

PEM Audit Committee 2012 Annual Report

February 2013

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I. MEMBERSHIP

The membership of the PEM Audit Committee (“PAC”) for the year 2012 is as follows:

- PEM Auditor and Chairman : Felixberto U. Bustos, Jr.
- Members : Eduardo Alejandro A. Santos
: Christian M. Orias

The Market Assessment Group (“MAG”) provides technical and administrative secretariat support to the PAC.

II. RESPONSIBILITIES

The main role and responsibilities of the PEM Auditor and the PAC are set out in the WESM Rules and the WESM Manual on PEM Audit (“Audit Manual”).

The main responsibilities are:

- To conduct annual audits of the Market Operator and the settlement system and any other procedures, persons, systems or other matters relevant to the spot market;
- To test and check any new items or versions of software provided by the Market Operator for use by WESM members;
- To review any procedures and practices which are covered by the WESM Rules at the direction of the PEM Board;
- To recommend changes to the WESM Rules where the PEM Auditor detects deficiencies as a consequence of an audit, review, test, check or other form of review; and
- To publish on the market information website the results of any findings and recommendations under WESM Rule 1.5.1.

III. 2012 ACTION PLAN

The activities of the committee for 2012 are as follows:

1. Regular reporting to the PEM Board;
2. Metering Arrangements Review (“AP2012-01”);
3. 3rd Operational Audit of the Systems and Procedures on Market Operations (“AP2012-02”); and
4. Conduct of regular meetings.

IV. 2012 ACCOMPLISHMENTS**A. Regular Reporting to the PEM Board****1. Annual Report for 2011**

The PAC submitted to the Board its accomplishments for the year 2011 and Action Plan for 2012 on 24 April 2012.

2. Updates regarding Audit Activities

Starting January 2012 to August 2012, the PAC presented during the monthly PEM Board meetings updates on the following matters:

- External Auditor selection process for the Metering Arrangements Review ("AP2012-01"); and
- Updates on the implementation of the 3rd Annual Market Operations Audit ("AP2012-02").

3. Audit Assessment Reports

The PAC submitted three (3) Audit Assessment Reports ("AAR") to the PEM Board for the year 2012 in accordance with Section 3.7.8 of the Audit Manual. The said report provides the following:

- A list of the audits in process and the stage of each audit still not finalized;
- A summarized description of the scope, main findings and recommendations of the audits, assessment and reviews finalized during the month;
- The developments and implementation of the audit recommendations; and
- Any recommendation that may arise from the experiences in audit procedures established in the Manual or otherwise observed.

B. 3rd Independent Operational Audit of the Systems and Procedures on Market Operations (AP2012-02)

During the PEM Board's 63rd Meeting on 11 October 2011, the PEM Board approved the PAC's recommendation to negotiate the engagement of PA as the External Auditor for the annual market operations audit for the next three (3) years, authorized the PAC, WESM Audit TWG and the PEMC President to negotiate the contract with PA, and authorized the PEMC President to sign the contract.¹

¹ PEM Board Resolution 2011-61

In accordance with the said PEM Board approval, the PAC chaired negotiation meetings among the DOE, PEMC and PA on 06 and 08 December 2011 until 8-10 February 2012. to discuss the next annual market operations audits. As a way forward, the PEMC and PA drafted a Framework Agreement, which would cover the general terms and conditions, and the Statement of Work that set out the detailed objectives, activities, etc. of the market audit. The said framework agreement and statement of work were signed by the PEMC President and PA Director in counterparty on 12 March 2012, after which, the 3rd MO Audit commenced on 09 July 2012.

In accordance with the Statement of Work, the External Auditor reviewed and assessed the processes of the market management systems, market models, software, billing and settlement system from the submission of generation offers/bids up to the dispatching, and publication of market information under the WESM Rules for the period 26 June 2011-25 June 2012. Considering that this is the 3rd MO Audit, the PA focused on key changes and developments since the 2011 audit.

The 3rd MO Audit officially concluded following the submission of PA of its final version of the audit reports and software certificates on 12 December 2012 and the acceptance of the same by the PAC, WESM Audit Technical Working Group (TWG) and PEMC on 27 December 2012. The PA reports and certificates provide the details of the audit scope, their audit methodology, findings and recommendations. On the other hand, the PAC report provides the audit objectives and details of the audit project activities, from the preparation, commencement and PEMC's action plans in response to the audit results.

Copies of the said reports shall be submitted to the DOE and the Energy Regulatory Commission ("ERC") and shall be published in the WESM Website (www.wesm.ph). More detailed audit reports will be submitted to the DOE and ERC and will be made available to the Market Participants upon their request.

