



**INFORMATION TECHNOLOGY AUDIT ON
PNG POWER LTD'S BUSINESS
APPLICATIONS AND CONTROLS**

Terms of Reference

1. General Background

- 1.1 PNG Power Ltd Internal Audit Group as part of its Annual Audit Plan scheduled an Audit of the company's Information Technology environment. Internal Audit has since then decided to outsource this audit to reputable firms with relevant expertise to undertake this high level audit and provide a report to PPL Board and Management via Manager Internal Audit.
- 1.2 PNG Power Ltd is a Government owned power utility responsible for the generation, transmission, distribution and retailing of electricity in Papua New Guinea.
- 1.3 Over the last five years PPL Board and Management have spent extensively in upgrading and installing new business application systems including Oracle, Gentrack, Suprima, Chris21 etc in line with its strategic plans to improve financial and operational performance of the company.
- 1.4 The following business application systems are currently in use at PNG Power Ltd.
- **Oracle ERP Database Service**
Oracle ERP Database Service, a financial system is an accounting management application system. It is the business system used for financial management. This business application system is applied in business areas of finance. The Finance Business Unit is the main user of this system.

Its business applications are Payables; Purchasing; Inventory; General Ledger; Receivables; Assets; Order Entry; Personnel; Revenue Accounting; Sales Analysis; Project Accounting, and Cash Management.
 - **Chris 21 (HR21) HR System**
Chris 21 (HR21) HR System is a business application system used for HR and payroll purposes. This application system is responsible for employee payroll production, payroll reports, and employee database. Human Resource Business Unit and Finance Business Unit are the main users of this system.

This system is applied in areas of Payroll; Recruitment; Learning & Development; Personnel; Self Service (HR21); Administration; Reports; External System; Time & Attendance; and E-Recruitment (ER21)
 - **Gentrack Revenue and Billing System**
Gentrack Revenue and Billing System is a Customer Information and Billing System. This system is responsible for revenue collection. Commercial Business Unit mainly uses the system. On-line centers also use Gentrack and they report to the Operations Business Unit.

The Gentrack Revenue and Billing System allows PPL to achieve these major functionalities; Manage Customer Data; Billing; Record and Manage Meter details; Credit Control functionalities; Manage Installation Data; Receiving

- **Easypay Suprima Processing System**

Easypay Suprima processing system is the system used at 'Easipay vending sites'. It is linked with the Gentrack system, the main server. Easypay Suprima is the system that processes and records consumer/ customer transactions. The data from Suprima is transmitted through Telikom, to Datanets, and then into the Gentrack server.

During the nightly process the Suprima – Gentrack interface runs the daily consumer transactions data files and consumer/ POC/ Meter data files are transmitted from Suprima to Gentrack server via Telikom and Datanets. After updating, Gentrack then sends the Consumer/ POC/ Meter/ Arrears data files back to Suprima server.

- **NetDB Processing System**

NetDB Processing System is a business information system used in off-line centers. It is a database that keeps updated records or details of consumers in those off-line centers. It is linked with the Gentrack System for updates.

These offline centers are Wabag, Kundiawa, Kainantu, Yonki, Mendi, Ialibu, Minj/Banz, Vanimo, Aitape, Maprik, Finschaffien, Gusap, Wau, Samarai, Daru, Kerema, Central, Kavieng, Buka, Lorengau, Kimbe, Biella.

The Commercial Business Unit, users of Gentrack System, distributes forms such as Official Receipt Form (electricity payments, miscellaneous payments, RAD, TOS, other, Security Deposits – Com, Security Deposits – Dom.); Invoice/ Bill (Meter Reading); Application for Electricity Supply (New connection, Reconnection, TOS, RAD); Application for Electricity Disconnection (Meter disconnection); Meter Notice (Meter Installation, Meter Removal, Meter Change) to these offline centers.

All consumer/ customer details such as electricity payments; meter reading; RAD (reconnection after disconnection); TOS (transfer of supply); installation, removal, change; Security Deposits; etc...are recorded in these forms. The original copies of the forms are then sent back to Commercial Business Unit for updating. These consumer data is inputted and updated in the Gentrack System. Gentrack then updates the data in the NetDB system in off-line centers. The information is then made available to the offline centers through NetDB. NetDB is used in off-line centers for mainly customer/ consumer database.

- **Project Management Module**

Project Management (is a module under the Oracle application system). Technical Service Business Unit uses Project Management Module for project planning and monitoring purposes.

This module performs tasks such as providing project information on project budget allocation; project costing; project expenditures; project accounting; project status; project duration; project tasks and activities set etc.

- 1.5 The board recently restructured the company's operations and is currently working on putting together a new Five (5) Year Strategic Plan to build on the improved financial performance. Apart from the ongoing business rehabilitation process, the PPL Board and Management are seeking a high level review of PPL's IT operations.
- 1.6 In this respect, the company invites suitably qualified consultants who have expertise in undertaking IT Audits to undertake an audit of Application Controls of its various business applications in line with existing IT standards and procedures and provide to PNG Power a baseline document on IT conditions and whether Application Controls and applicable IT standards and procedures are relevant, incomplete, understood by employees or complied with for each business unit business applications.

