RCREEE
Regional Center for Renewable Energy and Energy Efficiency
المركز الإقليمي للطاقة المتجددة وكفاءة الطاقة

Request for Proposals

Selection of Consulting Services for

Analysis and Assessment of Potential Risks and Impacts of Habitats and the Biodiversity at RSWE 500 MW & AWPC 500 MW Wind Farms Prior Commencing Construction Phase in 2023 at Gulf of Suez

1. BACKGROUND

In 2013, the Arab Republic of Egypt (through the Ministry of Electricity and Renewable Energy) developed and adopted the Integrated Sustainable Energy Strategy (ISES) 2015 – 2035, which provides an ambitious plan to increase the contribution of renewable energy to 20% of the electricity generated by the year 2020, of which 12% of wind power plants is foreseen, mostly in the Gulf of Suez (GoS) due to the wind characteristics in the area.

In that respect, the Renewable Energy Law (Decree Law 203/2014) was issued to support the creation of a favourable economic environment for a significant increase in renewable energy investment in the country. The law sets the legal basis for the Build, Own and Operate (BOO) scheme to be implemented in which private investors are invited to submit their offers for solar and wind development projects.

Through the BOO mechanism, the Red Sea Wind Energy (RSWE) 500 MW and the Amunet Wind Power Co. (AWPC) 500 MW (hereafter referred to as 'the Developer'), have been selected for the development Wind Power Project in the GoS.

2. PROJECT LOCATIONS

The RSWE and the AWPC Projects are located within a 284km2 area that have been allocated by the GoE to NREA for development of wind farms (presented in green in the figure below). Within this, an area of approximately 90 km2 for RSWE and 69.4km2 for AWPC (presented in in red for RSWE, and in blue in the figures below) has been allocated by NREA for the development of this Projects.

The RSWE Project is located around 200 km to the southeast of the capital city of Cairo. More specifically, the Project is located near the Red Sea shoreline and within the Ras Ghareb Local Governmental Unit of the Red Sea Governorate, where the closest villages include Ras Ghareb (located 40 km to the southeast) and Zaafarana (45 km to the north).