C. Monitoring and Assessment of PEMC Action Plans addressing Market Audit Findings and Recommendations

As a continuing activity, the PAC, through the MAG, monitors the progress of PEMC's action plans addressing the market operations audit findings and recommendations. In 2012, the PAC reviewed three (3) audit action plan monitoring reports submitted by PEMC. The key activities of said action plan form part of the Audit Assessment Report , which is submitted by the PAC to the PEM Board.

Currently, the MAG is finalizing the audit action plan monitoring report to include the findings and recommendations raised during the 3rd Market Operations Audit conducted by PA Consulting.

D. Metering Arrangements Review ("AP2012-01")

After a series of meetings and discussions with all concerned, the PAC supported by the Department of Energy (DOE) and the Energy Regulatory Commission (ERC) finally gained headway in fulfilling its mandate to review the metering arrangements in the WESM by securing the cooperation and the commitment of relevant parties to the said review. As a testament to this commitment, PEMC and National Grid Corporation of the Philippines (NGCP), subject auditees in the Metering Arrangement Review, through their respective heads, PEMC President Melinda L. Ocampo and NGCP President Henry Sy, signed a Memorandum of Agreement (MOA) on 23 March 2012. The said MOA outlined both firms' respective responsibilities and accountabilities for the conduct of the First Annual Metering Arrangement Review.

To support this undertaking, the DOE, through Department Order dated 3 March 3, 2012, constituted a Metering Arrangements Review- Technical Working Group (TWG), composed of members from National Transmission Corporation (TransCo), PEMC, Distribution Management Corporation (DMC) and Grid Management Corporation (GMC). The TWG is tasked to assist the PAC during the entire duration of the review.

Following the approval of the PEM Board of the External Auditor selection process for the said review on 27 February 2012, the PAC kicked-off with the bidding process on 01 March 2012. After a successful competitive bidding, the service contract was awarded to Isla Lipana Co. (a PricewaterhouseCoopers- PwC member firm) in partnership with Intelligent Energy System (IES) and Alliance of Power and Energy Xponents Inc. (APEX, Philippines) on 17 July 2012.

This review, which started on 23 July 2012, assesses the adequacy of the metering standards and security systems and processes in the WESM and confirm that the actual metering arrangements comply with the WESM Rules and associated manuals and relevant provisions of the Philippine Grid Code (PGC) taking into consideration actual performance in relation to matters which include but are not limited to: timeliness in addressing Meter Trouble Reports (MTRs); adequacy and conformance to good utility practice of preventive maintenance performed on metering equipment, including completeness of maintenance programs, test results and sealing records; availability and reliability of the meter communication links and interfaces to the meter data collection of system of MSP; adequacy of the process used by the Market Operator in estimating and editing of meter data; reliability of communication link and interfaces between MSP and Market Operator; and security of meter data during transmission and receipt between the MO and MSP.

Pursuant to the PEM Audit Manual Section 11.4.2., the External Auditor selected a sample of metering sites, where at least thirty percent (30%) of corresponded to the metering points with largest volume within the WESM, where metering errors or inadequacy can create the biggest impact and volume error in the WESM. Following this provision, a total of 216 metering sites in Luzon and Visayas were physically inspected by the External Auditors

This audit project is on its final stage and is expected to conclude by 1st Quarter of 2013.

E. Meetings

The PAC conducted 24 meetings, four (4) Regular, 18 Special, two (2) of which were meetings with ERC, during the year to deliberate on audit projects and other activities in relation to its responsibilities under the WESM Rules.

In addition, PAC together with the PA presented the 2nd market audit findings and recommendations to the ERC on 03 October 2012 in relation to PEMC's 2012 market fees application.

V. 2013 ACTION PLAN

1. Submission of the 2012 PAC Report to the PEM Board;
2. Submission of the PAC Report on the 3rd MO Audit;
3. Submission of the PAC Report for the Evaluation of the External Auditors for the 3rd MO Audit Audit;
4. Continuation of the Metering Arrangements Review ("AP2012-01");
5. Submission of Monitoring Reports for the Metering Review and 3rd MO Audit;
6. 4th Operational Audit of the Systems and Procedures on Market Operations;
7. Review of the PEM Audit Manual;
8. Conduct of 2nd Metering Arrangements Review; and
9. Conduct of regular and special meetings.

The detailed PAC 2013 Work Plan is provided in Attachment B.

