



BOO WIND POWER PLANT 500MW AT THE GULF OF SUEZ

NON-TECHNICAL SUMMARY (NTS) IN ENGLISH

1 December 2022

FINAL

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In 2020 a previous ESIA study was submitted local authorities and IFIs that included different turbine characteristics and a layout than that presented above. The previous turbine characteristics included a total of 173 turbines with a rated power of 2.9MW and a tip height of 120m.

In July 2022 new governmental approvals have been issued allowing an increase in tip height up until 220m, where previously due to various governmental restrictions the allowed tip height was set at 120m (as noted above). Based on that, all wind farm developers within the GoS are currently assessing installing such bigger turbines (including the RSWE).

Therefore, the Developer has opted at this point for the selection of such new turbine characteristics as well as layout for technical and economical/financial reasons. Based on that the previous 2020 ESIA has been updated taking into account the new turbine specifications and layout. The results of the updated ESIA are presented throughout this NTS.

1. INTRODUCTION

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 Consortium that is incorporating Red Sea Wind Energy (RSWE) (hereafter referred to as ‘the Developer’), has been selected for the development of a 500 MW Wind Power Project in the GoS (hereafter referred to as ‘the GOSII Project’ or ‘the Project’).

In accordance with the Egyptian Environmental Affairs Agency’s (EEAA) requirements as stipulated by the “Law No. 4 of 1994”, a project of this nature and scale is classified as “Category C”, which requires the preparation of a comprehensive Environmental and Social Impact Assessment (ESIA) before an environmental permit is granted. In addition, the Developer will be seeking financing for the Project from prospective lenders, including International Financial Institutions (IFIs). Therefore, the Developer wishes to design and manage the project in accordance with good international industry practice and standards, including Environmental and Social (E&S) requirements. For the purpose of the ESIA, this has therefore been developed in accordance with the “European Bank for Reconstruction and Development (EBRD) Environmental and Social Policy and associated Performance Requirements” (EBRD, 2014) and “International Finance Corporation (IFC) Performance Standards in Environmental & Social Sustainability” (IFC, 2012).

This document (the Non-Technical Summary (NTS)) provides a summary in non-technical language of the findings contained in the ESIA Report. The ESIA Report contains more detailed information on the Project and the environmental and social issues considered (refer to ‘Section 8’ for details on disclosure of the ESIA report). It includes a description of the need for the Project; details of the Project and the main alternatives considered; the assessment of the potential effects from the proposed development upon the environment and community; and details of any required procedures to mitigate significantly adverse environmental effects. It includes an Environmental and Social Management Plan (ESMP) which describes the monitoring and mitigation requirements for the duration of the project, including responsibilities and any legal requirements. The Developer commits to the ESMP.

Information about the Project is made accessible to stakeholders and the broad public through a disclosure package that includes the following key documents, available publicly in Arabic and English language. Section 8 provides details on the disclosure package.

- Environmental and Social Impact Assessment (ESIA) for the RSWE Wind Farm
- Environmental and Social Impact Assessment (EIA) for the associated Overhead Transmissions Line (OHTL)
- Non-Technical Summary (NTS)
- Stakeholder Engagement Plan (SEP)
- Cumulative Effects Assessment (CEA)
- Critical Habitat Assessment (CHA)
- Environmental and Social Management System (ESMS) Manual
- Environmental and Social Action Plan (ESAP)

2. PROJECT DESCRIPTION

2.1. Project Setting

The Project is located in the Red Sea Governorate of Egypt, 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).

The Project is located within a 1220 km² area that has been allocated by the GoE to NREA for development of wind farms. Within this area, 284 km² has been studied as part of Strategic Environmental and Social Assessment (SESA) (presented in green in Figure 1 below). Within this, an area of approximately 90 km² (presented in red in Figure 1 below) has been allocated to the Developer by NREA for the development of this Project.

The Project is expected to provide around 2,200 GWh – 2,500-Gigawatt Hour (GWh) of electricity per year. The Project will result in crucial positive environmental and economic impacts on the strategic, national, and local level. Such positive impacts underpin rationale for the Project. These include the following:

- This development allows for more sustainable development and shows the commitment of the GoE to realizing its energy strategy and meeting the set targets for renewable energy sources;
- The Project will contribute to increasing energy security through reliance on an indigenous, inexhaustible and mostly import-independent energy resource. The expected electricity generation from the Project will serve the annual electricity needs of more than 800,000 local households;
- Generating electricity through wind power is rather pollution-free during operation. Compared with the conventional way of producing electricity in Egypt, the clean energy produced is expected to reduce consumption of liquid fuels and therefore reduce greenhouse gas emissions as well as air pollutant emissions. The Project will likely displace more than 1 million metric tons of CO₂ annually. However, it is important to note that the construction activities of the Project will result in greenhouse gas emissions related to use of equipment and machinery. The estimated emissions during the construction phase (expected to be around 32 months) is around 26,500 tons.

