



13 DECEMBER 2023

DRAFT REPORT

Baseline Audit Report of Project Blade for Actis

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For and on behalf of: Actis
Prepared by: Ahmed Zedan and Lana Mahmoud
Reviewed by: Name of Director in Chare
IBIS Ref: 0197-4069

Signed by:

Position: Director

Date: 13 December 2023

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1. INTRODUCTION

1.1 BACKGROUND

IBIS Environmental Social Governance Consulting South Africa Pty Ltd (IBIS) was appointed by Actis (the 'Client') as the independent consultant to undertake a baseline audit of an up for sale and operating 580 MW wind power plant (WPP) owned by Egypt's New and Renewable Energy Authority (NREA) and located in Gabal El Ziet, Red Sea, Egypt ('Project Blade or the 'Project').

The scope of the Baseline Audit report involves assessing the Project's environmental and social impacts, evaluating its environmental and social performance, and identifying compliant and non-compliant practices. Additionally, the audit will examine the risks associated with non-compliances. IBIS will base its report on the completed Environmental and Social Due Diligence (ESDD) report, the forthcoming Biodiversity Action Plan being prepared by The Biodiversity Consultancy, and publicly available information about the Project.

1.2 AIM AND OBJECTIVES

The objectives of the Baseline Audit report are as follows:

- Assess the Project's environmental and social impacts. This involves a comprehensive evaluation of potential effects on natural resources, biodiversity, ecosystems, communities, and other relevant aspects. The audit will provide a detailed analysis of the Project's impact, both positive and negative, on the environment and society;
- Assess the Project's compliance with the AfDB's Integrated Safeguards System, the EBRD's Performance Requirements, the DFC's Environmental and Social Policy and Procedures, and the IFC's Performance Standards. The audit will identify practices that align with these standards and highlight any non-compliant practices;
- Identify the risks associated with non-compliances and non-conformities. By identifying these risks, IBIS will provide valuable insights into the potential consequences of non-compliant practices; and
- Propose appropriate corrective actions for each non-compliance identified. The Baseline Audit will outline the specific steps required to address non-compliances, including estimated costs and timelines.

1.3 METHODOLOGY

The Baseline Audit report is based on tasks carried out during the Environmental and Social Due Diligence (ESDD) assessment of Project Blade, which was conducted by IBIS on behalf of Actis from July to October 2023. A description of the methodology undertaken to complete the ESDD, and which forms the basis of this Baseline Audit report, is described below:

ESDD Phase	Task
Phase 1	<p>Task 1 Project Initiation</p> <p>A kick-off call was held on 30 June 2023, attended by representatives of Actis and IBIS. Lines of contact and procedures for information exchange were established during the kick-off call, and further details about the ESDD were discussed.</p> <p>Following the kick-off call, further discussions relating to clarifications on the E&S information requested were held between Actis and IBIS. A document request list was submitted by IBIS to obtain relevant E&S data to be reviewed during the Assessment.</p> <p>Task 2 Document Review</p> <p>IBIS conducted a desktop review of available E&S documents in relation to the Project. Available documentation for review was limited to environmental and social impact assessments (ESIA), bird monitoring reports and Project layouts.</p> <p>Task 3: First Site Visit and Management Interviews</p>

ESDD Phase	Task
	<p>IBIS undertook a visit of the Project on 10 and 11 July 2023. The visit was carried out by two IBIS environmental and social (E&S) consultants. During the site visit, IBIS made visual observations of the main building, consumable warehouses, spare part warehouses, site offices, internal roads, Bedouin security posts, waste storage areas and wastewater storage areas. IBIS held management interviews with Siemens Gamesa Renewable Energy (SGRE) and the New and Renewable Energy Authority (NREA) personnel to discuss E&S aspects of the Project.</p> <p>Task 4: Red Flag Review</p> <p>A red flag review of the Project was undertaken by IBIS on the basis of an initial document review of data provided by the Project, as well as the July 2023 site visit, management interviews and a review of publicly available information relating to the Project. The initial red flag review, prior to undertaking the site visit in July 2023, was provided to Actis on 05 July 2023. The updated red flag review, upon concluding the site visit, was provided to Actis on 30 July 2023. It included a summary of the status of the Project against the International Finance Corporation's (IFC) Performance Standards and European Bank for Reconstruction, the Development's (EBRD) Performance Requirements and Egyptian environmental and social laws and regulations (i.e., the Applicable Standards).</p>
Phase 2	<p>Task 5: Assignment II Initiation</p> <p>IBIS kicked off Phase 2 with a series of calls with Actis to scope the coverage of the second site visit and to confirm the key issues to be provided specific attention in the remainder of the ESDD.</p> <p>Task 6: Second Site Visit and Management Interviews</p> <p>A second site visit were undertaken to the Project on 07 September 2023. The site visit was attended by one E&S consultant from IBIS and one biodiversity specialist from The Biodiversity Consultancy. IBIS and The Biodiversity Consultancy interviewed key personnel from SGRE, NREA and the bird monitoring and bird fatality monitoring teams. The site visit was accompanied by E&S personnel from the IFC.</p> <p>The key areas of focus for the site visit were established under Phase 1, and included bird monitoring, bird fatality monitoring, occupational health and safety, waste management, wastewater management and security management.</p> <p>Task 7 Ongoing Document Review</p> <p>IBIS undertook a review of further documents provided as part of Phase 2, notably relating to health, safety and environment, as well as bird fatality monitoring reports.</p> <p>Task 8 Reporting</p> <p>Based on the findings from the preceding tasks described above, IBIS prepared a comprehensive ESDD report evaluating the Project against the Applicable Standards, with corrective actions and recommendations provided in the form of an Environmental and Social Action Plan (ESAP) intended to support alignment of the Project with the Applicable Standards.</p>

