

# TERMS OF REFERENCE FOR APPOINTMENT OF PANEL OF SERVICE PROVIDERS TO CONDUCT MONITORING AND EVALUATION ON SOLAR HOME SYSTEM INSTALLED IN FIVE (5) PROVINCES FOR A PERIOD OF THIRTY SIX MONTHS (36) IN THE DEPARTMENT OF MINERAL RESOURCES AND ENERGY

## 1. BACKGROUND

- 1.1 The Department of Mineral Resources and Energy (DMRE) through the Non-Grid Electrification Planning unit which is within the Integrated National Electrification Planning (INEP) hereby issues the terms of reference to guide the monitoring and evaluation of solar home systems' installations and maintenance under INEP's non-grid program. The Department is thus seeking the services of a Professional Service Provider (PSP), an individual or a firm, to undertake this exercise.
- 1.2 INEP intends to install an estimated 45,000 solar home systems (SHS) in the next three financial years and intends to install 15,000 SHS during the 2023/24 financial year. The Department has always conducted a physical inspection on a sample of only 10% of the installed solar home systems per Non-Grid Service Provider.
- 1.3 The size of the sample has always been limited to the personnel capacity within the Department, however, it has always been envisaged that a thorough monitoring and evaluation coupled with an increased monitored and evaluated percentage sample for installed SHSs is deemed necessary across the country.
- 1.4 Established technical specifications exist for equipment and installation quality. All PV systems supplied and/or installed in the Non-Grid Electrification project areas must meet these requirements. The technical specifications are formulated to ensure that the SHS meets applicable standards for optimum operation, functionality, reliability, longevity, and safety.
- 1.5 The Non-Grid Service Providers responsible for the supply and installation of SHSs are also required to comply with requirements of the provision of the user manual, user training, component warranties, and a predetermined maintenance period.
- 1.6 In terms of SHS monitoring and evaluation, the following areas are earmarked:
  - 1.6.1 Limpopo
  - 1.6.1 Kwa-Zulu Natal
  - 1.6.2 Eastern Cape
  - 1.6.3 Northern Cape
  - 1.6.4 Western Cape
  - 1.6.5 Mpumalanga

- 1.7 The Department of Mineral Resources and Energy reserves the right to allocate a PSP within the appointed panel of NGSPs, in any area listed above to conduct the monitoring and evaluation exercise.

## **2. CONTRACT PERIOD**

- 2.1 The appointed panel of PSPs will be on the Departmental database for the period not exceeding thirty six (36) months.
- 2.2 The contract shall be on an annual basis based on both the available budget per financial year and the need to re-appoint.
- 2.3 Project areas shall be assigned to the appointed panel of PSPs and travel and accommodation will be paid as per government rates.

## **3. OBJECTIVE**

The objective of this assignment is to appoint a panel of service provider (PSP) to conduct enhanced monitoring and evaluation of installed SHSs.

## **4. SCOPE OF WORK**

- 4.1 Confirm that the system installed is per the contracted system.
- 4.2 Confirm the quality and estimated lifespan of different solar home system components through obtaining relevant certification from designated suppliers prior to the installation of the SHSs. These will include:
  - 4.2.1 The PV Module.
  - 4.2.2 Battery.
  - 4.2.3 Charger regulator; and
  - 4.2.4 Lights.
- 4.3 To verify the compliance of installed SHSs to the specifications. This will include:
  - 4.3.1 System dimensioning of PV-modules and other system components;
  - 4.3.2 Module orientation and shading;
- 4.4 To evaluate the end-user experiences. This exercise will focus on the following:
  - 4.4.1 Reliability of the solar home system;
  - 4.4.2 Quality of power supply provided by the system;

- 4.4.3 Impact on quality of life provided by the system;
- 4.4.4 User awareness and understanding of the system; and
- 4.4.5 Willingness and ability to pay (for future maintenance of the system)

In addition to the above-mentioned activities, the appointed professional service provider will also conduct the following:

- 4.5 Conduct a visual inspection and verify that the installation of each SHS is complete and available to the designated customer.
- 4.6 Verify that the SHS is installed to the public in the identified project areas.
- 4.7 Verify the physical location of the SHS by using the GIS Coordinates supplied by the Non-Grid Service Provider.
- 4.8 Witness sample measurement of the output expectation of the system supplied and installed by the NGSPs. The NGSPs will conduct measurements in the presence of a PSP.
- 4.9 Quantify the impact of installations by modeling the energy yield and electricity production of the installations over their rated lifespan.
- 4.10 Provide accurate reports to the Department of Mineral Resources and Energy with recommendations on non-compliance (if any) by NGSP.

## **5. DELIVERABLES OR PROJECT OUTPUT AND OR OUTCOME**

- 5.5 The PSP shall be responsible for all aspects of quality, performance, timing, and reporting of the verification program.
- 5.6 The PSP will submit the following reports
  - 5.6.1 Inception report, with acceptable PV Verification Forms, Performance Review forms, Commissioning procedures, and Monitoring Information System: within 2 weeks of appointment.
  - 5.6.2 Sign off on invoices to be paid by the Department;
  - 5.6.3 Monthly verification reports
  - 5.6.4 Follow-up report as may be requested by the Department
  - 5.6.5 Final report
- 5.7 Monitoring and Evaluation shall be conducted monthly. The Department shall provide identification data of the specific systems to be monitored and evaluated. Separate reports for monitoring and evaluation exercises conducted by the PSPs per project area shall be submitted to the Department.

- 5.8 At all times, the PSP shall submit a set of technical tests conducted on PV modules, batteries, battery chargers, voltage regulators, and associated components of the SHS installations to the Department.
- 5.9 Customer surveys on end-user's experience as highlighted in 4.4 shall be conducted in all areas where technical tests mentioned in 5.5 were conducted. These shall be submitted to the Department in a format that will be agreed upon between the Department and the appointed PSP
- 5.10 In cases where SHS installations are non-compliant, reports that highlight these instances as well as corrective action plans shall be compiled by the PSP and submitted to the Department. These reports shall be shared with the NGSP to rectify the instances of non-compliance.
- 5.11 The PSP must submit an installation verification report and a detailed installation report within seven (7) days of the receipt of a request from the Department.

## 6. EVALUATION CRITERIA

**This bid will be evaluated in four stages, i.e. functionality, mandatory requirements, administrative compliance, and point scoring system.**

### 6.1 Gate 01 - Functionality

Bidders will be scored in terms of the functional requirements indicated in the table below. The corresponding points and weightings will be used to calculate the overall score a bidder has achieved.

The minimum threshold for this bid is **70%**. Bidders who score less than **70%** will be disqualified. Only bidders that score **70%** or more will be considered further.

### 6.2 Gate 02 – Mandatory Requirements

It is required that the Team Leader is registered with Engineering Council of South Africa (ECSA) failure which the bid will be regarded as non-responsive.

EVALUATION CRITERIA	SCORE	WEIGHT
<b>ORGANIZATIONAL EXPERIENCE</b>		
(a) Company Profile: The PSP's previous project experience in providing M&E of SHSs and/or EPM services, the scale of past projects, and the role undertaken within those projects highlighted and proof of referees must be attached. (Minimum related experience is 3 yrs.)	5 years and above = <b>5 points</b> 4 years = <b>4 points</b> 3 years = <b>3 points</b> 2 years = <b>2 points</b> 0-1 year = <b>1 point</b>	20
(b) Proof accompanied by correspondence letters from at least three (3) contactable referees (previous and/or current clients) confirming that M&E in SHSs and/or EPM services have been provided.	5 and above letters = <b>5 points</b> 4 letters = <b>4 points</b> 3 letters = <b>3 points</b> 2 letters = <b>2 points</b> 1 letter = <b>1 point</b>	5