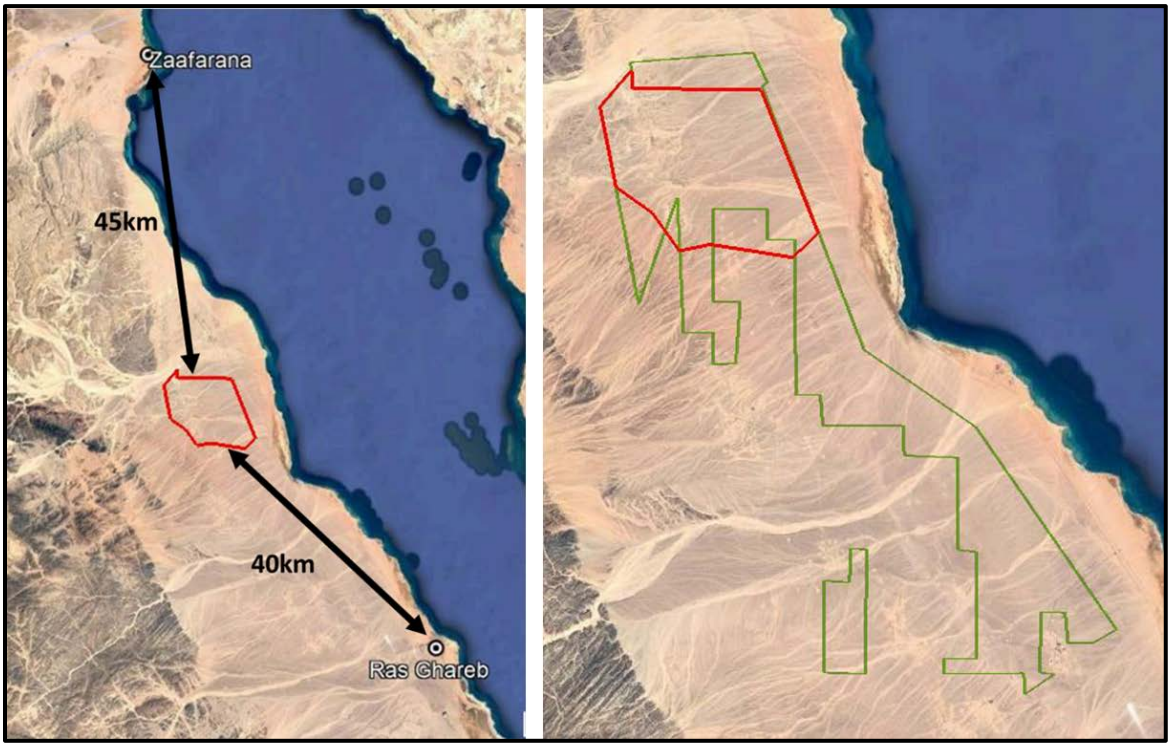

Figure 1 RSWE Project Site and Closest Villages

The AWPC Project is located in the Red Sea Governorate of Egypt, around 230km to the southeast of the capital city of Cairo. More specifically, the AWPC Project is located near the Red Sea shoreline and within the Ras Ghareb District of the Red Sea Governorate, where the closest residential areas include Ras Ghareb city (located 9km to the southeast) and Zaafarana village (65km to the north) – refer to figure below.

Figure 2 AWPC Project Site and Closest Villages

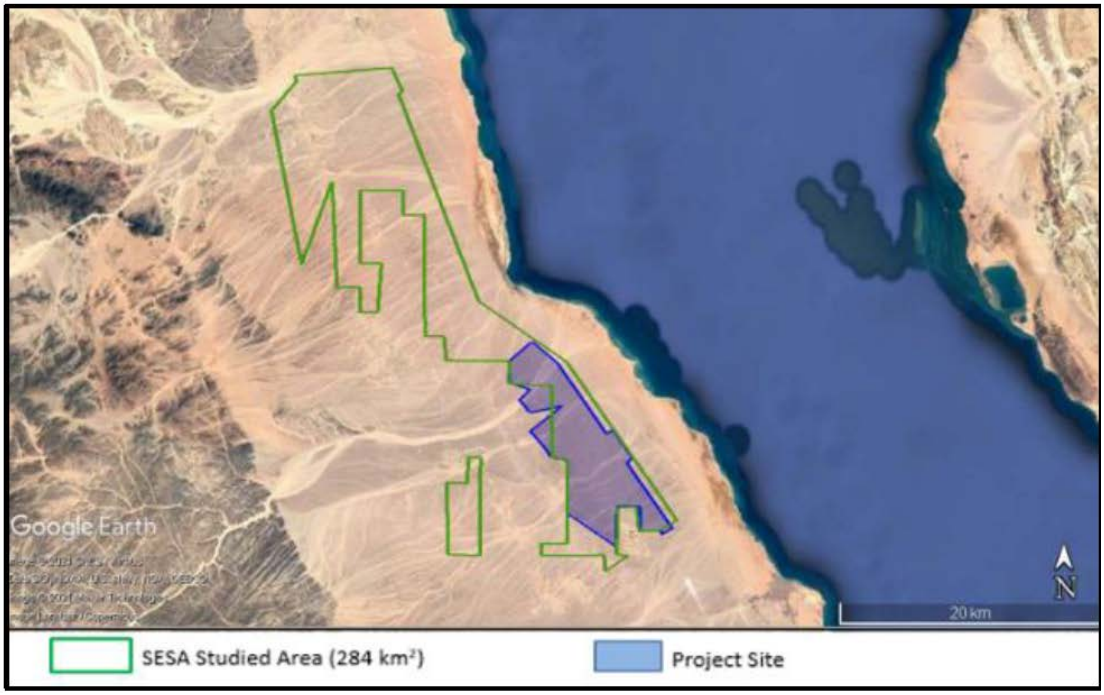

Figure 3 AWPC Project Site as Part of the 284km2 Area Allocated for Wind Farm Developments

3. SUMMARY OF BIODIVERSITY CONDITIONS & IMPACT AT PROJECT SITES

The Environmental and Social Impact Assessment (ESIA) undertaken in 2022 for RSWE and AMUNET Project comprised environmental and social baseline studies and an assessment of impacts. Mitigation measures, which are included in the ESMP, were identified for potential significant effects and the significance of residual effects determined. The impact assessment followed an assessment methodology developed to reflect current best practice. The key baseline and impact assessment findings related to the biodiversity (excluding the avi-fauna) are further discussed below.

