



BOO WIND POWER PLANT 500MW AT THE GULF OF SUEZ

**ENVIRONMENTAL AND SOCIAL MANAGEMENT
SYSTEM (ESMS) MANUAL**

4 August 2020

FINAL



INDEX SHEET FOR REVISIONS

Document Title:

Environmental and Social Management System (ESMS) Manual

REVISION HISTORY

REV NO	DESCRIPTIONS	DATE	PREPARED BY	CHECKED BY	APPROVED BY
00	Draft	20 July 2020			
01	Draft	22 July 2020	Sponsors		
02	Draft	27 July 2020	Sponsors		
03	Draft	30 July 2020	Sponsors		
04	FINAL	4 August 2020	Sponsors		

TABLE OF CONTENT

Table of Content.....	3
Abbreviations and Acronyms	5
1. Project Description.....	6
1.1 Background	6
1.2 Project Location	6
1.3 Project Components.....	7
1.4 Project Phases and Schedule.....	8
1.5 Involved Entities.....	9
2. Roles and Responsibilities	10
2.1 Construction Phase	10
2.2 Operation Phase.....	12
3. Overall Structure of E&S Management System	13
3.1 Objectives.....	13
3.2 EHSS Policy	14
3.3 Overall Structure for Environmental & Social Management System.....	15
3.4 Key Impacts Anticipated during Planning and Construction.....	16
3.5 ESIA and Supporting Documents Information Disclosure.....	17
4. Legal and Policy Framework.....	18
5. Management Plan Framework.....	20
6. framework for Labor management.....	26
6.1 Human Resources (HR) Policy	26
6.2 Labor Management.....	27
7. Impacts on birds and biodiversity	29
7.1 Summary of Baseline Assessment Findings	29
7.2 Potential Impacts and Mitigation Measures.....	30
7.3 Active Turbine Management Program (ATMP).....	32
8. EHSS Meetings, Training, Inspection and Monitoring Requirements	36
8.1 EHSS Meetings.....	36
8.2 EHSS Training.....	38
8.3 EHSS Inspection and Monitoring.....	39
8.4 EHSS Reporting and Records	40
9. Auditing	41
9.1 Environment, Health and Safety (EHS) Audit.....	41
9.2 Human Resources (HR) Audit	42
10. Contractor and subcontractor E&S Management	42
11. Site Security Arrangements.....	43

12.	Strategy and commitments to local hiring and Training.....	44
12.1	Local Hiring.....	44
12.2	Training.....	45
13.	Community Support Initiatives	45
14.	Stakeholder Engagement	46
15.	Management of Change.....	46
15.1	Scope of Environmental & Social Management System Changes	46
15.2	Management of Change Steps	47
15.3	Change Categorization	48
	Annex 1 – RSWE Ethics and Values Charter	49
	Objective	49
	definitions	49
1.	Our fundamental ETHICAL PRINCIPLES	49
2.	CODE OF CONDUCT IN SUPPLIER RELAYIONS	52
3.	OUR HUMAN RIGHTS COMMITMENTS	52
4.	GUIDELINES FOR IMPLEMENTATION	53

ABBREVIATIONS AND ACRONYMS

ATMP	Active Turbine Management Program
BMP	Bird Monitoring Program
CEA	Cumulative Effect Assessment
CHA	Critical Habitat Assessment
CLO	Community Liaison Officer
CSR	Corporate Social Responsibility
EBRD	European Bank for Reconstruction and Development
EEAA	Egyptian Environmental Affairs Agency
EETC	Egyptian Electricity Transmission Company
EHS	Environment, Health and Safety
EHSS	Environment, Health, Safety and Social
EPC	Engineering, Procurement and Construction
ESIA	Environmental and Social Impact Assessment
ESMS	Environmental and Social Management System
FMP	Fatality Monitoring Program
GoE	Government of Egypt
GoS	Gulf of Suez
HR	Human Resources
HSE	Health, Safety and Environment
HSSE	Health, Safety, Social and Environment
IFC	International Finance Corporation
IFI	International Financing Institution
KPI	Key Performance Indicator
kWh	Kilo-Watt Hour
LTSA	Long-Term Service Agreement
MV	Medium Voltage
MW	Mega Watt
NREA	New and Renewable Energy Authority
O&M	Operation and Maintenance
OE	Owner's Engineer
OHS	Occupational Health and Safety
OHTL	Overhead Transmission Line
PS	Performance Standard
PR	Performance Requirement
RCREEE	Regional Center for Renewable Energy and Energy Efficiency
RSWE	Red Sea Wind Energy
SESA	Strategic Environmental and Social Assessment
SEP	Stakeholder Engagement Plan
SGRE	Siemens Gamesa Renewable Energy
SOD-Program	Shutdown On-Demand Program
TBT	Tool Box Talk
WB	World Bank

1. PROJECT DESCRIPTION

1.1 Background

In 2013, the Arab Republic of Egypt (through the Ministry of Electricity and Renewable Energy) had 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).

In that respect, the Government of Egypt (GoE) issued the Renewable Energy Law (Decree Law 203/2014) to support the creation of a favorable 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. Through the BOO mechanism, the Egyptian Electricity Transmission Company (EETC) invites private investors to submit their offers for solar and wind development projects, for specific capacities and the award will be made to that bidder with the lowest Kilowatt Hour (kWh) price. In addition, the GoE [through the New and Renewable Energy Authority (NREA)] provides the land for the investors.

Through the BOO mechanism, Red Sea Wind Energy (RSWE) which is being incorporated by the consortium composed of Toyota Tsusho Corporation (TTC), Eurus Energy Holdings Corporation (EEH), ENGIE Energie Services S.A (ENGIE) and Orascom Construction S.A.E (OC) (hereafter referred to as 'the Developer'), has been selected for the development of a 500 Megawatt (MW) Wind Power Project (hereafter referred to as 'the GOSII Project' or 'the Project').

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, including Environmental and Social (E&S) requirements. IFIs require disclosure of such E&S requirements as provided in further details in "Section 3.5".

As part of such IFI E&S requirements, an Environment and Social Management System (ESMS) Manual must be developed. In general, the objective of the ESMS Manual is to determine the overall structure and outline of the ESMS and provide details on some key components aimed at managing key impact, to be implemented for the Project during both the construction and operation phase.

1.2 Project Location

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 residential areas include Ras Ghareb city (located 40 km to the southeast) and Zaafarana village (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 70 km² (presented in red in Figure 1 below) has been allocated to the Developer by NREA for the development of this Project.

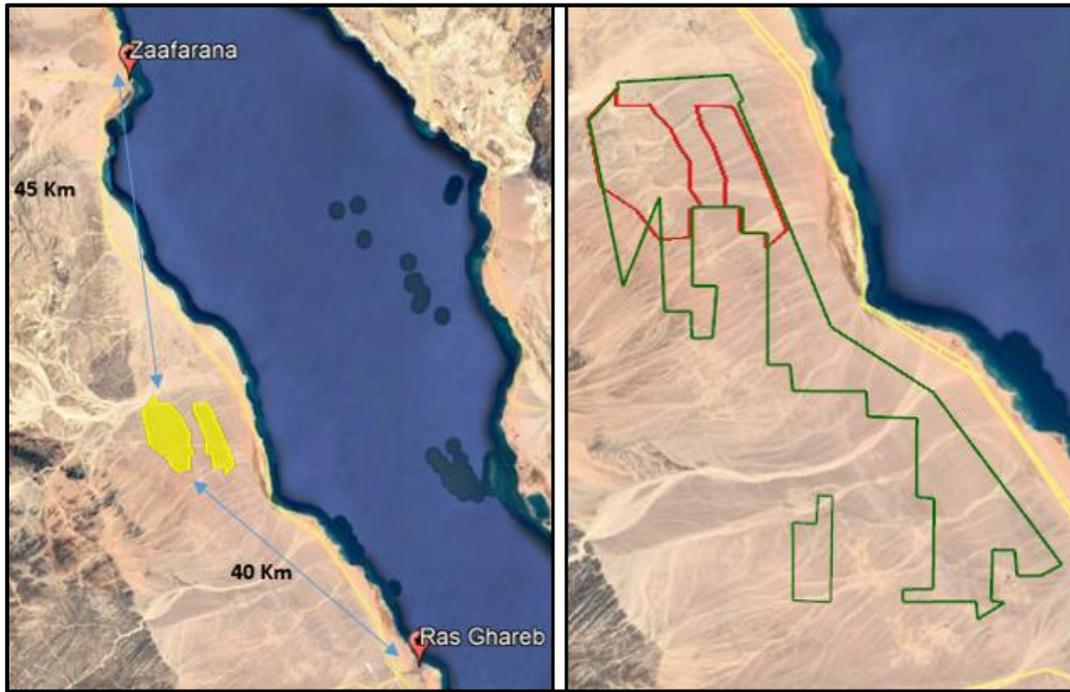


Figure 1: Project Site and Closest Villages

1.3 Project Components

The key components of the Project are discussed below. In addition, the figure that follows presents the location of these components within the Project site.

- **Wind turbines:** the wind turbines which convert the kinetic energy in wind (i.e. movement of wind) into electricity. There will be 173 turbines spread out throughout the Project site. Each turbine will be of 2.9 MW capacity with a hub height of 63 m, rotor diameter of 114 m (or blade length of 57 m) and thus a tip height of 120 m.
- **Foundations:** will be constructed to bolt the tower of the turbine in place. There will be 173 foundations (one for each turbine), where each foundation will have an approximate area of 300 m². The foundation will be built with concrete reinforced with structural corrugated steel.
- **Crane Pad:** next to each wind turbine to accommodate cranes for the installation of the turbines and for maintenance activities. Each crane pad will be around 1,500 m² in area (38 m in width and 40 m in length).
- **Building Infrastructure:** onsite building infrastructure will be required for the daily operation of the Project. Such buildings could include an administrative building (offices) used for normal daily operational related work, control room and a warehouse;
- **Medium Voltage (MV) Cables:** The wind turbines will be connected through medium voltage cables (33 kV) to the substation. The connection between the turbines and the substation will be made using underground transmission cables buried in ground by trenches. Such trenches will have a width of 1 to 6 m and a total length of around 100 km throughout the Project site.
- **Communications Network:** the Project will have a Supervisory Control and Data Acquisition (SCADA) system for the remote operation of the facilities. A communication network will be installed which will consist of fibre optic cables connecting the turbines together to the SCADA system at substation. The communication system will be installed in the same trenches as the MV cables discussed above.
- **Substation:** the substation is a high voltage transformer substation that collects and converts the output from the turbines to a higher voltage (from 33 kV to 220 kV) that is appropriate for connection with the High Voltage National Grid (220 kV). One substation will be located within the Project area.

- **Road network:** a road network will be required for installation of the turbines during the construction process and for ease of access to the turbines for maintenance purposes during operation. The road network will have a width of 7 m and a total length of around 150 km throughout the Project site.

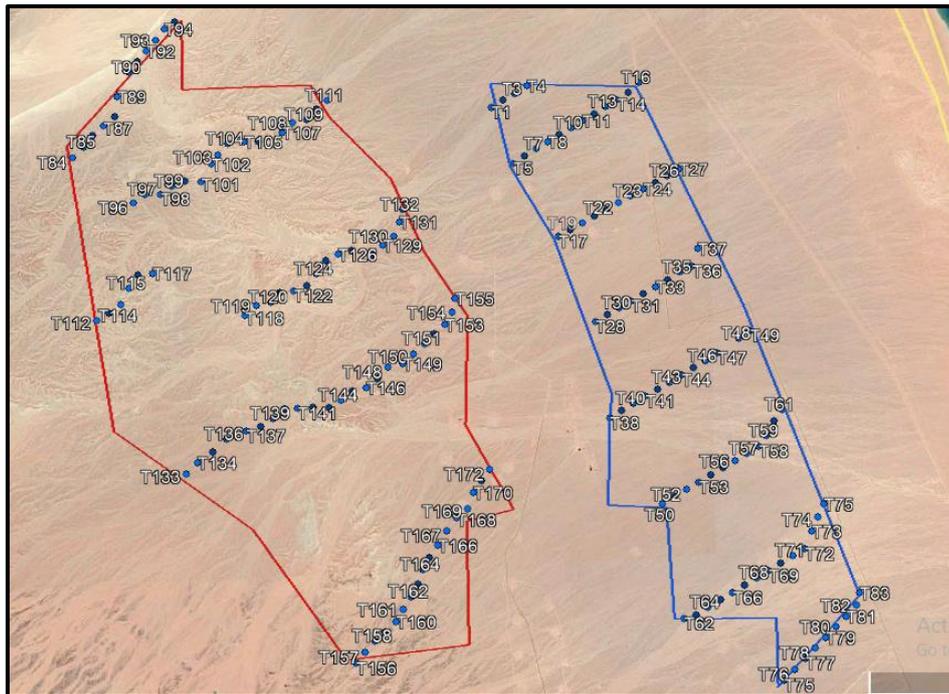


Figure 2: Project Layout

Associated Facilities

It is important to note that the Project also includes an electricity transmission line. The electricity generated from the Project will be connected from the substation (discussed above) to the National Grid through an Overhead Transmission Line (OHTL) that will be developed by Egyptian Electricity Transmission Company (EETC). A standalone Environmental and Social Impact Assessment (ESIA) has been undertaken for the OHTL.

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 included in the standalone ESIA study.

1.4 Project Phases and Schedule

They key phases anticipated for the construction and operation phase of the Project are summarized below.

Construction Phase

- **Phase 1: Engineering and Documentation:** This involves obtaining the permits required for the project and undertaking studies for development (e.g. geotechnical, topography, etc.) as well as preparing the detailed design for all project components.
- **Phase 2: Procurement and Delivery of Materials:** This involves the procurement of all materials required for the project development to include wind turbines as well as other material required for civil works, mechanical works, and electrical works.
- **Phase 3: Assigning of Subcontractors:** This includes tendering and selection of all subcontractors for the Project to include civil, electrical and mechanical contractors.

- Phase 4: Mobilization and Early Works: This includes undertaking all mobilization and early works to include installation of site offices, preparation of laydown area, preparation of site storage and workshop area and other as appropriate.
- Phase 5: Construction of Turbines: This will involve all civil works (excavations, foundations, drainage, etc.), mechanical works, and electrical works (underground works, low voltage works, earthing and lightning protection, etc.).
- Phase 6: Erection of Turbines: This will involve all works related to assembly and installation of the turbines through onsite cranes.
- Phase 7: Construction of Substation: This includes the civil and electrical works for construction of the substation located onsite and which will include civil works (grading, foundations, drainage, etc.) and electrical works (AC works, Medium Voltage works, etc.).
- Phase 8: Construction of Control Building and Warehouse: This includes the civil works, mechanical, and electrical works for construction of the control building and warehouse.
- Phase 9: Construction of Road Networks: This includes the civil works for construction of all required internal road networks.
- Phase 10: Testing and Commissioning: Commissioning tests involve standard electrical tests for the electrical infrastructure as well as the turbines, and inspection of routine civil engineering quality records. Careful testing at this stage is vital if a good quality wind farm is to be delivered and maintained.

Operation Phase

The operation phase of the Project will commence in the first quarter of 2023 for a duration of 20 years. The operation phase includes the normal daily operation of the wind farm. In addition, maintenance will also take place through a dedicated team. Typical routine maintenance time for a modern wind turbine is 40 hours per year. Non-routine maintenance may be of a similar order. Although minimal, maintenance activities may include turbine and rotor maintenance, lubrication of parts, washing of blades, maintenance of electrical components, full generator overhaul, etc.

1.5 Involved Entities

Different entities are involved in the construction and operation phase of the project. Responsibilities of each entity are listed in the text below along with a general description of their roles.

- Red Sea Wind Energy (RSWE) which consists of a consortium of ENGIE, Toyota Tsusho Corporation (TTC), Eurus Energy Holdings (EEH), and Orascom Construction (OC) (the Developer): is the Project proponent and developer and will be the owner of the Project.
- Owner's Engineer (OE): the OE will be appointed by the Developer and will be involved throughout the construction phase to ensure that the EPC Contractor is adhering to the technical project specifications required.
- Regional Center for Renewable Energy and Energy Efficiency (RCREEE): RCREEE will be appointed by the Developer during the construction phase to perform analysis and do an assessment of the potential risks and impact on habitats and biodiversity of the Project. Besides, RCREEE will be responsible for conducting the Active Turbine Management Program (ATMP) which consists of the Bird Monitoring Program (BMP), the Shutdown On-Demand Program (SOD Program), and the Fatality Monitoring Program (FMP) throughout the operation phase.
- Engineering, Procurement, and Construction (EPC) Contractors: responsible for the development of the Project on a turnkey basis. Responsibilities include the preparation of the detailed design of the Project, supply of the material and equipment (wind turbines, cables, transformers etc.), and construction of the Project and its various components (turbines, internal access roads, building infrastructure, connections,

etc.). The EPC Contractors for this Project will be Orascom Construction for the construction and commissioning of the civil and electrical works, while Siemens Gamesa Renewable Energy (SGRE) will be responsible for the supply, erection and commissioning of the wind turbines;

- **Subcontractors:** this will involve subcontractors during the construction phase for civil, electrical and mechanical works. Subcontractors have not been selected at this stage.
- **O&M Operator and LTSA Contractor:** RSWE will operate the wind farm with key O&M support from SGRE under a Long-Term Service Agreement (LTSA) (RSWE is hereafter referred to as the 'O&M Operator' while SGRE is referred to as the 'LTSA Contractor'). The Project will have either (i) own qualified technical personnel or (ii) a contract with RGRES (Ras Ghareb Renewable Energy Services S.A.E, a service company with same shareholders as RSWE and providing same and exclusive service to RGWE) to perform the operations on the balance of plant scope, as well as a limited set of maintenance activities. This team will also follow-up on the performance of SGRE under the LTSA. Further non day-to-day balance of plant maintenance activities will be outsourced to local or international contractors that qualify for these activities.

