

PEM Audit Committee
2013 Annual Report

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I. MEMBERSHIP

The membership of the PEM Audit Committee ("PAC") for the year 2013 is as follows:

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

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

II. RESPONSIBILITIES

The responsibilities of the PAC are set out in the WESM Rules and the WESM Manual on PEM Audit ("Audit Manual"), which include the following:

- Conduct annual audits of the Market Operator, settlement system and any other procedures, persons, systems or other matters relevant to the spot market;
- Test and check any new items or versions of software provided by the Market Operator for use by WESM members;
- Review any procedures and practices which are covered by the WESM Rules at the direction of the PEM Board
- Review the metering installations and security arrangements annually;
- 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
- Publish on the market information website the results of any findings and recommendations under WESM Rule 1.5.1.

III. 2013 ACTION PLAN

The activities of the PAC for 2013 are as follows:

1. Submission of PAC Reports;
2. Metering Arrangements Review ("AP2012-01");
3. 3rd Operational Audit of the Systems and Procedures on Market Operations ("AP2012-01");
4. 4th Operational Audit of the Systems and Procedures on Market Operations ("AP2013-01");
5. Monitoring of PEMC's implementation of the audit action plan; and
6. Conduct of regular meetings.

IV. 2013 ACCOMPLISHMENTS**A. Submission of PAC Reports**

In accordance with the PEM Audit Manual, the PAC submitted to the Board, for information, the following reports:

- i. PAC 2012 Annual Report submitted on 20 February 2013**
 - This provides the summary of accomplished activities of the PAC in 2012 and its work plan for 2013.
- ii. PAC 3rd Market Operations Audit Summary Report submitted on 19 February 2013**
 - This provides the objectives, scope and results of the Independent Operational Audit of the Systems and Procedures on Market Operations (3rd MO Audit) covering the period 26 June 2011 to 25 June 2012 (AP2012-02) conducted by PA Consulting Services Ltd. (PA) of New Zealand.
- iii. PAC Post-Audit Evaluation Report submitted on 19 February 2013**
 - The report summarizes the results of the evaluation exercise conducted by PAC to determine whether the PA conducted the audit in an efficient, organized and professional manner. After a favorable assessment provided by the PAC and auditees (select PEMC employees), the PAC recommended the engagement of PA as the External Auditor for the 4th Market Operations Audit.
- iv. 1st Metering Arrangements Review Report submitted on 12 April 2013**
 - The PAC transmitted to the Board the final report on the 1st Metering Arrangements Review covering the period from 26 December 2010- 25 December 2011.
- v. Audit Assessment Report**
 - The PAC submitted two (2) Audit Assessment Reports ("AAR") to the PEM Board for the year 2013. The Audit Assessment 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. 1st Metering Arrangements Review ("AP2012-01")

The first metering arrangements review was finally concluded with the PAC-TWG's acceptance on 21 March 2013 of the final deliverables of the External Auditors namely, Isla Lipana & Co. (a PwC Member Firm) in partnership with PwC India, Intelligent Energy System Pty Ltd. (IES) Australia and Alliance of Power & Energy Xponents Inc. (APEX). The PAC, together with the External Auditors, presented the results of the said review to the PEM Board during the 81st PEM Board Meeting on 30 April 2013. The final report was published in the WESM Website for the reference of all market participants and other interested parties. The same was submitted to the ERC and DOE.

In light of the foregoing, the PAC provided the ERC with a copy of the auditor's metering review report and requested the support of the Commission, being the regulatory/oversight agency over the National Grid Corporation of the Philippines (NGCP), with the view of ensuring NGCP's commitment to address the findings and observations identified in the said Report.

As requested by the ERC, the External Auditors of the 1st Metering Arrangements Review presented the results and their recommendations of the said review before the ERC Commissioners on 02 December 2013. In consideration of the results presented by the External Auditors, the ERC, through the Market Operations Services Department of ERC, will review the current Guidelines on the Issuance of Certificate of Authority of the Metering Services Provider ("MSP"). Further, the ERC agreed to draft a resolution which will contain a general statement or declaration on the Commission's authority and jurisdiction over the NGCP and specific directives for the NGCP to comply with the metering audit findings, and to open itself to the evaluation and validation of said findings.

C. 2nd Metering Arrangements Review ("AP2014-01")

In preparation for the 2nd Metering Arrangements Review, the PAC, together with the Technical Committee conducted a consultation meeting on 12 December 2013 to discuss the proposed terms of reference of the said review. The meeting was attended by the representatives of DOE, ERC, National Grid Corporation of the Philippines (NGCP), Distribution Management Committee (DMC), Grid Management Committee (GMC) and National Transmission Corporation (TRANSCO). In line with its timeline, the PAC and TC published the draft terms of reference on the WESM Website, for comments of the WESM Members and other interested parties.

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

During the PEM Board's 79th Meeting on 28 February 2013, the PAC presented the overview of the 3rd MO Audit conducted by PA from July 2012 until December 2012 and the satisfactory post-audit evaluation for PA. Subsequently, the PA Auditors presented their key audit findings and recommendations, for the Board's information.

In accordance with the Statement of Work, the External Auditor reviewed and assessed the processes of the market management system, market models, software, billing and settlement system, dispatch, scheduling and pricing and publication of required 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.

Copies of the audit reports were submitted to the Department of Energy (DOE) and the Energy Regulatory Commission ("ERC") and were published in the WESM Website (www.wesm.ph).

