical specifications, operation, maintenance, safety and security of the metering installations comply to the standards set forth in the applicable Rules and Manuals;
- b) Determination of the appropriateness of the revenue metering and market trading node location;
- c) Assessment of NGCP's compliance with DOE Department Circular No. DC2016-05-0007⁴ in connection to ERC Resolution No. 23 Series of 2016⁵ specifically on the relocation of metering facilities and installation or Remote Terminal Unit (RTU) at the prescribed connection point;
- d) Check MSP's compliance program on the upgrading of the contestable customer's metering installation for the implementation of the 5-minute dispatch interval in the WESM and RCOA (DOE Department Circular No. DC2018-04-0009⁶);
- e) Check on the consistency of metering installation components with the corresponding Metering Installation Registration Form (MIRF) and applicable Notice of Metering Equipment Replacement (NMER);
- f) Check on the availability of spare parts (e.g. meters, Current Transformers and Potential Transformers) in case of defective metering installations that needs immediate replacement;
- g) Check on the availability of check meters for main revenue meters, if deemed applicable;
- h) Conduct thermal scanning to determine the loose and/or hotspot connection; and
- i) Provide best practice recommendations based on other competitive electricity markets in relation to the tasks mentioned above.

3.3.3. Market Monitoring and Assessment, and Compliance Monitoring Review

Task 3.1 Procedures/Process and Compliance Review

- a) Review PEMC's working processes and procedures for the market monitoring and assessment, for both current and enhanced WESM

⁴ "Providing Policies for Further Improvements of the Operations and Metering Installations of the Metering Services Providers (MSPs) in the Wholesale Electricity Spot Market (WESM) and RCOA"

⁵ "A Resolution Adopting Amended Rules on the Definition and Boundaries of Connection Assets for Customers of Transmission Providers"

⁶ "Adopting Further Amendments to the Retail Rules and its Market Manual on Metering Standards and Procedures for the Implementation of Enhancements to WESM Design And Operations"

design, to ensure consistency with the WESM Rules, Retail Rules, Market Manuals, relevant Circulars, Orders and other Issuances of the DOE and ERC;

- b) Validate the Market Operator Performance Standards (MOPS) Report approved during the audit period;

Task 3.2 Software Certification Audit of PEMC systems intended for the enhanced WESM design

a) Market Assessment System (MAS). MAS is an in-house developed system being used by the PEMC-Market Assessment Group for the collection, validation and processing of market monitoring data, and calculation of monitoring indices.

b) Compliance Post Evaluation Monitoring Systems (CPEMS). CPEMS is intended to complement the New Management Market System – Compliance Monitoring Module (NMMS-CMON), which flags concerned Trading Participants' probable breach of the Dispatch Conformance Standards (DCS) and Offered Capacity Compliance Standards (OCCS), in accordance with the WESM Rules and relevant WESM Manuals. The CPEMS shall provide a tool wherein the concerned Trading Participants will be able to seamlessly submit reasons and supporting documents for the flagged probable breach by the NMMS-CMON. This system is also projected to be used for assessing the said probable breach by taking into consideration all the relevant market data from other related systems.

3.3.4. Market Maturity Assessment

Task 4 – Review of Market Maturity

The External Auditor shall provide a holistic review of market operations and metering installations and arrangements for the covered period and provide assessment of the market operations maturity, in reference to applicable maturity assessment model/s.

3.3.5. Exclusion

The following areas shall be excluded in the scope of work:

- a) Market Governance process;
- b) Legal process;
- c) Design and development of systems and programs; and
- d) Budget and planning.

Further, the work papers of the Auditor of the Market Operator for ISO 27001 and ISO 9001 surveillance, cannot be made available to the External Auditor. Hence, the External Auditor shall formulate its own audit approach to review the information security posture of the Market Operator.

3.4. Materiality

- 3.4.1. The materiality levels for the tests of transactions and significant findings shall be set and disclosed by the External Auditor, for comments of the party to be audited and subject to review and approval of the Audit-TWG and the PEM Audit Committee.
- 3.4.2. Upon the discretion of the External Auditor and review of the PEM Audit Committee and Audit-TWG, another threshold may be adopted for the reporting of significant issues identified during the course of the review, although it is recognized that there may be qualitative aspects in determining the significance of any issue. That is, the External Auditor shall report and evaluate the impact of the issues that come to its attention that exceed this significant issues threshold, or that it believes to be significant for other reasons.

