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TENDER FORM

The Chairman – Tender Opening Committee

PNG Power Ltd

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BOROKO 111 NCD

Papua New Guinea

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Email: supplyhelpdesk@pngpower.com.pg

We (*ill name of company).....

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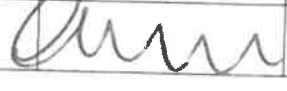
hereby tender for the undermentioned goods and services subject to the conditions of tendering and at the prices quoted in the scheduled therein

TENDER No. 32/2019

CLOSING AT 4.00 PM FRIDAY 28Th JUNE 2019

**FOR SUPPLY OF POWER SYSTEM MODELLING
SOFTWARE FOR SYSTEM OPERATIONS
USE.**

03 JUN 2019

Business Unit:	System Operations	Date:	03rd June 2019
Document:	TERMS OF REFERENCE FOR SUPPLY OF POWER SYSTEM MODELING SOFTWARE FOR SYSTEM OPERATIONS USE		
Compiled By:	Roland Tabu		
Sighted by:	Acting Supply Side Management TL		03/06/19
Recommended by:	Director System Operations		03/06/2019
Endorsed by:	EGM Transmission & Distribution		3/6/19
Approved by:	Acting Managing Director		4/6/19

BACKGROUND

PNG Power Limited is Papua New Guinea's national state-owned electric utility, established with the powers and responsibilities to plan, develop, generate, transmit, distribute and sell electricity throughout Papua New Guinea (PNG).

System Operations is a business unit under the Transmission & Distribution department of PNG Power Limited. You will find in *Annexure A* the structure of the business unit, highlighting the two groups under System Operations who will be utilising the software and the engineers who will be authorised to use it. The nature of work for the users of this software is as stated in *Annexure B*.