<b>QUALIFICATION</b>		
<b>Team Leader</b>		
(a) A university degree in Electrical/Electronic Engineering and/or Renewable Energy studies.	Masters = <b>5 points</b> Honors = <b>4 points</b> Degree = <b>3 points</b> Diploma = <b>2 points</b> Trade Test Certificate = <b>1 point</b>	10
<b>Team Members</b>		
(a) <b>Project engineer:</b> A university degree in Electrical/Electronic Engineering.	Masters = <b>5 points</b> Honours = <b>4 points</b> <b>Degree = 3 points</b> Diploma = <b>2 Points</b> <b>Certificate = 1points</b>	5
(b) <b>Electricians:</b> Trade test certificates for all project electricians is a must	Three (3) Electricians with Trade Tests = <b>5 points</b> Two (2) Electricians with Trade Tests = <b>4 points</b> One (1) Electrician with Trade Test = <b>3 points</b> No Trade tests = <b>0 Points</b>	5
<b>EXPERIENCE</b>		
<b>Team Leader</b>		
(a). Must have at least 5 years' experience in the Electrical / Electronics Engineering Field or Renewable Energy. (*Proof of CV (with an indicative of 2 years minimum experience in Electrical / Electronics or Renewable Energy field post graduate) and Certificates must be attached.)	More than 9 years = <b>5 points</b> 7-9 years = <b>4 points</b> <b>5-6 years =3 points</b> 3-4 years = <b>2 points</b> 1-2 years = <b>1 point</b>	10



<p><b>Team Members</b></p> <p>(b) Minimum of 2 years in electrical/electronic engineering, installations, and/or energy performance measurement and testing.</p> <p>(*Proof of CV (with an indicative of 3 years minimum experience in Electrical/ Electronics or Renewable Energy field postgraduate) and Certificates must be attached.)</p>	<p>Three (3) team members with at least 25 years = <b>5 points</b></p> <p>Two (2) team members with at least 2 years = <b>4 points</b></p> <p>One (1) team member with at least 2 years = <b>3 points</b></p> <p>One (1) team member with at least 1 year = <b>2 points</b></p> <p>One (1) team member with less than 1 year = <b>1 point</b></p>	
<p><b>METHOD STATEMENT</b></p> <p>Project Approach</p>	<p>Methodological approach well-articulated including diagrammatic representation of the proposed project plan and processes, and detailed information on the EYP method = <b>5 points</b></p> <p>The methodological approach explained in detail = <b>4 points</b></p> <p>Methodological approach adequately linked to the ToR = <b>3 points</b></p> <p>The methodological approach outlined but not linked to the project = <b>2 points</b></p> <p>No/unclear Methodological approach submitted = <b>1 point</b></p>	20



<p><b>SYSTEM TESTING PROTOCOL</b></p> <p>An in-depth explanation of the Small Home System testing protocol including:</p> <ol style="list-style-type: none"> <li>1. Tests and verification on batteries.</li> <li>2. Tests and verification on PV modules.</li> <li>3. Tests and verification on wiring and other components.</li> <li>4. Variables to be tested.</li> <li>5. Tools to be applied for testing.</li> <li>6. Implications of the tests on quality of SHSs.</li> </ol>	<p>A comprehensive explanation of all items = <b>5 points</b></p> <p>A good explanation of all items = <b>4 points</b></p> <p>Adequate explanation of all items = <b>3 points</b></p> <p>Limited explanation of 6 items = <b>2 points</b></p> <p>Limited explanation of 4 items = <b>1 point</b></p>	<p>=15</p>
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VALUE ADDING PROPOSAL	<p>Innovative proposal that is demonstrable and provides value to the project with least cost = <b>5 points</b></p> <p>Innovative proposal that is demonstrable and provides value to the project. = <b>4 points</b></p> <p>Demonstrable and add value to the project = <b>3 points</b></p> <p>Demonstrable <b>but</b> no value add to the project = <b>2 points</b></p> <p>No value add to the project = <b>1 point</b></p>	5
Total		100

