



EXPRESSION OF INTEREST FOR

Shortlisting of consultant for the Project Scoping/ Site Selection Study: Development of Wind Resource Assessment and Meteorological Mast Project Site Selection.

PROCUREMENT REFERENCE NO: **SC/EOI/EIF- 2/2024**

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Shortlisting of consultant for the Project Scoping/ Site Selection Study: Development of Wind Resource Assessment and Meteorological Mast Project Site Selection.

1. Purpose

The Expression of Interest (EOI) is to short list consultants from entities interested in performing a Project Scoping/ Site Selection Study: Development of Wind Resource Assessment and Meteorological Mast Project Site Selection. The funding agent is the German Federal Ministry for Economic Affairs and Climate Action (BMWK), as represented in Namibia by GIZ. The grant is implemented by the Namibian Green Hydrogen Programme as administered by the Fund.

2. Introduction and Background

The Namibian Government, through the Namibia Green Hydrogen Programme (NGH2P) invites qualified consultancy firms to submit proposals for a service provider for the Wind Resource Assessment and Project Site Selection Consultancy services.

The purpose of the study is to identify, evaluate, and recommend suitable sites for the development of a Meteorological Masts (Met Mast) in the in the Tsau //Khaeb National (Sperrgebiet) Park (TKNP) Area, Namibia. The project will include assessing the terrain complexity, determining the optimal site boundaries for the measurement area, and providing key justifications for the site selection. The preferred service provider will prepare a comprehensive Site Selection Report, integrating technical, environmental, social, and economic criteria, aligned with national and international standards.

Situated in the arid landscapes of southwestern Namibia, TKNP, is notable for its strong winds, which are ideal for generating wind energy. Studies show that the area consistently experiences high wind speeds and reliable wind patterns throughout the year. These conditions are perfect for generating clean, renewable energy using wind turbines. The Park's wind resource is valuable for meteorological research, providing accurate weather data needed to evaluate renewable energy projects. This data includes wind characteristics such as wind speed, direction, and variability over time. Having precise weather information is essential for designing and operating wind turbines efficiently, ensuring they produce maximum energy outputs.

The TKNP covers an area of approximately 21 750 km², spanning about 320 km from the northeast to the southeast ¹. The area was formally proclaimed as a protected area in 2008.

It is bordered by the Atlantic Ocean to the west, the Orange River to the south, the Namib-Naukluft National Park to the north, and agricultural land to the east. Settlements and towns are positioned at the four corners of the TKNP, including Aus, Rosh Pinah, Lüderitz, and Oranjemund. The Ministry of Environment, Forestry and Tourism, through its Directorate of Wildlife and National Parks, manages the TKNP. Access to the TKNP is strictly restricted and requires authorisation from the Ministry of Mines and Energy (MME).



Figure 1: MEFT Environmental zoning of the Sperrgebiet (TKNP).

This assignment will cover the entire area shown in Figure 2. Figure 3 maps out biodiversity areas within the TKNP.

¹ [https://www.meft.gov.na/files/downloads/bfd_Management%20Plan%202020-%20Tsau%20Khaeb%20\(Sperrgebiet\)%20National%20Park.pdf](https://www.meft.gov.na/files/downloads/bfd_Management%20Plan%202020-%20Tsau%20Khaeb%20(Sperrgebiet)%20National%20Park.pdf)