2. ROLES AND RESPONSIBILITIES

This section identifies the EHSS (Environmental, Health, Safety and Social) roles and responsibilities for key personnel involved in the Project during construction and operation. These roles must be included in the job descriptions and be known by the concerned employees. Throughout the Project, project management and employees, all contractors/lower-tier contractors will comply with this plan as relevant.

2.1 Construction Phase

The figure below presents the organizational structure for the construction phase. Based on the organization structure, this section identifies the lines of authority and roles and responsibilities for those personnel that are involved in the EHSS management during construction.

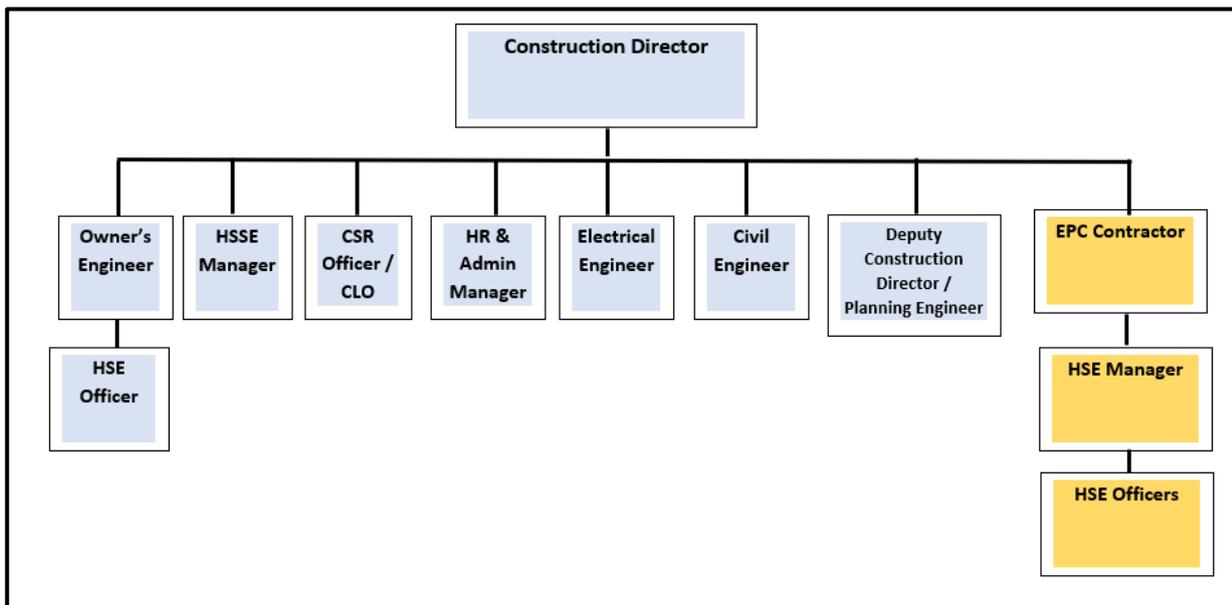


Figure 3: RSWE Organizational Structure for Construction Phase

Construction Director – RSWE

- Overall monitoring of EHSS performance of the Project and defines feasible and sustainable actions to enhance it

- Ensures the availability of required resources to properly implement the EHSS plans and requirements
- Promotes leadership in EHSS and implement EHSS improvement initiatives
- Provides the means to control the EHSS risks on all activities of the Projects
- Enhances the EHSS compliance culture through exemplarity and commitment
- Chairs monthly EHSS Committee meetings (as detailed further in Section 8.1)
- Guarantees that all employees under his/her authority and responsibility are medically fit, trained, accredited, equipped and competent to perform their work
- Ensures the consistent enforcement and implementation of all programs, policies and procedures
- Ensures that EPC Contractor and subcontractors meet EHSS requirements of the Project

HSSE Manager – RSWE

- Supports Construction Director in steering and implementing the EHSS management of Project
- Focal Point for all Health, Safety, Security and Environmental (HSSE) and social issues
- Maintains and updates EHSS rules, regulations and guidelines, local/international requirements as applicable to the project
- Advises on legislative changes concerning EHSS which may affect the Project
- Develop, maintains & monitors the EHSS plans (as identified in Section 3.3)
- Reviews and approves all EPC Contractors' and subcontractors' EHSS plans as required
- Ensures the implementation and verification of corrective and preventive actions
- Supports the management in the promotion and improvement of EHSS awareness
- Assists in the investigation of any accident / near miss and compiles the necessary reports
- Communicates with EPC Contractors and subcontractors and advises on their EHSS matters
- Participates to all EHSS meetings (as detailed further in Section 8.1)
- Supports the EPC Contractors' and subcontractors' managers in identifying and assessing the EHSS risks of their activities, as well as in defining mitigation measures to control these risks
- Plans, organizes, participates and conducts HSE audits (as detailed in Chapter 9)
- Keeps all records as required

CSR Officer / Community Liaison Officer (CLO) – RSWE

- Monitor and maintain a positive profile of the project with the community and required stakeholders
- Manage day to day interaction with all stakeholders during the construction and operation phase as indicated within the project Stakeholder Engagement Plan (SEP) including (but not limited to) local community members and others
- Implement and manage stakeholder grievance mechanism
- Implement, monitor and report on the implementation of community support initiatives

HR and Admin Director – RSWE

- Overall responsibility for implementation of HR, employment and labor management principles and requirements for RSWE staff (as detailed in Chapter 6)
- Undertake and follow up on HR and labor management audit during construction and operation to ensure EPC Contractors' and LTSA Contractor's compliance with the relevant requirements (as detailed in Chapter 9)

Owner's Engineer (OE)

RSWE will appoint an Owner's Engineer (OE) for the project with the objective of ensuring that the EPC Contractors are adhering to the technical project specifications.

OE team will include an HSE officer whom will be mainly responsible for supporting the RSWE HSSE Manager in undertaking and fulfilling his roles and responsibilities as identified earlier.

EPC Contractor Requirements

The EPC Contractors will each be required to assign a full-time and suitably qualified onsite HSE Manager that will be responsible for undertaking the following responsibilities:

- Overall responsibility for development and implementation of EPC Contractors' EHSS Management System requirements (as identified in Section 3.3)
- Ensures the availability of required resources to properly implement the EHSS plans and requirements
- Provides EHSS reporting requirements as relevant (as identified in Section 8.4)
- Provides EHSS training requirements as relevant (as identified in Section 8.2)
- Undertake EHSS inspection and monitoring requirements as relevant (as identified in Section 8.3)
- Organize and participates in EHSS meetings (as discussed in Section 8.1)
- Reports on EHSS incidents
- Ensure that all subcontractors nominate sufficient HSE officers for the overall implementation of EHSS plans and requirements as applicable.

The HSE Manager should be supported by 3-5 (depending on construction schedule) full-time and suitably qualified onsite HSE Officers.

Other Project Personnel

- Cooperates with, and constructively participates in the EHSS plans
- Complies with Project EHSS requirements that apply to an individual's work
- Works within competencies held
- Adheres to procedures to protect safety, the safety of your fellow employees, and the safety of the general public
- Is proactively involved in the EHSS program; this involvement may include some aspects of planning, problem solving, priority setting, training, and improving site specific work practices
- Does not misuse or damage any equipment

2.2 Operation Phase

The figure below presents the organizational structure for the operation phase. Based on the organization structure, this section identifies the lines of authority and roles and responsibilities for those personnel that are involved in the EHSS management during operation.

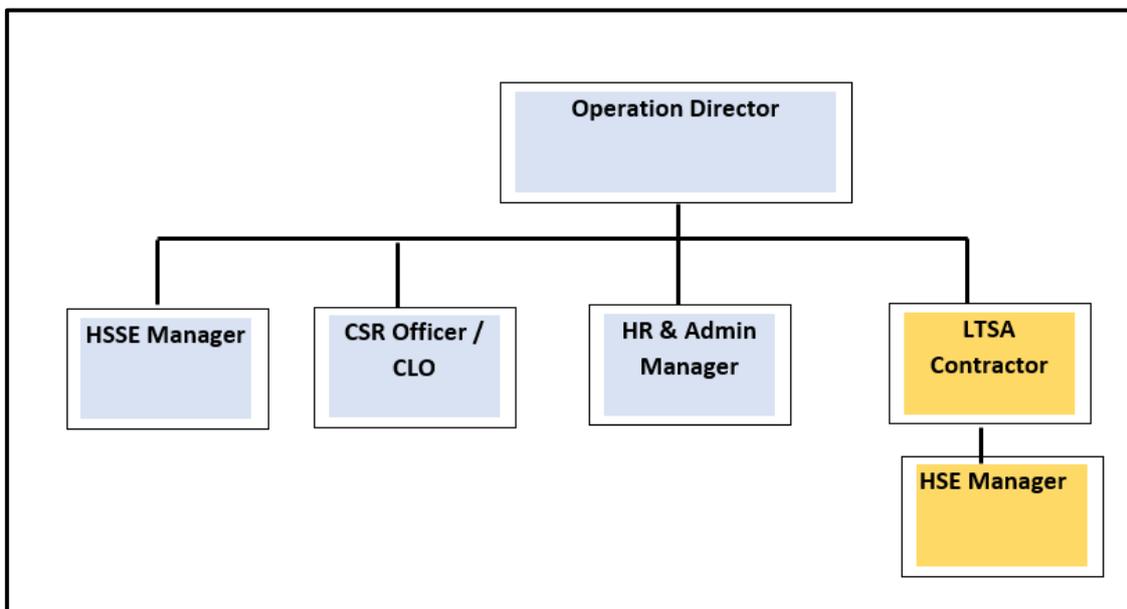


Figure 4: RSWE Organizational Structure for Operation Phase

Operation Director – RSWE

- Similar to Section 2.1 but for operation phase

HSE Manager – RSWE

- Similar to Section 2.1 but for operation phase

CSR Officer / Community Liaison Officer (CLO) – RSWE

- Similar to Section 2.1 but for operation phase

HR and Admin Director – RSWE

- Similar to Section 2.1 but for operation phase

LTSA Contractor – SGRE

- The LTSA Contractor will be required to assign an onsite, full-time and suitably qualified HSE Manager. Roles and responsibilities will be similar to those identified in Section 2.1 but for operation phase.

Other Project Personnel

- Similar to Section 2.1 but for operation phase

3. OVERALL STRUCTURE OF E&S MANAGEMENT SYSTEM

3.1 Objectives

This document outlines the Environmental and Social Management System (ESMS) that will be established and implemented by RSWE during the construction and operation phase of the Project. The objectives of this ESMS Manual include 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 that will handle the key impacts and risks during construction and operation.

- Identification of an institutional framework to ensure that such procedures and measures 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 all EHSS requirements are implemented effectively;
- Identification of a high-level framework for security arrangements onsite during the construction and operation phase;
- 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.

3.2 EHSS Policy

RSWE is committed to the protection of the environment and to the health and safety of its employees, contractors and the local community through all stages of the project life cycle. To achieve this goal, RSWE is committed to the following EHSS Policy:

- Comply with all applicable national and local EHSS laws and regulations as well as permitting requirements;
- Meeting internationally-accepted industry best practice EHSS requirements, including those of the relevant International Financing Institutions (IFIs), in specific the IFC Performance Standards, EBRD Performance Requirements, World Bank Group (WBG) General EHS Guidelines, and WBG EHS Guidelines for Wind Energy;
- Achieve a target of Zero fatalities, Zero injuries and Zero significant environmental accidents
- Strict compliance with the 9 life-saving rules
- Assessing and minimizing potential impacts to the community, worker and the environment;
- Establishing and maintaining an Environmental & Social Management System (ESMS) which identifies objectives and targets, risks and hazards, responsibilities, and includes systems of monitoring and reporting as well as incident and accident reporting and investigation;
- Realizing continual improvement in EHSS performance by developing indicators, through monitoring and auditing performance, and by implementing corrective actions where needed;
- Reporting externally on EHSS performance and encouraging dialogue with employees, local communities and other stakeholders to promote awareness;
- Setting and achieving targets that promote the efficient use of natural resources;
- Minimizing and managing all waste streams and where waste is generated ensure that it will be handled and disposed of safely and responsibly;
- Providing a place of work that is safe for everyone;
- Supporting and protecting internationally recognized human rights; and
- Ensuring that RSWE's employees, and RWSE's contractors, are made aware of this Policy and are adequately trained to manage the EHSS risks and impacts of their actions.

RSWE will monitor and review this Policy on a regular basis to ensure that it continues to support and encourage a high standard of EHSS performance.

3.3 Overall Structure for Environmental & Social Management System

This section identifies the overall structure for ESMS for the Project. This ESMS Manual along with the associated management plans identified below are collectively considered the EHSS Management System that will be implemented for the construction and operation phase of the Project.

A. Project Developer – RSWE

This ESMS Manual, along with the assessment studies and the associated management plans and programs identified below are the ESMS plans and documents that have been prepared and are to be implemented by RSWE. Such associated management plans should be read in conjunction with this ESMS Manual.

- Environmental and Social Impact Assessment (ESIA): the Environmental and Social Management Plan (ESMP) is the key outcome of the ESIA. ESMP requirements are to be implemented by RSWE, the EPC Contractors and LTSA Contractor as applicable. Relevant requirements of the ESMP are to be included within the relevant management plans discussed throughout this section.
- Stakeholder Engagement Plan (SEP): identifies a structured approach for stakeholder consultation and engagement to be implemented by RSWE during the construction and operation phase. The SEP also includes a stakeholder grievance mechanism.
- Cumulative Effects Assessment (CEA): aims to identify priority Valued Environmental Components (VECs) at highest risk of cumulative effects from the wind power projects so that mitigation and monitoring measures are put in place to implement an adaptive management approach.
- Critical Habitat Assessment (CHA): aims to identify features that trigger the critical habitat status and priority biodiversity features.
- RSWE Company Ethics and Values: to be implemented by RSWE (provided in Annex 1).
- ESMS Manual: i.e. this document, which is to be implemented by RSWE.
- Security Management Plan
- Active Turbine Management Program (ATMP): will be developed and implemented by RCREEE on behalf of RSWE during the operation phase of the Project. Additional details are provided in “Chapter 7”.

B. EPC Contractors – Orascom Construction & SGRE

The table below identifies the components of the Environmental & Social Management System that will be required from the EPC Contractors. The following components identified below will be specifically applicable and are to be implemented by the EPC Contractors and subcontractors involved. Additional details on the requirements of such plans and the overall framework is provided in “Chapter 5”.

- ESMS Manual that should be aligned with the requirements of RSWE ESMS Manual (i.e. this document)
- Water Management Plan
- Waste Management Plan
- Air Quality and Noise Management Plan
- Traffic and Transport Management Plan
- Worker Influx and Accommodation Plan
- Occupational Health and Safety Plan
- Emergency Preparedness and Response Plan
- Security Management Plan
- Chance Find Procedure
- Worker Grievance Mechanism

The above documents must be submitted to RSWE for approval before commencement of construction activities onsite.

C. LTSA Contractor – SGRE

The table below identifies the components of the Environmental & Social Management System that will be required from the LTSA Contractor. The following components identified below will be specifically applicable and are to be implemented by the LTSA Contractor and subcontractors involved (if any). Additional details on the requirements of such plans and the overall framework is provided in “Chapter 5”.

- ESMS Manual that should be aligned with the requirements of RSWE ESMS Manual (i.e. this document)
- Water Management Plan
- Waste Management Plan
- Occupational Health and Safety Plan
- Emergency Preparedness and Response Plan
- Worker Grievance Mechanism

The above documents must be submitted to RSWE for approval before commencement of operation activities onsite.

3.4 Key Impacts Anticipated during Planning and Construction

The tables below present the anticipated impacts from the Project during the construction and operation phase of the Project. In addition, the table also identifies the relevant management plans which includes the procedures and measures for handling the identified impact/risk and ensure it is eliminated or reduced to the greatest extent possible, as well as overall implementation responsibility.

