



TERMS OF REFERENCE

ASSESSMENT OF NET METERING APPLICATION AND DEVELOPMENT OF NET METERING RULES

1 Introduction

The Namibian Electricity Supply Industry (ESI) is undergoing fundamental changes in terms of its institutional, regulatory and commercial framework. The Electricity Act (Act 4 of 2007) recognises the existence of the Electricity Control Board (ECB) as an independent regulatory authority created to control, regulate and promote the Namibian ESI. The Electricity Control Board has the sole mandate to approve electricity tariffs in Namibia and in this regard has developed tariff methodologies for generation, transmission and distribution.

Namibia's economic growth and the reduction of poverty in the country depend on the expansion of the country's electricity supplies. Load growth in recent years has been robust, almost 10 percent for 2006-2007, and while there was a slowdown in growth in 2009, it is expected that the steady recovery of the global economy will lead to accelerating consumption and demand growth over the next several years. Meanwhile, Namibia's ability to secure supplies within the Southern African Power Pool is diminishing because of the region's rapid growth and perennial shortages. This means that Namibia must bring new capacity on line quickly and continue to add to installed capacity in the medium- to long-term. The ECB has recently embarked on several studies that focus on the use of different energy sources to ensure sufficient generation capacity and energy for the future.

Recent studies have indicated that Namibia has a substantial renewable energy resource bases which have a strong potential and a role to play in the country's power supply. The White Paper on Energy Policy of 1998 recognizes the benefits of renewable technologies with regard to sustainability and security of supply. The studies have also indicated to different regulatory provisions that may be applied to govern the supply of renewable energy resources derived electricity.

Of late, many homes, farms and business owners are considering the installation of alternative forms of electricity generation facilities and connecting them to their utilities electrical network. These facilities are intended to reduce the amount of energy purchased from the utility as well as providing some environmental benefits.

The purpose of net metering rules is intended to allow electricity users with roof top based PV and wind energy systems to primarily offset part of their conventional electricity requirements. Further, the regulation is intended to encourage private investment in renewable energy resources, stimulate economic growth of the country,

contribute to energy security and enhance diversification of Namibia's energy resources in line with the objective of the White Paper on Energy Policy of 1998.

The ECB, therefore, seeks to engage a consultant/s to **assess the application of net metering and develop net metering rules** for roof top and inverter based solar photovoltaics (solar PV) and micro wind energy converters. The assignment is funded by the **Renewable Energy and Energy Efficiency Partnership (REEEP)** through the Renewable Energy and Energy Efficiency Institute (REEEI) at the Polytechnic of Namibia together with the ECB.

2 Objectives

To obtain the services of a consultant/s, with appropriate and relevant, electrical engineering, financial, policy and regulatory expertise, who shall assess the application of net metering and develop rules for net metering and interconnection of roof top inverter based solar photovoltaics (solar PV) and micro- wind energy convertors which are used for the purpose of consumer partial load displacement.

3 Scope of Services

The consultant shall:

- 3.1 Assess and determine the qualifying generators in terms of facilities and eligible size.
- 3.2 Determine the limit on the size of the systems to be connected under the net metering facility.
- 3.3 Assess and determine the technical electrical connection requirements from the utility/distribution side, metering equipment technical requirements and quality control, delineation of customer responsibility as well as any new or additional charges.
- 3.4 Develop rules for net metering and interconnection of roof top inverter based solar photovoltaics (solar PV) and micro- wind energy convertors which are used for the purpose of consumer partial load displacement.
- 3.5 Determine procedures and conditions for annual reconciliation of billing and revisions to applicable tariffs.
- 3.6 Specify the requirements for initial interconnection of the system under the net metering facility.
- 3.7 Develop a standard interconnection agreement for systems under the net metering scheme.
- 3.8 Develop and recommend a monitoring mechanism for the customers of the net metering customers.
- 3.9 Align the recommended rules for net metering with current distribution grid code
- 3.10 Align the recommended rules for net metering with economic and technical rules
- 3.11 At least two national workshops shall be held: one to discuss the results with the industry and other stakeholders and another one to discuss the preliminary results of the study with selected key stakeholders.
- 3.12 The consultant shall be responsible for all communications to the ESI stakeholders as well as for all recordings of all proceedings and minutes of meetings.
- 3.13 All documents should be submitted to the ECB for approval before going out to the ESI stakeholders
- 3.14 The consultant shall make available a final report and the Net Metering Rules to the ECB.