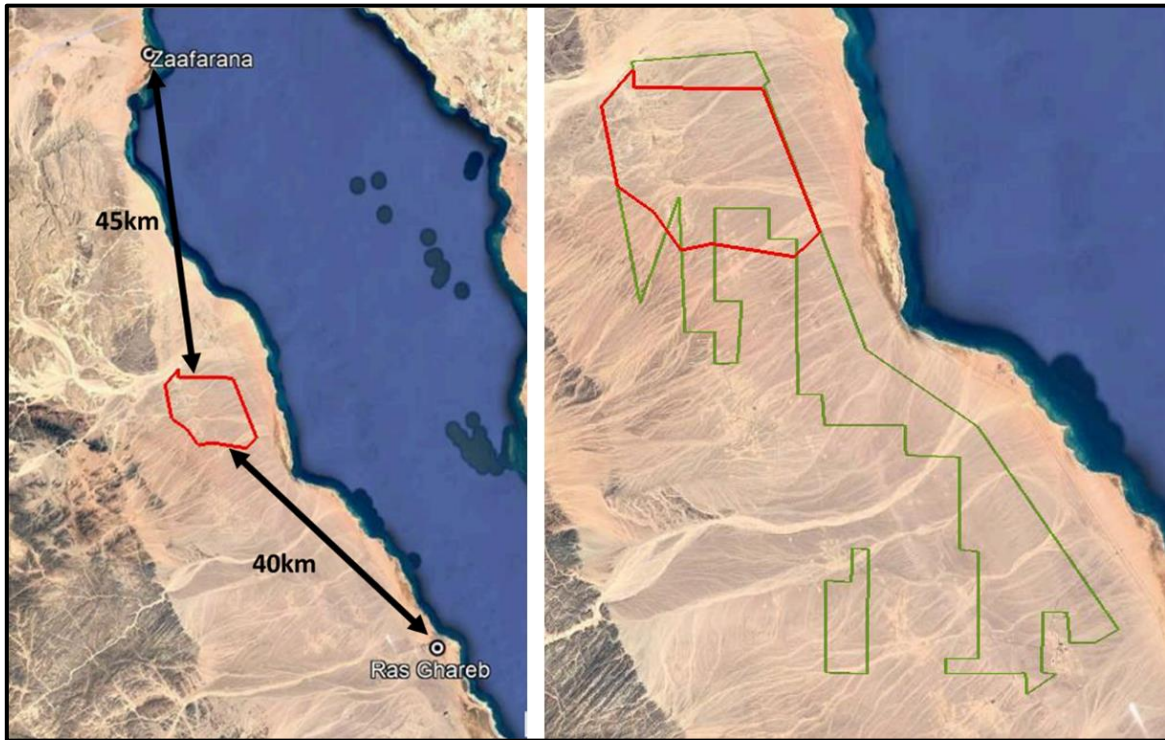


Figure 1: Project Site and Closest Villages

2.2. Project Components

Wind turbine technology relies on harvesting the kinetic energy in wind (i.e., movement of wind) and turning it into mechanical energy which in turn is used for electricity generation. The key components of the Project include the following:

- Wind Turbines: a typical wind turbine is presented in the figure below. For this Project this will include 84 wind turbines each with a generation capacity of 6 MW. Each turbine will have a hub-height of 97.5 m, rotor diameter of 165 m and therefore a tip height of 180 m.
- Supporting infrastructure and utility elements for the Project which will include:
 - Cables that will connect the turbines to an onsite substation
 - Substation that converts the output from the turbines to a voltage that is appropriate for connection with the National Grid - Onsite building infrastructure that will include an administrative building (offices) and a warehouse for storage of equipment and machinery
 - Road network for ease of access of various project components throughout the site
- Associated facilities which will mainly include an Overhead Transmission Line (OHTL) that will connect from the substation onsite to the National Grid for a length of about 36 km. A standalone ESIA has been undertaken for the OHTL – refer to “Section 6” for additional details.

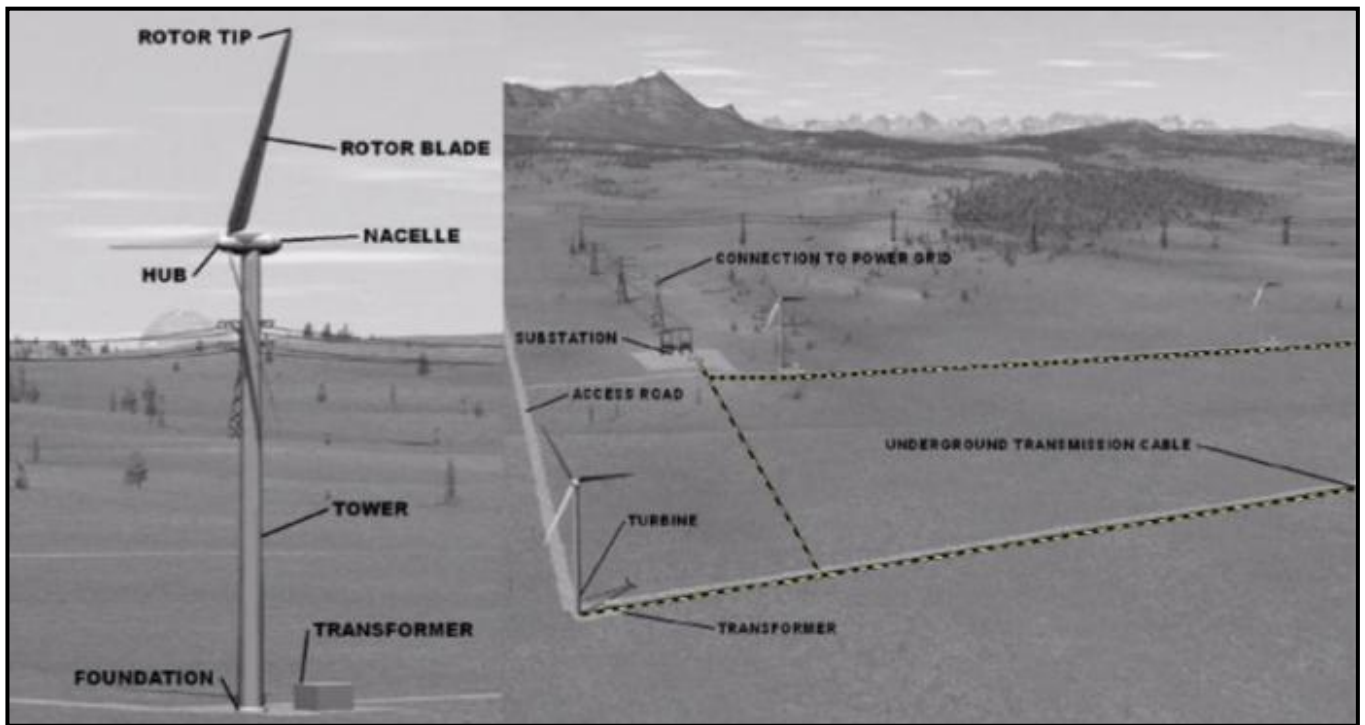


Figure 2: (a) Typical Structural Components of a Wind Turbine, (b) Typical Components of a Wind Farm

2.3. Project Phases

The Project will include 3 distinctive phases as follows:

- Design and Construction Phase that will include: (i) preparation of the detailed design, (ii) transportation of components to the site, (iii) site preparation activities (land clearing, excavations, etc.), and (iv) installation of components.
- Operation Phase that will include the normal daily operation of the wind farm and the undertaking of maintenance activities as required.
- Decommissioning Phase that will include the dismantling of the various Project components at the end of the life time.

According to the current timeline, construction of the Project is anticipated to commence around Q4 2022 and will require approximately 32 months for construction and commissioning. Operation of the Project is therefore anticipated to commence in Q3 2025 for a period of 25 years based on the PPA signed.