Table 1: Key Anticipated Impacts During Construction

Receptor	Anticipated Impact	ESMS Document	Overall Implementation
Hydrology and Hydrogeology	Risk of soil and groundwater contamination during the various construction activities from improper waste management.	Waste Management Plan	EPC Contractors
Archaeology and Culture Heritage	Improper management of construction activities could disturb/damage potential archaeological remains which could be buried in the ground (if any).	Chance Find Procedure	EPC Contractors
Air Quality and Noise	Construction activities will likely result in an increased level of dust, particulate matter and pollutant emissions as well as noise levels which could affect workers as well as nearby receptors.	Air Quality and Noise Control Plan	EPC Contractors
Infrastructure and Utilities	Project could affect existing capacity of infrastructure and utilities related to water supply entailing constraints on the existing resources and users.	Water Management Plan	EPC Contractors
	If transportation activities of the various project components to the site are not properly managed beforehand, they could entail risk of damage to the existing roads and could be of public safety concerns to other users on the road as well as workers on site.	Traffic Management Plan	EPC Contractors
Community Health, Safety and Security	This could include but not limited to the following risks on nearby local communities: (i) trespassing of unauthorized personnel; (ii) potential impacts from presence of security personnel due to inappropriate management and conduct of security personnel	Worker Influx and Accommodation Plan	EPC Contractors
		Security Management Plan	EPC Contractors

	towards the local communities; (iii) potential impacts from workforce influx during construction.	Stakeholder Engagement Plan	RSWE
Socio-economic	The Project is expected at a minimum to provide job opportunities for local communities as well as a social responsibility program. This, to some extent, could contribute to enhancing the living environment for its inhabitants, elevate their standards of living, and bring social and economic prosperity to local communities. It is important to note that most of these jobs are not long term and mostly during the construction phase and some of these jobs may not be for people from the closest community to the project.	Stakeholder Engagement Plan	RSWE
		CSR Plan	RSWE
Occupational Health and Safety	There will be some risks to workers health and safety from the various construction activities anticipated.	Occupational Health and Safety Plan	EPC Contractors

Table 2: Key Anticipated Impacts During Operation

Receptor	Anticipated Impact	ESMS Document	Overall Implementation
Hydrology and Hydrogeology	Risk of soil and groundwater contamination during the various operation activities from improper waste management.	Waste Management Plan	RSWE and LTSA Contractor
Infrastructure and Utilities	Project could affect existing capacity of infrastructure and utilities related to water supply entailing constraints on the existing resources and users.	Water Management Plan	RSWE and LTSA Contractor
Community Health, Safety and Security	This could include potential Impacts from presence of security personnel relate to inappropriate management and conduct of security personnel towards the local communities.	Security Management Plan	RSWE
		Stakeholder Engagement Plan	RSWE
Socio-economic	The Project is expected at a minimum to provide job opportunities for local communities as well as a social responsibility program. This could contribute to enhancing living environment for its inhabitants, elevate their standards of living, and bring social and economic prosperity. However, it is important to note that this phase will require fewer personnel hence fewer job opportunities will be available.	Stakeholder Engagement Plan	RSWE
		CSR Plan	RSWE
Occupational Health and Safety	There will be some risks to workers health and safety from the various operation and maintenance activities anticipated.	Occupational Health and Safety Plan	RSWE and LTSA Contractor

3.5 ESIA and Supporting Documents Information Disclosure

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.

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.

- 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: as discussed earlier, the ESMS is a fundamental requirement of EBRD and this Manual determines the overall structure and outline of an ESMS and provide details on some key components aimed at managing key impact, to be implemented for the Project during both the construction and operation phase. Such components will need to be further developed and articulated later.
- Environmental and Social Action Plan (ESAP)

The above documents are available at the following avenues:

- EBRD website (www.ebrd.com)
- Developer Website (<http://www.rswe.co>). The documentation above will remain at the website for the life of the project.
- Hard copies are available at the 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

4. LEGAL AND POLICY FRAMEWORK

The ESMS has been prepared taking into account all environmental, health, safety, and social legislations that are applicable in Egypt and for the Project – to include laws, regulations, instructions, and standards as issued by the various applicable governmental entities.

In addition, the Project is seeking financing from International Financing Institutions (IFI). Therefore, the ESMS Manual has also been prepared taking into account Good International Industry Practice (GIIP) requirements, in particular IFC Performance Standards, EBRD Performance Requirements and applicable WBG EHS Guidelines.

National Legislations

The table below identifies the relevant legal requirements that must be taken into account as part of the associated management plans identified in Section 3.3 earlier.

Table 3: National EHSS Legislations

Attribute	Key Legislations	Reference Document
Water Resources	<ul style="list-style-type: none"> ▪ Ministry of Health and Population Decree 458/2007 ▪ Environmental Law 4/1994 and its Amendments Law 9/2009 ▪ Law 12/1984 for irrigation and its amended executive regulations 	Water Management Plan

Waste Management	<ul style="list-style-type: none"> ▪ Environmental Law 4/1994 and its Amendments Law 9/2009 ▪ Executive Regulation 1095/2011 – modified by 710/2012 and by 964/2015 ▪ Wastewater Disposal Law 93/1962 and associated Ministerial Decree 44/2000 	Waste Management Plan
Air Quality and Noise	<ul style="list-style-type: none"> ▪ Environmental Law 4/1994 and its Amendments Law 9/2009 ▪ Executive Regulation 1095/2011 – modified by 710/2012 and by 964/2015 	Air Quality and Noise Management Plan
Traffic and Transport	<ul style="list-style-type: none"> ▪ Traffic Law 66/1973 and its Amendments Law 121/2008 ▪ Public Roads Law 84/1968 ▪ Public Roads Works Law 140/1956 	Traffic and Transport Management Plan
Worker Accommodation	<ul style="list-style-type: none"> ▪ Minister of Labour Decree No. 200/2003 and Decree 458/2007 ▪ Minister of Labour Decree 153/2003 	Worker Influx and Accommodation Plan
Occupational Health and Safety	<ul style="list-style-type: none"> ▪ Environmental Law 4/1994 and its Amendments Law 9/2009 ▪ Labour and Workforce Safety Law 12/2003 ▪ Minister of Labour Decree 200/2003 and Decree 458/2007 	Occupational Health and Safety Plan
Emergency Preparedness	<ul style="list-style-type: none"> ▪ Environmental Law 4/1994 and its Amendments Law 9/2009 	Emergency Preparedness and Response Plan
Security Arrangement	<ul style="list-style-type: none"> ▪ Security Companies for Facilities Law 68/2015 amended by law 126/2015 	Security Management Plan
Archaeology and Cultural Heritage	<ul style="list-style-type: none"> ▪ Archaeology Protection Law 117/1983 and its Amendments Law 3/2010 	Chance Find Procedure
Worker Grievances	<ul style="list-style-type: none"> ▪ Ministry of Labour Decree 185/2003 	Worker Grievance Mechanism
Biodiversity	<ul style="list-style-type: none"> ▪ Environmental Law No. 4 of the Year 1994 and its Amendments Law No. 9 of the year 2009. ▪ Environmental Impact Assessment Guidelines and Monitoring Protocols for Wind Energy Development Projects along the Rift Valley/Red Sea Flyway with a particular reference to wind energy in support of the conservation of Migratory Soaring Birds (MSB) 	Active Turbine Management Program

European Bank for Reconstruction and Development (EBRD)

The EBRD is committed to promoting European Union (EU) environmental standards as well as the European Principles for the Environment, to which it is a signatory, and which are also reflected in the Performance Requirements (PR) summarized below. EBRD expects clients to assess and manage the environmental and social issues associated with their projects so that projects meet the PRs. The relevant PRs in relation to the Project are summarized below.

- PR 1 Assessment and Management of Environmental and Social Impacts and Issues
- PR 2: Labour and Working conditions
- PR 3: Resource efficiency and pollution prevention and control
- PR 4: Health and Safety
- PR 5: Land Acquisition, involuntary resettlement and economic displacement
- PR 6: Biodiversity conservation and sustainability management of living natural resources
- PR 7: Indigenous People (not applicable in Egypt and therefore this Project).
- PR 8: Cultural heritage
- PR 9: Financial Intermediaries (not applicable for this Project).
- PR 10: Information disclosure and stakeholder engagement

International Finance Corporation (IFC)

The IFC of the World Bank provides a range of guidance documents related to the assessment and management of environmental and social issues in project development. Not only does IFC guidance provide a generally accepted basis for good practice, but it also provides the technical cornerstone for the Equator Principles which set out the environmental and social requirements of banks for project finance. The IFC requirements have become the *de facto* international environmental and social performance benchmark for project financing.

The IFC Performance Standards on Social and Environmental Sustainability set out a framework for managing and improving project performance from planning and assessment, through construction and operations to closure. The Performance Standards include the following:

- PS1: Assessment and Management of Environmental and Social Risks and Impacts
- PS2: Labour and Working Conditions
- PS 3: Resource Efficiency and Pollution Prevention
- PS 4: Community Health, Safety and Security
- PS 5: Land Acquisition and Involuntary Resettlement
- PS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources
- PS 7: Indigenous Peoples (not applicable for this Project).
- PS 8: Cultural Heritage

In addition, there are also General EHS Guidelines document that are produced by World Bank Group (WBG) and which are considered applicable for the IFC. Such EHS guidance document provides detailed management and technical recommendations with regards to GIIP. In addition, there are also sector-specific EHS guideline document for Wind Energy produced. This EHS guidance document provides detailed management and technical recommendations with regards to Industry Best Practice.

The above should also be considered as part of the associated management plans identified in Section 3.3 earlier.

5. MANAGEMENT PLAN FRAMEWORK

As discussed previously in “Chapter 3”, the EPC Contractors, RSWE and LTSA Contractor are required to prepare several environmental and social management plans to be submitted to RSWE for approval before commencement of any construction or O&M work.

This Chapter provides additional details on the overall framework required for the management plan to be considered by the EPC Contractors, RSWE and LTSA Contractor as applicable.

<u>Water Management Plan</u>	
Objective	Identification of procedures for onsite management of water supplies and minimization of water consumption.
Responsibility	EPC Contractors and their subcontractors (construction phase) RSWE, LTSA Contractor and its subcontractors (operation phase)
Spatial applicability	RSWE Project site
Guiding legislations and reference	<ul style="list-style-type: none">▪ Local legislations:<ul style="list-style-type: none">- Ministry of Health and Population Decree 458/2007- Environmental Law 4/1994 and its Amendments Law 9/2009- Law 12/1984 for irrigation and its amended executive regulations▪ Lender requirements:<ul style="list-style-type: none">- EBRD PR 3, IFC PS 3, WBG EHS General Guidelines / EHS Guidelines for Wind Energy

Required action/planning	<ul style="list-style-type: none"> ▪ Identification of sources of water supply that will be utilized for the Project, to include both potable and non-potable water requirements ▪ Estimation of anticipated quantities of potable and non-potable water requirements ▪ Identify in detail procedures for onsite management of water supplies and minimization of water consumption. This could include but not limited to: (i) identify location of all water storage tanks onsite with clear markings as potable/non-potable ; (ii) ensure water tanks are completely closed at all times with appropriate protection against sunlight; (iii) inspections for potable and non-potable tanks and connections to ensure there are no leaks; (iv) install water saving fittings (taps, urinals, etc.) in toilets of site offices, and other as applicable. ▪ Reflect the procedural actions for water management in: (i) induction training material for workers; and (ii) repeated/refresher Toolbox Talks (TBT) ▪ Identify Key Performance Indicators (KPI) for implementation of plan ▪ Identify roles and responsibilities for implementation of plan 												
Monitoring requirements	<ul style="list-style-type: none"> ▪ Monitoring program shall be at a minimum based on the following schedule <table border="1" data-bbox="418 609 1490 846"> <tr> <td>Parameters</td> <td>As per parameters included in Decree 458/2007</td> </tr> <tr> <td>Location</td> <td>Potable water tanks (if applicable)</td> </tr> <tr> <td>Frequency</td> <td>Quarterly</td> </tr> <tr> <td>Duration</td> <td>1 sample</td> </tr> <tr> <td>Prerequisite</td> <td>Discuss with EEAA and agree on details of this program</td> </tr> <tr> <td>Review</td> <td>As applicable based on project updates and as required by related parties (regulator, developer, lender, etc.)</td> </tr> </table> ▪ Continuous inspection and reporting by EHS staff 	Parameters	As per parameters included in Decree 458/2007	Location	Potable water tanks (if applicable)	Frequency	Quarterly	Duration	1 sample	Prerequisite	Discuss with EEAA and agree on details of this program	Review	As applicable based on project updates and as required by related parties (regulator, developer, lender, etc.)
Parameters	As per parameters included in Decree 458/2007												
Location	Potable water tanks (if applicable)												
Frequency	Quarterly												
Duration	1 sample												
Prerequisite	Discuss with EEAA and agree on details of this program												
Review	As applicable based on project updates and as required by related parties (regulator, developer, lender, etc.)												
Reporting Requirements	<ul style="list-style-type: none"> ▪ Monthly water consumption report to RSWE 												

Waste Management Plan	
Objective	Identification of procedures for onsite management and final disposal of generated waste to include solid waste (municipal and construction), wastewater and hazardous waste.
Responsibility	EPC Contractors and their subcontractors (construction phase) RSWE, LTSA Contractor and its subcontractors (operation phase)
Spatial applicability	RSWE Project site
Guiding legislations and reference	<ul style="list-style-type: none"> ▪ Local legislations: <ul style="list-style-type: none"> - Environmental Law 4/1994 and its Amendments Law 9/2009 - Executive Regulation 1095/2011 – modified by 710/2012 and by 964/2015 - Wastewater Disposal Law 93/1962 and associated Ministerial Decree 44/2000 ▪ Lender requirements: <ul style="list-style-type: none"> - EBRD PR 3, IFC PS 3, WBG EHS General Guidelines
Required action/planning	<ul style="list-style-type: none"> ▪ Inclusion of a waste inventory which identifies the source and anticipated quantities of each waste stream; ▪ Identify final disposal location of each waste streams (solid waste (municipal and construction), wastewater and hazardous waste). In addition, confirm that disposal locations identified are well managed and have sufficient capacity to receive amounts generated from project without affecting other projects and users. ▪ Identify in detail the waste management procedures to be implemented to manage impacts. This could include but not limited to: (i) contract arrangement with official entity responsible for collection and final disposal of waste streams; (ii) specifications of waste containers, bins and collection areas to be utilized for onsite disposal; (iii) utilization of waste manifests by contractors; (iv) identification and consideration of recycling and reuse measures for waste streams; (v) prohibition of fly-dumping of waste streams to the land, and other. ▪ Reflect the procedural actions for waste management in: (i) induction training material for workers; and (ii) repeated/refresher Toolbox Talks (TBT) ▪ Identify Key Performance Indicators (KPI) for implementation of plan ▪ Identify roles and responsibilities for implementation of plan
Monitoring requirements	<ul style="list-style-type: none"> ▪ Continuous inspection and reporting by EHS staff

Reporting Requirement	<ul style="list-style-type: none"> Monthly waste generation report supported with waste manifests to RSWE
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Air Quality and Noise Management Plan															
Objective	Identification of procedures to ensure that air pollutant and noise sources are properly managed and controlled onsite.														
Responsibility	EPC Contractors and their subcontractors														
Spatial applicability	RSWE Project site														
Guiding legislations and reference	<ul style="list-style-type: none"> Local legislations: <ul style="list-style-type: none"> Environmental Law 4/1994 and its Amendments Law 9/2009 Executive Regulation 1095/2011 – modified by 710/2012 and by 964/2015 Lender requirements: <ul style="list-style-type: none"> EBRD PR 3, IFC PS 3, WBG EHS General Guidelines / EHS Guidelines for Wind Energy 														
Required action/planning	<ul style="list-style-type: none"> Identify sources of air quality pollutants and noise Identify in detail the air quality and noise management procedures to be implemented which could include but not limited to: (i) equipping workers with proper Personal Protective Equipment related to dust and noise control (e.g. masks, eye goggles, breathing masks, ear muffs, etc.); (ii) regular watering of construction active areas (e.g. containment, covering, bundling); (iii) proper management of stockpiles and excavated material, (iv) adhering to a 25 km/h speed limit onsite; (v) proper covering of trucks transporting aggregates and fine materials and other. Reflect the procedural actions for air quality and noise management in: (i) induction training material for workers; and (ii) repeated/refreshers Toolbox Talks (TBT) Identify Key Performance Indicators (KPI) for implementation of plan Identify roles and responsibilities for implementation of plan 														
Monitoring requirements	<ul style="list-style-type: none"> Monitoring programme shall be at a minimum based on the following schedule <table border="1" data-bbox="422 1037 1489 1305"> <tr> <td>Parameters</td> <td>Total Suspended Particulate, PM10 and Noise</td> </tr> <tr> <td>Location</td> <td>2 locations (upwind and downwind)</td> </tr> <tr> <td>Frequency</td> <td>Quarterly</td> </tr> <tr> <td>Duration</td> <td>24 hours per point</td> </tr> <tr> <td>Reporting</td> <td>Quarterly report</td> </tr> <tr> <td>Prerequisite</td> <td>Discuss with EEAA and agree on details of this program</td> </tr> <tr> <td>Review</td> <td>As applicable based on project updates and as required for related parties (regulator, developer, lender, etc.)</td> </tr> </table> Continuous Inspection and reporting by health and safety staff 	Parameters	Total Suspended Particulate, PM10 and Noise	Location	2 locations (upwind and downwind)	Frequency	Quarterly	Duration	24 hours per point	Reporting	Quarterly report	Prerequisite	Discuss with EEAA and agree on details of this program	Review	As applicable based on project updates and as required for related parties (regulator, developer, lender, etc.)
Parameters	Total Suspended Particulate, PM10 and Noise														
Location	2 locations (upwind and downwind)														
Frequency	Quarterly														
Duration	24 hours per point														
Reporting	Quarterly report														
Prerequisite	Discuss with EEAA and agree on details of this program														
Review	As applicable based on project updates and as required for related parties (regulator, developer, lender, etc.)														
Reporting Requirements	<ul style="list-style-type: none"> Quarterly air quality and noise monitoring report to RSWE 														