1.4 LIMITATIONS

The Baseline Audit report was conducted in accordance with IBIS' Task Order dated 22 November 2023. The conclusions and recommendations presented in this report reflect the professional opinions of the IBIS consultants involved in the assignment. It is important to note that the findings of this report should not be considered a legal

interpretation of existing regulations or be misconstrued as legal advice. The application of Applicable Standards and the resulting judgments may involve subjective interpretation.

The Baseline Audit Report did not include the performance of a baseline survey and depended only on available desktop information publicly available data as well as the findings of IBIS' Environmental and Social Due Diligence assessment completed in October 2023.

IBIS assumes no responsibility or liability for any errors in the public data used, information provided by the Client, statements from external sources, or any developments outside the scope of this assignment. No warranties, expressed or implied, including merchantability or fitness for a particular purpose, are made.

This Baseline Audit report has been prepared for the Client's benefit, and IBIS disclaims any liability to third parties who may have access to this report or associated information, directly or indirectly. No reliance should be placed on this report by any third party unless agreed upon in writing with IBIS through a reliance letter and payment of a fee.

All data and information provided in this report were assumed to be accurate and up to date.

2. LEGAL AND INSTITUTIONAL FRAMEWORK

2.1 EGYPTIAN LEGISLATION

2.1.1 ENVIRONMENT

The environment in Egypt is protected under Law 4/1994, commonly known as the Law on Protection of the Environment, amended by Law 9/2009 and its executive regulations.

EIAs are classified under four categories, as per the Egyptian Environmental Affairs Agency's (EEAA) official website. The categories are defined as follows:

- Category (A): projects with minimum environmental impacts. These are required to complete an environmental impact assessment form A;
- Category (B): projects with potential adverse environmental impacts yet less adverse than category C. These are required to complete an environmental impact assessment form B;
- Scoped Category (B): A definition for a Scoped B EIA is not available on the EEAA's official website.
- Category (C): projects which have highly adverse impacts. These are required to prepare a full EIA study.

According to Law 4/1994, proponents of new projects and/or the expansion of existing projects are required to complete an environmental impact assessment (EIA) study to ensure they are environmentally sound and sustainable, as well as to identify any potential adverse environmental effects during the different phases of a project. The EIA system in Egypt classifies projects into four categories (Category A, B, Scoped B and C) based on their impacts to the environment, the location of a project and a project's proximity to residential settlements. Once an EIA has been completed it is submitted to the Competent Administrative Authority (CAA) – a sectoral ministry or governing body. Both general and sector guidelines for the preparation of EIAs are available on the EEAA's official website.

The central EIA department is responsible for the screening and reviewing process, as well as deciding on a project's approval. After submission of an EIA for review, EEAA may request revisions in the EIA report within 30 days, including additional mitigation measures, before issuing the approval of the report. In cases of rejection, the proponent has the right to appeal within 30 days.

Law 4/1994 also requires that projects should maintain an environmental register for the assessment of their environmental performance and compliance, whereas EEAA should inspect the facilities on an annual basis and follow-up on any recorded non-compliances.

A sample outline for an environmental register is presented in Table 2-1.

Table 2-1 Proposed Contents of an Environmental Register

CHAPTER	CONTENTS
Introduction	Name of the facility, addresses, etc.
Environmental Policy	Provide a copy of the company's environmental policy
General Information	Name of responsible staff
	The time period covered by the register
General Description of the Facility	Activity sector which is followed by the establishment
	Type and amount of actual production and maximum production capacity
	Invested capital and annual return
	The number of employees and year of operation
	characterization of the facility renovations
	Maps of the emission points, drainage and storage areas
	Maps showing the surrounding environment and the location of the facility
Input	Characterization of raw materials and quantities used annually