3. SUMMARY OF ENVIRONMENTAL AND SOCIAL CONDITIONS & IMPACTS

3.1. Introduction

The Environmental and Social Impact Assessment (ESIA) 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 are further discussed below.

3.2. Environmental & Social Baseline Conditions & Impacts

(i) Landscape and Visual

The Project site in general can be classified as a desert area with soil that is formed from sand and rocks. In addition, the site is characterised of being composed of large flat areas with some relatively small hills in some parts.

In terms of visual characteristics, no sensitive visual receptors were identified within the Project area and relevant radius surrounding the site (up to 15 km). Project site is located within an industrial area where several activities are noted (as discussed in more details in Section (ii) below).

The key impacts from the Project development are limited to the operation phase and which include impacts from Project visibility. Visual impacts associated with wind energy projects typically concern the turbines themselves (e.g., colour, height, and number of turbines) and impacts relating to their interaction with the character of the surrounding landscape and the visual receptor which might be present. Nevertheless, such impacts are considered not significant given that there are no key sensitive visual receptors within the area that could be affected. In fact, the Project is located within an industrial area which also includes several other wind farm developments, for which aesthetical value loses some importance.

(ii) Land Use

The Project site location does not conflict with any environmental land use planning such as areas of critical environmental concern – in particular, the Project site is not located within environmental protectorates or Important Bird Areas (IBAs).

In addition, as discussed earlier, the Project is located within a 1220 km² area that is under ownership of the GoE and which has been allocated to NREA for development of wind farms.

The ESIA also investigated the actual land use of the Project area through a land use survey. The only land use activities noted include the following:

- An existing petroleum storage facility which includes lagoons for petroleum, pumping station, storage tanks and tankers.
- An oil rig. In addition, there are around 4 oil rig stations that are located just outside of the Project boundary

Apart from those receptors identified above, the area in general is uninhabited and vacant with no indication or evidence of any physical or economical land use activities undertaken by the local communities or other stakeholder groups (such as grazing, agriculture, nomadic settlements, etc.).

In addition, land use activities in the surrounding area were also investigated. In general, the Project site is located within an industrial area. Key activities noted include the following as presented in the figure below: (i) Air Force Defence Unit located 3.4 km to the east; (ii) several existing petroleum activities the closest of which is 4.6 km to the north; (iii) other oil rig stations; (iv) touristic resort located at 17 km to the north; (v) sand quarry sites located around 20 km from the Project site to the west; and (vi) other wind farm projects.

Apart from the above, it is important to note that area is under the “Ghafra System” of Bedouin Groups (although they have no physical or economical activities within the site), which entails involving such Bedouin groups in the Project (through jobs, services, etc.) for their support.

Taking the above into account, there are no physical or economical displacement impacts anticipated from the development of the Project and no key issues of concern are expected. Nevertheless, the ESIA identifies mitigation measures to be implemented by RSWE at the planning stage to include:

- Establish coordination via NREA with the relevant entity (such as General Petroleum Company) to agree on any specific requirements to be taken into account as part of the detailed design for existing facilities such as the petroleum storage facility and oil rig, amongst other requirements; and
- Establish coordination with the Bedouin Groups for inclusion and engagement in employment opportunities during construction and operation to obtain their support.

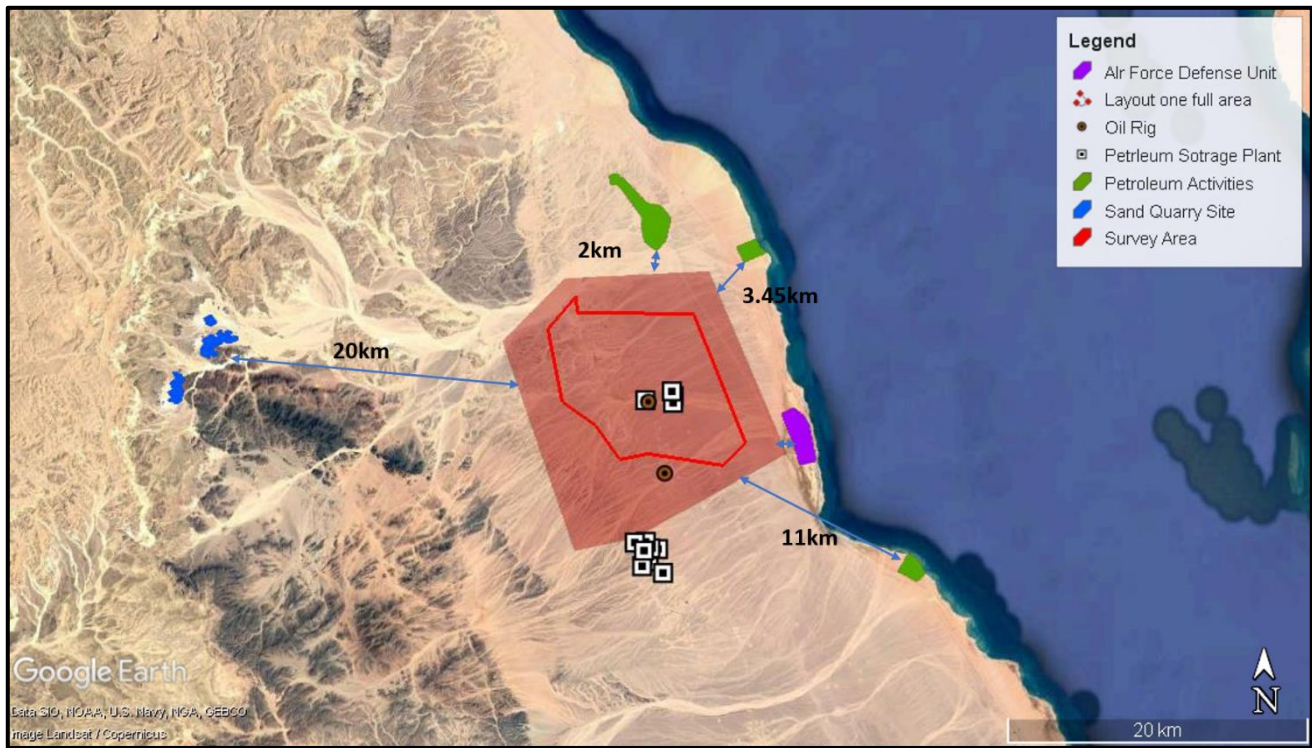


Figure 3: Land Use Activities within the Project Area and Surroundings

(iii) Hydrology and Hydrogeology (Soil and Groundwater)

From a hydrological perspective, the Project site is located within a low relief area that is characterized with a complete absence of any deep drainage lines or Wadi systems. From a hydrogeological perspective, the site is located within an area of moderate to low productive aquifers with insignificant surface recharge and limited sub-surface recharge.