Traffic and Transport Management Plan	
Objective	Promotion of safe driving and vehicle management practices both onsite and offsite to protect workers and members of the public
Responsibility	EPC Contractors and their subcontractors (construction phase)
Spatial applicability	RSWE Project site
Guiding legislations and reference	<ul style="list-style-type: none"> Local legislations: <ul style="list-style-type: none"> Traffic Law 66/1973 and its Amendments Law 121/2008 Public Roads Law 84/1968 Public Roads Works Law 140/1956 Lender requirements: <ul style="list-style-type: none"> EBRD PR 4, IFC PS 4, WBG EHS General Guidelines / EHS Guidelines for Wind Energy
Required action/planning	<ul style="list-style-type: none"> Identification of project traffic requirements related to wind turbines, equipment/machinery/materials, project workers and other based on a monthly basis Inclusion of a transport plan in specific for the wind turbines that studies the entire route of transportation Identification of types of vehicles to be utilized

	<ul style="list-style-type: none"> ▪ Identify in detail procedures for onsite management of traffic. This could include but not limited to: (i) optimization of internal traffic layout so that delivery and other vehicles will be able to access site easily; (ii) identification of requirements for controlling access to the site (e.g. security checkpoint, registration, etc.); (iii) providing appropriate lighting for roads and pedestrian walk and ensure they are segregated; (iv) utilization of appropriate and sufficient traffic signs onsite (e.g. speed limits); (v) barricading of open trenches and excavated pits; (vi) utilization of banksmen and flaggers and other. ▪ Identify requirements to be adhered to and enforced on all haulage suppliers ▪ Identification of a code of conduct to be adhered to and enforced on all drivers in the Project ▪ Identification of speed limits onsite and identification of all traffic signage requirement onsite ▪ Identification of a procedure for management of onsite/offsite traffic accidents ▪ Reflect the procedural actions for traffic management in: (i) induction training material; and (ii) repeated/refresher Toolbox Talks (TBT) ▪ Identify Key Performance Indicators (KPI) for implementation of plan ▪ Identify roles and responsibilities for implementation of plan
Monitoring requirements	<ul style="list-style-type: none"> ▪ Continuous inspection and reporting by EHS staff
Reporting Requirements	<ul style="list-style-type: none"> ▪ Monthly update report on implementation of required action/planning requirements to RSWE

Worker Influx and Accommodation Plan	
Objective	Define 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.
Responsibility	EPC Contractors and their subcontractors (construction phase)
Spatial applicability	Offsite (Ras Ghareb city)
Guiding legislations and reference	<ul style="list-style-type: none"> ▪ Local legislations: <ul style="list-style-type: none"> - Minister of Labour Decree No. 200/2003 - Minister of Labour Decree 153/2003 ▪ Lender requirements: <ul style="list-style-type: none"> - EBRD PR 2, IFC PS 2, WBG EHS General Guidelines / EHS Guidelines for Wind Energy - IFC's and EBRD's Worker Accommodation Guidance Note
Required action/planning	<ul style="list-style-type: none"> ▪ Identification of the number of workers expected per month and anticipated accommodation requirements of all involved subcontractors ▪ Identification of accommodation facilities in Ras Ghareb city (availability of hotels, suites, apartments, and other) ▪ Assessment of worker influx to Ras Ghareb city at a cumulative level taking into account other developments in the Project area with parallel and/or overlapping construction schedule and which require accommodation (e.g. other wind farm developments) to include pressure on infrastructure, services and utilities ▪ Identify in detail procedures for accommodation to include but not limited to: (i) number of beds per person; (ii) maximum occupants per room; (iii) separate rooms for male/female occupants; (iii) requirements for en-suite bathroom/toilet, ventilation, designated eating areas, waste facilities; (iv) ensuring high degree of safety and security, including information on evacuation procedures and other. ▪ Identification in detail of a medical examination program for all workers ▪ Identification of awareness raising material for communicable diseases ▪ Regular stakeholder engagement by CLO with local community regarding potential influx of workers from other regions ▪ Identification of a Labour Code of Conduct as well as Accommodation Rules and Regulations ▪ Reflect the procedural actions for worker accommodation management in: (i) induction training material; and (ii) repeated/refresher Toolbox Talks (TBT) ▪ Identify Key Performance Indicators (KPI) for implementation of plan ▪ Identify roles and responsibilities for implementation of plan
Monitoring requirements	<ul style="list-style-type: none"> ▪ Continuous inspection and reporting by EHS staff
Reporting Requirements	<ul style="list-style-type: none"> ▪ Monthly update report on implementation of required action/planning requirements to RSWE

Occupational Health and Safety Plan	
Objective	Establish procedures that describe the manner in which activities will be carried out to protect and promote workers health and safety and safeguarding of personnel and property
Responsibility	EPC Contractors and their subcontractors (construction phase) RSWE, LTSA Contractor and its subcontractors (operation phase)
Spatial applicability	RSWE Project site
Guiding legislations and reference	<ul style="list-style-type: none"> ▪ Local legislations: <ul style="list-style-type: none"> - Environmental Law 4/1994 and its Amendments Law 9/2009 - Labour and Workforce Safety Law 12/2003 - Minister of Labour Decree 200/2003 and Decree 458/2007 ▪ Lender requirements: <ul style="list-style-type: none"> - EBRD PR 2, IFC PS 2, WBG EHS General Guidelines / EHS Guidelines for Wind Energy
Required action/planning	<ul style="list-style-type: none"> ▪ Inclusion of a Job Safety Analysis (JSA) and Risk and Hazard Assessment for work activities ▪ Identification of a Permit to Work System requirements and procedure ▪ Identification of a Lock Out-Tag Out System requirements and procedures ▪ Identification of occupational health and safety signage requirements to be implemented ▪ Identification of medical support requirements ▪ Identify in detail the occupational health and safety management procedures to be implemented for each work activity to include personnel protective equipment requirements; management measures, and other as applicable ▪ Identification of rest and sanitary facilities ▪ Identification of specific actions and procedures related to COVID-19 (social distancing requirements, test requirements, and other as applicable). ▪ Identification of specialized technical training requirements as related to this plan and activities to be undertaken (e.g. training for working at height, electrical works, etc.) ▪ Reflect the procedural actions for occupational health and safety in: (i) induction training material for workers; and (ii) repeated/refresher Toolbox Talks (TBT) ▪ Identify Key Performance Indicators (KPI) for implementation of plan ▪ Identify roles and responsibilities for implementation of plan
Monitoring requirements	<ul style="list-style-type: none"> ▪ Continuous inspection and reporting by EHS staff
Reporting Requirements	<ul style="list-style-type: none"> ▪ Monthly update report on implementation of required action/planning requirements to RSWE

Emergency Preparedness and Response Plan	
Objective	Establish a series of organizational, operational and preventive measures in the event of an emergency that are adapted to the circumstance of such situations, which in turn will ensure the safety of workers and property within the specific project site
Responsibility	EPC Contractors and their subcontractors (construction phase) RSWE, LTSA Contractor and its subcontractors (operation phase)
Spatial applicability	RSWE Project site
Guiding legislations and reference	<ul style="list-style-type: none"> ▪ Local legislations: <ul style="list-style-type: none"> - Environmental Law 4/1994 and its Amendments Law 9/2009 ▪ Lender requirements: <ul style="list-style-type: none"> - EBRD PR 4, IFC PS 2 and 4, WBG EHS General Guidelines / EHS Guidelines for Wind Energy
Required action/planning	<ul style="list-style-type: none"> ▪ Inclusion of requirements for an emergency responder team that includes at a minimum first aiders and firefighters that receive appropriate and certified training ▪ Inclusion of requirements to undertake emergency drills in coordination with external emergency response services if required (e.g. civil defence, nearest hospital, etc.) ▪ Identify in detail of emergency procedures to be implemented to include first actions, alerting emergency contacts, site evacuation, communicating with external emergency services ▪ Identification in details of emergency control measures to include but not limited to fire, personnel accidents, spillage, sandstorms, heats strokes, and other. ▪ Identification of location of assembly points onsite

	<ul style="list-style-type: none"> ▪ Identification of emergency signs to be implemented onsite ▪ Reflect the procedural actions for emergency preparedness and response in: (i) induction training material for workers; and (ii) repeated/refresher Toolbox Talks (TBT) ▪ Identify Key Performance Indicators (KPI) for implementation of plan ▪ Identify roles and responsibilities for implementation of plan to include establishment of an emergency committee and assigning roles to an emergency manager
Monitoring requirements	<ul style="list-style-type: none"> ▪ Continuous inspection and reporting by EHS staff
Reporting Requirements	<ul style="list-style-type: none"> ▪ Emergency Report (upon occurrence)

Security Management Plan	
Objective	Identification of procedures for the overall management of security and asset-protection of the project site with specific regard for human rights.
Responsibility	EPC Contractor and their subcontractors (construction phase) RSWE (operation phase)
Spatial applicability	RSWE Project site
Guiding legislations and reference	<ul style="list-style-type: none"> ▪ Local legislations: <ul style="list-style-type: none"> - Security Companies for Facilities Law 68/2015 amended by law 126/2015 ▪ Lender requirements: <ul style="list-style-type: none"> - EBRD PR 4, IFC PS 4, WBG EHS General Guidelines - The Voluntary Principles on Security and Human Rights
Required action/planning	<ul style="list-style-type: none"> ▪ Identification in detail of site security arrangements that will be implemented onsite to include security guards, fencing, CCTV, and other as applicable ▪ Identification of security operating procedures to include: (i) control of site access, and (ii) security force management to include security roles, provision and composition of security force, equipment requirement of security force, use of force, ▪ Identification of incident response procedure ▪ Development of a code of conduct and use of force policy ▪ Reflect the procedural actions for security management in: (i) induction training material; and (ii) repeated/refresher Toolbox Talks (TBT) ▪ Include specialized training to security personnel to avoid use of excessive force ▪ Identify Key Performance Indicators (KPI) for implementation of plan ▪ Identify roles and responsibilities for implementation of plan
Monitoring requirements	<ul style="list-style-type: none"> ▪ Continuous inspection and reporting by EHS staff
Reporting Requirements	<ul style="list-style-type: none"> ▪ Monthly update report on implementation of required action/planning requirements to RSWE

Chance Find Procedure	
Objective	Establish a procedure to avoid or reduce adverse effects to undiscovered archaeological remains during the construction phase of the Project
Responsibility	EPC Contractors and their subcontractors (construction phase)
Spatial applicability	RSWE Project site
Guiding legislations and reference	<ul style="list-style-type: none"> ▪ Local legislations: <ul style="list-style-type: none"> - Archaeology Protection Law 117/1983 and its Amendments Law 3/2010 ▪ Lender requirements: <ul style="list-style-type: none"> - EBRD PR 8, IFC PS 8, WBG EHS General Guidelines
Required action/planning	<ul style="list-style-type: none"> ▪ Identification of procedures to be implemented to include onsite notification measures, onsite management measures (e.g. delineation and marking of site, etc.), communication with relevant authority, etc. ▪ Reflect the procedural actions for chance find in: (i) induction training material for workers; and (ii) repeated/refresher Toolbox Talks (TBT) ▪ Identify Key Performance Indicators (KPI) for implementation of plan

	<ul style="list-style-type: none"> ▪ Identify roles and responsibilities for implementation of plan
Monitoring requirements	<ul style="list-style-type: none"> ▪ Continuous inspection and reporting by EHS staff
Reporting	<ul style="list-style-type: none"> ▪ Chance find report (upon occurrence)

Worker Grievance Mechanism	
Objective	A robust and comprehensive procedure to capture, document, resolve and close out any worker complaint, whether classified as grievances or not.
Responsibility	EPC Contractors and their subcontractors (construction phase) RSWE and LTSA Contractor (operation phase)
Spatial applicability	RSWE Project site
Guiding legislations and reference	<ul style="list-style-type: none"> ▪ Local legislations: <ul style="list-style-type: none"> - Ministry of Labour Decree 185/2003 ▪ Lender requirements: <ul style="list-style-type: none"> - EBRD PR 2, IFC PS 2, WBG EHS General Guidelines
Required action/planning	<ul style="list-style-type: none"> ▪ Identification of a step by step process and guideline to ensure that every complaint/grievance made by workers are registered, documented and fully addressed ▪ The overall outline/structure of the grievance mechanism will be as follows: <ul style="list-style-type: none"> - Workers will be allowed to lodge grievances through various platforms and channels to include grievance boxes distributed onsite, telephone, face to face meetings with responsible personnel, workers representatives and unions. Contact details for all such channels will be identified and provided in detail. - Anonymous lodging of grievances will be allowed. - All grievances will be recorded and a case handler will be assigned and whom will be determined at a later stage. - All grievances will be handled in the shortest possible period. The first approach will be to inform the worker within the first 24 hours after receiving the grievance. The worker will be informed within 7 working days on whether or not the grievance proceeds and what the next steps will be. - Once a resolution has been agreed or a decision made, the case handler will monitor the implementation of the response. - After the implementation of an agreed resolution has been verified the grievance close-out will take place. It will entail reaching a unanimous agreement, clearly communicated to avoid misunderstandings. - A close-out report will be prepared with evidence to support closure (e.g. photos). ▪ Reflect the procedural actions for worker grievance mechanism in: (i) induction training material for workers; and (ii) repeated/refresher Toolbox Talks (TBT) ▪ Identify Key Performance Indicators (KPI) for implementation of plan ▪ Identify roles and responsibilities for implementation of plan
Reporting Requirements	<ul style="list-style-type: none"> ▪ Monthly update summary report on worker grievances and resolutions

6. FRAMEWORK FOR LABOR MANAGEMENT

6.1 Human Resources (HR) Policy

RSWE is committed to treating its employees and service providers fairly, equally and without prejudice. This means respecting all individuals, regardless of ethnic origin, creed, age or gender. To achieve this goal, the company is committed to the following:

1. Operating in strict compliance with all applicable national and local laws and regulations including to those related to labour, employment, and workplace safety;
2. Meeting internationally-accepted industry best practice requirements of the relevant International Financing Institutions (IFIs) to include in specific the IFC Performance Standards and EBRD Performance Requirements

3. Providing safe workplaces and fair terms and conditions of employment;
4. Being an equal opportunities employer, with no preference on the basis of personal characteristics such as age, race, nationality, ethnicity, sexual orientation, gender or religion;
5. Positively encouraging the development of all our employees by providing a working environment that fosters new talent and ways of thinking;
6. Offering competitive terms and conditions of employment in accordance with applicable national and local laws and promoting the development and best use of individual talents;
7. Ensuring that all employees and contractors work in safe conditions where suitable procedures are provided and maintained;
8. Ensuring that all employees and subcontractors have ready access to sanitation facilities, potable water, food and/or food preparation, storage and eating facilities, and suitable accommodation and welfare facilities;
9. Never using underage or child labour and never employing those under the age of 18;
10. Never using any forced or compulsory labour;
11. Not tolerating discrimination, harassment, or hostile and offensive work environment;
12. All employees have the right to freely join trade unions, where such rights are recognized by law;
13. Accepting, offering, or soliciting any bribe or kickback no matter how large or small is considered strictly prohibited; and
14. Ensuring that the company and all involved subcontractors are made aware of this Policy.

RSWE will monitor and review this Policy on a regular basis to ensure that it continues to support and encourage a high standard of human resources performance.

6.2 Labor Management

RSWE is committed to adhering to the below principles and requirements on labor, employment and workplace safety. Such requirements should also be implemented and taken into account by all involved entities in the Project to include EPC Contractors, LTSA Contractor and all involved subcontractor to these entities.

Local and International Requirements

- RSWE will operate in strict compliance with all applicable national and local laws and regulations related to labor, employment, and workplace safety.
- RSWE will meet all internationally-accepted industry best practices requirements of the relevant International Financing Institutions (IFIs) related to labour, employment and workplace safety to include in particular “IFC Performance Standard 2: Labour and Working Conditions” and EBRD Performance Requirement 2: Labour and Working Conditions”.

Working Conditions

- All workers will be provided with a contract which will include details on: (i) nature, type of work and job responsibilities; (ii) wage and time of payment; (iii) compulsory payments such as medical, life and social insurance and other benefits to include in cash and in kind as agreed; (iv) contract duration; (vii) other information as may be required. In addition, where workers are illiterate, these contracts will be explained verbally before signature.
- Wages will be fair (i.e. that meets basic needs to maintain a safe, decent standard of living) and based on qualifications and competencies, professional experiences, allocated roles and job responsibilities, wages at equivalent positions, and other factors as appropriate. Such criteria will be applied to all

workers to include migrant workers and women in specific. In any case, the determined wage shall not be less than the minimum wage in accordance with local laws and regulations.