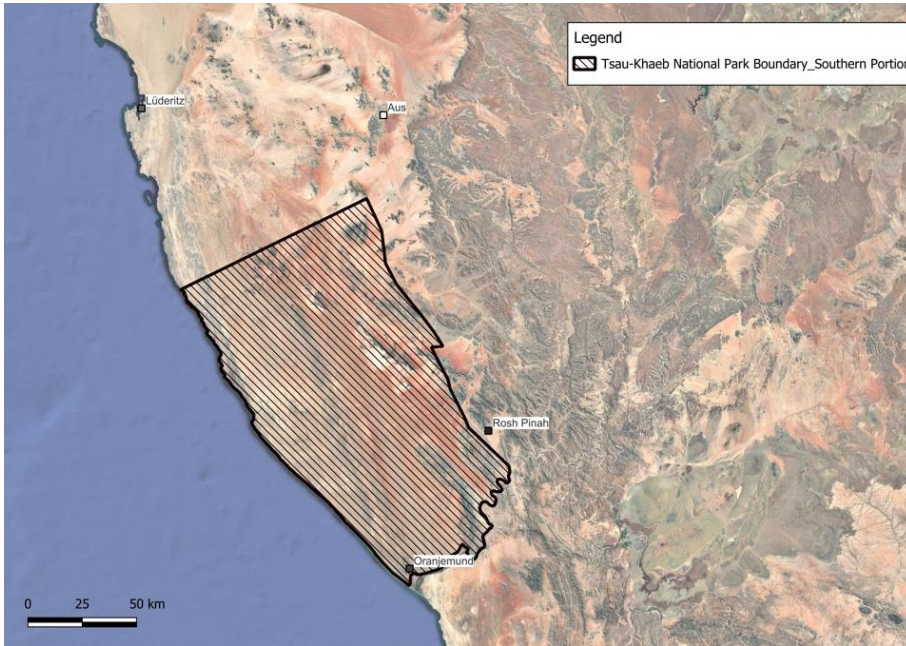


Figure 2: Assignment Area for Project Site Selection.

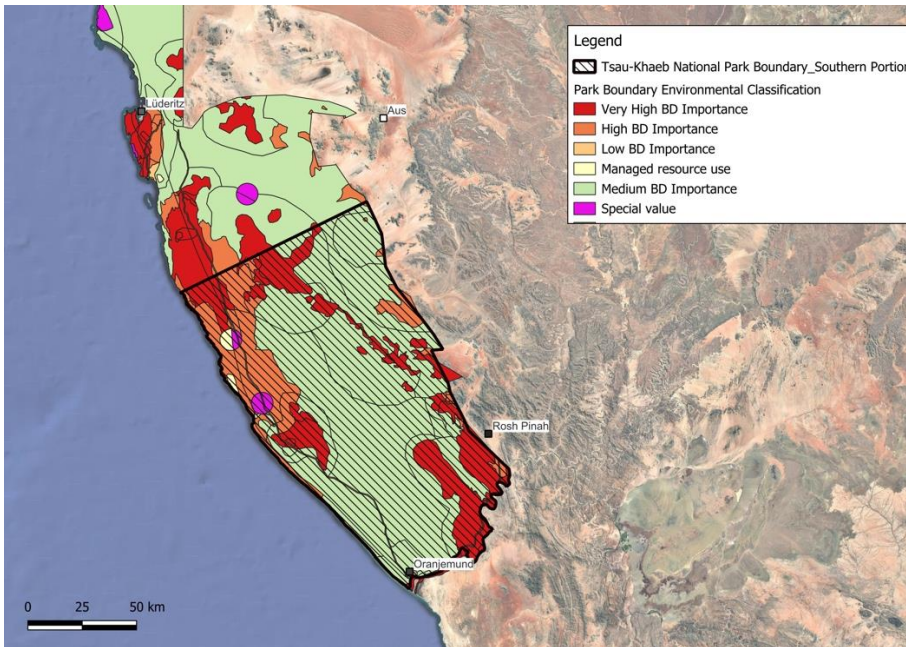


Figure 3: Biodiversity Areas.

3. Objectives of the Consultancy

The objective of the Met Mast Site Selection Report/Scoping Study is to identify optimal locations for wind measurement to gather accurate wind resource data, which will serve to de-risk potential wind energy projects and provide confidence to investors by ensuring reliable, bankable resource assessments for green energy developments in Namibia.

The objectives of the Met Mast Campaign include:

- Determine the suitability of wind resources to evaluate its potential for renewable energy projects in the Tsau //Khaeb (Sperrgebiet) National Park area.
- To identify viable onshore wind sites based on wind resource potential and technical feasibility.
- To evaluate environmental, social, and regulatory constraints.
- To provide detailed recommendations for the most suitable sites, including preliminary layouts and potential energy yields.
- To assess co-development opportunities with local or regional stakeholders if applicable.