Submitted By:

PEM AUDIT COMMITTEE

(signed)

Felixberto U. Bustos, Jr.
Chairperson / PEM Auditor

(signed)

Eduardo Alejandro O. Santos
Member

(signed)

Christian M. Orias
Member

Annex A: PAC Membership Profile

Felixberto U. Bustos, Jr., DBA, CFA, FRM

1st Term : 27 April 2007 to 26 April 2010²

2nd Term: 01 July 2010 to 30 June 2013³

Chairman/PEM Auditor since 13 February 2008⁴

Dr. Bustos is the President of the National Home Mortgage Finance Corporation (NHMFC), a government shelter agency. Prior his appointment in the NHMFC in January 2012, he was an Independent Board Director and Chair of the Board Audit Committee (BAC) of PEMC, and Managing Director of the Credit Rating and Investors Services Philippines, Inc. (CRISP). He is a Professorial Lecturer at the University of the Philippines, an Adjunct Professor (and former Full Professor) at the Asian Institute of Management. He finished his Bachelor's Degree in Chemical Engineering and Doctorate in Business Administration Major in Business Economics at the University of the Philippines; and Master in Business Administration Major in Accounting and Finance at the Columbia University. He was a Certified Public Accountant (CPA) in New York and is currently a Chartered Financial Analyst (CFA) and Financial Risk Manager (FRM), both of which are globally recognized finance credentials. He gained his expertise in banking, finance, audit and risk management in his work experiences with the government, the private sector, socio-civic memberships and the academe.


Christian M. Orias, MS, PMP, CMQ-OE, CSSBB, ITILv3

01 September 2011 to 31 August 2014⁵

Mr. Orias is a quality management practitioner, project management professional and management consultant. He is concurrently an Associate Management Consultant at Neville Clarke Philippines and Digileaf Philippines. He previously worked at Intel Corporation, Hewlett Packard Company and Oracle Corporation. He finished his Bachelor's Degree in Electrical Engineering and Master's Degree in Management Engineering at the University of Santo Tomas; and is currently taking up his Doctorate in Industrial Engineering at the De La Salle University. He is a certified professional of the Project Management Institute (PMI), American Society for Quality (ASQ) through which he became a Six Sigma Black Belt and Manager of Quality/Organizational Excellence, and EXIN International (Examinations Institute) in Information Technology Infrastructure Library version 3 (ITILver3) which are globally recognized institutes and standards.

² PEMC Board Resolution No. 2007-18

³ PEMC Board Resolution No. 2010-40

⁴ PEMC Board Resolution No. 2008-03

⁵ PEM Board Resolution 2011-51



Eduardo Alejandro O. Santos

01 September 2011 to 31 August 2014⁷

Mr. Santos is an Information and Communications Technology (ICT) Specialist with a wide range of experience in information technology in different areas of government. He is the Director of the Case Management Service at the Office of the Solicitor General. He used to work abroad with the United Nations Development Programme (UNDP) at the Lao People's Democratic Republic and Ministry of Agriculture in Bhutan. Locally, he previously worked at the Office of the Government Corporate Counsel (OGCC), and the Philippine Council for Agriculture, Forestry and Natural Resources R&D (PCARRD). He finished his Bachelor's Degree in Forestry at the University of the Philippines Los Baños and Master's Degree in Geographic Information Systems for Rural Applications at the International Institute for Aerospace Survey and Earth Sciences in the Netherlands.

Annex B: PAC 2013 Work Plan

Item	Activity	Target Date of Submission	Deliverable	Remarks
1.	Submission of the PAC Report on the 3rd Market Operations Audit	February 2013	Report	
2.	Submission of the PAC Report on the Evaluation of the 3rd Market Operations Auditors	February 2013	Report (with recommendations for the conduct of the next audit)	.
3.	Submission of the PAC Annual Report	1Q 2013	Report	
4.	Finalization of the Metering Arrangements Review	1Q 2013	Report	<ul style="list-style-type: none"> Carried-over activity from 2012 PAC Work Plan
5.	Review of the PEM Audit Manual	2Q 2013	Revised Manual	<ul style="list-style-type: none"> Carried-over activity from the 2012 PAC Work Plan. PEM Board deferred the previously submitted proposed rules change of PAC.
6.	4th Market Operations Audit	4Q 2013	Report on the audit conducted	<ul style="list-style-type: none"> covered period 26June 2012-25June 2013 The scope of the audit will be further discussed with PEMC/auditees.
7.	2nd Metering Arrangements Audit	No target date yet	Conduct of the audit	<ul style="list-style-type: none"> The actual scope and conduct of the next audit will be dependent of the

Item	Activity	Target Date of Submission	Deliverable	Remarks
				result of the 1st metering review and in coordination with MSP, PEMC, ERC, TRANSCO and trading participants.
8.	Monitoring of Market Operations Audit Action Plan	Regular activity		
9.	Submission of Monthly Audit Assessment Report	Monthly	Report	• Continuing activity
10.	Monitoring of metering arrangements review findings (for PEMC)	Regular activity (quarterly)	Report	• Continuing activity
11.	Conduct of Regular Meetings	Regular activity (quarterly)	-	•