- All wages will be paid on time and directly to the worker as set in the contract terms.
- Each employee will be provided with a copy of the RSWE Ethics and Values Charter (Annex 1) and will be required to sign it. Where workers are illiterate, the document will be explained verbally before signature.
- All workers will be entitled to leaves (to include annual leaves, sick leaves, maternity leaves, bereavement leave) in accordance with local labour laws and legislations.
- All workers should be required to work in accordance with working hours set within local labour laws and legislations taking into account rest or break hours. In addition, working extra hours beyond those specific above is allowed (with the consent of the worker), however in this case the employee will be entitled for overtime hours as agreed in the contract.

Foreign Workers

- Engagement of foreign workers will adhere to requirements identified through this section to include specifically contract, wages, leaves, working hours, non-discrimination and equal opportunity, child labour, young workers, forced labour, etc.
- Confiscation of personal documents of the foreign workers by their employers is strictly forbidden.
- No fees, commissions or deductions from salary should be asked from foreign workers upon promise of employment at the Project.

Casual and Day Workers

- Engagement of casual and day workers will adhere to requirements identified through this section to include specifically contract, wages, leaves, working hours, non-discrimination and equal opportunity, child labour, young workers, forced labour, etc.
- In specific, it will be ensured that all casual and day workers are covered by social, life and medical insurance as appropriate and they will be informed on this as part of recruitment process through inclusion in contracts and verbal explanation.

Non-Discrimination and Equal Opportunity

- RSWE is committed to being an equal opportunity employer and will not practice any discrimination based on personal characteristics – this includes gender, race, nationality, ethnic, social and indigenous origin, religion or belief, disability, age, or sexual orientation. In addition, RSWE has no tolerance for harassment, intimidation, exploitation or hostile and offensive work environment.
- The above will apply to the entire work cycle to include: recruitment and hiring, compensation (wages and benefits), working conditions and terms of employment, assignment of jobs, termination of employment, and disciplinary actions.

Child Labor

- A child is considered any person less than 18 years of age. RSWE is committed to never using child labour the project development.

Forced Labor

- RSWE is committed to never using any forced or compulsory labor. Forced labor is any work or service not voluntarily performed that is exacted from an individual under threat of force or penalty.

Workers Organization

- RSWE recognizes workers' rights to form and to join workers' organizations of their choosing without interference and to bargain collectively.

- RSWE is committed to allowing all employees to form or join workers' organization without interference and to bargain collectively in compliance with Egyptian laws.

Health and Safety

- RSWE is committed to providing a safe workplace that ensures all employees and contractors work in safe conditions where suitable procedures are provided and maintained.
- RSWE is committed to ensuring all employees and subcontractors have ready access to sanitation facilities, potable water, food and/or food preparation, storage and eating facilities, and suitable accommodation and welfare facilities.

Worker Grievance Mechanism

- All works must have access to an effective grievance mechanism that is easily accessible to raise any workplace concerns. The mechanism must address concerns promptly, using an understandable and transparent process that provides timely feedback, without any retribution.

7. IMPACTS ON BIRDS AND BIODIVERSITY

7.1 Summary of Baseline Assessment Findings

Several biodiversity assessments were undertaken at the project site including a comprehensive literature of all major taxa. The field assessments included flora/habitat, mammals, reptiles, birds and bats. The assessments were implemented during two seasons in autumn 2019 and spring 2020. Further assessments are planned for autumn 2020 and spring 2021 focusing on birds while a bat survey is planned for spring/summer 2021.

Main findings from all assessments can be summarised as follows:

- 68 plant species were recorded from literature, 32 of which were recorded at the project site. None of which are globally threatened.
- 21 mammal species were recorded from literature, none of which were recorded at the project site. Two of which are globally threatened but are believed to be present in very low numbers at the project site and its vicinity.
- 34 reptile species were recorded from literature, none of which were recorded at the project site. One is a globally threatened species but is believed to be present in very low numbers at the project site.
- During autumn migration survey of 2019, 21 avifauna species were recorded with a total of 10,088 individual birds through a total of 461 observation records, 4,343 individuals of all species were recorded, even if partially flying at risk height with a percentage of 43.1% of all individual birds recorded throughout the reporting period. Three of the species recorded are globally threatened while two are near threatened.
- During the spring migration survey of 2020, 30 species were recorded with a total of 325,882 individual birds through a total of 8,701 observation records. Overall, 114,029 individuals of all species were recorded, even if partially flying at risk height with a percentage of 35.0% of all individual birds recorded throughout the reporting period. Six of the species recorded are globally threatened while two are near threatened.

Regarding the Project's OHTL, a comprehensive literature review was undertaken for all biodiversity elements except for the avifauna that were treated separately. Findings were similar to the ones of the project site itself and similar mitigation measures were proposed focusing on proper management.

As for the avifaunal assessments, no site-specific avifaunal assessments were undertaken for the OHTL, however, the project site has been covered at different seasons over a period of five years as part of the avifaunal assessments that were undertaken as part of wind farm projects that are adjacent to the RSWE

project site. These assessments of in-flight monitoring were carried out in the wind farm during the autumn and spring migration seasons with the first assessment carried out in autumn 2015 while the latest was carried out in spring 2020. It can be noticed that both the northern and southern parts of the project site have significant numbers of passage during the spring season, while the central part of the project site have significant numbers of passage during the autumn season.

Overall, 30 species were recorded during the spring season, five of which are globally threatened while one is near threatened, while in autumn 27 species were recorded, two of which were globally while two species were near threatened.

7.2 Potential Impacts and Mitigation Measures

During the construction phase, regarding the terrestrial ecology at the project site, including flora and fauna (mammals and reptiles), impacts of the project are limited to the relatively small individual footprints of the project facilities and the actual area of disturbance is relatively minimal. Although alterations are considered to be minimal, such activities would still likely result in the alteration of the site's habitat and thus potentially disturb existing habitats. The Project site in general is considered of low ecological significance but special consideration should be given to the globally threatened to the Egyptian Dabb Lizard *Uromastix aegyptia* since the project site provides a typical habitat for such species. Mitigation measures prior to the start of the construction phase include biodiversity screening to check for the presence of the Egyptian Dabb. During construction phase, proper housekeeping measures should be implemented such as, avoid any activities in any sensitive areas that could be identified during the pre-construction biodiversity screening, restrict activities to allocated construction areas only, including movement of workers and vehicles to allocated roads within the site and prohibit off-roading to minimize disturbances, prohibit hunting of birds at any time and under any condition by construction workers onsite, implement proper measures, which would prevent attraction of animals and birds to the site, such as prohibiting illegal dumping and ensuring waste streams are disposed appropriately, and finally avoid unnecessary elevated noise levels at all times.

As for the operational phase, the only impacts anticipated during the operation phase are related to improper management of the site. Based on the above, the main mitigation measure would be to implement proper management measures to prevent damage to the biodiversity of the site.

Regarding the avifauna, impacts during construction are similar to impacts on the other biodiversity since the impacts are limited to habitat change on a relatively small footprint of the project infrastructure and therefore mitigation measures are limited to implementation of proper management. However for the operational phase, the project site is located along a major bird migration flyway and therefore the potential impact on birds migrating over the project site could be detrimental if no proper mitigation and monitoring measures are set and implemented. The project site is considered to be of high sensitivity. According to the ESIA, 15 species were identified to be at potential risk from the project's operation activities. Assessments in autumn 2020 and spring 2021 should provide further data.

The Critical Habitat Assessment (CHA) that was undertaken for the project site based on the findings of the ESIA assessments have confirmed that the Project does not occur inside what is defined as a Critical Habitat but it is located close to an area of Critical Habitat, the Gebel El Zeit IBA. Migratory soaring birds (MSBs) in globally significant numbers are recorded passing over the project site and ten species of which were identified by the CHA to trigger criterion iv (PR6) and 3 (PS6) "habitats supporting globally significant migratory or congregatory species". Therefore, the project development constitutes a potential risk that might impact these populations. The Cumulative Effects Analysis (CEA) has also identified fourteen priority VECs, of which three are globally threatened species that were documented to be using the project site and eleven additional species, including one Near Threatened, that have shown to pass over the project site in globally/population-level significant numbers and that are believed to be impacted by the Project if no proper mitigation measures are implemented, see Table 4.

Table 4. Priority species identified by the ESIA, CEA and CHA

Species	IUCN Status	CHA	CEA	ESIA
Black Stork <i>Ciconia nigra</i>	LC	✓	✓	
White Stork <i>Ciconia ciconia</i>	LC	✓	✓	✓
Common Crane <i>Grus grus</i>	LC		✓	
Great White Pelican <i>Pelecanos onocrotalus</i>	LC	✓	✓	✓
European Honey-buzzard <i>Pernis apivorus</i>	LC	✓	✓	✓
Egyptian Vulture <i>Neophron percnopterus</i>	EN	✓	✓	✓
Black Kite <i>Milvus migrans</i>	LC		✓	✓
Booted Eagle <i>Hieraetus pennatus</i>	LC		✓	✓
Steppe Eagle <i>Aquila nipalensis</i>	EN	✓	✓	✓
Eastern Imperial Eagle <i>Aquila heliaca</i>	VU			✓
Lesser Spotted Eagle <i>Clanga pomarina</i>	LC	✓	✓	
Greater Spotted Eagle <i>Clanga clanga</i>	VU	✓	✓	✓
Levant Sparrowhawk <i>Accipiter brevipes</i>	LC	✓	✓	
Eurasian Buzzard <i>Buteo buteo</i>	LC	✓	✓	✓
Montagu's Harrier <i>Circus pygargus</i>	LC			✓
Pallid Harrier <i>Circus macrourus</i>	NT		✓	✓
Sooty Falcon <i>Falco concolor</i>	VU	✓		✓
Red-footed Falcon <i>Falco vespertinus</i>	NT			✓

Based on all of the above, management and monitoring actions should be set to avoid collisions of soaring birds with the Project infrastructure. These include the following:

- In-flight monitoring during autumn 2020 and spring 2021 migration seasons,
- Avifauna Monitoring and On-Demand Turbine Shutdown,
- Avifauna carcass search during operation of wind farm, including carcass search efficiency and removal trials,
- Carcass search and roosting surveys for powerlines,
- Installation of diverters on power lines (scope of EETC, the developer of the lines),

All of the above should become integrated into an Active Turbine Management Program (ATMP) that would ensure the negative impacts of the operation of the wind farm and the installation of all its infrastructure are mitigated and avoided. More on this in the following section.

Regarding the OHTL, the route of the OHTL was identified to be of high sensitivity for birds, specifically for migratory soaring birds. Based on this, fourteen species were identified, five of which are globally threatened and the others have either significant numbers passing through or are known to be vulnerable to collision with powerlines.

Mitigation and monitoring measures to be applied throughout the operation phase of the Project include installation of bird diverters on the OHTL to reduce bird collisions during the operation phase of the Project and undertake on-site avifauna fatality monitoring and roosting survey along the powerlines during migration seasons. Both could be carried out in parallel to document any fatalities/injuries for birds while also documenting the use of the pylons as roosting and resting sites.

7.3 Active Turbine Management Program (ATMP)

Egypt is one of the main crossroads for soaring birds migrating from breeding grounds in Europe and Asia to wintering areas in Africa, of particular concern, the Gulf of Suez (GoS) in the heart of the migration flyway for soaring birds, where majority of flyway populations cross GoS during spring and autumn migrations. High wind energy potentials in the GoS stimulated rapid development of wind energy facilities approx. 2 GW, which poses additional risk to migratory soaring birds (MSBs) using the area as main migration route. Key risks arise from collisions with wind turbines and disturbance/barrier effects. Against this background implementation of a thorough post-construction Bird Monitoring Program (BMP), an appropriate Shutdown On-Demand (SOD) Program and an optimized Fatality Monitoring Program (FMP) is crucial when operating the RSWE Project with multiple wind farms within the GoS.

The ATMP aims to ensure the protection and risk mitigation of the environment while increasing the feasibility and the productivity of the RSWE wind turbine generators over its lifetime.

7.3.1 Definition of the ATMP during Bird Migration Seasons

Bird Monitoring and Shutdown On-Demand Programs (BMP & SOD-Program)

BMP & SOD-Program consultant(s) on behalf RCREEE will implement a robust and appropriate post-construction BMP, breeding and migratory birds during spring and autumn migration periods over the Project's duration at the RSWE project site. The SOD program involves the shutdown of all or some WTG in response to a potential bird collision risk. WTG shutdown is subject to certain criteria being met and ensures a high level of energy generation while protecting biodiversity. Shutdowns are generally short term in nature. The program will be implemented by a Visual Observations (VOs) Approach and may be assisted by the combination of VOs with use of a Radar Systems (RSs) Approach. In case a limited use of RSs due to failed or restricted approval, the BMP & SOD-Program consultant(s) will conduct the BMP by VOs only. Prior to the operational phase, specification for the implementation of BMP & SOD-Program under VOs and the combination of VOs with use of RSs, will be prepared building on the findings of the ESIA, CHA and CEA of the project. Since further assessments are planned to be carried out for two additional migration seasons, this detailed information will be finalized by the end of the last in-flight monitoring assessments in spring 2021. Detailed information will include identification of key species, key periods for monitoring, observation points, team composition, observation schedule, data collection observations, shutdown criteria, shutdown on-demand procedures and communication protocol, curtailment losses, risk management, standard data form, maps and data storage, data analysis, communication, required resources and equipment, breakdown of cost. The SOD-Program will include:

- Defining/delimiting key flight activity periods at the RSWE project site;
- Reviewing use of Radar and other high-tech monitoring technology if available;
- Drawing on bird monitoring data both historic and real time from RSs, VOs, bird behavioural variables, site-specific characteristics and weather data and other relevant data;
- Identifying high-risk areas and times; defining the groups of RSWE's WTGs by zones for the SOD-Program;
- Adopting a reactive/responsive approach to mitigation but which will be informed and refined through a predictive approach;
- Determining strategically located vantage points for monitoring flight activity and to facilitate effective turbine shutdown; and
- Improving effective communication networks between bird observers as well as between bird observers and RSWE's wind turbine operators.

Fatality Monitoring Program (FMP)

Systematic fatality surveys (i.e. carcass searches) by trained experts have become the main means of monitoring collision victims and estimating collision rates at wind power plants worldwide. Through applying the suitable survey design to be implemented at the project site, it is the most reliable and accurate approach for determining the number of birds killed in a certain wind farm, for monitoring bird fatalities over time, for analyzing the factors that cause variations in fatalities among turbines or analyzing the effectiveness of measures designed to reduce collision risk.

When conducting systematic carcass searches experts walk along pre-defined transects under each turbine. All found carcasses (in this case a bird/bat or parts of a bird/bat) are recorded and carefully examined (any evidence of fatality, carcass complete or dismembered, type of injuries evident, scavenging evident, distance and direction to turbine etc.).

Estimates of fatality rates are biased in relation to searcher efficiency. Furthermore, other factors such as proportion of searched areas and carcass persistence should be taken into consideration when estimating fatality rates. When carcasses located, observers will record species name, distance from the turbine tower, direction to the nearest turbine, and predation evidence or other observations. Carcasses will be then used in carcass persistence trails. Note should be made of any tags, rings or transmitters that might be on such birds.

Besides, carcass search surveys will also be undertaken along associated Overhead Transmission Line (OHTL) during bird migration seasons. In general, the same approach on standardized carcass searches can be applied. Data collection and data analysis of the monitoring at OHTL will be coordinated at wind farms in the GoS.

7.3.2 Management and Implementation of the ATMP

Involved Parties and Responsibilities

The following parties will be involved in the ATMP:

– **Responsible Entities**

RCREEE, EETC and EEAA have been involved in the development of the ATMP in the GoS. RCREEE as one of these Responsible Entities has already been selected for execution of the ATMP through tendering the ATMP, assigning experienced consultants, reviewing and supervising the implementation of the ATMP, coordinating with other Responsible Entities and informing all other involved parties.

– **Consultant(s)**

A consultant(s) experienced in bird migration and shutdown on-demand in the GoS and in bird/wind turbine-interactions should be selected and assigned by the Responsible Entities. The selected consultant(s) will be responsible for the overall execution of the BMP and SOD-Program, mainly including coordination and communication between all involved parties, execution of meetings and workshops, organization and execution of the field work, data analysis and preparation of reports, compilation of databases and capacity building. However, RCREEE will be responsible for implementing the optimized FMP in the GoS through assigning experienced consultants and surveyors and technical coordination with other Responsible Entities.

– **Technical Committee**

In order to guarantee a thorough execution of the ATMP of all wind farms along the Gulf of Suez, a Technical Committee consisting of 9 personnel appointed by the Responsible Entities. The Technical Committee will be involved from the very beginning of the ATMP, i.e. already in the planning and preparatory phase, and will review and comment on the main steps to be conducted in the course of the ATMP, e.g. proposed

technical approaches, proposed way of data analysis, conclusions and recommendation made by the ATMP consultant(s). Therefore the ATMP consultant(s) will provide the Technical Committee with the required information on a regular basis (e.g. once a month). In addition, meetings will be held to discuss all technical issues (twice a year). In doing so, the ATMP will be adjusted, if necessary, according to the recommendations of the Technical Committee strengthening the outcome of the ATMP and contributing to an effective adaptive management process.