CHAPTER	CONTENTS
	Maximum storage capacity and characterization of storage area
	Sources and water consumption per year and distribution use
	Sources and energy consumption and distribution use
Laws and Regulations that Govern the Facility	Legislation and regulations applicable to the facility
	Attach a copy of the permit and decisions related to the environment of the facility.
	A copy of the correspondence with the EEAA and the administrative authorities concerned
Production Processes and Facilities	Operations per unit productivity
	Characterization of boilers (capacity and fuel used) .
	Water treatment plants, water quantity and processing steps
Emissions and Rates	Purpose of carrying out the measurements
	The measured parameters, and justifications
	Characterization of chimneys, flairs and emissions rates
	Gas Emission rate (m ³ /year)
	Contaminated load (tons / year)
	Processing Characterization emissions and efficiency
Effluents	Characterization of wastewater per unit productivity
	Amount of wastewater from the production units m ³ /day
	Qualitative Load (kilo contaminated / ton product)
	Characterization and processing units, maps and processing methods
	Used equipment and efficiency of the treatment plant
	Sludge disposal method
Solid Waste Register	Type and quantity of waste volume and disposal methods
	Contents are indicated in the solid waste register subsection
Work Environment	Contaminants in each production unit
	Heat stress, and illuminations for production unit
Self-Monitoring Plan	Frequent monitored pollutants
	Sampling locations (the schedule for sampling)
	Standard methods used for analyses
	Personnel responsible for monitoring or reporting
Emergency Plan	General facility Emergency plan
	Oil Spill Contingency plan
Finding and Recommendations	Findings of environmental inspection (site visits) and the recommendations or mitigations in accordance to the findings concerning environment and workplace exposure and modification of monitoring locations as needed for the next environmental updates

1.1.1.1 AIR QUALITY

The Egyptian standards for ambient air quality (Law No. 4 of 1994 amended by Law No. 9 of 2009 and amendments made to its Executive Regulation 710/2012) are presented in Table 2-2.

Table 2-2 Ambient Air Quality Standards

POLLUTANT	AREA	MAXIMUM CONCENTRATION ($\mu\text{G}/\text{M}^3$)			
		Hour	8 hours	24 hours	Year
Sulfur dioxide	Urban areas	300		125	50
	Industrial areas	350		150	60
Carbon monoxide	Urban areas	30	10	-	-
	Industrial areas	mg/m^3	mg/m^3	-	-
Nitrogen dioxide	Urban areas	300	-	150	60
	Industrial areas	300	-	150	80
Ozone	Urban areas	180	120	-	-
	Industrial areas	180	120	-	-
Total suspended particles	Urban areas	-	-	230	125
	Industrial areas	-	-	230	125
PM ₁₀	Urban areas	-	-	150	70
	Industrial areas	-	-	150	70
PM _{2.5}	Urban areas	-	-	80	50
	Industrial areas	-	-	80	50
Solid particles measured as smoke	Urban areas	-	-	150	60
	Industrial areas	-	-	150	60
Lead	Urban areas	-	-	-	0.5
	Industrial areas	-	-	-	1
Ammonia	Urban areas	-	-	120	-
	Industrial areas	-	-	120	-

1.1.1.2 NOISE

Executive Regulation 710/2012 of law 4/1994 presents the standards for ambient noise emissions, noise limits in the work environment and limits to exposure to noise in the workplace (Table 2-6 and Table 2-7).

Table 2-3 Ambient Noise Standards

RECEPTOR	DAYTIME ^(A)	NIGHT ^(B)
	DB (A)	DB (A)
Areas sensitive to exposure to noise	50	40
Residential suburbs with weak movement and limited services activities	55	45
Residential communities in towns with commercial activities	60	50
Residential communities located on roads less than 12-meter width including some workshops, commercial activities, administrative activities or recreational activities or amusement parks	65	55
Areas adjacent to roads of minimum of 12 meters width. Or light industrial area with other activities.	70	60
Industrial areas (heavy industries)	70	70
Notes:		

- (a) Daytime from 7 am to 10 pm
 (b) Night-time from 10 pm to 7 am

Table 2-4 Noise and Exposure Limits in the Work Environment

RECEPTOR		MAXIMUM ALLOWABLE LEVEL OF SOUND (DB EQUIVELANT)	PERIOD OF EXPOSURE PER DAY (HOURS)
Workplaces (workshops, factories) and the like with a shift of up to 8 hours (establishments that were licensed before 2014)		90	8
Workplaces (workshops, factories) and the like with a shift of up to 8 hours (establishments that were licensed after 2014)		85	8
Wedding halls and closed celebrations		95	4
Administrative offices - work rooms for computer units and the like		65	-
Work rooms for activities requiring routine mental concentration		60	-
Hospitals and medical clinics, public libraries, museums, post offices, courtrooms, mosques and places of worship		45	-
Universities, schools, nurseries, institutes and the like	Inside the classroom	40	-
	Stadiums and courtyards of educational buildings	55	-
Residential buildings - hotels and the like	Inside the living room	50	-
	Inside the bedroom	35	-

1.1.1.3 DRINKING WATER

Limits for drinking water as per Decree 458/2007 are presented in Table 2-8 below.

