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**Location:** South Africa

**Application Deadline:**

**Category:**

**Type of Contract:** Consultant, Individual Contract

**Assignment Type:**

**Languages Required:** English

**Starting Date: (date when the selected candidate is expected to start):** Immediate

**Expected Duration of Assignment:** 100 working days

**Title:** Feasibility study to determine market potential and viability to establish a wind turbine refurbishment industry in South Africa

## **1. INTRODUCTION**

The South African Wind Energy Project Phase 2 (SAWEP 2) is funded by the Global Environment Facility (GEF) with the Department of Energy (DoE) as the Executing Entity/Implementing Partner, and supported by the United Nations Development Program (UNDP) South Africa Country Office. The project objective is to overcome barriers to the attainment of South Africa's 2010 Integrated Resource Plan target of 3,320 MW of wind power generation online by 2018/19. In order to achieve this, the project focusses on four components: *Component 1: Monitoring and Evaluation of the implementation of local content requirements*, *Component 2: Resource-mapping and wind corridor development support for policy-makers*, *Component 3: Support for the development of small-scale wind sector* and *Component 4: Training and human capital development for the wind energy sector*. Each component is associated with specific outputs and a set of activities.

## **2. BACKGROUND**

This Terms of Reference (TOR) relates to the SAWEP 2 Component 3: *Support for the development of small-scale wind sector* and the gap that was identified between small scale wind turbines (WTs) typical up to 100kW and the REIPPPP typical 2 MW WTs and higher.

## **3. OBJECTIVE**

To conduct a study and submit reports and research findings supplemented by recommendations and Value Matrix Diagram that can be used by the South African Government and stakeholders in the determination of formulating a possible Customised Sector Programme (Implementation Plan) for the Wind Turbine Refurbishment Industry in South Africa.

## **4. SCOPE OF WORK**

The consultant is required, but not limited, to focus on the following areas of assessment by making use of relevant documentation and conducting a desktop study. This study is to be supported through consultation with stakeholders and the recommendations should be based on strategic analysis (e.g. swot-, gap-, macro-economic, value chain analysis) of the findings.

The workplan and methodology will be refined and agreed to at the inception meeting if required.

### **4.1 Market for refurbished wind turbines**

Describe and analyse the global supply and demand for refurbished wind turbines and opportunities for South Africa to develop a wind turbine refurbishing industry based on potential local and regional demand.

#### 4.1.1 Global supply

- Countries and regions
- Drivers – older wind turbines are replaced with new technology (“repowering”)
- Original suppliers (OEM’s) and availability of components for refurbishing
- Pricing

#### 4.1.2 Global and regional demand

- Countries and regions
- Regional potential (SACU, SADC)
- Potential South African demand
- Drivers for demand (for example low cost, demand for smaller size turbines, off-grid, etc.)

Viability of refurbishing wind turbines in South Africa

Detailed explanation of the refurbishment process including a bill of materials (BOM)

Potential supply of components and services (equipment and skills required – profile of a typical refurbishment business)

Value add potential

Criteria for selection of turbines and components for refurbishment (service record, age, etc.)

Cost breakdown

Possible business models

Typical customer profile

Potential drivers for wind turbine refurbishment

- Financial
- Current and potential drivers for local and regional demand (net metering, energy security, energy price, improved environmental performance/responsibility)
- Legislation and regulations
- Energy policy
- Environmental issues and risks

Competition

Describe how it will impact on the competitiveness of existing local manufacturers of small, medium and large wind turbines.

Indicate whether there is an unserved segment in the local and regional wind turbine market and whether such a segment can be addressed through refurbishing.

Report on the impact of import and export control legislation with regards to specifically second hand imports for refurbishment and suggest a set of criteria to evaluate applications for permits to import second hand wind turbines and/or components and appropriate entity to deal with it.

Describe how South Africa could have a competitive edge over established markets elsewhere in the world and what legislative/regulatory mechanisms should be put in place to avoid dumping of unwanted second hand turbines.

## 4.2 Value chain analysis

A Value chain and Matrix Diagram to be completed and analysed in terms of competitiveness of the proposed South Africa Refurbished wind turbine, components and services industry.

**4.3** The service provider shall organize and conduct a **one day workshop** with key stakeholders to:

- present the findings and recommendations
- solicit input in finalizing the report
- knowledge sharing on the Value chain analysis, including Value Matrix Diagram developed for the study

The service provider must consult with the Project Coordination Unit (PCU) on the workshop invitees and program. At a minimum, members of the SAWEF 2 PSC and South African Wind Association (SAWEA) should be invited to the workshop.