– Sponsors/Operators of wind farm (RSWE), lenders and/or other organisations

Sponsors/ Operators of RSWE, Lenders and/or other Organization (e.g. NGOs) will be informed on the current status and the progress of the ATMP, the main conclusions and any recommended adjustments regularly. Therefor RCREEE will provide them with final reports prepared by the ATMP consultant(s) in due time. In addition, Sponsors/Operators, Lenders and other Organizations (e.g. NGOs) will be invited to participate in regular meetings and will get the opportunity to ask for clarifications, raise concerns and propose adjustments.

Communication Protocols and Channels

The ATMP is part of an environmental management system that aims to avoid potential negative impacts on Migratory Soaring Birds (MSBs). Thus, one main objective of the ATMP is to test and increase the effectiveness of mitigation measures (e.g. shutdown on demand) and to enable and support an active turbine management of multiple wind farms in the GoS. To achieve this objective, it is important to follow a technically sound approach that is coordinated among all involved parties. For that reason, a regular and open communication between all parties following a responsive and adaptive approach is crucial for a successful implementation of the ATMP. The main communication tools to be applied in the course of the ATMP are:

- Technical workshops will be held involving ATMP consultants of all operational wind farm projects along the Gulf of Suez including RSWE, Technical Committee, Lenders and/or other Organization (e.g. NGOs). The main objective of these technical workshops is to discuss and agree on the approach of data collection and data analysis that is being implemented as part of the ATMP. Conclusions from the workshops should be documented in order to be integrated into the ATMP and to be shared with all involved parties.
- Technical meetings for the RSWE project, involving the Technical Committee, Lenders, the project's ATMP consultants will be held on annual basis to review the implementation of the ATMP at the project level and provide amendments and adaptations on the ATMP.
- Technical reports will be prepared seasonally by the ATMP consultant(s) and will be shared with all involved parties.
- Public meetings (if needed) to inform certain or all involved parties. The results of a public meeting should be recorded in an official protocol that should be submitted to all involved parties.

The overview on the main components of the ATMP as given in Section 7.3.1 contains an execution progress for the ATMP's regular communication protocols. The main communication protocols and channels as shown in Figure 5 below.

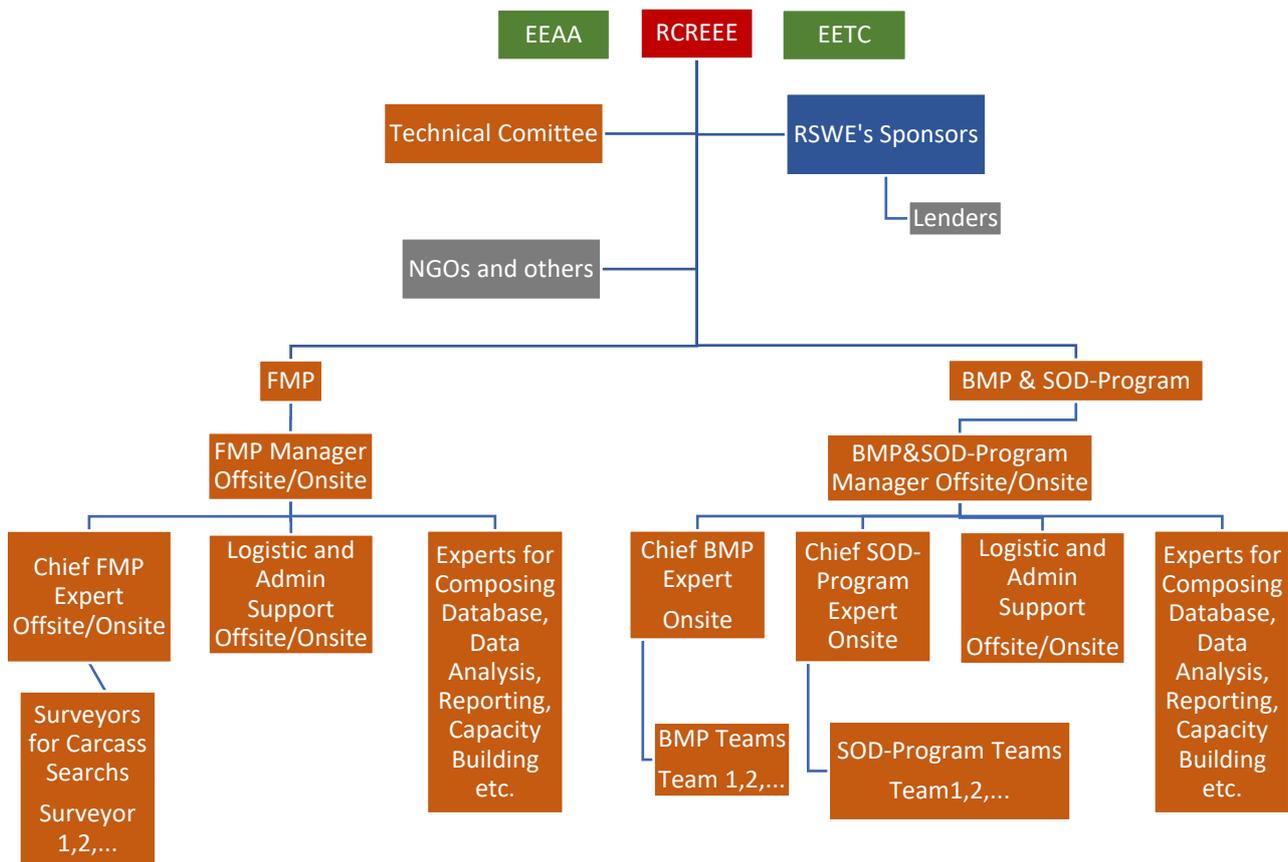


Figure 5: Scheme of main communication channels to implemented in the course of the ATMP (Colours represent responsibility: dark red – Responsible Entity for execution of the ATMP; dark green – Other Responsible Entities; dark orange - Technical Committee and consultants; dark blue – Wind Farm Owner; dark gray – all involved parties)

7.3.3 Adaptive Management Process for the ATMP (Linkage between the ATMP components)

It is crucial to implement an adaptive management process (AMP) to ensure that the ATMP, in particular the SOD-program, is properly undertaken and that cumulative impacts of multiple wind farms can be thoroughly considered during the operational phase of multiple wind farms in the GoS. The AMP for the ATMP should aim to assess the impacts of the project during the operational phase, building on the findings of the project’s ESIA, CHA and CEA. In order to achieve this, regular reporting should be maintained in order to ensure the quality of the implementation of the ATMP is being maintained. The Project’s consultants implementing the ATMP should be committed to the following:

- Provide monthly reports to RCREEE and the RSWE for review and documentation.
- Provide detailed seasonal reports to RCREEE, RSWE and other relevant entities, including Technical Committee for review, these reports should include recommendations for amendments on ATMP if necessary.
- Provide annual summary report to all relevant entities, presenting recommendation for ATMP amendments if available.
- In case of documentation of any fatality of any priority species, either through SOD monitoring or carcass search, a report should be provided during the same day of the event and to be submitted to RCREEE and RSWE for follow-up and documentation.
- Based on the above reporting requirements, ATMP amendments could be undertaken at seasonal or annual basis depending on the findings of the ATMP implementation and/or based on the recommendations from the relevant entities.

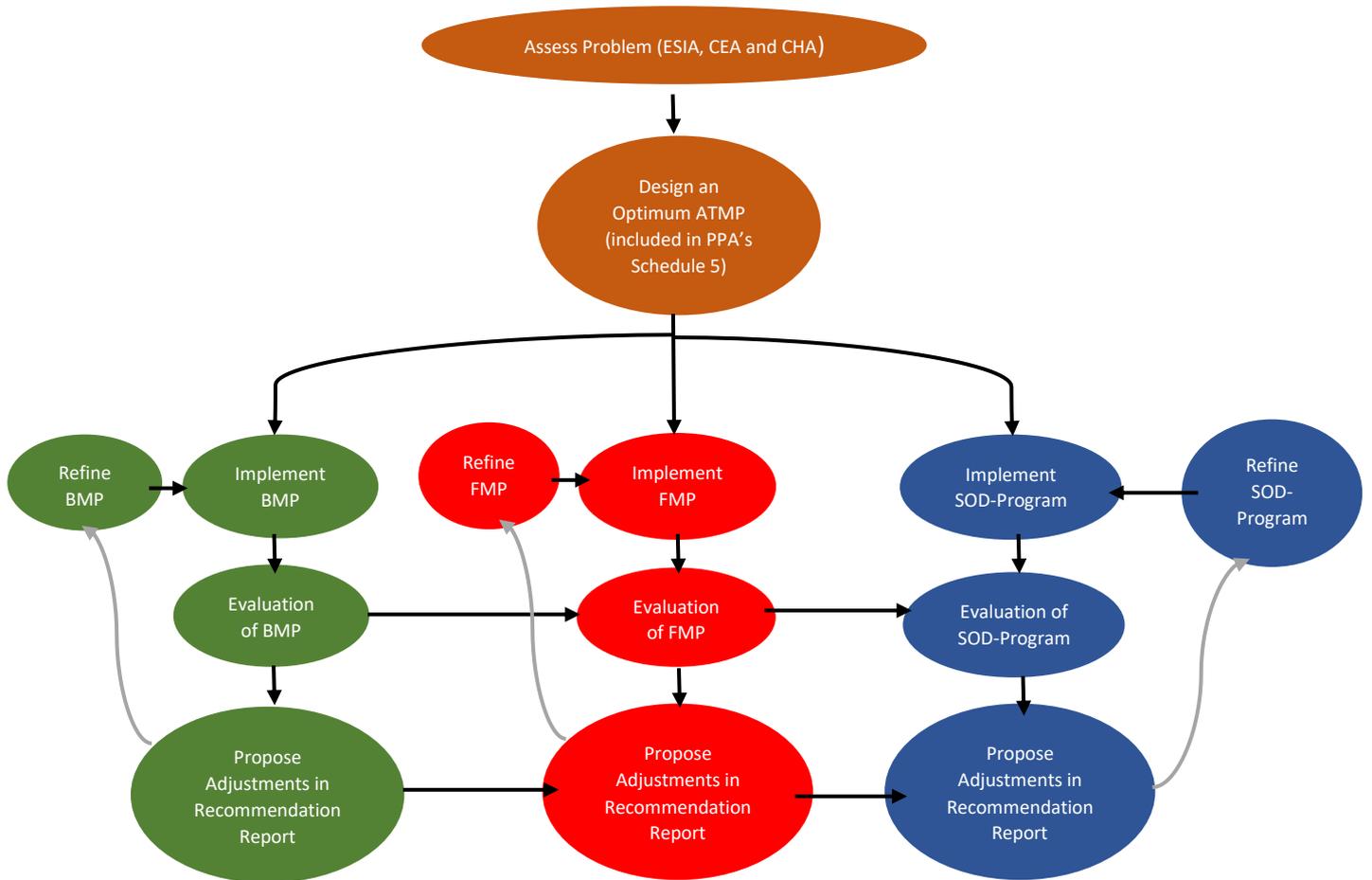


Figure 6: Adaptive management process to be undertaken in the ATMP components

8. EHSS MEETINGS, TRAINING, INSPECTION AND MONITORING REQUIREMENTS

This section identifies the overall requirements that will be implemented for EHSS meetings, training, inspection and monitoring during the construction and operation phase.

8.1 EHSS Meetings

The following identifies the EHSS meetings that will be undertaken for the Project throughout the construction and operation phase.

8.1.1 Weekly Meetings

During construction, a weekly EHSS meeting must be organized by the EPC Contractors and subcontractors' HSE Manager/Officers (as applicable). EPC Contractors will notify the RSWE and OE team on the time and date of meeting for relevant personnel to attend, if required. The agenda of these meetings shall cover at least the following items:

- Summary of items addressed at the previous meeting and determination whether they have been solved or not
- EHSS incidents, near misses or situations at risk identified during the previous week
- Special resources needed by EPC Contractors and subcontractors for coming week, especially in terms of safety equipment and supervision
- Specific awareness communication to implement onsite
- Training needs
- Personal Protective Equipment (PPE) requirements

The weekly EHSS meetings may be combined with other meetings (e.g. weekly coordination meeting) as far as the above topics are discussed and addressed and the presence of the required participants is ensured. EPC Contractors are required to maintain minutes of meeting and attendees register.

During the operation phase, no weekly EHSS meetings are required.

8.1.2 Monthly Meetings

During construction, the monthly EHSS meeting is organized by the RSWE Construction Director and involves the following personnel (as appropriate):

- RSWE CSR Officer / CLO
- OE Team as applicable
- EPC Contractors' Project Manager
- EPC Contractor's HSE Manager and HSE Site Supervisors
- Contractor and subcontractors HSE Managers/Officers as applicable

The agenda of these meetings shall cover at least the following items:

- Summary of the items addressed at the previous meeting and determination whether they have been solved or not
- Discussion on work assignments (if they have changed), equipment placement if it is variable, and ensure workflow is efficient and safe
- Conditions of the workplace to include housekeeping, hygiene, hazards, etc.
- Overview of accident/incident trends
- EHSS training program
- New and outstanding safety issues
- Audits and inspections outcomes (as applicable)
- Accidents (type, severity, frequency, etc.)

Throughout the monthly EHSS meeting, minutes of meeting will be undertaken by the EPC Contractors and shall be taken and circulated after the meeting to attendants. In addition, attendees register will also be maintained.

During operation, monthly EHSS meetings will be undertaken in a similar approach to the above that will involve RSWE and LTSA Contractor (SGRE).

8.2 EHSS Training

To achieve the approach to EHSS management, all personnel will receive the required training. Training will not be undertaken as a one-off but instead will be continually refreshed as part of on-going site training programs focused on the training needs of construction personnel. Training will be provided for all new recruits and continual refresher courses will be established for staff to attend as needed.

The following identifies the EHSS meetings that will be undertaken for the Project throughout the construction and operation phase.

8.2.1 Basic Visitor Safety Induction

Any visitor shall receive a basic safety induction prior to going on site. Each person who completes the induction will acknowledge by signing attendance sheet. This induction shall cover at least the following items:

- Site specific hazards awareness
- PPE instructions
- Basic safety rules to comply with
- Procedure to follow in case of emergency
- COVID-19 specific requirements

The basic visitor safety induction training for all visitors will be delivered by EPC Contractors' HSE Manager or RSWE's HSSE Manager (during construction) and RSWE's HSSE Manager (during operation). In addition, event attendance data sheet shall be signed and provided.

8.2.2 Site Induction Training

All construction and operation staff members will attend an in-house site induction training course. This will be delivered in a specific meeting room on the Project site and in a consistent structure, irrespective of the staff designations attending. The main objective of this type of training is to provide:

- A general understanding of the EHSS risks associated with the construction/operation activities proposed
- Local, national and international requirements
- Clarification of the EHSS Policy and its practical implementation, stressing that it carries implications for the working methods and responsibilities for all employees

The site induction training will be delivered by the EPC Contractors' HSE Manager (during construction) and RSWE's HSSE Manager (during operation) to all staff before they commence work on site. Workers will not be allowed to start working onsite until they have received the site induction training. As a minimum, the induction will include but not be limited to:

- General introduction and purpose and objectives of the EHSS plans
- The reason why the requirements set out in the EHSS plans are important
- The requirements for due diligence and duty of care
- Key EHSS contacts, roles and responsibilities
- Methods for implementing EHSS controls included within the plans
- Procedure for reporting incidents
- Details of site emergency and response plan
- COVID-19 specific requirements

Signed attendance sheet shall be retained.

8.2.3 Emergency Response Training

A standalone Emergency Preparedness and Response Plan is required to be prepared by EPC Contractors (during construction), RSWE and the LTSA Contractor (during operation). The Emergency Preparedness and Response Plan should address specific requirements for emergency response training.

8.2.4 Regular Tool-Box Talk (TBT)

The EPC Contractors' HSE Manager (during construction) and RSWE's and LTSA Contractor's HSE Manager (during operation) will be responsible to conduct regular Tool-Box EHSS meetings with their respective crews and subcontractors' crews as applicable. Topics and frequency are developed by the HSE Manager of the EPC Contractors and distributed regularly. Signed attendance sheet shall be retained. The scope of the TBT shall be identified within each of management plans identified in "Chapter5".

8.2.5 Other Training Requirements

There are other specific training requirements that must be adhered to and undertaken by the EPC Contractors' HSE Manager (during construction) and RSWE's and LTSA Contractor's HSE Manager (during operation) and which are related to specific topics as applicable. This includes for example specific training for Occupational Health and Safety (OHS), specific training for workers handling waste, etc. Those have been identified in "Chapter5" earlier.