Table 2-5 Drinking Water Limits

PARAMETER	MAXIMUM ALLOWABLE LIMIT IN MG/L UNLESS OTHERWISE STATED
PHYSICAL PARAMETERS	
Colour	Colourless
Taste	Acceptable
Odour	Odourless
Turbidity	1 NTU
pH	6.5-8.5
INORGANIC SUBSTANCES	
Dissolved salts at 120 °C	1000
Total Hardness as CaCO ₃	500
Calcium Hardness as CaCO ₃	350/Ca

PARAMETER	MAXIMUM ALLOWABLE LIMIT IN MG/L UNLESS OTHERWISE STATED
Magnesium Hardness as CaCO ₃	150/Mn
Sulfate (SO ₄)	250
Chlorides (Cl)	250
Iron (Fe)	0.3
Magnesium (Mn)	0.4
Copper (Cu)	2
CHEMICAL SUBSTANCES WHICH MAY HAVE AN IMPACT ON HEALTH	
Lead (Pb)	0.01
Mercury (Hg)	0.001
Arsenic (As)	0.01
Cyanide (CN)	0.05
Cadmium (Cd)	0.003
Selenium (Se)	0.01
Chromium (Cr)	0.05
Ammonia (NH ₃)	0.5
Nitrate (NO ₃)	45
Nitrite (NO ₂)	0.2
Fluorides (F)	0.8
Antimony (Sb)	0.02
Barium (Ba)	0.7
Boron (B)	0.5
Nickle (Ni)	0.02
Molybdenum (Mo)	0.07
Organic Compounds	
Alachlor	0.02
Bentazone	0.03
D.D.T	0.001
2,4 Dichlorophenoxyacetic acid	0.03
Molinate	0.006
Pentachlorophenol	0.009
Chlorine	5
Bromate	0.01
Toluene	0.7
Benzene	0.01
Ethyl Benzene	0.3
MICROBIOLOGY	

PARAMETER	MAXIMUM ALLOWABLE LIMIT IN MG/L UNLESS OTHERWISE STATED
Total Bacteria	Not to exceed 50 cell/1cm ³ (at 37° C for 24 hours) Not to exceed 50 cell/1cm ³ (at 22° C for 48 hours)
Coliform	2 cell/100 cm ³ for one sample only
E. Coli	Free of E. Coli
Salmonella sp	Free of Salmonella sp
RADIATION	
α	0.01 picocurie / Litre
β	0.01 picocurie/ Litre

1.1.1.4 WASTEWATER

Wastewater limits set by Decree 44/2000, amending Law 93/1962, prior to their discharge into sewerage network (Table 2-9).

Table 2-6 Wastewater limits prior to their discharge to sewerage networks

PARAMETER	LIMITS
Temperature	40 °C
pH	6 – 10
BOD	400 PPM
COD	700 PPM
Phenol	0.005 PPM
Sulphur dioxide	1 PPM
Lubricants, oils & resins	100 PPM
Metals (Silver, Mercury, Cadmium, Chrome, etc.) for liquid wastes 50 m ³ /day or less	10 PPM
Metals (Silver, Mercury, Cadmium, Chrome, etc.) for liquid wastes more than 50 m ³ /day	5 PPM

1.1.1.5

WASTE

Article 37 of Law No. 4 of 1994, articles 38 and 39 of its Executive Regulations, and Law No. 38 of 1967, amended by Law No. 31 of 1976, deal with the collection, transportation, and safe disposal of solid wastes.

Article 39 of Law No. 4 of 1994 and Article 41 of its Executive Regulations requires precautions to be taken during any digging, construction, demolition activities, or transport of resulting waste, in order to avoid air pollution.

Articles 29 to 32 of Law No. 4 of 1994 provide regulations for the handling and storage of hazardous materials, including hazardous waste. Article 33 of Law No. 4 of 1994 specifies that all precautions must be taken when handling or storing hazardous material in any form (i.e. gaseous, liquid, or solid).

Articles 34 to 36 address the responsibility of companies in ensuring safety of workers against chemical risks. Articles 26, 31, and Decree No. 211 of 2003, specify conditions for the storage of flammable material, fuel, raw material, products and equipment.

Article 36 specifies that the workers should be made aware through written or oral instructions of the hazards related to the chemicals they are handling; they should also be trained on proper handling procedures.

According to Law 4/1994, Article 33 “the owner of an establishment whose activities produce hazardous waste pursuant to the provisions of this Law shall be held to keep a register of such waste indicating the method of

disposing thereof, and the agencies contracted with to receive the hazardous waste. The executive regulations shall determine the data to be recorded in the said register and the EEAA shall be responsible for following up the register to ensure its conformity with the facts". A sample outline for a hazardous waste register is presented in Table 2-11 below.