RSWE Biodiversity: The biodiversity baseline assessment concludes that the Project site in general is barren and of low ecological significance and sensitivity. The assessment identified several flora and fauna species within the Project site most of which are considered of least concern and common to such area habitats. There are no sensitive habitats recorded within the Project site. Nevertheless, potential Egyptian Dabb Lizard (a globally threatened species) burrows were recorded in two wadis in the southwestern area of the Project site as noted in the figure below, however, ***no Egyptian Dabb Lizards were recorded onsite.*** The main impacts on biodiversity are mainly from improper conduct and housekeeping practices by workers (i.e., hunting of animals, discharge of hazardous waste to land, etc.) during the construction and operation phase. The RSWE ESIA has identified adequate mitigation measures which aim to control such impacts and ensure proper conduct and housekeeping practices are implemented.

Other impacts include potential for disturbance from construction activities on the Egyptian Dabb Lizard. However, the RSWE ESIA requires that a survey is undertaken prior to construction through a biodiversity expert. The survey should focus on all construction activities areas and in particular the Wadi systems where such a species is likely to be located. If the species is present in these areas the biodiversity expert will design and implement a pre-construction capture and relocation program based on demonstrated good practice for the relocation of this type of species. With the implementation of such measures the impact is considered not significant. (Please note that full RSWE ESIA will be submitted later)

Locations of the Wadis where Egyptian Dabb Lizard's Potential Burrows were Recorded within the RSWE Project Study Area.

AWPC Biodiversity: the AWPC Project site in general is considered of low ecological significance due to its natural setting that is characterized by having low vegetation cover in an arid environment with low level of diversity. In addition, no key or sensitive habitats were noted within the Project site, and all floral and faunal species recorded where in general considered common and typical to such habitats and of least concern. Although three species that are believed to be present in the Project site are evaluated as globally threatened (Vulnerable), none of them are believed to be present in globally significant numbers. However, special consideration should be given to the globally threatened Egyptian Dabb Lizard Uromastyx aegyptia since the Project site provides a typical habitat for the species, although it is believed not to be present in high numbers due to the low vegetation cover of perennial plants which normally provide major refuge for the species. (Please note that full AWPC ESIA will be submitted later).

4. SCOPE OF WORK

The consulting firm **will undertake pre-construction biodiversity screening *surveys (exluding avifauna and floral surveys) during April and May in 2023 at RSWE & AMUNET sites respectively*** prior to civil works commencing to ensure that impacts to terrestrial biodiversity, including priority biodiversity such as the Egyptian Spiny–Tailed Lizard (see Project Critical Habitat Assessment), are avoided and/or minimised as per the Project Biodiversity Management Plans for RSWE and AMUNET projects.

Based on the outcomes of the biodiversity assessments undertaken onsite in April and May 2023, the consulting firm will update the Biodiversity Management/Action Plan or similar document related to AMUNET and /or RSWE Projects to:

- Update and identify activities that may have an impact on fauna highlighting the major biodiversity threats;
- Update management, mitigation and enhancement measures / actions to be implemented for RSWE and AMUNET Projects to control impacts affecting the biodiversity within the Projects' area of influence during the construction phase (including in particular the Egyptian Spiny–Tailed Lizard).
- Update and identify roles, responsibilities and awareness campaigns needed for implementation of identified actions related to faunal findings during the construction phase.

Please note that Critical Habitat Assessment for RSWE and AMUNET Projects will be submitted later.

This section contains the proposed methodology to conduct biodiversity assessment of baseline conditions within and around Project area. This will include fauna.

Task 1: Desktop Review

The baseline assessment of the Project site will be first based on review of existing literature which includes published sources of previous studies, data, surveys, and records available in published scientific papers, books, and journals on fauna of the region, other available data from other studies that have been conducted in the area and/or adjacent areas, as well as any available grey literature or vernacular knowledge based on local community observations in order to establish a preliminary baseline data on terrestrial fauna of the projects' area.

The main objective would be to assess the site's relative significance for terrestrial fauna, taking into consideration known and potential species, their status, local distribution and proposed project activities. Conservation status of recorded species will be taken into consideration during the assessment and reporting. Species conservation status will be identified according to International Union for Conservation of Nature (IUCN) Red List of Threatened Species (IUCN, 2020), which provides the global conservation status of evaluated species. Local status of the potential and recorded species will be added, when their status in national Red Lists are available.