8.2.6 EHSS Bulletin Board

A bulletin board will be installed at all sites where employees congregate as applicable. All other locations will have the same information available for employee's review on demand. Bulletin board information is as follows:

- Map denoting the route to the nearest emergency care facility
- Emergency communication procedures
- List of the most up-to-date EHSS plans and their location
- A sign indicating the number of hours worked since last lost workday incident
- Safety and health warning posters
- Safety Alert

8.3 EHSS Inspection and Monitoring

EHSS inspection and monitoring will be carried out to ensure compliance with national and international best practice requirements as set out in the EHSS plans as appropriate. A three-tiered approach will be applied to the monitoring of the Project performance, as follows:

- Daily Site Tours to be undertaken by EPC Contractors (during construction) and RSWE and LTSA Contractor (during operation)
- Weekly Site Inspection to be undertaken by EPC Contractors (during construction) and RSWE and LTSA Contractor (during operation)
- Audits to be undertaken by RSWE (discussed in details in "Chapter 9").

8.3.1 Daily Site Tours

The EPC Contractors' HSE Manager and RSWE's and LTSA Contractor's HSE Manager will be required to undertake a daily safety inspection and monitoring at the site. He/she shall prepare a daily observation report stating therein the corrective measures on observed safety deficiencies, unsafe acts and conditions. The observations shall be communicated to the concerned partners and subcontractor for their action. Copies of the daily inspection reports shall be kept on site by the HSE Managers and provided to RSWE as required.

8.3.2 Weekly Site Inspections

It is the responsibility of the EPC Contractors' HSE Manager and RSWE's and LTSA Contractor's HSE Manager to carry out weekly site inspections. These will be carried out through a weekly site inspection checklist.

The checklists will be used as the primary tool for identifying any non-compliance. The non-compliance procedure will be followed and implemented. Hard copies of the checklists will be printed and completed by the HSE Managers during the inspection of the site.

The inspections will be used to ensure that all parties (including contractor and subcontractors) are fully implementing the management procedures outlined within the EHSS plans.

The information collected during the weekly site inspections will be made available to RSWE as required.

8.4 EHSS Reporting and Records

Based on all of the above the table below provides a summary of all the EHSS requirements discussed throughout this chapter along with the reporting and record keeping requirements. The table below identifies the requirements for RSWE, EPC Contractors and LTSA Contractor.

The following reports and records will be stored and maintained onsite at all time.

Table 5: EHSS Reporting and Records

No.	Developer/RSWE		EPC Contractors		LTSA Contractor	
	EHSS Item	Report/Record	EHSS Item	Report/Record	EHSS Item	Report/Record
1	EHSS Meetings					
1.1	Attend weekly EHSS meetings	N/A	Overall management of weekly EHSS meetings	Minutes of meeting	N/A	N/A
1.2	Overall management of monthly EHSS meetings	N/A	Attend monthly EHSS meetings	Minutes of meeting	Attend monthly EHSS meetings	Minutes of meeting
2	EHSS Training					
2.1	Basic Visitor Safety Induction Training for visitors	Signed attendance sheets	Basic Visitor Safety Induction Training for visitors	Signed attendance sheet	Basic Visitor Safety Induction Training for visitors	Signed attendance sheet
2.2	General Site Induction Training	Signed attendance sheets	General Site Induction Training	Signed attendance sheets	N/A	N/A
2.3	Emergency Response Training	Signed attendance sheets	Emergency Response Training	Signed attendance sheets	Emergency Response Training	Signed attendance sheets
2.4	Regular Tool Box Talks	Signed attendance sheets	Regular Tool Box Talks	Signed attendance sheets	Regular Tool Box Talks	Signed attendance sheets
2.5	Other Specialized Trainings (e.g. Occupational	Signed attendance sheets	Other Specialized Trainings (e.g. Occupational	Signed attendance sheets	Other Specialized Trainings (e.g. Occupational	Signed attendance sheets

	Health and Safety)		Health and Safety)		Health and Safety)	
3	EHSS Inspection and Monitoring					
3.1	Daily observation	Daily Observation Reports	Daily observation	Daily Observation Reports	Daily observations	Daily Observation Reports
3.2	Weekly Site Inspections	Weekly site inspection checklists	Weekly Site Inspections	Weekly site inspection checklists	Weekly Site Inspections	Weekly site inspection checklists

9. AUDITING

9.1 Environment, Health and Safety (EHS) Audit

Construction Phase

During construction, RSWE will undertake an Environmental, Health and Safety (EHS) audit. The objective will be to ensure EPC Contractors' and subcontractor's compliance with the relevant EHS requirements related to the Project, including in particular the following:

- Environmental and Social Impact Assessment (ESIA) and associated Environmental and Social Management Plan (ESMP) (RCREEE, ECO Consult and EcoConServ, 2020)
- IFC 2012 Performance Standards
- EBRD Performance Requirements
- World Bank Group (WBG) General EHS Guidelines, Wind Energy EHS Guidelines
- National Egyptian EHS laws, regulations and standards

The EHS audit will be undertaken by the RSWE HSSE Manager on a quarterly basis. An EHS audit checklist will be prepared taking into account the following criteria:

- Overall EHS Onsite Management (documentation control, onsite team, training, meetings, inspection, monitoring, reporting, etc.)
- Hazardous material management
- Archaeology and cultural heritage (related to chance find procedures)
- Emergency preparedness and response
- Water management
- Waste management (solid waste, wastewater and hazardous waste)
- Occupational health and safety
- Traffic and transport management
- Air quality and noise

The audit will be based on: (i) site visit and inspections; (ii) EHS documentation review of EPC Contractors and subcontractors; and (iii) meeting/discussions with EPC Contractors' HSE team and subcontractor's team as applicable.

Based on the above, a quarterly EHS audit report will be prepared that will identify: (i) EHS observations and non-conformities; (ii) corrective actions require to resolve observations and non-conformities; (iii) identification of responsible entities for implementation of corrective actions; and (iv) timeline for implementation of corrective actions.

Operation Phase

A similar approach for the operation phase will be undertaken. The EHS audit will be undertaken by RSWE the HSSE Manager on a quarterly basis on the LTSA Contractor for the project.

9.2 Human Resources (HR) Audit

Construction Phase

During construction, RSWE will undertake a Human Resources (HR) audit. The objective will be to ensure EPC Contractors' and subcontractors' compliance with the relevant HR requirements related to the project to include in particular the following:

- RSWE Framework for Labour Management (presented in "Chapter 6")
- IFC 2012 Performance Standards to include PS 2
- EBRD Performance Requirements to include PR 2
- National Egyptian EHS laws, regulations and standards related to HR

The HR audit will be undertaken by the RSWE's HSSE Manager and/or RSWE's CSR Officer on a quarterly basis and an HR audit checklist will be prepared. The audit will be based on: (i) site visit and inspections; (ii) HR documentation review of EPC Contractors and subcontractors' (e.g. HR Policy HR Manual, etc.); and (iii) meeting/discussions with EPC Contractors' HSE team and subcontractors' team as applicable.

Based on the above, a monthly HR audit report will be prepared that will identify: (i) HR observations and non-conformities; (ii) corrective actions require to resolve observations and non-conformities; (iii) identification of responsible entities for implementation of corrective actions; and (iv) timeline for implementation of corrective actions.

Operation Phase

A similar approach for the operation phase will be undertaken. The HR audit will be undertaken on a quarterly basis on the LTSA Contractor for the project.

10. CONTRACTOR AND SUBCONTRACTOR E&S MANAGEMENT

The ESMS Manual identifies clearly the roles and responsibilities that are expected from the EPC Contractors during the construction phase and LTSA Contractor during the operation phase of the Project. This includes in particular the following as a minimum (and to be added based on specific needs identified):

- Prepare, implement and comply with the requirements of the Environmental & Social Management System as identified in "Section 3.3" and "Chapter 5"
- Appoint an HSE team headed by an HSE Manager as identified in "Chapter 2"
- Undertake and participate in EHSS meeting and undertake EHSS training and inspection/monitoring requirements as identified in "Chapter 8"
- Comply with labour management requirements as identified in "Chapter 6"

In addition, as discussed in "Section 3.3" earlier, the EPC Contractors and LTSA Contractor will ensure that all involved subcontractors in the project are provided with the requirements of the ESMS of both RSWE and the EPC Contractors/LTSA Contractor and they will be required to implement and comply with EHSS requirements accordingly. In specific subcontractors will be required to:

- Implement and comply with EHSS requirements and conditions as detailed within the EHSS plans and procedures provided by the EPC Contractors and LTSA Contractor;
- Develop and submit relevant EHSS documents and programs (plans and procedures) where required and as applicable for their scope of work. Such documents must be approved by the EPC Contractor and LTSA Contractor; and
- Adhere to all applicable local laws, ordinances, statutes, rules, regulations, and codes governing EHSS as well as international standards (i.e. IFC and EBRD standards).

RSWE will ensure that all EHSS requirements are enforced on the EPC Contractors and LTSA Contractor through inclusion in contractual obligations. In addition, as discussed earlier in “Chapter 9”, RSWE will undertake periodic audits to ensure that the EPC Contractors/LTSA Contractor and all subcontractors involved in the Project during the construction and operation phase adhere to provisions of the ESMS Manual and Management system and its associated management plans.

Whether through audits or through any other source of information (e.g. grievance mechanism) it comes to the attention of RSWE that the EPC Contractors/LTSA Contractor or any of the subcontractors do not comply with the requirements, the following will apply:

- RSWE will issue a non-compliance report which provides details on the non-compliance issue and justification.
- RSWE will submit the report and notify the EPC Contractors/LTSA Contractor
- RSWE will require a corrective action report from the EPC Contractors/LTSA Contractor which provides details on the incident, measures taken to rectify the situation and ensure that such an incident does not happen again.
- Depending on the severity of the non-compliance as determined by RSWE, a written formal warning could be issued to the EPC Contractors/LTSA Contractor.
- Should the non-compliance incident be repeated (and depending on the severity) a similar process to the above will be undertaken and another written formal warning will be issued.
- Should the non-compliance incident be repeated for a third time, discussions will be undertaken between RSWE and the Project Manager to impose contractual and financial penalties on the EPC Contractors/LTSA Contractor.

11. SITE SECURITY ARRANGEMENTS

This Chapter identifies the site security arrangements that will be implemented for the project for both the construction and operation phase of the project. The site security arrangements include a three-level approach as follows:

- **Level 1 – Military Permits:** the Project’s security in general is governed by the Egyptian military. Therefore, any access to the Project site in specific or the area in general requires a military permit to be issued. The permit is issued through submitting an Identification (ID) card beforehand to obtain a clearance and based on that a permit is issued accordingly. This is applicable for all Egyptian nationals. International personnel has to follow a more elaborate procedure.
- **Level 2 – Bedouin Groups:** the key Bedouin group known in the area is the Ma’aza tribe. The Project area in general (NREA assigned area in general including Project site) is under their control through the “Ghafra System” which entails involving such Bedouin groups in the Project for their support (e.g. through providing security and protection for the Project). Generally, such Bedouin groups are also employed in other development projects in the area (such as the petroleum companies) either as guides, security guards, or similar.

Consultations were undertaken between RSWE and the chief/head of the Bedouin group. Based on that an umbrella agreement was drafted and signed to provide security arrangements for the Project site through assigning 12 onsite security officers that will be identified and selected by the chief/head of the Bedouin group. Key responsibilities will include acting as security staff providing protection and security onsite on a 24/7 basis.

- **Level 3 – Site access control:** RSWE will hire employees with key responsibilities related to access control to the site (i.e. registering entry/exit to/from the site of personnel, equipment etc.).

The following requirements will be implemented by RSWE for both the construction and operation phase and will be taken into account as part of the Security Management Plan as discussed in “Chapter 5” earlier:

- All security staff involved (under level 2/3) will be required to undergo the site HSE induction training to be undertaken by the EPC Contractors/RSWE as discussed in “Section 8.2”. In addition, they will be required to undergo training in the Voluntary Principles on Security and Human Rights and to avoid use of excessive force.
- All security staff involved (under level 2/3) will be required to provide original certified documentation from relevant governmental entities which prove that they are not involved in any past abuses, inappropriate use of force, or other criminal activity and wrongdoing. No staff on whom there is credible negative information resulting from these checks will serve on the project.
- All security staff (under level 2/3) will not be armed or equipped with any lethal weapons or objects
- All security staff (under level 2/3) will be required to adhere to RSWE’s Company Ethics and Values (Annex 1)

12. STRATEGY AND COMMITMENTS TO LOCAL HIRING AND TRAINING

12.1 Local Hiring

Based on currently available information at this stage, the Project will require the following workforce throughout the construction and operation phase:

- Around 1,600 job opportunities at peak during the construction phase for a duration of approximately 29 months. This will mainly include around 300 skilled job opportunities (to include engineers, technicians, consultants, surveyors, etc.) and 1,300 unskilled job opportunities (mainly laborers but will also include a number of security personnel).
- Around 40 job opportunities during the operation phase for a duration of 20 years. This will include skilled job opportunities (such as engineers, technicians, administrative employees, etc.) and unskilled job opportunities (such as security staff, drivers, etc.).

Taking the above into account, RSWE is committed to ensuring that priority for job opportunities are 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 Contractors, under supervision from RSWE. The procedure will identify the number of job opportunities targeted for local communities to include skilled and unskilled workers. The recruitment procedure will take into account that the recruitment process will be undertaken through the Governorate’s Labor Office, which will be provided with a detailed list of job opportunities along with skills and qualifications required. Based on that, the recruitment procedure will also include a selection process that is fair, transparent and provides equal opportunities for all including females, taking into account the labor management requirements identified in “ Chapter 6 “ earlier.

At a later stage, a similar process will also be adopted for the operation phase by RSWE and the LTSA Contractor that is similar to the above.

12.2 Training

RSWE is committed to undertake the following training programs in relation to the Project development.

- RSWE in coordination and cooperation with the Egyptian Electricity Transmission Company (EETC) will select and train 7-10 local suitable local community members (based on availability) to undergo a training and capacity building program as substation operators. At a later stage (and subject to passing the training program successfully), they will be hired as substation operators during the operation phase. Additional details on the selection and training program will be provided at a later stage by RSWE and EETC.
- In line with the UN Sustainable Development Goal (SDG) 15, RSWE in cooperation with RCREEE have launched the first Junior Bird-Monitoring Training before and during construction that could be extended to the operation phase. This training aims to strengthen capacity of the national bird monitoring team on wind energy development and its potential impacts on migratory birds. The training includes intensive technically tailored training modules that will be conducted offsite and onsite.

13. COMMUNITY SUPPORT INITIATIVES

RSWE is committed to implementing community support initiatives which aim to bring an overall positive effect on the local communities, while promoting social welfare. The community support initiative will be guided by the following principles and requirements:

- Community support initiatives selected will be transparent, fair and unbiased, and will comply with all legal requirements
- Community support initiatives selected will be based on sustainable interventions with long-term benefits
- Community support initiatives selected will aim to be practical and tangible to the greatest extent possible having the greatest reachability to local communities
- RSWE is targeting fifty thousand US Dollars (50,000 USD) on an annual basis for the community support initiative program.
- RSWE will target 2 key sectors which RSWE management aim to prioritize: health care and education.
- RSWE will work in close coordination with RGWE, both EPC Contractors and the LTSA Contractor to leverage the CSR effectiveness.
- RSWE will undertake consultations with Ras Ghareb City Council to identify projects to be implemented for the community support initiatives taking into account the above conditions (budget, sectors for work, tangibility and practicality, etc.). Ras Ghareb City Council will in turn undertake consultations with relevant local governmental entities (e.g. Health office, Education office etc.) as applicable to determine needs for intervention.

Based on the above, RSWE will prepare an annual Corporate Social Responsibility (CSR) report which will include the following:

- Information on the progress of all ongoing proactive community support activities;
- A list of all known future proactive community support activities;
- An update of the annual budget allocation for community support activities; and
- A yearly action plan.

The CSR report will be published on RSWE's website to provide a summary of the progress of the community support activities.

14. STAKEHOLDER ENGAGEMENT

As discussed previously in “Chapter 3”, RSWE developed a Stakeholder Engagement Plan (SEP) that will be implemented throughout the project duration.

The SEP identifies in detail 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 Gharib 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 Gharib 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.

15. MANAGEMENT OF CHANGE

Various changes to this manual and its associated management plans and documentation may be required during the Project in order to address foreseen or unforeseen conditions or situations in a manner that is consistent with RSWE’s obligations.

During the construction and operation phase, this identified Change Management procedure will be applied to structure the review and approval of identified changes to planned Project arrangements by RSWE and, when required, regulatory authorities or Project lenders. This procedure will be applied to allow EHSS issues to be addressed as part of any significant changes to Project procedures, processes, design, or activities.

15.1 Scope of Environmental & Social Management System Changes

Changes may be temporary or permanent, related to Project activities, organization, personnel, EHSS plans and procedures, equipment, materials, health and safety, environmental or community / wider social issues.

Changes may be initiated by RSWE, the Owner’s Engineer and may also be requested by the EPC Contractors or LTSA Contractor. In practice, during the construction and operation phase, the Change Management process is likely to be initiated by RSWE or the Owner’s Engineer and raised directly with the RSWE HSSE Manager.

A Change Request may be generated at any time, for example, during audits, as a result of stakeholder grievances and other complaints, regulatory site visits or interaction with Lenders / Lenders representatives.