Table 2-7 Contents of a Hazardous Waste Register

CHAPTER	CONTENTS
General Information	Name of the facility, address, telephone, etc.
	Name of responsible staff
	The time period covered by the register
Hazardous Materials	A list of hazardous substances used and the environmental characteristics and the producer
	Annual consumption of hazardous materials
	Description of storage containers
	Characterization of storage area
	Methods of handling hazardous materials
	Methods of disposal of empty containers
Hazardous Waste	A description of the generated hazardous waste in each unit and the total quantities
	Type and quantity of waste (tons / year) and size.
	Storage area of hazardous waste
	Description of storage containers
	Disposal Methods
Emergency Response Plan	Safety equipment and procedures to reduce the risk
	Means for extinguishing the fire and dealing with spills
	Modes of transport and disposal
Oil Spill Contingency Plan	Present the oil spill contingency plan
Monitoring Program	Self-Monitoring Plan
Permits and Licenses	Make all licenses available onsite. If not available, make copies and a permit register available.
Finding and Recommendations	Findings of the environmental inspection and the recommendations or mitigations in accordance to the findings concerning environment and workplace exposure and modification of monitoring locations as needed for the next environmental updates

2.1.2 LABOUR AND WORKING CONDITIONS LEGAL FRAMEWORK

The labour legal framework in Egypt comprises an extensive series of laws and decrees that protect and safeguard workers' rights and presented in the following subsections.

1.1.1.6 WORKERS' RIGHTS

Article 34 of Law 12/2003: The National Council for Wages undertakes to set out minimum wage levels taking into consideration the cost of living and to strike a balance between wages and prices. The Council also sets out the minimum annual increase, which must not be less than 7% of the basic salary that is used to calculate the social insurance.

Article 54 of Law 12/2003: Employees are entitled to sick leave confirmed by the concerned medical authority and are entitled to compensation out of their salary, as stipulated in the Social Insurance Law.

Article 85 of Law 12/2003: Overtime hours shall be agreed upon in the employment contract. The compensation for the overtime hours may not be less than the original compensation that the employee is entitled to plus 35% for the day working hours and 70% for the night working hours. In the event that overtime hours are worked on a public holiday then the employer will pay the employee double the salary for that day. In all cases actual working hours are not to exceed ten hours per day for normal jobs with the exception of physically strenuous jobs identified in decree 122/2003.

Article 120 of Law 12/2003: Race, sex, social status, family obligations, pregnancy, religion or political views are insufficient grounds for termination of the employment contract. The same rule applies for workers' affiliation to union organizations, filing complaints within the work place and taking entitled holidays.

1.1.1.7 COLLECTIVE AGREEMENT

Articles 154 to 167 of Law 12/2003: In Egypt collective agreements must be written in Arabic and submitted within 15 days from the date of signature to the board of the General Trade Union or the General Federation of the Egyptian Trade Unions. Their approval by either entity will be subjected to an absolute majority of the board members within a period of 30 days from the date of signing the agreement. If these conditions are not satisfied, the agreement will be deemed invalid. If a contradiction becomes apparent between a provision in an individual labour contract and a collective work agreement, the provision which is most in favour of the employee will prevail since the overall aim of the law is to protect employee rights first and foremost. Collective agreements will become operative and binding once they have been sent to the relevant administrative authority and published in the Egyptian Waka'e (Official Bulletin), which should include a summary of the agreement provisions. The administrative authority shall record the agreement within 30 days from the date of its submission.

1.1.1.8 CHILD LABOUR

Law No. 12/1996: Children shall not be employed before attaining the age of 14, nor shall they be provided with training before they attain the age of 12. And for Physically Strenuous occupations the age should be at least 17 before being employed.

1.1.1.9 DISCRIMINATION

Articles 35 and 120 of Law 12/2003: Discrimination based on sex, origin, language, religion or creed either in wages or the termination of the employment contract is prohibited.

Law 39/1975: Regarding the reintegration of disabled individuals prohibits discrimination on grounds of disability. Accordingly, the law ensures fair rehabilitation and integration of disabled individuals into the working environment, through institutions and authorities established by the Ministry of Social Affairs aiming to provide rehabilitation services to such individuals.

Article 9 of Law 39/1975: Imposes a legal obligation on companies with fifty or more employees to have the number of disabled employees equal to 5% of its overall workforce. The employer shall employ disabled employees based on the Manpower's Office recommendation in this regard. The Law also provides for imposition of fines and/or imprisonment on employers for not complying with the subject Article.

2.1.3 OCCUPATIONAL HEALTH AND SAFETY (OHS) LEGAL FRAMEWORK

Occupational health and safety in Egypt is regulated under Law 12/2003. Its revised version issued and published in the Official Gazette No. 14 (rep.) on 7th April 2003, entered into force on the 7th of July 2003.

The objective of Law 12/2003 is to organize employment relations, clarify the duties and rights of the parties to the employment agreement and to ensure health and safety at the workplace. A specific section (Book V) is dedicated ensuring the health and safety of the working environment.