Task 2: Field Survey and Assessment

The aim of the surveys is to confirm identity of the species, as well as the habitat that may be utilized by them within the proposed project area. These surveys are essential to gather evidence on existing species and in order to determine any likely impact on these species that may be present to help to decide whether adopting mitigation measures are required subsequently.

International guidelines recommended that site surveys be undertaken to identify/confirm potential features within the survey area that could be utilized by different terrestrial species. The designed surveys require a detailed scale approach to identify the possible functions for each part of the survey area, to be utilized for inhabiting, foraging and movements of faunal species.

Furthermore, while assessing the importance of area's habitats to the species, data on the species densities is planned to be obtained by a standardized assessment of species activities within the area. The surveys would include two main components:

- Detailed assessment of habitats within and around the study area, mapping habitats and present and/or potential feeding habitats within the study areas or within reasonable buffer around to ensure including any existed and potential habitats that might attract species to utilize the study area's habitats.
- Detailed assessment of terrestrial fauna along with their activities within the area by implementing different standard survey methodologies. This will provide actual detection of species, ease their identification, and abundance estimation within the area. This field-based data would be critical in verifying the need and scale of any further required measures, to be adopted in light of the new available data from the field for certain taxa.

A standard ecological assessment method will be implemented to survey and assess the terrestrial fauna of the project area including mammals (volant and

non-volant; large, medium and small), herpetofauna (reptiles and amphibians), and invertebrate faunal species.

A combination of different methods will be applied to survey the study area. Walk transects, drive transects as well as active searching methods will be conducted to obtain the required data about existing habitats, and fauna of the study area. Habitats of the study area will be explored along with their associated biodiversity. The presence of the faunal species will be confirmed by direct observation or other associated signs such as tracks, dens and droppings. Photographic documentation for habitats, species and their signs will be applied when possible. Particular attention will be drawn to habitats that potentially supporting species of conservation interest such as protected and threatened species, if exist.

Faunal Survey

Mammalian Species Survey

Large, medium-sized and small mammals will be surveyed adopting different methods including active search, track stations, live trapping (small mammals) and Line transects.

- Track stations: A number of track stations will be created in the expected foraging sites and the tracked passages for mammals, every track station will be covering an area of 3 m2, any found old tracks and markings should be wiped off. In addition, adding baits (canned salmon with a strong fishy odor can be used) in the middle of each track station to attract mammals especially large and medium sized carnivores to document and confirm the presence of the species using the recorded fresh tracks. The track stations will be created and prepared before dusk in order to be checked on the next day's early morning to avoid any impact of anthropogenic activities.
- Active search: during the active search, which will be carried out all over the different parts of the area, animal signs such as markings, urine, faces, dens, tracks, trails, carcasses, remains of preys or even direct observation of mammals will be recorded and documented, when possible.
- Line transects: transects in many areas of the project site of over 100m long will be conducted to provide detailed assessment of fauna species. Observed species will be recorded and photographed as possible.
- Live trapping of Small Mammals: For inventories of small terrestrial mammals, live trapping approach will be applied. Traps will be randomly distributed within the study area in order to cover all habitat types. Baited Sherman traps in different sizes will be installed and distributed within project area, especially places found to have signs of high activity of small

mammals. Traps will be checked at regular base to make sure the trapped animal not last for long time within the trap. No chemical substances shall not be added to the traps to avoid killing of trapped mammals. Baits will be added to increase efficiency of traps, if found to be feasible. The trapped individuals will be identified to the levels of the species and all morphometric measurements will be recorded before releasing the animal back into it original site where it was trapped. Other indirect signs (burrows, tracks, dead and killed) of small mammals will be also recorded.

In addition to all stated methods, indirect observations such as animal tracks, dungs, scats and carcasses will also be documented. Moreover, interview with locals could be also an effective approach to gather more information about the mammals inhabiting the study area.

Herpetofauna (Reptiles and Amphibians) survey

Reptiles use habitats that offer exposure to the sun, cover from predators, suitable food and safe refuges. Diurnal active searching will be used for reptiles and amphibians survey (no amphibian species are known to inhabit the area), which involve searching for suitable basking spots, searching particular microhabitats, turning over rocks and logs, raking soil and leaf litter, and searching soil cracks and holes. Trees (especially acacia trees) and large shrubs – if any - and surroundings will be checked for the presence of snakes.