4. PROPOSED ARRANGEMENTS

4.1. Project Schedule

- 4.1.1. The audit is expected to commence upon receipt of the Notice to Proceed issued by the PEM Audit Committee through PEMC. It is deemed completed upon the issuance of the Certificate of Acceptance by the PEM Audit Committee.
- 4.1.2. Below are the details of the activities to be conducted for the completion of the project with the corresponding tentative schedules.

	Activity	Tentative Schedule
1	Consultation and/or Coordination Meetings with the Parties to be audited	February 2020
2	Submission of Inception Report and Start of the Audit (including site visit)	February 2020
3	Submission of Draft Audit Reports and Software Certificates	September 2020

	Activity	Tentative Schedule
1	Consultation and/or Coordination Meetings with the Parties to be audited	February 2020
4	Submission of Final Audit Reports and Software Certificates	October 2020
5	Reporting to the PEM Board and other relevant agencies as may be required	November 2020
6	Meetings with the , Audit TWG , PEM Audit Committee and/or concerned process owners	As needed

4.2. Deliverables

4.2.1. The External Auditor shall submit two (2) copies each of the original and soft copy files of the reports which include the following:

- a) Inception Report – It shall contain the External Auditor’s Audit Plan, Methodology and Work Program. This shall confirm the audit scope and outline the audit approach, including the audit process, schedule of proposed client interaction during the duration of audit work, among others, which shall be finalized together with the External Auditor, PEM Audit Committee and Audit-TWG, in consultation with the parties to be audited.

The External Auditor shall also conduct a workshop on the audit process and audit approach.

- b) Progress Report – It shall highlight the status and relevant developments of the audit activities.

The Progress Report shall provide the following:

- i. Initial findings for the period covered by the Progress Report, including the recommendation and the target date that the responsible audited party will address the finding;
 - ii. Updates on the initial findings reported in the prior Progress Report; and
 - iii. Status of Audit Activities.
- c) Significant Issues Report – It shall include findings that have material impact to the market and/or findings that need to be addressed immediately, if any. The Auditor shall provide best practice recommendations based on other competitive electricity markets to address the significant issue.
- d) Draft Audit Report – It shall contain the details of the findings, recommendations and action plans with corresponding timetables, the details of which shall be discussed

by the External Auditor with the PEM Audit Committee, Audit-TWG, concerned auditees and other relevant entities as determined by the PEM Audit Committee.

Before the Draft Audit Report is finalized, the External Auditor would give the concerned process owners the opportunity to comment on the draft audit report and meet with the External Auditor to discuss the findings, if necessary.

- e) Final Audit Reports – A final report for each of the work areas shall be submitted, containing the following:
 - i. Audit methodology;
 - ii. Main findings, including, but not limited to audit results of the specific tasks conducted under the scope of work; and identified non-compliance to the WESM and Retail Rules and Manuals and other applicable rules including the level of materiality as set by the Auditor.
 - iii. Recommendations, such as possible ways to improve the WESM and RCOA Rules, operating procedures, control objectives, specific controls, practices and processes in order to address non-compliance or provide best practices; and

- f) Software Certificates – Limited to Task 3.2 Software Certification Audit of PEMC Systems intended for the Enhanced WESM design, the External Auditor shall issue Audit Certificate/s, which will confirm that CPEMS and MAS are compliant with the WESM/RCOA Rules and Manuals.

Two (2) hard copies of the final audit report and software certificates shall be submitted by the External Auditor together with the soft copy.

4.2.2. The External Auditor shall present its findings to the PEM Audit Committee, PEM Board, ERC and DOE. The Final Report will be made available to the PEM Audit Committee, PEM Board, ERC, DOE and to the audited parties, as deemed appropriate by the PEM Audit Committee.