The health and safety provisions of the law apply to all establishments in the private and public sectors, civilian government units, local (municipal) government services and public authorities as per Article 203. It requires prior authorization and licensing to set up and operate an industrial, commercial or other establishment as per Article 204 to 215, defined as a business or undertaking in the public or private sector (Article 203).

1.1.1.10 ROLE AND RESPONSIBILITIES OF EMPLOYERS

Law 12/2003, Article 208, stipulates that the employer takes all necessary measures to ensure health and safety at the workplace by addressing mechanical, physical, chemical and biological hazards. Article 216 requires that workers undergo medical examinations prior to commencing employment (pre-employment medical examination).

Article 219 requires that periodic medical examinations are completed for workers exposed to the risk of occupational disease. Employers are required to provide medical attention and treatment depending on the number of workers employed as per Article 220.

It also lays down the principle of establishing an OHS Committee. The composition and function of the OHS Committee is precisely defined in Decree No. 134. Workers are represented within OHS Committees in establishments employing more than 50 workers (Decree 134/2003 replacing 116/1991). The law stipulates that this committee shall study working conditions and causes of accidents and diseases. It shall also specify preventive measures according to Article 227. Decree No. 134 also stipulates that appropriate training shall be provided to members of the OHS Committee.

1.1.1.11 ROLE AND RESPONSIBILITIES OF WORKERS

Every worker is required to follow protective measures and observe safety precautions set by the employer. The employer has the right to take disciplinary action against any worker who does not follow the prescribed safety precautions as per Article 218 of the law, Article 57 of Law 79/1975, and Decree No. 48/1967.

1.1.1.12 EXECUTIVE MINISTERIAL DECREES

In addition to Law 12/ 2003, protection of workers against hazardous processes, machinery and equipment, hazardous chemicals, physical and biological agents are regulated by three major decrees; Decree No. 126, No. 211 and No. 134.

Decree No. 126/2003 (replacing MD 75/1993) defines procedures and forms for notification of accidents and diseases at work.

Decree No. 211/2003 (replacing MD 55/1983) specifies the necessary conditions required for a safe working environment with respect to physical, mechanical, electrical, chemical, biological and other hazards. Special sections provide "Maximum Allowable Concentrations" for more than 600 chemical agents in the working environment, safe levels of physical parameters (heat and cold stress, noise, vibration, illumination, radiation, static electrical fields, classification of jobs according to physical workload, etc.), and a list of suspected chemical carcinogens (86 agents).

Decree No. 134/2003 (replacing MD 116/1991) defines the type of industrial and non-industrial enterprises which should have an OSH department and a joint OSH Committee. It also regulates training in occupational safety and health for workers/managers involved with OSH in the enterprise. The decree stipulates that every establishment or a branch thereof, at which 50 or more workers are employed, shall assign the industrial safety task to an OHS Department and to a joint OHS Committee, where some technicians and specialists are working as full-time OHS controllers and supervisors. The main functions of OHS technicians and specialists are: 1) periodic inspection of the workplace; 2) to investigate accidents and determine its causative factors; 3) to investigate the incidence of occupational diseases and determine their causative factors; 4) to maintain statistical information; 5) to check firefighting equipment and follow up protective measures; 6) to participate in safety committee meetings, 7) to specify preventive measures (Article 227 of the MD refers).

The Law 12/2003 sets out the roles and responsibilities of the employers, who should take all necessary measures to ensure health and safety at the workplace regarding mechanical, physical, chemical and biological hazards (Art. 208). The law also requires the medical examination of the workers before employment, i.e., during pre-placement (Art. 216), first aid measures, medical attention and treatment depending on the number of workers employed (Art. 220), and periodic medical examination of those workers who are exposed to the risk of any occupational diseases (Art. 219). Employers should inform workers of the dangers they are exposed to in case they do not conform to the protective measures and should provide them with personal protective equipment (Art. 208 - 215).

The roles and responsibilities of workers set out by the Law involve their obligation to follow protective measures and observe safety precautions, as these are specified by the employer. The employer is entitled to take disciplinary actions against workers who do not follow the safety precautions as prescribed (Article 218 of Law 12/2005, Article 57 of Law 79/1975, and MD 48/1967).

1.1.1.13 COMPENSATION: HEALTH INSURANCE LEGISLATION & ORGANIZATIONS

Law 79 (1975), the Social (and Health) Insurance Law as amended by Law No. 25 (1977) is implemented by the Ministry of Insurance and Social Affairs. In addition to evaluation of disability, the Health Insurance Organization is also responsible, according to Law 79/ 1975 and Law 12/ 2003 (art. 216), to carry out both pre-placement and periodic medical examinations.

2.1.4 INFORMATION DISCLOSURE AND STAKEHOLDER ENGAGEMENT LEGAL FRAMEWORK

1.1.1.14 LABOUR LAW 12/2003

According to the Law 12/2003 article 48, the organization should develop a clear internal HR policy which organizes the working regulations including day offs, break times and other regulations which should be clearly disclosed to workers in their mother language. Article 95: indicates that working regulations for women should be publicly disclosed for all workers. Article 102: indicates that working regulations for children under 16 should be clearly disclosed to all workers.