Key impacts related to the Project include potential for flood risks which could affect the Project site during the rainy season and especially during flash flood events. Nevertheless, a preliminary flood risk assessment was undertaken as part of the ESIA which concludes that there are no flood risks anticipated onsite.

Other potential impacts are mainly from improper housekeeping practices during construction and operation (such as illegal disposal of waste to land) which could contaminate and pollute soil which in turn could pollute groundwater resources. The ESIA has identified adequate mitigation measures which aim to control such impacts and ensure proper conduct, waste management and housekeeping practices are implemented. With the implementation of such measures the impact is considered not significant.

(iv) 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, fauna and avi-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 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 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.

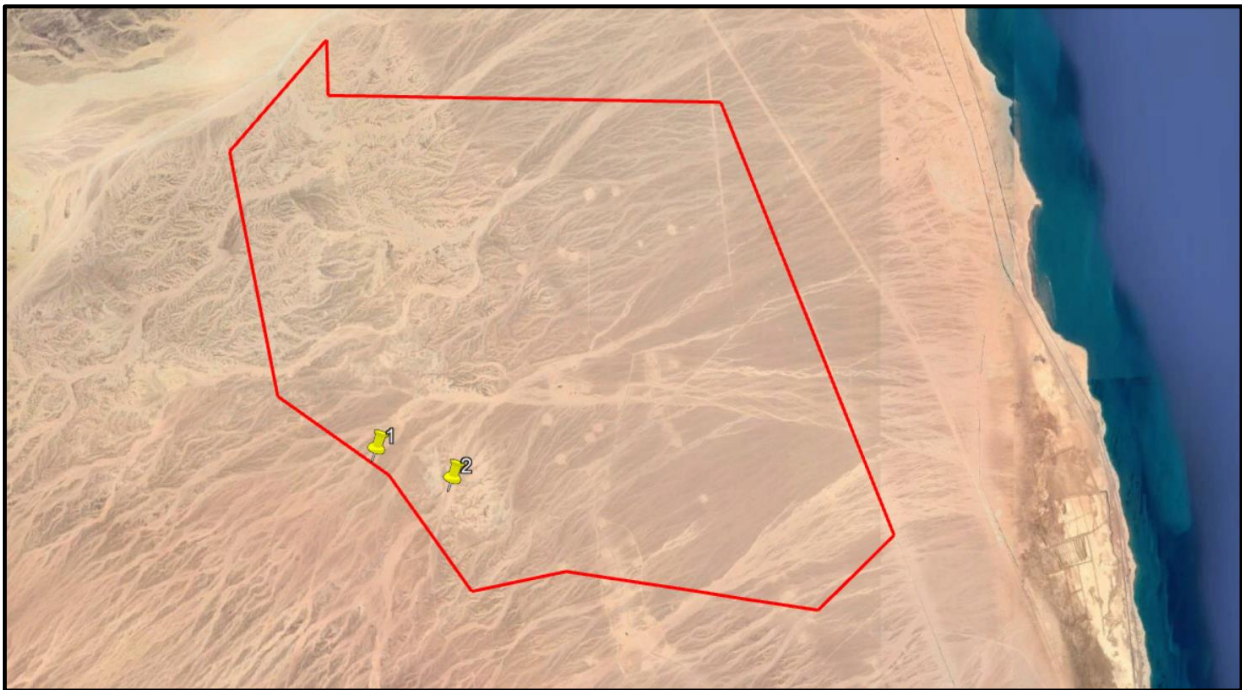


Figure 4: Locations of the Wadis where Egyptian Dabb Lizard's Potential Burrows were Recorded within the Project Study Area

(v) Birds (avi-fauna)

A baseline assessment was undertaken that include an avi-fauna survey that studied the use of the migratory and resident soaring birds of the Project site, while providing a detailed analysis of the durations that these species use the site and the elevations at which they are present, which would eventually provide an in-depth understanding of the predicted impact of the Project on bird species.

The survey was undertaken through eight (8) observation points that covered four (4) monitoring seasons (spring 2019, autumn 2020, spring 2020, autumn 2021). Each observation point was covered during each season, making up a total of around 2,540 hours of observation during autumn 2019, around 1,900 hours during spring 2020, around 2,670 hours during autumn 2020 and finally, around 2,530 hours during spring 2021 seasons.