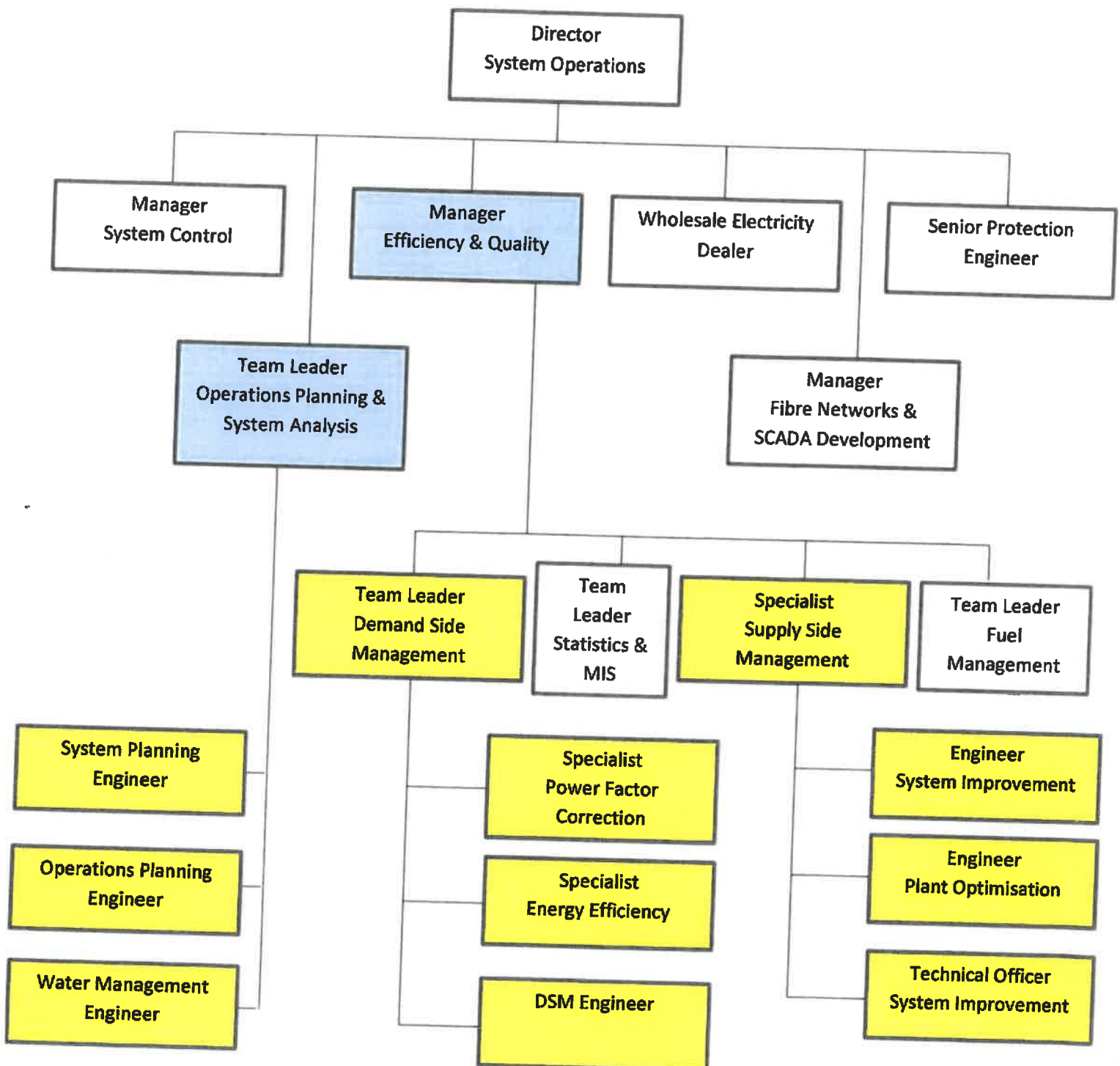
GENERAL TERMS & CONDITIONS

1. The bidder's bid for the software, as selected to bid, must be for its latest version only as, released by the supplier/developer at that time. Software version must be clearly stated by the bidder in both the bids – technical and commercial.
2. The bidder must clearly outline in its technical bid its software base package as well as its advanced package. The bidder should, for its base package, state the overall cost as well as the modules comprising this base package. For its advanced package, each additional module should be stated along with its respective module cost and other additional details as specified in *Annexure C*.
3. The license for the software/modules should be procured by the qualified bidder in the name of PNG Power Limited, and relevant document for the same is required to be delivered to PNG Power Limited along with installable software for the software, as selected to bid, including prerequisite software/components.
4. The modeling software license should be of the Multi-User type with Network license for commercial use having 250 – 300 maximum bus limitation.
5. The software to be supplied should be supported by a Service/Support center manned by the technical service/support engineers authorised by the supplier/developer.

6. The bidders should give a clause-by clause compliance for the detailed technical specification of the software modules in their technical bids. This should include a list of all device library offered.
7. Bidder shall furnish a compliance statement of specifications & features of modules offered in the Technical Bid. Deviation on the lower side of specifications will not be considered. Quotes for the latest version of the software only, available on the closing date, shall be considered. No deviations in terms & conditions of the tender document will be accepted in any case. Complete Technical literature for each of the quoted item should be supplied by the bidder along with the quotation/technical bid.
8. If a new version of the software supplied is released within the next six months from the date of delivery, the said supplied software will be upgraded or replaced with the recently released version of the software without any extra cost.
9. The bidder should have adequate facilities, trained manpower and staff for installation, commissioning, training and providing maintenance support service after commissioning.
10. Bidder must provide one (1) week of intensive training for the usage of the software.
11. For a bidder, who has submitted the tender bids, it will be automatically assumed that he has accepted all the terms and conditions of the tender. A statement specifying that the quotations are strictly as per the terms and conditions of the tender, should be enclosed with the bids. No request for deviation in the terms and conditions will be entertained. If there is any deviation from the terms and conditions of the tender of which the tenderer has submitted conditional bids, the bid will be summarily rejected.
12. Details of payment will be discussed and agreed upon during the awarding of the contract to the successful bidder. Government levies like Sales Tax, VAT, Service Tax, etc. shall be paid at actual rates as applicable on the date of delivery. Bids should include Sales Tax, VAT, Service Tax, etc. All quotations shall be in US Dollars.
13. The bidder should at the least have the qualifications as outlined in "Annexure D".
14. Queries received, from the bidders, seven (7) days prior to the tender submission closing date shall be addressed. Queries can be sent to PPL through a PHONE (+675) 324 3160 or email to RTabu@pngpower.com.pg.
15. The location of work will be at PNG Power Limited's Headquarters in Port Moresby. That is, Wards Road, Cordia Street, Hohola, Port Moresby, Papua New Guinea.
16. Tender submissions should be sent via email to RTabu@pngpower.com.pg before the Tender Submission Closing Date and Time.

Annexure 'A'

Structure of System Operations Business Unit showing groups (blue) and authorised users (yellow) who will utilize the software



Annexure 'B'

BUSINESS AND/OR TECHNICAL ENVIRONMENT

System Operations is the technical business unit of PPL which manages the company's power grid. As custodians of PPL's assets, the unit ensures:

- 1) Safe disconnection of sections of the grid for work to be carried out;
- 2) Reconnection after completion of work;
- 3) Restoration of supply after an operational fault;
- 4) Transfer of loads within the System for operating purposes;
- 5) Reliable power supply;
- 6) Quality power supply;
- 7) Efficient and optimum operation of PPL assets connected to the grid; and
- 8) Ensure operation plans for the next twelve (12) to eighteen (18) months are in place and adhered to.

With three separate grids around the country, the largest having a load of more than 100 MW, the need for system stability, security and integrity is of paramount importance. Thus the engineers concerned will need this software for such tasks as:

- 1) Load flow studies
- 2) Voltage optimization studies
- 3) Dynamic and Transient studies
- 4) Fault analysis studies
- 5) Operational planning
- 6) System Optimization planning
- 7) System review
- 8) Distribution planning
- 9) Distribution voltage regulation
- 10) Distribution loss estimation

Annexure 'D'

SUPPLIER RESOURCE REQUIREMENTS AND QUALIFICATIONS

The software supplier/developer should at a minimum, have the following qualifications:

- 1) Have at least over 20 years of experience as a power system modelling software developer/supplier;
- 2) Must have a global presence;
- 3) Must have an office or representative in a country or region in or near PNG;
- 4) Is able to provide power system software consulting and engineering services;
- 5) Must be able to provide training for all their software modules;
- 6) Should have continuous product maintenance and development;
- 7) Software must have the capability to interface with SCADA;
- 8) Must have license support for both single- user and multi-user and both hardware and software license;
- 9) Software must be compatible with 32/64-bit Microsoft Windows 7, 8 and 10