4.2.3. The table below provides for the tentative schedule for the submission of the above-mentioned reports and reporting:

	Deliverables	Tentative Schedule
1	Inception Report	Within 20 calendar days from the receipt date of the Notice to Proceed
2	Progress Reports	Every month from the receipt date of the Notice to Proceed
3	Significant Issues Report/s	As needed
4	Draft Audit Report including Software Certificates	September 2020
5	Final Audit Report including Software Certificates	October 2020

	Deliverables	Tentative Schedule
6	Reporting to PEM Board, and if requested, to ERC and DOE	November 2020

4.3. Qualifications of External Auditor/ External Auditor Team Members

- 4.3.1. The External Auditor’s Audit Team shall be composed of competent audit professionals that have adequate experience and capability of understanding the business, information technology (IT), controls and processes that are adopted by similar electricity markets which are applicable to the WESM.
- 4.3.2. The team shall have the following qualifications:
- a) The Team Leader shall have project management skills;
 - b) The members of the Audit Team shall include, but are not limited to, the following:
 - i. Audit expert (operations and financial);
 - ii. Information and communications technology expert;
 - iii. Electricity market operations expert;
 - iv. Regulatory expert (Legal, Finance, Economics);
 - v. Metering Audit expert (operations, processes and controls); and
 - vi. Metering Services expert.
 - c) At least one of the members of the External Audit Team shall have one of the following qualifications, or their equivalent:
 - i. Certified Information Systems Auditor (CISA);
 - ii. Certified Information Systems Security Professional (CISSP);
 - iii. ISO 27001 Auditor Certification for Information Security Management Systems (ISMS);
 - iv. Certified Internal Auditor (CIA); or
 - v. Licensed Electrical Engineer with at least five (5) years of experience in revenue metering;
 - vi. Level 1 Certified Thermographer.
 - d) The External Auditor and its team should not be currently engaged to conduct operational and/or financial audit of the Market Operator and MSPs from the time of the submission of Letter of Interest. They should not be also currently working for, engaged or affiliated with any Metering Service Provider company and meter facilities manufacturing and supply company. This is to ensure independence in the review results, findings and recommendations;
 - e) An External Auditor is currently engaged when it has an on-going project being undertaken. If the audit has already been completed, it should have been closed out at the time of the submission of Letter of Interest. A certificate of acceptance or its equivalent issued by its previous client should be submitted as proof that its engagement/project has been formally concluded;

- f) The project is open for local and foreign auditing firms. Joint venture partnership is allowed.

4.4. Interface between the External Auditor, the Parties to be Audited and PEMC

- 4.4.1. The External Auditor shall report to the PEM Audit Committee for the duration of the audit.
- 4.4.2. All activities of the External Auditor shall be accordingly coordinated with the PEM Audit Committee, through the PEMC-Market Assessment Group (MAG). The MAG shall provide linkages between the External Auditor and the, Audit-TWG, the Market Operator, Trading Participants, and MSPs. It shall extend all reasonable support to the External Auditor for the duration of its services, which support shall include, among others:
- 1) Facilitate technical assistance of Market Operator and MSP Personnel;
 - 2) Provide necessary office space, internet access, access pass, etc.;
 - 3) Facilitate access to all data and information for the implementation of the audit, including the access to the use of Market Operator software; and
 - 4) Arrange meetings with the PAC, Audit-TWG, and other relevant groups or personnel of PEMC, Market Operator and MSPs to discuss issues and concerns pertaining to the conduct of the review.

4.5. Confidentiality Undertaking of the External Auditor

- 4.5.1. **Definition.** As used herein, “Confidential Information” shall refer to all information supplied by or in behalf of PEMC, orally or in writing (electronically or in print) by the PEMC or any of its representatives in connection with the Project, including without limitation, any information relating to the Project or PEMC, together with any analyses, compilations, notes, summaries, studies or other documents or materials prepared, developed, derived, discovered or collated by or on behalf of the THIRD PARTY AUDITOR or its representatives which contain or otherwise reflect such information.

Without limiting the generality of the foregoing, Confidential Information shall further include information provided by PEMC to THIRD PARTY AUDITOR that:

- a) is marked confidential;
- b) if disclosed orally or not marked confidential, is identified prior to its disclosure as confidential information, and is confirmed confidential information in a signed writing by PEMC promptly thereafter; or
- c) contains PEMC’s market participant lists, information and account information such as but not limited to information regarding business

planning and business operations and administrative, financial, or marketing activities; provided:

- i. PEMC treats such information as confidential; or
 - ii. such information can be reasonably considered as confidential information based upon the nature of the information and the business of PEMC; or
- d) without designation or limitation, is related to the Project.

For avoidance of doubt, Confidential Information shall include this Agreement and the fact that discussions or negotiations regarding the Project are taking or have taken place between the Parties.