2. Objective

- 2.1 The performance of PPL's Business Applications systems depends on many factors including the company's risk appetite or tolerance, the thoroughness of the risk assessment related to applications, the affected business processes, the effectiveness of general IT controls and the design and ongoing extent of operating effectiveness and control effectiveness.
- 2.2 PNG Power wishes to establish how well its business applications are performing and to establish this requires a risk assessment and audit of the conditions of each business applications.
- 2.3 With the above requirements, the purpose of the information technology audit service are to assess the relevance and adequacy of existing procedures and identify and undertake an IT risk assessment of business application and produce a baseline document of the different business unit business applications to ensure the completeness and accuracy of records, as well as the validity of the entries made to each record, as a result of program processing.
- 2.4 The information gathered will be used by management to develop a program to improve the operation and maintenance of each unit's business application system and in the work place and in the training of human resource in ensuring the following:
- Input data is accurate, complete, authorized, and correct.
 - Data is processed as intended in an acceptable time period.
 - Data stored is accurate and complete.
 - Outputs (reports) are accurate and complete.
 - A record is maintained to track the process of data from input to storage and to eventual output. (audit trail)

3. Scope Of Work

The consultant or firm will for each business application system: -

- (a) Assess and review the performance of the business application system against international standards and existing application controls;
- (b) identify and carry out a risk assessment of each business applications per business unit. Subsequently, based on the risk assessment undertake a review of high risk areas for each business application;
- (c) identify, review and assess the accuracy, completeness, approval and correctness of data input for each business application;
- (d) identify, review and assess data storage and processing and timeliness of data inputs.
- (e) review and assess the process of record maintenance and their track of the process of data from input to storage and to the eventual output.
- (f) review the procedures of troubleshooting and contract management;
- (g) assess the skills level of operating and maintenance staff and identify skills deficiencies.
- (h) assess the cost implications of not complying with standards or not following proper procedures and the budget required to improve performance of assets and human resources

4. Deliverables

- (a) Within one week of being awarded the IT Audit contract, the consultant/firm shall prepare a scoping brief containing a plan of action for the consultancy.
- (b) Within four weeks the consultant/firm shall prepare and submit a draft report for each business application system in line with the scope of work. The report must include but be limited to:
 - discuss the current status and practices of operating and maintaining business applications and general IT operating environment and highlight issues to be addressed further and any other recommendations;
 - identify the positives or compliance areas
 - identify the negatives, non-compliance areas, shortcomings and areas that pose application control risks to business applications, asset and human resources.
 - contain the consultants/firm's commentaries including technical opinion, economic issues, financial implications, operational and IT risk management and application control issues.
 - identify areas for that requires further reviews or investigation.

- make any other observations or findings that may be relevant for management information that are not specifically covered in the scope of work.
- (c) Within three (3) weeks of reviewing PPL's comments on the draft report, the consultant shall provide the final report.

5. PPL Management Team

- a) For the purpose of managing and finalizing this audit a PPL Management Team will be formed consisting of General Manager Corporate Services, General Manager Finance, and Manager Internal Audit.
- b) The Manager Internal Audit will act as the coordinator of this Management Team.

6. Administration

- a) **Timeframes& Budget:** The timing for each IT review assignment and budget will be discussed at the beginning of this assignment.
- b) **Meetings:** An engagement meeting will be held with the PPL Management Team for this assignment. Subsequently, an exit meeting would also be held to discuss any major IT Audit observations, exposures and other concerns by the consultant.
- c) **Consultations/Firm:** The consultant/firm will meet and consult with relevant PPL Management personnel and employees on an as-needed basis throughout the IT review assignment period.
- d) **Project Liaison:** Through out the IT audit review the Consultant will liaise with Manager Internal Audit. Administrative support for this project will be provided by Internal Audit.
- e) **Resources:** The consultant must provide its own IT equipment and tools for the purposes of undertaking this IT review assignment, however if necessary alternate arrangements to use PPL IT equipment and tools may be arranged.

7. Terminations

The consultancy arrangement may be terminated by either party giving one week's notice in writing to the other party.

8. Submissions of Reports

- a) Three copies of each report must be handed in to Mr. Stanley Wasi, Manager Internal Audit.
- b) All submissions, reports and correspondences must be addressed to:

Manager Internal Audit
PNG Power Ltd
P O Box 1105

BOROKO NCD

Papua New Guinea

Attention: Mr. Stanley Wasi

Telephone: (675) 324 3598

Fax: (675) 323 0420

Email: swasi@pngpower.com.pg

9. Request For Proposal

- a) Consultants or firms wishing to be considered for the IT audit review must provide details about their company, experiences in the power supply industry and in the area specifically requested in this terms of reference, the qualifications and experiences of personnel recommended to undertake this IT audit review work and the hourly or daily rates of each personnel assigned to this IT audit review. A methodology outline of how the assignment would be undertaken should also be provided.
- b) RFP submissions will close at 2:00 pm on the 14th November 2008.
- c) All RFP submissions must be handed in to Mr. Stanley Wasi at the National Office, Hohola or couriered to him to reach him by the close of submissions.