The Change Management process will apply when changes occur to any of the following activities or items:

- Alteration of environmental and social impacts management and monitoring measures

- Environmental & Social Management System (ESMS) manual, plans, procedures related to the Project
- Personnel changes, training or competency requirements.
- Organisational structure and/or individual EHSS roles and responsibilities
- EHSS protection equipment
- Project designs, re-designs, drawings or engineering processes
- The composition and properties of specified materials, chemicals or fuels
- Introduction of new operating or maintenance procedures or changes to existing procedures

15.2 Management of Change Steps

The process is based on the following key steps:

- Identification of item/situation potentially requiring change;
- Requests for Change Form submitted to RSWE HSSE Manager defining:
 - Nature of the item/situation requiring change
 - Any impacts resulting from the change (e.g. safety, pollution, public grievance or other complaint); and
 - Any biophysical, social, economic, or health considerations.
- Once impacts are identified, a review should be made of the ESMP in place at the time of the change in order to assess if the mitigations it includes are sufficient to adequately manage the change and its impacts; if not sufficient, the ESMP should be modified/expanded to ensure that it can manage the impacts and risks that the change will bring in. If sufficient, then no further actions are required.
- RSWE HSSE Manager will review proposed changes for compatibility as applicable:
 - Category 1 changes are approved by the RSWE Construction/Operation Director and RSWE HSSE Manager (with additional consultation if required);
 - Category 2 changes are approved by the RSWE HSSE Manager (with additional specialist consultation if required) and then submitted to the Construction/Operation Director for approval;
 - Category 3 changes are agreed between the relevant HSE Officers, the relevant parties/ stakeholders (with additional consultation as required) and are then submitted for approval by the RSWE HSSE Manager;
 - Category 4 changes are simply approved by the RSWE HSSE Manager or delegated authority.
- Review and approval by external stakeholders if/as required;
- Compliance with reporting and other obligations in the finance documents;
- Application for, and receipt of, any approvals required to implement the change under Egyptian laws and regulations or under permitting conditions;
- Implementation of the approved change, including communication to appropriate parties concerning the nature, scope and timing of the change; and
- Summary of project changes and status to be included in internal compliance reporting and/or in annual monitoring reports or equivalent to the appropriate regulatory authorities and lenders as appropriate.

15.3 Change Categorization

Category	Nature of Change	Actions Required
1 (Major Change)	<p>Changes which are reasonably likely to result in:</p> <ul style="list-style-type: none"> ▪ Significant departure from the Project Description and/or a RSWE ESMS Manual and/or a legal / Lender obligation; ▪ Significant environmental and/or social impact(s) not identified; ▪ Confirmation that a planned mitigation measure for addressing significant environmental and/or social impact(s) are not predicted to be effective; or ▪ Material amendment or supplement to the ESMS is necessary 	<p>RSWE will notify relevant Egyptian Regulator/Agencies and/ or the Project Lenders within an appropriate timeframe (period as specified in law / the Lenders ESAP or as otherwise agreed).</p> <p>RSWE Change Notice will define what change is required, the proposed implementation actions and associated timescale.</p> <p>No changes affecting material environmental and social matters will be implemented without prior Egyptian Agency / Facility Agent/ Lender approval, unless human health or the environment is at imminent risk of serious harm.</p>
2 (Moderate Change)	<p>Changes which are reasonably likely to result in:</p> <ul style="list-style-type: none"> ▪ Departure from the Project Description and/or an RSWE ESMS Manual requirement and/or a Egyptian legal / Lender obligation ▪ New environmental and/or social impact(s) not identified ▪ Modification to a planned mitigation measure for addressing environmental and/or social impact(s). 	<p>RSWE will notify the relevant Egyptian Agencies and/or the Project Lenders within an appropriate timeframe.</p> <p>If the Lenders consider that a Change should be re-categorized or that the proposed measures for managing or implementing it are inconsistent with the specified E&S Standards, the Lenders through the Facility Agent and or Technical Advisors shall notify the Company within a reasonable time period. Thereupon RSWE and the Lenders Technical Advisors / Facility Agent will make best endeavors to agree a solution. RSWE will not implement the proposed Change until a mutually acceptable is agreed.</p> <p>If the Lenders Technical Advisors/ Facility Agent do not respond within an agreed period, RSWE will assume that the proposed change is acceptable and will proceed as per plan</p>
3 (Minor Change)	<p>Changes which do not fall within either of the above Categories 1 or 2, but which need to be notified to Egyptian Regulator / Agency or the Lenders.</p>	<p>RSWE will notify the relevant Egyptian Agencies/ Stakeholders either in routine meetings or formal reports as appropriate. RSWE will notify the any changes made during the course of the year in its Annual Monitoring Report or equivalent mechanism.</p>
4 (Negligible Change)	<p>Other non-material changes</p>	<p>No notifications needed</p>

ANNEX 1 – RSWE ETHICS AND VALUES CHARTER

OBJECTIVE

The objective of this document is to present the RSWE’s company values, its human rights commitments and the ethics principles to be followed by the directors, executive officers, senior financial community and all employees and representatives of the Company while carrying out their duties and responsibilities on behalf of the Company.

Contractors rendering services to RSWE will be asked to fully comply, to the extent reasonably possible, with this Company Ethics & Values Charter.

DEFINITIONS

“**RSWE**” or “**Company**” means Red Sea Wind Energy S.A.E.

“**Employees**” means the employees having an employment contract with RSWE including directors, executive officers, senior financial community and representatives, and the employees who are seconded to RSWE by a third party.

“**Ethics Officer**” is the person nominated by the RSWE Board of Directors in accordance with section 4 below.

“**Management**” means the Chief Executive Officer, the Chief Financial Officer, the Operation Director, the Construction Director and the Administration Officer of RSWE (individually referred to as “**Manager**”).

1. OUR FUNDAMENTAL ETHICAL PRINCIPLES

RSWE ethics & values are expressed in the way we work. RSWE’s ethical standards are reflected in the fundamental principles that guide our practices; compliance with laws and regulations, integrity, fairness, honesty, and respect for others.

Principle 1 - Act in Accordance with Laws and Regulations

Compliance with Laws and Regulations

An overarching principle is that in all circumstances, Employees must observe the international, national, local laws and regulations, and ethical and professional codes of practice applicable to their activities. Employees shall equally adhere to internal decisions and other regulations adopted by RSWE, in particular, the Equator Principles and World Bank Guidelines.

Anti-Bribery and Fraud

The Company shall have zero tolerance for and fight against fraud. Fraud means any action or behavior, irrespective of its nature or goal, by any Company employee, intended to deceive or abuse others in violation of the rules or to violate any rule stated by applicable legislations which is punishable by law, or any compulsory standard laid down by the Company (e.g. theft of money, property or data; deliberate alteration; concealment or destruction of documents; false entries or false declarations; manipulation of accounts; etc.).

Bribery or corruption is a specific form of fraud, committed by any person or entity working for or on behalf of the Company, e.g. a director, agent, employee, commercial partner, consultant, etc.

Whether public or private, corruption can be:

- **Active:** giving, offering or promising any undue advantage (financial or otherwise) to an individual in return for a benefice that the said person is likely, or may appear likely to provide directly or indirectly.
- **Passive:** soliciting, accepting or receiving any undue advantage whatsoever for oneself or others, a benefit to be likely or assumed to be likely procured either directly or indirectly.

The Company shall fight against corruption and comply with a strict and restrictive international regulatory context (e.g. US FCPA, UK Bribery Act, Sapin 2 law in France).

The Company shall (i) assess the risk of corruption to which it is exposed by identifying its strengths and weaknesses in consideration of its processes/policies/practices, and (ii), if required, establish an action plan to be implemented.

As part of its anti-corruption program, the Company shall adopt policies for:

- Gift and Hospitality (ref. to HR Procedure & Policy)
- Ethics in Purchasing (ref. to Procurement Policy)
- Patronage & Sponsorship (ref. to CSR Plan)

In particular, the Company will introduce ethics and anti-corruption clauses in its agreements with contractors, in order to ensure contractors' compliance with applicable anti-money laundering, anti-bribery and anti-corruption laws.

It is to be noted that the due diligence regarding partners & other main stakeholders in a respective project is carried out by the shareholders of the Company.

Principle 2 – Behave Honestly and Promote a Culture of Integrity

Business Integrity

RSWE accepts no compromise in the matter of integrity, which must govern all its day-to-day business relations and professional practices. This being the case, RSWE attaches the greatest importance to ethical professional behavior of its Employees, both towards colleagues and third parties.

Employees must all be aware of the fact that the Company's reputation depends on their actions. It is therefore imperative that each Employee should act in a manner that permanently and in all circumstances fosters a culture of integrity.

Conflicts of Interest

In practice, integrity demands that Employees should avoid any situation likely to create a conflict between personal interests and those of RSWE's. A conflict situation can arise when an Employee takes actions or has interests that may make it difficult to perform his or her company work objectively and effectively. Conflicts of interest also arise when an Employee or a member of his or her immediate family receives improper personal benefits as a result of his or her position in the Company.

Acting with integrity also means always maintaining RSWE's fundamental ethics & values, which helps to establish a climate of trust and acts as a shield against corrupt practices, which are a serious risk to the commercial survival of any business.

Confidential Information

Employees should maintain the confidentiality of information entrusted to them by the Company or its customers, except when disclosure is authorized or legally mandated. "Confidential information" includes all non-public information that might be of use to competitors, or harmful to the Company or its customers, if disclosed.

Principle 3 – Be Loyal

Accountability & Relationships with other parties

For RSWE, the quality of a relationship depends primarily on the fairness and honesty of the parties, especially in the performance of contracts. These qualities mean that we honor the commitments we make and know the limits of our capacities, so that we do not make promises that we cannot keep.

This means that each time we communicate with other parties, we do so in good faith, in a constructive spirit, with awareness of the other's needs and with the intention of providing genuine, accurate and comprehensive information.

This principle applies not only to RSWE's relations with customers, shareholders, investors, suppliers, non-governmental organizations (NGOs) and the public, but also to RSWE's internal communication, with Employees or between departments.

RSWE aims to establish long-term relations with its partners. This ambition cannot be realized without fair and honest behavior, which constitutes the bedrock of mutual trust. However, beyond this and in all circumstances, RSWE's success depends above all on its reputation.

From this point of view, a failure to act fairly and honestly represents a threat to the future of the Company, to its image, its shareholders and its Employees.

Principle 4 - Respecting Others and the Environment

Responsibility

The environment, its protection and sustainable development are particularly important to the Company. The Company specifically stresses on this by stating that respect for human beings and respect for the environment are the foundation of RSWE's identity and values.

The principle of mutual respect is about reciprocity, each of us having rights to claim and duties to fulfill. That is why RSWE attributes equal value to both, whether in its dealings with individuals or with corporate entities.

This principle applies particularly to respect the rights of individuals, for their dignity in all circumstances and for their differences, as well as the respect for cultures. It also applies to tangible and intangible goods belonging to others.

An imperative for Employees in the performance of their functions and respect for others also governs the relations of any entity with its Employees.

Harassment & Discrimination

This principle governs the Company's policy on the respect for private life and diversity, the prevention of discrimination and the prevention and punishment of bullying and harassment. Employees shall not discriminate against persons based on reasons of race, creed, sex, social status, religion, nationality, age or any disability. From a wider perspective, it guides RSWE's policies on relations with all parties and on conflict resolution.

Responsibility

The Company is aware of its responsibilities to present and future generations, and hence defines its strategy and sets its objectives in keeping with the principles of sustainable development.

Compliance with Laws and Regulations

RSWE is alert to the impact and consequences of its activities. Employees should comply with all laws and regulations relating to the protection of the environment and strive to reduce the burden on the environment by paying maximum attention to the efficient use of resources and energy.

RSWE expects its Employees to act in keeping with these ethical principles in all their dealings, in all circumstances and whatever their role and level of responsibility. At every level of the Company, from Board of Directors' member to Employee, we all have an absolute duty never to act in a way that could cast the slightest doubt on RSWE's ethical integrity.

2. CODE OF CONDUCT IN SUPPLIER RELAYIONS

The Employees in relations with suppliers shall follow the code of conduct summarized in the 7 principles below.

Fair Competition

RSWE's 7 principles for our relationships with suppliers are:

1. Comply with laws, regulations, external standards, RSWE commitments and internal procedures
2. Treat Suppliers fairly, transparently and impartially
3. Ensure that mutual commitments are respected
4. Protect the confidentiality of all information exchanged
5. Foster awareness of and meet RSWE's commitments with regard to ethical standards, sustainable development and social responsibility
6. Avoid any conflict of interests that may undermine objective and independent decision making
7. Report any situation that does not comply with these rules

3. OUR HUMAN RIGHTS COMMITMENTS

RSWE commits its support for the respect for human rights, as required by the United Nations Guiding Principles.

The commitments principles are listed here.

Commitment 1

The Company carries out its activities while respecting internationally recognized human rights.

Commitment 2

The Company will make sure that the fundamental rights of its Employees are respected, in accordance with the conventions of the International Labor Organization:

- Company rejects all forms of forced or compulsory labor
- Company rejects all forms of child labor
- Company rejects all forms of discrimination
- Company recognizes freedom of association and the right to collective bargaining

Moreover, Company pays particular attention to guarantee:

- the highest standards of health and safety in the workplace (including accommodations if provided)
- working hours and holidays in accordance with international standards.

Commitment 3

Harassment & Discrimination

The Company rejects all forms of harassment and violence in the workplace and will make sure that its Employees are provided with a working environment that is respectful of their individual freedoms and privacy.

Commitment 4

The Company will make sure that its activities do not infringe the rights of local communities surrounding its sites.

Commitment 5

The Company will make sure that assignments related to the security of its Employees and assets are conducted with respect for human rights.

Commitment 7

The Company respects internationally recognized human rights in its relations with public authorities.

4. GUIDELINES FOR IMPLEMENTATION

Appointment of an Ethics Officer

The Board of Directors of RSWE will approve this Company Ethics & Value Charter and will appoint the Company's Ethics Officer. The Ethics Officer will be responsible for monitoring the implementation of this Company Ethics & Values Charter.

Understanding the rules

Company Ethics & Values and its respect are reflected first and foremost in the conduct of its Employees in all situations. All Employees and persons acting on behalf of RSWE must be familiar with and understand this obligation.

Managers must inform each Employee of his or her duties in simple, practical, and concrete terms, by clarifying the measures and procedures to apply in areas such as confidentiality of information, commercial practices, internal Company relations, and conflicts of interest.

Training or awareness programs are to be organized as needed to ensure that these rules are well understood in the Company. In particular, no appointments may be made to a position of responsibility without prior verification of the candidate's ability to implement and respect the rules applicable to the position, and the capacity to ensure their respect by others.

The Ethics Officer shall inform Employees, and provide necessary training, in respect of any change or updates to the Company Ethics & Values Charter.

Documentation on Company Ethics & Values

In order to inform staff with a position of responsibility about Company Ethics & Values, the Ethics Officer will distribute the Company Ethics & Values Charter to each staff with a position of responsibility. He will collect Employees' acknowledgement of receipt of the Company Ethics & Values Charter, mentioning the date and version of the Company Ethics & Values Charter, and this acknowledgment shall include a written statement regarding acceptance of the content of the Company Ethics & Values Charter.

The Ethics Officer will ensure that all new Employees receive the Company Ethics & Values Charter upon joining the Company and sign a similar acknowledgement.

The Ethics Officer will place the latest version of the Company Ethics & Values Charter in a shared folder in the Company's network, accessible by all Employees.

Communicating with the Ethics Officer

Reporting of unethical behavior

All Employees are invited to freely contact the Ethics Officer for their particular business area in order to seek guidance and advice, or even to draw attention to difficulties with or violations of the Company Ethics & Values' tenets.

The Ethics Officer can be contacted via e-mail: [\[ethics.officer@rswe.co\]](mailto:ethics.officer@rswe.co), or cell phone: TBC

Guarantee of Confidentiality

In all circumstances, the Ethics Officer is obliged to strictly maintain the confidentiality of information communicated to him, and of the identity of the person communicating it, if so requested.

Anyone who in good faith expresses concerns relating to ethical matters or compliance will not be exposed to any sanction as a consequence of their initiative.

Whistleblowing, monitoring and reporting the implementation of the Company Ethics & Values

Communication and Accurate Record Keeping

The Ethics Officer shall record any report of violation of the Company Ethics & Values communicated to him. The Ethics Officer shall enquire and if the breach is or appears confirmed, he shall report the same to the CEO of the Company. In case of conflict of interest of the CEO, he shall report to the Chairman of RSWE Board of Directors.

The Ethics Officer and the CEO jointly decide on corrective measure to be taken and/or on reporting to the RSWE Board of Directors. In case of conflict of interest of the CEO, the Ethics Officer and the Chairman of RSWE Board of Directors jointly decide on corrective measure to be taken and/or on reporting to the RSWE Board of Directors. Decisions on corrective measure and reporting shall be duly recorded by the Ethics Officer.

Each year, the Ethics Officer will send a report to the CEO and the Chairman of RSWE Board of Directors on the status of compliance and on corrective measure taken, if any.

Responsibility for Company Ethics & Values Compliance

All persons, acting on behalf of RSWE regardless of their responsibilities and position, must be aware that any violation of the Company Ethics & Values Charter on their part is their personal responsibility and will result in appropriate disciplinary action.