4. Scope of work

After the wind resource assessment and project site selection analyses, a comprehensive report for the entire study area shall be prepared, according to national and international guidelines. The consultant shall inform the client about relevant matters, such as missing/no access to relevant data required to conduct the analyses. A logbook and periodic meetings, formally agreed upon between consultant and client, shall be maintained to keep track of all relevant matters during the project.

Project coordination and management shall include coordination of consultants with relevant stakeholders such as the Ministry of Mines and Energy (MME) and the Ministry of Environment, Forestry and Tourism (MEFT). Schedules, technical details, and all necessary coordination shall be directly discussed. The client shall be informed about relevant matters until handing over of the final project site selection report.

The assignment will involve the following tasks:

Phase 1: Desktop Study

- Evaluation of the geographical features such as elevation, slopes, roughness, and obstacles (e.g., hills, valleys, forests, buildings) – Report required.
- Use of tools such as topographical maps, satellite imagery, or GIS (Geographic Information System) to gather data on the terrain.
- Conduct a desktop analysis using tools like the Global Wind Atlas (GWA) and Renewable Energy Zoning (REZoning) Tool.
- Define criteria such as wind potential, accessibility, environmental impact, and proximity to infrastructure for selecting the optimal site. Assess the logistical requirements for installation, such as access roads, power supply, and communication systems for data collection and transmission – Report required.
- Identify and rank potential sites using Multi-Criteria Decision-Making (MCDM) approaches – Report required.
- Mark the boundaries of the measurement area based on the analysis of terrain, wind conditions, and other relevant factors - Report required.
- Analyse exclusion zones based on environmental, cultural, and technical criteria. Highlight areas where the terrain complexity, environmental and social complexities may limit measurement accuracy or affect the feasibility of Met Mast installation – Report required
- Provide a rationale for the selected site, such as why this particular location offers optimal conditions for data collection (e.g., minimal interference from terrain, environmental concerns, logistical considerations) - Report required.
- Identify the exact locations for Met Mast installation within the selected site, ensuring coverage of the area's wind conditions – Report required.
- Develop a layout that maximises data accuracy, ensuring optimisation of masts placement and adequate positioning to reflect varying wind speeds and directions across the site – Report required.

Phase 2: Site Visits

- Conduct on-site assessments to verify data and observe site conditions.
- Assess key factors such as:
 - Accessibility and terrain
 - Flora and fauna

- Transmission infrastructure proximity
- Land use and environmental sensitivities
- Engage local stakeholders, including government ministries and nearby communities.

Phase 3: Data Analysis

- Assess wind resource data, including Weibull distributions, turbulence, and air density.
- Evaluate preliminary energy yield using International Electrotechnical Commission (IEC) standards for turbine classification.
- Conduct Environmental and Social Screening.

Phase 4: Reporting

- Develop a comprehensive report with the following components:
 - Executive Summary
 - Methodology
 - Site Assessment Results
 - Wind Resource Analysis
 - Environmental and Social Considerations
 - Recommendations and Justifications
 - Preliminary Layout and Energy Yield Projections

5. Prequalification mandatory documents, requirements, guidelines and evaluation criteria

5.1 Mandatory documents

For **Namibian entities**, the following mandatory documentary evidence is required to accompany the Expression of Interest. **International entities** are required to submit *company registration documents* only:

- (i) have a valid Certified copies of either:
 - a) certificate of business registration for an entity incorporated or registered under the company or close corporation laws of Namibia;
 - b) certificate of registration of a co-operative registered under the laws regulating co-operatives in Namibia;
 - c) document serving as evidence of registration as a trust and the trust deed for a trust registered under the laws regulating trusts in Namibia; or
 - d) partnership agreement in the case of a partnership, a valid joint venture agreement in the case of a joint venture or a valid agreement in case of other similar arrangements.
- (ii) have a valid original or certified copy of an original good Standing Tax Certificate, certified by a Commissioner of Oath appointed in terms of the Justices of the Peace and Commissioners of Oaths Act Oaths Act No.16 of 1963).
- (iii) have a valid original or certified copy of an original good Standing Social Security Certificate (certified by a Commissioner of Oath appointed in terms of the Justices of the Peace and Commissioners of Oaths Act No.16 of 1963).
- (iv) have a valid original or certified copy of Affirmative Action Compliance Certificate, proof from Employment Equity Commissioner that bidder is not a relevant employer, or exemption issued in terms of Section 42 of the Affirmative Action Act, 1998 (certified by a Commissioner of Oath appointed in terms of the Justices of the Peace and Commissioners of Oaths Act No.16 of 1963).
- (v) Written undertaking in terms of section 138 of the Labour Act, 2015 and section 50(2)(D) of the Public Procurement Act, 2015.
- (vi) A profile of the company, its organisation and staff.