1.1.1.15 ENVIRONMENTAL LAW 4/1994

Stakeholder engagement (i.e., public consultation) is a requirement for Category C projects only under Law 4/1994. Stakeholders involved in the public consultation can include representatives from the EEAA and its regional branches, related governmental authorities, the governorate where a project is located, local members of parliament, influenced groups of nearby institutions and local residents. Other stakeholders may include NGOs and universities. According to the EEAA's guidelines on EIAs, published in 2009, the phases in which consultation activities occur include the EIA scoping phase and the EIA public disclosure phase. During the EIA scoping phase, key aspects and impacts that will be addressed and analysed in the ESIA study are agreed on. During the EIA public disclosure phase, the study's results are presented to the concerned parties/stakeholders with the opportunity to be reassured that all points raised during the scoping consultation meetings have been fully addressed in the study, and that all parties/stakeholders are comfortable with the mitigation measures, to which a project proponent is committed to implementing. All parties/stakeholders should be provided with sufficient time to prior the consultation to review the study's results (disseminated at least 15 days before the public consultation) and submit their comments. During the consultation, the proponent presents the results of the study, making reference to the issues raised during the EIA scoping phase and the mitigation measures to which a project proponent is committed to.

2.2 DFC E&S POLICY AND PROCEDURES

The Environmental and Social Policy and Procedures (ESPP) implemented by the DFC incorporates relevant environmental and social requirements and procedures outlined in U.S. law, the International Finance Corporation's Performance Standards (IFC PS's) on Social and Environmental Sustainability, and Industry Sector Guidelines. The ESPP serves as a safeguard document to ensure that projects financed by DFC meet environmental, social, labour, and human rights standards. The ESPP discusses particular elements of E&S assessment as listed in Table 2-8.

Table 2-8 Summary of DFC ESPP Aspects

ESPP ASPECT	SUMMARY
Screening and Categorization	The client is required to: (1) establish a project's Area of Influence, which is crucial for conducting environmental and social reviews and engaging in public consultation; (2) assess the extent and type of environmental and social risks and impacts, including those that may hinder project support; (3) pinpoint specific issues that warrant detailed investigation during the environmental and social review process; and (4) define the necessary documentation, consultation, disclosure, notification, and third-party audit requirements.
Environmental and Social Review	The client is required to: (1) assess whether projects seeking support can align with the Environmental and Social Policy and Procedures (ESPP) and the Performance Standards; (2) identify ways to prevent negative impacts and, if unavoidable, determine the necessary measures for mitigation and compensation; (3) identify opportunities for enhancing the environmental and social performance of projects seeking support; and (4) establish specific performance requirements for particular project sectors.
Environmental and Social Standards	The client is required to: (1) define the required level of performance to attain environmentally and socially sustainable outcomes; and (2) identify international best practices that are applicable to a specific project.
Public Consultation and Disclosure	The client is required to: (1) guarantee that individuals affected by a project are adequately informed and included in decision-making processes during project preparation and implementation, and (2) improve transparency and accountability in relation to the management of environmental and social aspects by the DFC.
Conditions and Compliance	The client is required to: (1) set clear criteria for environmental and social performance in DFC Agreements, and (2) outline measures to address situations where the performance requirements are not met.
Monitoring	The client is required to: (1) assess and analyze the adherence of DFC-supported projects to the environmental and social performance requirements, and (2) evaluate the efficacy

ESPP ASPECT	SUMMARY
	of mitigation measures, action plans, and corrective actions implemented by projects.
Climate Change and Renewable Energy	The client is required to: (1) aid in the reduction of Greenhouse Gas emissions linked to projects; (2) foster energy efficiency and conservation practices; (3) advocate for the use of low and non-carbon fuels and technologies; and (4) promote carbon sequestration through land use and forestry practices.
Country Eligibility – Labor	Section 1451(d) of the Build Act of 2018 contains the following provision: “The Corporation should support projects under title II in countries that are taking steps to adopt and implement laws that extend internationally recognized worker rights (as defined in section 507 of the Trade Act of 1974 (19 U.S.C. 2467)) to workers in that country, including any designated zone in that country.”

2.3 IFC PERFORMANCE STANDARDS

IFC's Environmental and Social Performance Standards (IFC Performance Standards or IFC PS define IFC clients' responsibilities for managing their environmental and social risks. There are eight Performance Standards, that are summarised in Table 2-9.