E. 4th Independent Operational Audit of the Systems and Procedures on Market Operations (AP2013-01)

Following the completion of the 3rd MO Audit and in accordance with its mandate to conduct annual audit of the market operations, the PAC, on 08 March 2013, discussed with the PEMC Management the possible scope for the 4th Market Operations Audit. The main objective of the discussion was to solicit PEMC's inputs in the finalization of the Terms of Reference for the next MO Audit.

In consultation with PEMC and DOE, the PAC approved the proposed scope of work for the 4th Market Operations Audit covering the period from 26 June 2012 to 25 June 2013 to be conducted by PA. The 4th MO Audit includes the PEMC's systems as well as all their incremental developments within the period covered including additional tasks which were not covered in the previous audits, as follows:

1. Bid-to-Bill Testing- entails the conduct of a chronological testing of the market processes from the market participants' submission of offers up to invoicing and payment by the Market Operator;
2. Audit of the Bilateral Contract Quantity Declaration tool;
3. Audit of Trading Operations Department's tools and spreadsheets ;
4. Targeted audit of Metering tools and spreadsheets; and
5. Audit of Metering tools and spreadsheets.

Following the successful negotiation with PA, the PEMC, PA and the PAC approved and finalized the audit service contract for the 4th MO Audit.

Relative to the above, the PAC advised the PEM Board, through a memorandum, of the results of its negotiations with PA and the scope for this year's MO Audit. Further, the PAC provided the Board, through a memorandum, with updates of the 4th MO Audit implementation.

The PA started its audit work on 15 July 2013. Currently, the audit reports are being finalized by PA in consideration of the comments provided by PEMC and PAC. The 4th MO Audit is expected to be completed by 1st Quarter of 2014.

F. 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 2013, the PAC reviewed two (2) 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.

As part of the PAC's monitoring of PEMC's implementation of its audit action plan, the PAC held a meeting with the different PEMC Departments to discuss the latest updates of the latter's implementation of its due deliverables. The meetings were held on the following dates:

- PAC & PEMC-Billing Settlement and Metering Department (BSMD) on 12 April 2013;
- PAC & PEMC-Trading Operations Department (TOD) on 23 August 2013; and
- PAC & PEMC- Information Systems and Technology (IST) on 10 July 2013

G. Meetings

The PAC conducted 13 meetings, eight (8) Regular and five (5) Special during the year to deliberate on audit projects and other activities in relation to its responsibilities under the WESM Rules.

In addition, the PAC, together with the Isla Lipana, et.al, attended two (2) meetings of the ERC to present the results of the 1st Metering Arrangements Review.

V. 2014 ACTION PLAN

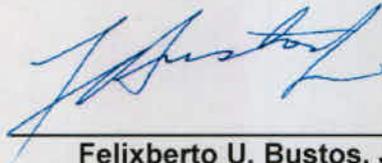
The PAC action plan for 2014 include the following:

- 1) Submission of the PAC Report on the 4th Market Operations Audit
- 2) Submission of the PAC Annual Report
- 3) Bidding for the 2nd Metering Arrangements Review
- 4) Conduct of the 2nd Metering Arrangements Review
- 5) Bidding for the 5th Market Operations Audit
- 6) Conduct of the 5th Market Operations Audit
- 7) Submission of Monthly Audit Assessment Report
- 8) Conduct of Regular Meetings
- 9) Review of the System Operations Processes

The detailed PAC 2014 Work Plan is provided in Attachment B.

Submitted By:

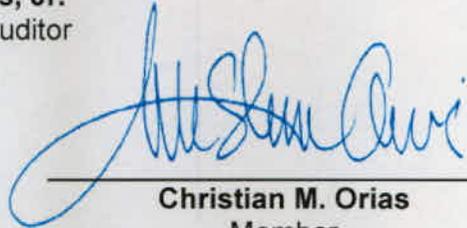
PEM AUDIT COMMITTEE



Felixberto U. Bustos, Jr.
Chairperson / PEM Auditor



Eduardo Alejandro O. Santos
Member



Christian M. Orias
Member

Annex A: PAC Membership Profile**Felixberto U. Bustos, Jr., DBA, CFA, FRM**1st Term : 27 April 2007 to 26 April 2010¹2nd Term: 01 July 2010 to 30 June 2013²Chairman/PEM Auditor since 13 February 2008³

Dr. Bustos recently assumed the presidency 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 2014⁴

Mr. Orias is a Management System Consultant and Auditor for ISO 20000, ISO 27001 and ISO 9001. He is also a content expert in IT Service Management, Six Sigma, Information Security, Quality Management and Project Management. Currently, Mr. Orias is functioning as a Master Black Belt for UnitedHealth Group. Prior to this, he held senior management roles for numerous Fortune 500 Technology companies including Intel, Hewlett Packard and Oracle. He also authored four (4) defensive Intellectual Property publications and two (2) US patents in the fields of Electronic Packaging, Power Delivery & RFID technologies. He holds five (5) professional certifications and is one of the few certified ITIL Expert in the Philippines, a Certified Information Systems Auditor (CISA) and Project Management Professional (PMP). He is also qualified by the American Society for Quality (ASQ) as a Certified Manager of Quality / Organizational Excellence (CMQ-OE) and a Certified Six Sigma Black Belt (CSSBB). He finished his Bachelor's Degree in Electrical Engineering and Master's Degree in Management Engineering at the University of Santo Tomas.

¹ PEMC Board Resolution No. 2007-18

² PEMC Board Resolution No. 2010-40

³ PEMC Board Resolution No. 2008-03

⁴ PEM Board Resolution 2011-51



Eduardo Alejandro O. Santos

01 September 2011 to 31 August 2014⁴

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.