4.5.2. **Ownership.** All rights, title and interest in the Confidential Information and materials are and shall remain the sole property of PEMC. By disclosing, publishing, or disseminating information to the THIRD PARTY AUDITOR, and by permitting the use of materials by the THIRD PARTY AUDITOR, PEMC does not grant any express or implied right to the THIRD PARTY AUDITOR to use PEMC's patents, copyrights, trademarks or Confidential Information or materials.

4.5.3. **Non-Disclosure.** In consideration of PEMC's disclosure of Confidential Information to the THIRD PARTY AUDITOR, the THIRD PARTY AUDITOR agrees that it shall:

- a) treat all Confidential Information as strictly confidential;
- b) not disclose or use any Confidential Information except for the sole purpose of performing the Services and not to gain commercial advantage over PEMC;
- c) protect all Confidential Information, whether in storage or in use, with the same degree of care as the THIRD PARTY AUDITOR uses to protect its own Confidential Information against public disclosure, but in no case with less than reasonable care and shall not take copies (whether electronic or otherwise) of any Confidential Information;
- d) disclose Confidential Information only to such officers, directors, employees, agents and attorneys (collectively "Representatives") of the THIRD PARTY AUDITOR who need to know such Confidential Information, provided such Representatives are informed of the confidential nature of such Confidential Information and the terms of this Agreement prior to disclosure and provided further that the THIRD PARTY AUDITOR shall be responsible in the event of such Representative's breach of this Agreement as if the THIRD PARTY AUDITOR had committed such breach;
- e) not photocopy, reproduce, or electronically multiply, without PEMC's prior written consent, except when disclosure is made to the THIRD PARTY AUDITOR's Representatives or Affiliate as defined herein or when such disclosure is required as provided herein; and
- f) not reverse engineer any such Confidential Information.

Except upon mutual written agreement, or as may be required by law, neither Party to this Agreement shall in any way or in any form disclose the existence of the Project, the discussions that gave rise to this Agreement or the fact that there have been, or will be, discussions or negotiations covered by this Agreement. The THIRD PARTY AUDITOR will notify PEMC in writing promptly upon the occurrence of any unauthorized release of Confidential Information or breach of this Agreement of which it is aware.

- 4.5.4. **Return.** The THIRD PARTY AUDITOR shall, at its own expense and without need of notice, deliver to PEMC within ten (10) days following the termination or expiration of this Agreement, all documents and all other materials, in whatever form, containing or reflecting any Confidential Information, together with any copies thereof. The THIRD PARTY AUDITOR shall, upon the request of PEMC, destroy such Confidential Information and provide PEMC with a sworn statement attesting to such destruction. The THIRD PARTY AUDITOR acknowledges that neither the return of any Confidential Information nor the destruction of the same will release the THIRD PARTY AUDITOR from his obligations under this Agreement.
- 4.5.5. **Term.** Confidentiality shall be maintained for the duration of this engagement and in perpetuity even after the termination or expiration of this Agreement.

4.6. Data Privacy

- 4.6.1. The THIRD PARTY AUDITOR acknowledges and agrees that, in the course of providing the Services, it may receive or have access to Personal Information of PEMC's directors, officers, employees, market participants, governance committee members and authorized representatives. As used in this Agreement, "*Personal Information*" shall have the meaning ascribed to it under Republic Act No. 10173, and its implementing rules and regulations, as may be amended from time to time (the "*Data Privacy Act*").
- 4.6.2. The THIRD PARTY AUDITOR represents and warrants that its collection, access, use, storage, disposal, and disclosure of any Personal Information shall at all times comply with the Data Privacy Act and all other applicable data privacy and data protection laws and regulations. The THIRD PARTY AUDITOR shall also comply with the terms and conditions set forth in this Agreement in its collection, receipt, transmission, storage, disposal, use, and disclosure of Personal Information.
- 4.6.3. In the event that the THIRD PARTY AUDITOR will act as a Personal Information Processor, the THIRD PARTY AUDITOR shall:

- a) Process the personal data, including transfers of personal data to another country or an international organization, only upon the documented instructions of PEMC;
- b) Ensure that an obligation of confidentiality is imposed on persons authorized to process the personal data;
- c) Implement appropriate security measures and comply with the Data Privacy Act and other relevant issuances of the National Privacy Commission (“NPC”);
- d) Not engage another Personal Information Processor without prior instruction from PEMC: Provided, that for any such arrangement authorized by PEMC, the THIRD PARTY AUDITOR shall ensure that the same obligations for data protection under this Agreement are implemented, taking into account the nature of the processing;
- e) Assist PEMC, by appropriate technical and organizational measures and to the extent possible, fulfil the obligation to respond to requests by data subjects relative to the exercise of their rights;
- f) Assist PEMC in ensuring compliance with the Data Privacy Act, other relevant laws, and other issuances of the NPC, taking into account the nature of processing and the information available to the THIRD PARTY AUDITOR;
- g) At the option of PEMC, delete or return all personal data to PEMC after the end of the provision of services relating to the processing: Provided, that this shall include deleting existing copies unless storage is authorized by the Data Privacy Act or other relevant laws;
- h) Make available to PEMC all information necessary to demonstrate compliance with the obligations laid down in the Data Privacy Act, and allow for and contribute to audits, including inspections, conducted by PEMC or another auditor mandated by the latter; and
- i) Immediately inform PEMC if, in its opinion, an instruction infringes the Data Privacy Act, or any other applicable issuance of the NPC.

5. ELIGIBILITY REQUIREMENTS FOR SHORTLISTING

5.1. Required Documents

5.1.1. The following eligibility documents shall be submitted together with the Letter of Interest on or before the target date of submission as stated in the Request for Expression of Interest.

- a) Legal Documents
 - i. Registration Certificate from Securities and Exchange Commission (SEC) and other entities authorized to issue registration certificates; and
 - ii. Current Mayor’s permit issued by the city or municipality where the principal place of business of the prospective bidder is located.

In the case of foreign prospective bidders, equivalent proof of such registration and permit issued in the foreign country must be submitted.

b) Technical Documents

- i. Company Profile or brief description of the organization;
- ii. List of ongoing and completed projects or engagements relative to market operations audits, metering review or similar audits within five (5) years from the date of the publication of Request for Expression of Interest. Proof of satisfactory completion issued by the client, in case of completed contracts must be attached;
- iii. Outline of completed projects or engagements of the Principal Auditor and its partner firms on projects of similar nature at least within five (5) years from the date of the publication of Request for Expression of Interest. Description of the involvement of the Principal Auditor and its partner firm for every project must be stated;
- iv. List of available resources (number of staff and their expertise, relevant software, etc.);
- v. Valid Joint Venture Agreement (JVA), in case a joint venture is already in existence. In the absence of a JVA, duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of JVA in the instance that the bid is successful. The joint venture partner must also submit and comply with the eligibility requirements;
- vi. Sworn statement regarding the required disclosure as stated in the Conflict of Interest Clause; and
- vii. Certificate of Acceptance or its equivalent as described in Section 4.3.2 d) and e)

c) Financial Documents

- i. The Bidder's Audited Financial Statements (AFS), showing among others, the Bidder's total and current assets and liabilities for the preceding calendar year; and
- ii. Latest income tax return bearing stamp or proof of receipt by the BIR or its equivalent document issued in the foreign country.

5.2. Submission Requirements

- 5.2.1. The eligibility requirements to be submitted to the PEM Audit Committee must be in English. A translation of the documents in English certified by the appropriate embassy or consulate in the Philippines must accompany the eligibility requirements if they are in other foreign languages.
- 5.2.2. Prospective bidders shall prepare an original and three (3) copies of the eligibility documents, printed/copied in A4 plain paper. Soft copies of these documents in portable document format (.pdf) must also be submitted in CD/DVD. In the event of any discrepancy between the original, copies (soft and hard), the original shall prevail.

- 5.2.3. All envelopes shall contain the specific identification of the Project: Joint Conduct of the 7th Market Operations Audit and 4th Review of Metering Installations and Arrangements.
- 5.2.4. Prospective bidders shall enclose copies of the eligibility documents described above in three (3) separate sealed envelopes, labeled as “LEGAL DOCUMENTS”, “TECHNICAL DOCUMENTS” and “FINANCIAL DOCUMENTS”. The CD/DVD containing the soft copies of the eligibility documents should also be labeled as such. The envelopes shall be marked as “ORIGINAL” or “COPY 1 of ___” as appropriate.
- 5.2.5. All envelopes shall contain the name, address and contact number of the prospective bidder, and it should be addressed to:
- OSCAR E. ALA**
President, Philippine Electricity Market Corporation
18th Floor, Robinsons Equitable Tower
ADB Avenue, Ortigas Center
1600 Pasig City, Philippines
- Attention: **FELIXBERTO U. BUSTOS, JR.**
Chairman, PEM Audit Committee
- 5.2.6. Eligibility documents must be received by the PEM Audit Committee at the address stated in the preceding paragraph on or before the date and time indicated in the Request for Expression of Interest.
- 5.2.7. Prospective bidders shall submit their eligibility documents through their duly authorized representative on or before the deadline specified in the Request for Expression of Interest.
- 5.2.8. The authorized representative shall affix his/her initial on all pages of all original and copies of the eligibility documents.
- 5.2.9. Submission of digital copies of the required documents is allowed, provided that the Bidder submits the original copies thereof within the required period of the PEM Audit Committee.
- 5.2.10. The proposed format for the submission of the Letter of Interest is as follows:

(Company Letter Head)

Letter of Interest

(Date)

Oscar E. Ala

President
Philippine Electricity Market Corporation
18/F Robinsons Equitable Tower
ADB Avenue, Ortigas Center
1600 Pasig City, Philippines

Attention: FELIXBERTO U. BUSTOS, JR.
Chairperson, PEM Audit Committee

Dear **Pres. Ala**:

We refer to the competitive selection process being conducted by the Philippine Electricity Market Corporation (PEMC)/PEM Audit Committee (PAC) in connection with the Joint 7th Market Operations Audit and the 4th Review of Metering Installations and Arrangements.

The [NAME OF INTERESTED PARTY/COMPANY] hereby confirms its interest to participate in the process, and accordingly submits the following documents for consideration:

1. xxx
 2. xxx
 3. xxx
- xxx

The [NAME OF INTERESTED PARTY/COMPANY] hereby understands the criteria to be considered in the selection process as stated in the Request for the Expression of Interest and agrees to be bound and fully abide by the decisions and directives of the PEMC/PAC.

Very truly yours,

For and on behalf of [NAME OF INTERESTED PARTY/COMPANY]

Signature of Authorized Representative
Name of Authorized Representative
Designation

5.3. Modification and Withdrawal

- 5.3.1. The prospective bidder may modify its eligibility documents after it has been submitted; provided that the modification is received prior to the deadline of submission.
- 5.3.2. A prospective bidder may, through a letter of withdrawal, withdraw its eligibility documents after it has been submitted, provided that the letter of withdrawal is received by the PEM Audit Committee prior to the deadline prescribed for the submission and receipt of eligibility documents.

6. CONFLICT OF INTEREST

- 6.1. The Bidders (including its personnel and subcontractors) and any subsidiaries or entities controlled by such Bidder cannot be recruited to carry out a project that, by its nature, shall result in conflict with a prior or current project of such Auditor.
- 6.2. Bidders shall not be related to the PEM Board, members of the PEM Audit Committee, and the Technical Working Group, by consanguinity or affinity up to the third civil degree. The prohibition shall apply as follows:
 1. If the Bidder is an individual or sole proprietorship, then to himself;
 2. If the Bidder is a partnership, then to all its officers and members;
 3. If the Bidder is a corporation, then to all its officers, directors and controlling stockholders; or
 4. If the Bidder is a JV, the provisions of items (a), (b), or (c) of this Section shall correspondingly apply to each of the members of the said joint venture, as may be appropriate.

Relationship of the nature described above or a failure to comply with the provisions of this clause will result in the rejection of the Bidder's bid.

- 6.3. A Bidder is also considered to have a conflict of interest in any of, but not limited to the events described as follows:
 1. If the Bidder has controlling share with other bidders and or with any of the WESM participants;
 2. If the Bidder has the same authorized representative as that of another bidder for purposes of this Project;
 3. If the Bidder participated as Consultant or resource person in the preparation of other bidder's proposal; or
 4. Any other similar circumstance that would influence the decision of the PEM Audit Committee and the Technical Working Group in relation to the bidding process.

- 6.4. Bidders have the obligation to disclose any situation or actual or potential conflict that would affect their capacity to serve the best interest of Philippine Electricity Market Corporation. Failure by a Bidder to fully disclose a potential conflict of interest at the time of eligibility requirement submission, or at a later date in the event that the potential conflict arises after such date, shall result in the cancellation of service contract.

- 6.5. The Bidder or its duly authorized representative shall submit a sworn statement regarding the required disclosure.