Formula;  $\frac{A}{B} \times 100 = C\%$

Where: A = Total score for the bid under consideration

B = Maximum possible score

C = Percentage score for the bid under consideration

## 6.2 Gate 02 – Mandatory requirements

N/A

## 6.3 Gate 03 - Administrative compliance

- (i) Compliance to the specification / Terms of Reference.
- (ii) Fully completed SBDs (Duly signed and dated) listed hereunder
  - SBD 1
  - SBD 4
  - SBD 6.1
- (iii) The following will be regarded as noncompliance.
  - Price amendments / other amendments without signature/initials.
  - Use of correctional fluid
  - Completion of the bid document in coloured ink other than black ink

#### 6.4 Gate 04 – Point Scoring System

Bids will be evaluated on the 80/20 preference point system as outlined in the Preferential Procurement Regulation of 2022.

- Price points = 80
- Preferential points = 20

- 6.4.1 The bidder that scores the highest points in this phase will be awarded the tender.
- 6.4.2 Should more than one bidder score the same number of points, the award will be made to the bidder who scores more points on specific goals.
- 6.4.3 Should there be more than one bidder who score the same number of points overall and same points on specific goals, the award will be made to the bidder who scored the highest points on functionality.
- 6.4.4 Should there be more than one bidder who score the same number of points in all aspects, the bid will be determined by the drawing of the lot.
- 6.4.5 The preferential points will be allocated in terms of the Departmental objectives on specific goals. Points allocation on specific goals are tabulated hereunder.
- 6.4.6 Bidders who do not submit proof (means of verification) of specific goals claimed will not qualify for preference points for specific goals.

Specific Goal	Number of points (80/20 Preference System)	Means of Verification
Enterprise owned by Black people	4	Identity documents and CIPC document

Enterprise owned by Women	4	Identity documents and CIPC document
Enterprise owned by Youth	4	Identity documents and CIPC document
Enterprise owned by disabled persons	4	Medical certification
Enterprise owned by SMMEs (QSE or EME)	4	B-BBEE certificate issued by a SANAS accredited Agency or DTIC, or Sworn affidavit

**NB:** "Ownership = 51% of the company share. Designated group/person that are part of the entity directorship but have less than 51% share = points will be calculated on a pro-rata basis in relations to the share/s held by the designated group/persons.

Eg.      Number of women directors      = 01  
             Shares owned by women                      = 20%  
             Specific goal for women                      = 4 points  
             Points claimable for women ownership =  $\frac{20}{100} \times 4 = 0.8 \text{ points}$

## 7. REPORTING REQUIREMENTS

The reports on each activity area and overall assignment will be directed to attention of the Program Director for the Integrated Electrification Planning Programme.

## 8. WORK PLAN AND METHODOLOGY

8.1 The service provider must provide:

- 8.1.1 A project proposal that demonstrates comprehension and competence to deliver on what is required in line with the scope of work under section 4.
- 8.1.2 A preliminary project plan outlining key activities, milestones, timeframes, and resources to be committed to the project.

## 9. ROLE AND RESPONSIBILITY

- 9.1 Service Level Agreement will be entered into with the successful service provider which will include, *inter alia*, obligations of the DMRE and the successful service provider.
- 9.2 The DMRE reserves the right to appoint more than one service provider for the project.

- 9.3 The successful service provider must develop detailed project schedule/ plan.
- 9.4 The successful service provider will be required to submit payment schedule providing projections for the period of 6 months on work performed.
- 9.5 The service provider shall disclose all information in its proposal regarding any interests that may result in an actual or perceived conflict of interest.

## **10. CONFIDENTIALITY OF INFORMATION**

- 10.1 The names of all the members of the service provider team must be disclosed for the prior approval of DMRE. Any changes, replacements and additions should be submitted for prior approval of DMRE.
- 10.2 All members will have to sign a Non-Disclosure Agreement before project commencement and may be required to undergo security screening and tests as the DMRE deems necessary.

## **11. PAYMENT**

- 11.1 The Department will not make an upfront payment to a successful service provider. Payment will only be made in accordance with the delivery of service that will be agreed upon by both parties and upon receipt of an original invoice.