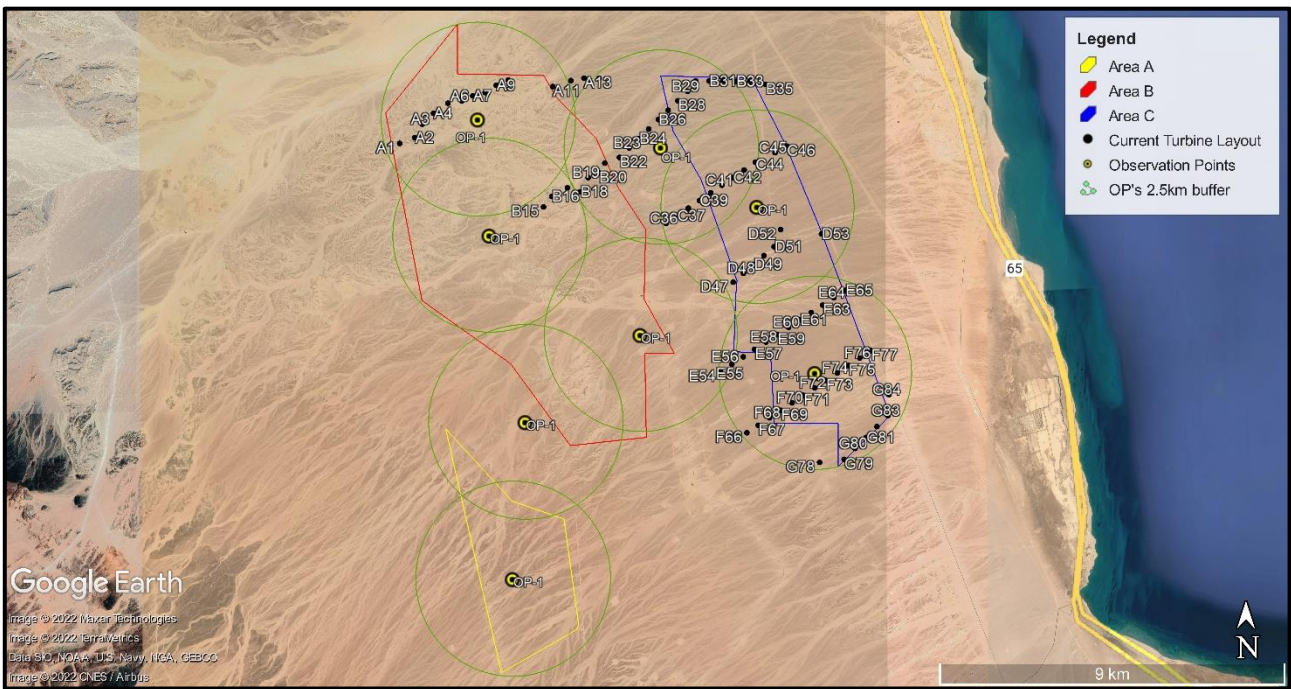


Figure 5: Location of Observation Points in the Project Area

The figure below also presents the location of the observation points with the previous turbine layout, which as discussed earlier had a total of 173 turbines with a rated power of 2.9MW and a tip height of 120m.

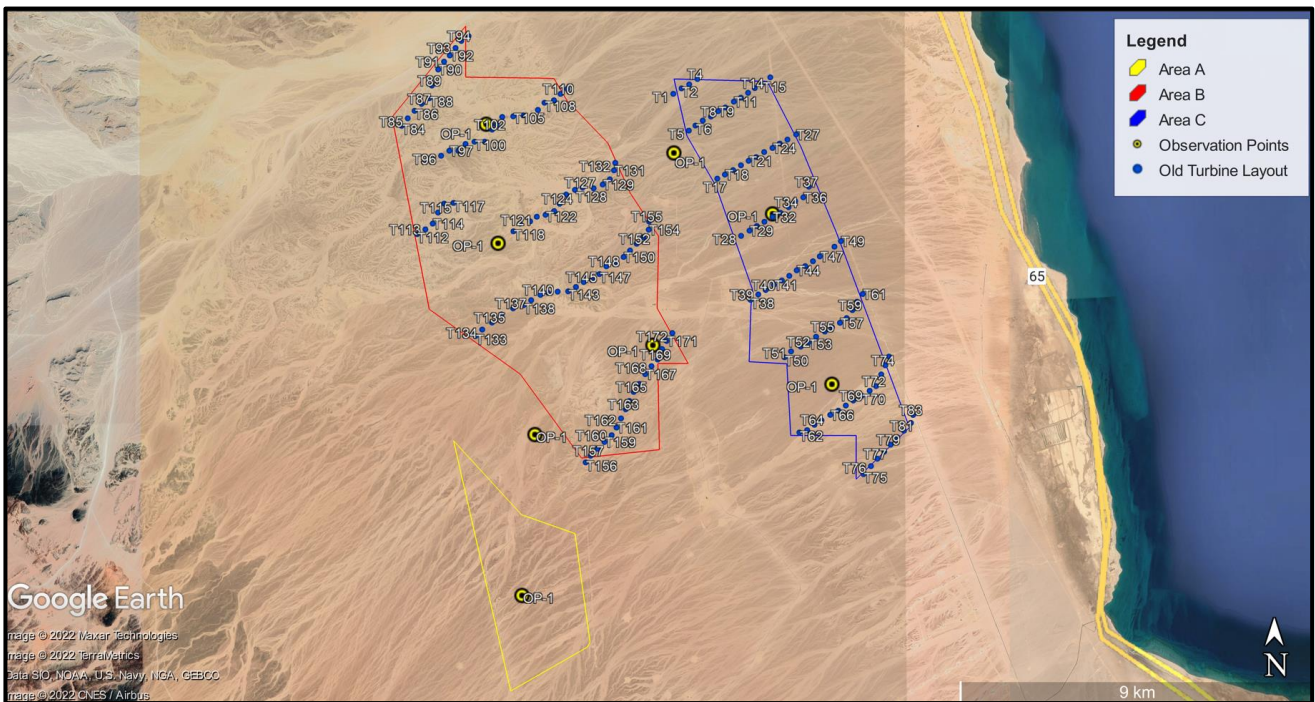


Figure 6: Location of Observation Points with Old Turbine Layout

Based on the spring seasons surveys in the monitoring time between 2020 to 2021, twenty-seven (27) species were recorded with a total of 309,330 individual birds during spring 2020 and 263,184 individual birds during the spring 2021. During the spring seasons, significant numbers were recorded and further analysis was undertaken showing records of globally threatened species and also numbers of global significance for Least Concern species.

Based on the autumn seasons, in the monitoring time between 2019 and 2020, a total of twenty-eight (28) species were recorded between both years, accounting for 11,071 individual birds in 2019, and 19,351 individual

birds in 2020. The majority of birds recorded belong to species of Least Concern while species of local and global significance (threatened) were recorded in low numbers.

Key impacts anticipated on birds is during the operation phase and mainly related to risk of bird strikes and collisions with rotors of the operating wind turbines. However, to control such impacts, an Active Turbine Management Plan (ATMP) will be implemented during the operation phase that will include:

- Avi-Fauna Monitoring and On-Demand Turbine Shutdown where during the migration seasons, daily onsite monitoring will be undertaken to shutdown turbine during risky situations to migrating birds to avoid collisions; and
- Fauna Carcass Search that will demonstrate the effectiveness of mitigation measures such as turbine shut down and allow an estimation of the annual number of bird deaths caused by the turbines.
- A Cumulative Effect Assessment (CEA) was conducted for the Project site. The assessment included a cumulative effects analysis on biodiversity of Red Sea Wind Energy (RSWE) Project's wind farms in the Gulf of Suez, Egypt. The analysis identifies priority bird Valued Environmental Components (VECs) (IFC 2013) and other VECs. RSWE presented high-level mitigation and monitoring actions. Additional actions that RSWE and other developers in the study area will take or support to address their contribution to cumulative effects were also presented. A staged screening of the preliminary bird species list was done to develop a final list of priority bird VECs most at risk from the Projects. 14 species with a Major or Moderate Overall Risk are priority bird VECs for the Projects. Ten priority species had a zero-fatality threshold, while four had a threshold between 10 and 100. Finally, mitigation measures and monitoring actions were proposed for RSWE and all wind energy developers in the study area. These mitigation and monitoring actions focus on the 14 priority VECs and are based on industry best practices and adaptive management at operational wind farms along the Gulf of Suez.
- A Critical Habitat Assessment (CHA) undertaken for the project site has identified a Critical Habitat (CH) in the vicinity of the project site, which is the Gebel El Zeit Important Bird Area (IBA). Globally-important concentrations of ten bird species migrate over the project site. There is, however, no evidence from surveys that these species regularly use the Project area as a stop-over site in normal circumstances, or that this area is a particular bottleneck within the already-restricted flyway. The Project area is not considered to be Critical Habitat although it appears to broadly be Natural Habitat although it is noted be low ecological significance and sensitivity. Overall, one reptile and 11 migratory bird species are considered to be Priority Biodiversity Features. Such designation requires that the Project needs to ensure a no net loss of such biodiversity. This will be achieved through implementation of the Active Turbine Management Plan (ATMP – see below) and turbine shutdown on demand, which will be design to avoid bird collisions. Impacts to the reptile will be avoided through pre-construction surveys and other controls.

(vi) Bats

The baseline assessment was undertaken based on a site survey that was undertaken from the months of July until November 2020 through the use of bat detectors. The survey indicated that the Project site was void of bat activities. In addition, the assessment concluded that the is expected to be of low significance mainly due to: (i) lack of nearby roosting sites; and (ii) Project area is not considered a feeding or foraging area for bats due to its windy nature, barren nature, and lack of permanent water sources that could attract flying insects and bats.

Key impacts anticipated on bats is during the operation phase and mainly related to risk of bat strikes and collisions with rotors of the operating wind turbines. Such impacts are anticipated to be not significant due to low activity expected.

(vii) Archaeology and Cultural Heritage

An archaeological baseline survey has been carried out for the Project site. The assessment concludes that there are no records of any sites of interests or significance within the Project area.

The main impact anticipated is during the construction phase from site preparation activities. As noted earlier there are no archaeological remains on the surface of the Project site, and therefore there are no anticipated impacts. However, there is a chance that throughout construction activities, archaeological remains buried in the ground are discovered. Improper management (if such sites are discovered) could potentially disturb or damage such sites. Nevertheless, the ESIA requires the implementation of chance find procedures if such remains in the ground be discovered throughout the construction phase. With the implementation of such measures the impact is considered not significant.

(viii) Air Quality and Noise

An air quality and noise baseline was undertaken for the Project area. The Baseline consisted of a 4-day monitoring program targeting key pollutants for a total duration of 96 hours. The baseline concluded that all pollutant levels are significantly lower than the maximum allowable ambient air levels indicated within the legal limits, and no exceedances recorded.

Construction and operation activities of wind power project are passive in nature and do not result in any key air emissions or significant noise sources. However, construction activities may increase level of dust and particulate matter emissions, which will temporarily impact ambient air quality. Moreover, the use of machinery and equipment are expected to be a source of noise and vibration within the Project site and its surroundings.

As part of the ESIA, appropriate mitigation measures have been identified for dust suppression and noise control and which will be implemented during the construction phase. This includes for example regular watering of all active construction areas, proper management of stockpiles, the use of well-maintained mufflers and noise suppressants for high noise generating equipment and machinery, etc. With the implementation of such measures the impact is considered not significant.

(ix) Infrastructure and Utilities

Water Resources and Utilities – the Project is expected to require around 80,000 m³ of water throughout the construction phase – equivalent to around 75 m³ /day. This will include water for construction requirements (concrete works, minimize dust, etc.) and potable use (drinking, washing, etc.). Similarly, during the operation phase, water will mainly be required for potable use of onsite staff at the Wind farm but is expected to be minimal and insignificant. The EPC Contractor and the Project Operator (RSWE) are required to coordinate with Ras Ghareb Water Company to secure water requirements for the Project, most likely through tankers. The Red Sea area is served with Nile water through the Kuraimat-Hurghada pipeline, in addition to 12 desalination facilities of different capacities with a lot of spare capacity. The Ras Ghareb area has been allocated a daily quota of around 15,000 m³ /day and the Ras Ghareb Water Company has confirmed availability to provide the needed water for the project through trucks.

Waste Utilities – solid waste, wastewater and hazardous waste generated during the construction and operation phase will be minimal and is expected to be managed and disposed through coordination with relevant authorities for disposal of waste streams (e.g., Ras Ghareb Water Company and Ras Gharib City Council).

Road Networks: Given the increasing size, weight, and length of components of the wind turbines, proper transportation and logistical solutions could be required for managing the heavy-load long-haul requirements. If improperly planned and managed, trucks hauling the various heavy Project components may damage existing roads, highways, bridges, utility lines (e.g., electricity lines), and could also be a public safety concern for other

vehicles on the road. The EPC Contractor will be required to prepare a Traffic and Transport Plan before commencement of any transportation activities to ensure that process is properly and adequately managed.

Aviation and Telecommunication: Improper planning and site selection of the Project could impact and affect infrastructure elements related to aviation, telecommunication and television & radio links in the surrounding area. The ESIA requires establishing coordination with relevant entities to provide information on the Project and include any specific requirements to be considered as part of the detailed design, if required.

(x) Socio-economic Conditions

The main impact anticipated on socio-economic conditions is related to potential job opportunities for local communities from the Project during construction and operation. However, such impacts are limited taking into account the nature of activities. No details are available at this stage on the number of job opportunities targeted to local communities, type of jobs, duration, etc.

Taking the above into account, RSWE is committed to ensuring that priority for job opportunities is targeted for local community members to the greatest extent possible throughout the construction and operation phase for skilled and unskilled jobs.

At a later stage, a local recruitment procedure will be developed by the EPC Contractor, under supervision from RSWE. The procedure will identify the number of job opportunities targeted for local communities and recruitment process will be undertaken through the Governorate's Labour Office. Based on that, the recruitment procedure will also include a selection process that is fair, transparent and provides equal opportunities for all including females.