**4.4** The service provider will, based on the recommendations of the one day workshop, **consolidate, describe and update the final report providing a plan of action and way forward.**

## 5. DELIVERABLES

Deliverable	Description, Content	Time frame*	%*
Deliverable 1: Inception Report	Attend an inception briefing meeting, and thereafter produce an Inception Report detailing the agreed methodology, work plan and timeline of activities, and related specific details.	Within 10 days after inception briefing	20
Deliverable 2: Progress report	See 4.1 Market for refurbished wind turbines and 4.2 Value chain analysis	30 days	30
Deliverable 3: Draft Report (following the Stakeholder workshop 4.3)	See 4.3 for the stakeholder workshop (to be held in Gauteng); findings and recommendations; Value chain analysis, including Value Matrix Diagram developed for the study.	50 days	40
Deliverable 4: Final Report	See 4.4 Incorporating revisions, and confirming approval.	10 days	10

\*indicative to be confirmed at contract signature

## 6. CONTRACT PERIOD AND EFFORT REQUIRED

It is estimated that the project will require between 200 and 300 person hours and needs to be completed within 100 working days of signing of the contract.

## 7. MINIMUM REQUIREMENTS

- Preferably a post Graduate Degree in Engineering, Science, Economics or other related field
- Professional hands-on experience and proven track record on report writing of projects of a similar nature and size
- Experience in professional communication and reporting at all levels.

## 8. PROJECT ADMINISTRATION

Whilst the contract is held with UNDP, the work will be overseen by the Project Coordination Unit (PCU) comprising of the Project Manager (SANEDI) and DoE Renewable Energy Project Manager.

## 9. EVALUATION CRITERIA

The evaluation of proposals will be conducted according to UNDP procurement rules. A two-stage procedure is utilised in evaluating the proposals, with evaluation of the technical proposal being completed prior to any price proposal being opened and compared. The price proposal of the proposals will be opened only for submissions that passed the minimum technical score of 70% of the obtainable score of 100 points in the evaluation of the technical proposals. The technical proposal is evaluated on the basis of its responsiveness to the Term of Reference (TOR) **and candidates may be requested to make a presentation to the Technical Evaluation committee.** In the Second Stage, the price proposal of all contractors, who have attained a minimum of 70% score in the technical evaluation will be compared.

**Selection will be based on a technically qualified proposal with lowest quoted financial proposal**, where the approach to the work, qualifications and experience (Technical proposal) will be weighted to a maximum of 70%, and the price offer (Financial proposal) which will be weighted at a maximum of 30%.

### Technical Evaluation Criteria

Evaluation Criteria	Max score
Documented experience and knowledge doing similar research projects	35

Proposed Methodology (A clear methodology. The methodology must outline how the Scope of Work will be carried out according to each deliverable with an understanding of the assignment).	<b>25</b>
Proposed Work Plan (Detailed work plan with milestones, timelines and resources and designated responsibilities of the consultant and any support members must be indicated in the proposal for achieving of the deliverables).	<b>20</b>
Professional, hands-on experience and proven track record on report writing of projects of a similar nature and size	<b>5</b>
Experience in professional communication at workshops and stakeholder consultations	<b>5</b>
Qualifications (consultant)  M.Sc. and higher degree = 10 Hons = 6 B degree = 3	<b>10</b>

## 10. RESPONSE FORMAT

To facilitate the analysis of responses, all interested parties are required to prepare their response in accordance with the instructions outlined in this section. All proposals should be electronically generated. The vendor will be hired on a UNDP contract.

Applicants are required to submit the following:

- A Technical Proposal: Letter of Interest, stating why you consider your service suitable for the assignment and a brief methodology on the approach and implementation of the assignment;
- Evidence and examples of similar projects that have been successfully completed;
- Personal CVs highlighting qualifications and experience in similar projects;
- Work references – minimum of 3 references - contact details (e-mail addresses) of referees (organisation for whom you've produced similar assignments);
- All-inclusive financial proposal indicating consultancy fee (South African Rand) and a breakdown of expenses (unit price together with any other expenses) related to the assignment. The proposal must incorporate all the costs including travel etc. for the service provider to achieve the required deliverables, including the organization and payment of the one day stakeholder workshop venue and catering (workshop participants to cover their own travel and accommodation costs etc and where applicable).

Applicants are required to submit the following documents to **procurement.za@undp.org** on or before the **14<sup>th</sup> December 2018** with the subject line: **Job Code Title and Reference Number**.

## 11. CONTACT PERSON

For any enquiries regarding this call for proposal, contact the UNDP on [procurement.za@undp.org](mailto:procurement.za@undp.org)

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