## **12. TAX CLEARANCE CERTIFICATE**

- 12.1 Bidders must ensure compliance with their tax obligations.
- 12.2 Bidders are required to submit their unique personal identification number (pin) issued by SARS to enable the organ of state to view the taxpayer's profile and tax status.
- 12.3 Application for tax compliance status (TCS) or pin may also be made via e-filing. In order to use this provision, taxpayers will need to register with SARS as e-filers through the website [www.sars.gov.za](http://www.sars.gov.za).
- 12.4 A bidder may also submit a printed TCS together with the proposal.
- 12.5 In proposals where consortia / joint ventures / sub-contractors are involved, each party must submit a separate proof of TCS / pin / CSD number.
- 12.6 Where no TCS is available but the bidders is registered on the central supplier database (CSD), a CSD number must be provided

## **13. DOCUMENTATION**

- 13.1 N/A

## **14. COST / PRICING**

- 14.1 The bidders are requested to provide a quoted proposal regarding the work to be undertaken.
- 14.2 Bidders are required to indicate a ceiling price based on the total estimated time for completion of all phases and including all expenses inclusive of all applicable taxes for the project. The total cost must be VAT inclusive and should be quoted in South African Rands (i.e. ZAR).
- 14.3 Bidders should provide hourly rates as prescribed by Department of Public Service and Administration (DPSA), Auditor- General (AG) or the body regulating the profession of the consultant.
- 14.4 Bidders should provide (Subsistence & Travel (S&T)) rates that are in aligned to the National Treasury instruction note as follows:
- i) Hotel Accommodation – R1550 per night per person, including breakfast, dinner and parking.
  - ii) Air travel must be restricted to economy class.
  - iii) Claims for kilometres may not exceed the rates approved by the Automobile Association of South Africa.

## **15. CONDITIONS OF THE CONTRACT**

- 15.1 The General Conditions of Contract must be accepted as these are issued by National Treasury and are non-negotiable.
- 15.2 The successful service provider will sign a confidentiality agreement regarding the protection of DMRE information that is not in the public domain.
- 15.3 No state information may be furnished/ communicated to the public or news media by the security service provider or any of their employees.
- 15.4 The successful service provider shall ensure that the contract is executed in line with the scope of work.
- 15.5 The successful service provider may be subjected to security screening by the State Security Agency.
- 15.6 The DMRE reserves the right to verify the authenticity of the information submitted, any falsified information may result in the disqualification or cancellation of the contract.

## **16. FORMAT OF SUBMISSION OF PROPOSAL**

- 16.1 Bidders are requested to submit two (2) copies of technical proposals plus the original.
- 16.2 Bidders are requested to index their proposals for easy reference.

**17. PRE-BID MEETING / BRIEFING SESSION DETAILS**

17.1 A compulsory briefing session will be held on **14 March 2024 @ 10:00** at the **Department of Minerals Resource and Energy, at 192 Matimba Building, Corner Visagie and Paul Kruger Streets, Pretoria.**

17.2 Bidders must ensure that they sign a register during the briefing session to confirm attendance.

**18. CLOSING DATE**

18.1 Proposals must be submitted on or before **03 April 2024 @ 11:00** at Department of Minerals Resource and Energy, at 192 Matimba Building, Corner Visagie and Paul Kruger Streets, Pretoria in the bid box marked Department of Minerals Resource and Energy. **No late bids will be accepted.**

**19. ENQUIRIES**

19.1 **All general enquiries relating to bid documents should be directed to:**

Mr Samuel Msiza

Tel No: (012) 406 7910

E-mail: [Samuel.msiza@dmre.gov.za](mailto:Samuel.msiza@dmre.gov.za)

19.2 **Technical enquiries can be directed to:**

Mr. Bongani Nhlabathi/ Mr Serame Moeketsi

Tel No: (012) 444 3318 /0824491674

E-mail: [Bongani.Nhlabathi@dmre.gov.za](mailto:Bongani.Nhlabathi@dmre.gov.za)/[Serame.Moeketsi@dmre.gov.za](mailto:Serame.Moeketsi@dmre.gov.za)