- Pitfall Trapping: (which considered the most useful method to trap terrestrial lizards) will be implemented by digging and lodging buckets into the soil. The traps will be concealed into soil leaving to some extent a deep slippery walled hole. No chemical substances shall not be added to the traps to avoid killing of trapped reptiles. The trapped individuals will be identified to the levels of the species before releasing the animal back into it original site where it was trapped. Other indirect signs (burrows, tracks, dead and killed) of individuals will be also recorded.

- For nocturnal species, torchlight-night surveys will be carried out. In this survey, surveyors will use light at night to find reptiles that are mostly active during night such as some snakes and geckos. Additionally, other opportunistic and incidental observations will be recorded. Surveyors will also report incidental detections of all reptiles and amphibians found dead or alive within the study area. All reptile's observations will be identified to species level according to the national reptiles and amphibians' guidebooks.

Particular attention will be given during the survey to a threatened species known to inhabit the area, Egyptian Dabb Lizard Uromastyx aegyptia which is classified as globally "Vulnerable" by IUCN Red List of Threatened Species.

Invertebrate Fauna survey

For invertebrate survey, the stated methods of Active search and pit-fall traps will be the main methods of sampling. In addition, using handheld-nets will be used for sampling to confirm identification. Direct observations and photographic documentations evidence will be used to confirm presence and confirmation of identification of the species.

5. TEAM COMPOSITION & QUALIFICATION REQUIREMENTS FOR THE KEY EXPERTS

Key Expert 1: Project Team Manager, *with overall responsibility for managing the Assignment, managing the relationship with RCREEE, and for the technical outputs of the Assignment.*

Qualifications and skills

- University degree (or equivalent) in Zoology or Biology.
- Good command of spoken and written English and track record of producing communications and reports in English.

General professional experience

- Preferably 10 years' work experience in survey of biological environments, including faunal surveys of habitats at RE projects including pre- and post-construction monitoring, development of mitigation measures.
- Preferably 5 years' experience of Herpetofauna survey (in particular *Egyptian Dabb Lizard Uromastyx aegyptia)* as well as working experience in SESA and/or ESIAs of renewable energy projects.

Specific professional experience

- Preferably 10 years' experience working in Egypt.
- Preferably 10 years professional experience in modern faunal survey techniques, in data analysis, and interpretation of biological data.

Key Expert 2: Expert (s) on Biodiversity and Habitats, *with overall responsibility for managing the Assignment onsite, undertaking the faunal surveys, and responsible for all data collection gathered by qualified searchers on habitats.*

Qualifications and skills

- University degree (or equivalent) in Biology, Zoology, Ecology or Environmental Sciences.
- Good command of spoken and written English

General and Specific professional experience

- More than ten years of professional experience as an zoologist or equivalent profession
- Proven experience providing recommendations for the conservation management of habitats
- Preferably 5 years' experience working in Egypt.

Non-Key Field Surveys: Local field experts with high skills and qualification in faunal surveys especially in *Egyptian Dabb Lizard Uromastyx aegyptia* and standardized data collection from sits.

6. RCREEE'S INPUT

- RCREEE will help in facilitating all security permits needed for working in the project areas - this will include access for all staff and the equipment.
- RCREEE will provide professional relevant multi-disciplinary personnel to work with the Consultant's team for the follow up on the project implementation.

7. IMPLEMENTATION ARRANGEMENTS

- The consultant will report on all aspects of the assignment to RCREEE.
- Start date & period of implementation is 20th April and the overall project duration is one month.
- The Consultant will provide all equipment for the fieldwork.

8. DELIVERABLES BY THE CONSULTANT

Analysis and Assessment of Potential Risks and Impacts of Habitats and the Biodiversity at RSWE 500 MW by 1st May 2023

Analysis and Assessment of Potential Risks and Impacts of Habitats and the Biodiversity at AMUNET 500 MW by 1st June 2023

Update Biodiversity Management/Action Plan or Similar for RSWE Project by 15th May 2023

Update Biodiversity Management/Action Plan or Similar for AMUNET Project by 15th June 2023

9. OTHER CONDITIONS:

- Preferred currency of proposal: EGP
- Price should inclusive of all costs, expenses, charges or fees that may incur in connection with the performance of its obligations hereunder, including management, travel costs and all kind of taxes, duties, levies, fees and other charges of any nature imposed by any authority or entity. RCREEE may deduct from any payment request presented in connection with this agreement any other allocation for duties or taxes. RCREEE may deduct the withholding tax and transfer such deducted amount to the tax authorities.