4 Background information

Contracted consultant/s to consider the following documents in carrying out its services:

- 4.1 Electricity Act 4, 2007
- 4.2 The Energy White Paper, 1998
- 4.3 The IPP Framework, 2007
- 4.4 The Draft Synthesis Paper on Renewable Energy Policy, 2010
- 4.5 The Study on Development of Procurement Mechanisms for Renewable Energy Resources in Namibia
- 4.6 The Study on the effects of cost reflective tariffs in Namibia, 2007
- 4.7 Rules on standby generation, cogeneration and small generators
- 4.8 Economic rules
- 4.9 Technical rules
- 4.10 Distribution grid code

5 Reporting

- 5.1 The ECB will appoint a representative to co-ordinate the project with the consultant.
- 5.2 The ECB or consultant may request additional ad-hoc meetings on specific issues if required.
- 5.3 The consultant shall be responsible for record keeping of all proceedings and minutes of meetings. All documents should be submitted to the ECB for approval before going out to other stakeholders.
- 5.4 All reports, minutes, presentations, models (including calculations and source codes) and studies conducted shall be made available to the ECB in full electronic media. PDF or any other encoded files will not be accepted.
- 5.5 Copyright of all reports, minutes, presentations, models and studies shall vest in the ECB.

6 Duration

The project is envisaged to last three (3) month from once the order/contract has been placed.

7 Proposals to be submitted

The following two proposals of **two copies each** should be submitted in separate envelopes:

- 7.1 The technical proposal shall at least contain:
 - 7.1.1 Profiles of all Companies participating in the bid, including, but not limited to similar experience and overall human, operational & financial resources
 - 7.1.2 The proposed key human resources (project team), qualifications and experience.
 - 7.1.3 The Namibian component of the company shareholding and human resources
 - 7.1.4 How skills will be transferred to Namibians, if applicable
 - 7.1.5 The consultant's affirmative action and BEE policies and achievements.

- 7.1.6 A written undertaking not to engage in collusive tendering or other restrictive practice
- 7.2 The financial proposal shall at least contain:
 - 7.2.1 Contract price in Namibian Dollar (N\$).
 - 7.2.2 Inclusive of all taxes. *Non resident consultants must note that according the Income Tax Third Amendment Act, 2011, a 25 % withholding tax will be applied unless their domicile country has an income tax agreement with Namibia*
 - 7.2.3 Inclusive of professional fees, transportation cost, accommodation and subsistence cost and administration fees (including logistical arrangements for meetings/ workshops, venues and catering)
 - 7.2.4 The contract price should be separated into the different categories contained in 7.2.3

8 Evaluation criteria

The bids will be evaluated using the two (2)-envelope process whereby the technical proposals will be evaluated first. The financial proposals of qualifying tenderers will also be evaluated. To qualify, a tenderer needs to score 75% or higher in the technical component.

The main criteria in the technical evaluation will be:

- 8.1 Methodology
- 8.2 Work plan and time frame
- 8.3 Knowledge, Qualifications and Relevant Experience of the key Team members (project team).
- 8.4 Consultants' resources (Operational, Human & Commercial)
- 8.5 Affirmative action & BEE policies and achievements
- 8.6 Namibian component & skills transfer.

9 General

- 9.1 The ECB reserves the right to reduce the scope of this project and to increase the scope subject to negotiations with the successful tenderer.
- 9.2 The deadline for tender submissions is 16h00, 31 May 2012
- 9.3 Tenders should be submitted before the deadline to the offices of the ECB, 8 Bismarck Street, Windhoek, Namibia. Faxed or Electronic copies of tender documents will not be accepted.
- 9.4 No proposals will be accepted unless submitted in a plain, sealed envelopes addressed to the Chief Executive Officer and bearing the word "Tender" followed by the tender number, **ToR NM, ER 2012/2013, 20120531 1** and tender description
- 9.5 Inquiries should be directed to Mr Pinehas Mutota by e mail to pnmutota@ecb.org.na or telephone number +264 61 374 320 or fax number (061) 374 305