In addition, RSWE will also implement a Corporate Social Responsibility (CSR) Program that will be implemented for the local communities based on their needs and requirements.

(xi) Occupational Health and Safety and Worker Accommodation

During the construction and operation phase there will be generic occupational health and safety risks to workers, such as working on construction sites, exposure electric shock hazards during maintenance activities, working at heights, etc. The ESIA requires that the EPC Contractor and Project Operator prepare an Occupational Health and Safety Plan (OHSP) tailored to the Project's site and activities. Such plans aim to ensure the health and safety of all personnel in order to concur and maintain a smooth and proper progress of work at the site and prevent accident which may injure personnel. With the implementation of such measures the impact is considered not significant.

In addition, the EPC Contractor will prepare a worker accommodation plan, which will define the minimum health and safety standards and principles for worker accommodation and ensure impacts on community health and safety from worker influx are managed and controlled. This could include impacts related to pressure on infrastructure, services and utilities, introduction of new reservoirs of diseases, inappropriate code of conduct by workers towards local communities, possible increase in social vices, and other.

(xii) Community Health, Safety, and Security

During construction and operation phase the main impacts on community health, safety and security include the following:

- Wind turbines produce noise during operation. In addition, operating turbines also produce shadow flicker effects which occur when the sun passes behind the turbine and casts a shadow away from the turbine's location. As the rotor blades rotate, shadows pass over the same point causing an effect known as 'shadow

flicker'. Both noise and shadow flicker could be a source of nuisances and disturbances. However, within the Project site and surrounding there are no sensitive receptors that could be affected by such impacts and therefore this is considered irrelevant.

- Trespassing of unauthorized personnel into the Project site and which could result in potential risks from several hazards of the various Project components. Nevertheless, it is expected that as part of the detailed design the security measures to prevent unauthorized access to the Project site will be identified which in turn will control any such impacts. This could include onsite security guards, fencing of some Project components (substation area), onsite surveillance and other.
- Inappropriate management of security issues and incidents by security personnel towards local communities could result in resentment, distrust and escalation of events. Nevertheless, a Security Management Plan will be prepared which will identify appropriate measures for hiring, rules of conduct, training, equipping, and monitoring of security personnel to control and manage such issues.

4. CUMULATIVE EFFECTS ON BIODIVERSITY

A Cumulative Effects Analysis (CEA) was carried out for the Project site taking into consideration a wider area that includes the whole wind farm development area along the western coast of the Gulf of Suez. The analysis has identified 14 species, which had an Overall Risk of Major or Moderate, and which are considered priority bird VECs for the projects in the study area. Building on the findings of the CEA, mitigation measures and monitoring actions are proposed, to be adopted by the RSWE project, and others that are proposed to be undertaken collectively and collaboratively by all wind energy developers across the study area. These mitigation and monitoring actions focus on the potential impacts to the 14 priority VECs and are based on industry good practice while building on the already existing experience of adaptive management at operational wind farms along the Gulf of Suez.

5. ENVIRONMENTAL & SOCIAL MANAGEMENT

The ESIA includes an Environmental and Social Management Plan (ESMP) which provides a high-level outline plan for managing and monitoring the environmental and social impacts during construction, operation and decommissioning of the Project. The ESMP identifies the mitigation measures which aim to eliminate and/or reduce the potential impact to acceptable levels and monitoring actions to ensure that the identified mitigation measures are implemented.

In addition, the development and implementation of an Environmental and Social Management System (ESMS) during the construction and operation is considered a key requirement under EBRD and IFC requirements. Therefore, RSWE also prepared an ESMS Manual which includes the following:

- Identification of the overall structure and outline for the ESMS that will be implemented for the Project during both construction and operation;
- Identification and outline of the key procedures and plans to be developed at a later stage by the EPC Contractor and Project Operator that will handle the key impacts and risks during construction and operation (e.g., air quality management plan, waste management plan, etc.)
- Identification of an institutional framework to ensure that such plans and procedures are implemented effectively and efficiently. This includes identification of roles and responsibilities, training requirements, monitoring and reporting requirements, and other as applicable;
- Identify approach for periodically auditing entities involved during the construction and operation phase to ensure that ESMS requirements are implemented effectively;

- Identification of a high-level framework for labour management that should be adhered to during the construction and operation phase; and
- Identification of a strategy and commitment in relation to local hiring and community support initiatives.

6. ESIA FOR THE OHTL

As discussed earlier, the electricity generated from the Project will be connected from the substation to the National Grid through an Overhead Transmission Line (OHTL) that will be developed by Egyptian Electricity Transmission Company (EETC).

The main component of the OHTL is the transmission towers which will transport the electricity from a substation located within the GOSII 500MW Wind Farm to the High Voltage National Grid. The OHTL will consist of around 107 towers that will be distributed throughout the route. The height of each tower will around 50m. The total route of the OHTL is around 35km. Part of the OHTL route will be parallel to existing and similar OHTLs.