Further noting that:

- 1) The Bidders' submission will either be responsive or non-responsive. Bidders who do not comply with any of the above Mandatory Documents/Requirements will be disqualified from the entire evaluation process and will not be considered further.
- 2) Only original or valid certified copies will be accepted. Certification of documents must be done by the Namibian Police or by a Commissioner of Oath appointed in terms of the Justices of the Peace and Commissioners of Oaths Act No.16 of 1963.
- 3) For skills transfer, joint ventures between local and international firms and/or inclusion of Namibian professionals in the project team are encouraged.

5.2 Evaluation Criteria

The consultant must have a track record in successful coordination and development of Met Mast project site selection studies. The preferred service provider must demonstrate expertise in wind resource assessments and site selection for utility-scale projects, with strong proficiency in GIS mapping and Multi-Criteria Decision-Making (MCDM) methodologies. A thorough understanding of Environmental and Social Impact Assessment (ESIA) frameworks and familiarity with international standards, such as IEC and ISO environmental standards, is essential. **Track record should be substantiated by at least three (3) verifiable references letters stating project scope.**

Bidders should provide proof of certification and accreditation for conducting wind measurement campaigns, data analysis compliant with DIN EN ISO/IEC 17025:2019, wind field modeling, and energy yield calculations. A minimum of five (5) years of experience delivering similar services, is required, along with references. The consulting team must include a diverse range of experts, such as biodiversity experts or environmentalists, wind resource assessment specialists, renewable energy engineers, and Geographic Information Systems Expert/ Geo-spatial Mapping Expert.

Details of experience or similar assignments undertaken in the previous five years, including their locations.

Further noting that:

For skills transfer, joint ventures between local and international firms and/or inclusion of Namibian professionals in the project team are encouraged.

- (i) The required key professional staff are but not limited to:
 - Project Team Lead/ Wind Resource Assessment Specialists
 - Renewable Energy Engineer
 - Biodiversity/Environmental Management Expert
 - Geographic Information Systems Expert/ Geo-spatial Mapping Expert

Demonstrated by:

- a) Curriculum Vitae/resume clearly demonstrating minimum of 10 years relevant work experience (list projects relevant and adequate for the assignment) for all key professional staff is required.
- b) Certified copies confirming chartered/professional registration with an Engineering Council for the Team Lead is required.
- c) Certified copies of qualifications confirming a relevant Master's degree for all key professional staff except for the Geo-spatial Mapping Expert for whom a technical degree is required.

Further noting that:

For skills transfer, joint ventures between local and international firms and/or inclusion of Namibian professionals in the project team are encouraged.

- (ii) Audited Financial Statements of 2022/23 and 2023/24.

6. Submission Requirements

6.1 Submission method and address

The EOI documentation may be placed in an envelope, marked with the Procurement Name and Reference Number and submitted in the tender box at the 1st Floor, 8933 Heinitzburg Heights, c/o Heinitzburg & Dr. Theo Ben-Gurirab Streets, Klein Windhoek or may be submitted electronically via email to procurement@eif.org.na.

6.2 Closing Date of Submissions

The closing date and time for this submission: **21 February 2025 (Friday) at 12h00 (Namibian time)**.

Late submissions will be rejected and returned unopened.

6.3 Expenses incurred by the participant

EIF will not be responsible for or pay for any expenses or losses that any tenderer may incur in preparing and submitting this Expression of Interest.

6.4 Financial Proposal

No financial offers are requested at this stage.

6.5 Contract Commencement Date

The proposed contract commencement date is 01 May 2025. **(Subject to change)**

Any enquiries may be directed in writing to:

Procurement Management Unit

Ms. Tjirimejo Mbaha

Email: Procurement@eif.org.na