Figure 7: Layout of the OHTL Route

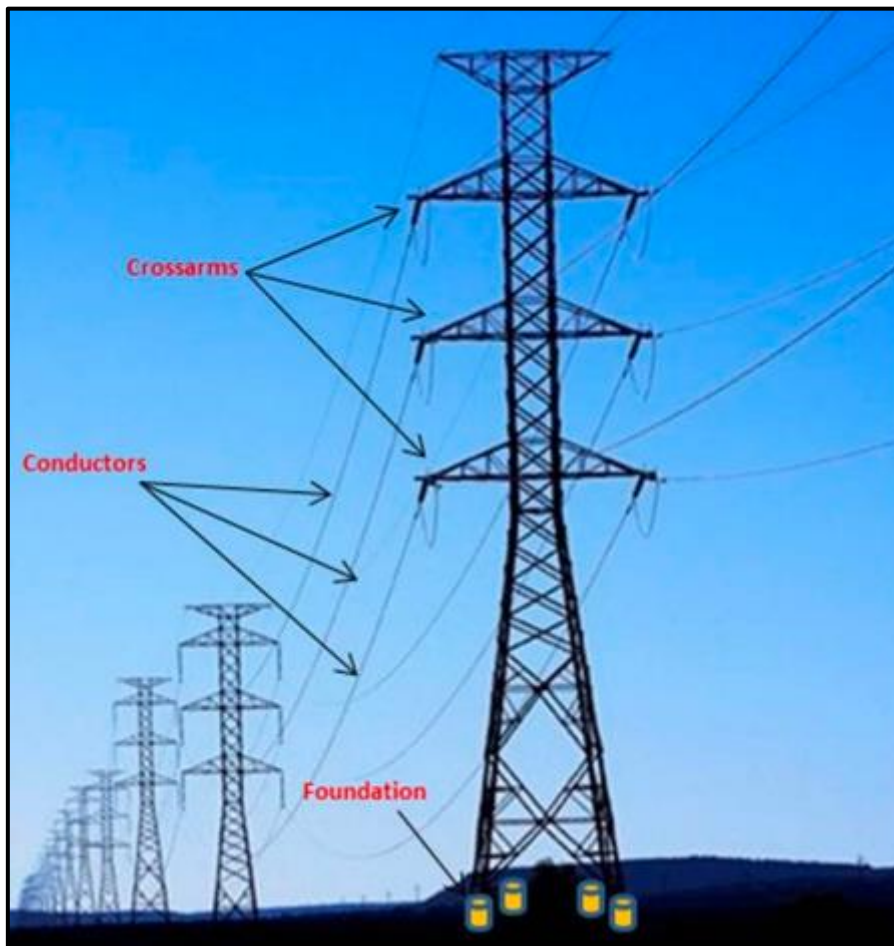


Figure 8: Typical Structural Components of Towers

A standalone Environmental and Social Impact Assessment (ESIA) has been undertaken for the OHTL. The ESIA in general concludes that there are no key issues of concern. The key outcomes are as follows:

- Similar to the wind farm area, the OHTL route also runs within an area with high bird migration especially during spring season. The ESIA requires that bird diverters are installed on the OHTL to reduce collisions during operation. In addition, the ESIA also requires that on-site avifauna fatality monitoring is implemented as part of the Active Turbine Management Plan (ATMP) discussed earlier.
- The southernmost section of the OHTL enters into the Important Bird Area (IBA) of Gebel El Zeit – assessed to be Critical Habitat, for less than 400 meters (refer to figure above – the IBA is presented in green). At this point the OHTL is located between two existing OHTLs. The OHTL ESIA has elaborated on the fact that the OHTL does not interfere with the main ecological functions and features that the IBA was identified for. These include the saltpan habitats of Sabkhet Ras Shukheir and the topography of Gebel El Zeit mountains, which forms a narrow corridor for migratory soaring birds. The OHTL ESIA has shown that both are located further south from the OHTL and the installation of the OHTL will not have impact on either. The ESIA requires that bird diverters are installed on the OHTL to reduce bird collisions during operation. Diverters are also recommended for the adjacent OHTLs. In addition, the ESIA also requires that on-site avifauna fatality monitoring is implemented along the OHTL route as part of the Active Turbine Management Plan (ATMP) discussed earlier. The Project will also support conservation objectives of the IBA and support the Migratory Soaring Birds Project managed by EEAA.
- The OHTL route runs within a key Wadi system in the area (Wadi Hawashiya). Therefore, ESIA recommends that a flood risk assessment is undertaken for the OHTL route to determine any design measures to be taken into account.

- Several road and electricity networks were noted near and/or intersect with the OHTL route. Therefore, ESIA recommends that discussions are undertaken between EETC and relevant entity to discuss OHTL route design and identify appropriate buffer distance requirements.
- Routine mitigation and management measures for waste management, dust and noise control, occupational health and safety, and chance find procedures to be implemented during construction and operation as applicable.

It is important to note that EETC is considered a governmental entity which RSWE has limited or no influence on and therefore the ability to manage impacts of the associated facility will be limited and RSWE will liaise and interact with the EETC to try to influence and have some key mitigations implemented, as those identified above.

7. STAKEHOLDER ENGAGEMENT PLAN (SEP)

A Stakeholder Engagement Plan (SEP) has also been developed for the Project that will be implemented by RSWE. The SEP identifies in details the stakeholders that are relevant to the Project to include local communities, national governmental and permitting authorities, local government, Non-Governmental Organizations (NGOs) and other. The SEP identifies previous stakeholder engagement activities undertaken for the Project and the key outcomes of such engagement activities. This included in particular several entities such as Red Sea Governorate, Ras Ghareb City Council, Bedouin Groups, General Petroleum Company and other. In addition, it also describes the outcomes of a public disclosure session that was undertaken in Ras Ghareb City with local communities and other key local governmental entities.

The SEP also identifies in detail a future stakeholder engagement strategy and plan which identifies activities that will be undertaken throughout the Project duration, which provides an opportunity for all stakeholders, including local communities, to express their views and interact with the Project.

The SEP also includes a stakeholder grievance mechanism that is responsive to any concerns and complaints from affected stakeholders and communities.

8. ESIA DISCLOSURE & CONTACT DETAILS

It is of utmost necessity to ensure that stakeholders are kept well informed about the Project throughout its life cycle, thus information will be accessible to the public, key stakeholders, and local communities through dissemination of related documents.

The disclosure package will include the following key documents that are available publicly in Arabic and English language:

- Environmental and Social Impact Assessment (ESIA) for the RSWE Wind Farm
- Environmental and Social Impact Assessment (EIA) for the associated Overhead Transmission Line (OHTL)
- Non-Technical Summary (NTS)
- Stakeholder Engagement Plan (SEP)
- Cumulative Effect Assessment (CEA)
- Critical Habitat Assessment (CHA)
- Environmental and Social Management System (ESMS) Manual
- Environmental and Social Action Plan (ESAP)

The above documents are available at the following avenues:

- EBRD website (www.ebrd.com)
- Developer Website ([ESIA DISCLOSURES - Red Sea Wind Energy S.A.E. \(rswe.co\)](http://ESIA%20DISCLOSURES%20-%20Red%20Sea%20Wind%20Energy%20S.A.E.%20(rswe.co))). The documentation above will remain at the website for the life of the project.
- Hard copies available at Red Sea Governorate and Ras Ghareb Local Governmental Unit

Ras Ghareb City Council

Location: Al-Mina Street

City: 11432 Ras Ghareb – Red Sea

Tel: 01001318480 – 01201958777

- Soft copies can also be made available to stakeholders via email to gawhara.abdelrahman@rasgharebwind.com