Table 2-9 Summary of IFC Performance Standards

PERFORMANCE STANDARD	SUMMARY
Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts	Environmental and social risks will be identified, avoided, minimised, mitigated or where necessary compensated for. Social and environmental performance will be promoted through effective management systems and a sound grievance procedure will be in place.
Performance Standard 2: Labour and Working Conditions	Workers will be employed fairly and in compliance with national laws and regulations. Workers will be kept safe by using appropriate health and safety management systems and controls. There will be no forced or child labour in the workforce.
Performance Standard 3: Resource Efficiency and Pollution Prevention	Pollution risks to human health and the environment will be identified, avoided, minimised or mitigated through design considerations or management programmes.
Performance Standard 4: Community Health, Safety and Security	Adverse impacts on the health and safety of surrounding communities both from routine and non-routine activities will be identified and avoided and any security measures put in place (to protect people and property) will be carried out in a manner that avoids risks to affected communities.
Performance Standard 5: Land Acquisition and Involuntary Resettlement	To avoid or where avoidance is not possible, minimise displacement of local communities via land acquisition or restriction of access to resources. Involuntary resettlement and forceful eviction will only be executed by the borrower/legal landowner on illegal squatters according to host country laws.
Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	Protect and conserve biodiversity, maintain ecosystem services and their benefits, promote sustainable management of natural living resources through sustainable development.
Performance Standard 7: Indigenous Peoples	Ensure that full respect for the human rights, dignity, aspirations, culture and natural resource-based livelihoods of indigenous peoples.
Performance Standard 8: Cultural Heritage	Protect cultural heritage from adverse impacts from business activities, support its preservation and ensure equitable sharing of benefits from the use of cultural heritage.

2.4 WORLD BANK EHS GUIDELINES

The WBG EHS Guidelines are technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP) and are referred to in the IFC Performance Standards. The EHS Guidelines contain the performance levels and measures that are normally acceptable to the World Bank Group, and that are generally considered to be achievable in new facilities at reasonable costs by existing technology.

The General EHS Guidelines contain information on cross-cutting environmental, health, and safety issues potentially applicable to all industry sectors. The General EHS Guidelines are then used together with the relevant Industry Sector Guideline(s).

When host country regulations differ from the levels and measures presented in the EHS Guidelines, projects are expected to achieve whichever is more stringent. If less stringent levels or measures than those provided in the EHS Guidelines are appropriate, in view of specific project circumstances, then a full and detailed justification for any proposed alternatives is needed as part of the site-specific assessment. The EHS Guidelines also require that these should demonstrate that the choice for any alternative performance levels is protective of human health and the environment.

2.4.1 WORLD BANK GROUP EHS GUIDELINES FOR WIND ENERGY

Supplementary to the WBG EHS General Guidelines, the EHS Guidelines for Wind Energy (2015) is a sector specific guideline that focuses on key environmental and social risks associated with the development of wind energy projects. It covers environmental topics including landscape impact, noise, biodiversity, shadow flicker, and water quality. Occupational health and safety risks identified include working at height, working in remote

locations and lifting operations. Community health and safety issues include blade throw, aviation, electromagnetic interference & radiation, public access and abnormal load transportation.

2.5 EBRD PERFORMANCE REQUIREMENTS

The EBRD Performance Requirements outline the environmental and social standards that must be met during a project's implementation to ensure sustainable and responsible practices. This section will highlight the key requirements and their relevance to a project's environmental and social performance, emphasizing a project's commitment to meeting these standards and promoting long-term sustainability. There are ten Performance Requirements, that are summarised in Table 2-10.

Table 2-10 EBRD Performance Requirements

EBRD PERFORMANCE REQUIREMENT	OBJECTIVES
Performance Requirement 1 Assessment and Management of Environmental and Social Impacts and Issues	<ul style="list-style-type: none"> • Establish environmental and social policy • Identify and evaluate the environmental and social impacts of a project • Identify all applicable laws and regulations, as well as best practices • Identify direct and indirect impacts of a project • Identify and characterize, to the extent appropriate, potentially significant environmental and social issues associated with activities or facilities which are not part of a project, but which may be directly or indirectly influenced by a project, exist solely because of a project or could present a risk to a project. • Manage and mitigate identified risks/impacts • Develop and implement environmental and social management systems (ESMS) • Develop and implement an Environmental and Social Management Plan (ESMP) • Develop a monitoring program intended to: (i) determine whether a project is being implemented in accordance with the PRs; and (ii) learn lessons, allocate resources and identify opportunities for continuous improvement; • Develop an Environmental and Social Action Plan (ESAP) • Establish a Stakeholder Engagement Plan (SEP)
Performance Requirement 2 Labour and Working Conditions	<ul style="list-style-type: none"> • Comply, at a minimum, with (i) national labour, social security and occupational health and safety laws, and (ii) the fundamental principles and standards embodied in the ILO convention • Establish and maintain a sound worker management relationship • Promote the fair treatment, non-discrimination and equal opportunity of workers (freedom of association and collective bargaining) • Offer wages, benefits and conditions of work offered comparable to those offered by equivalent employers in the relevant region and sector concerned • Promote the health of workers, especially by promoting safe and healthy working conditions • Assure for the entire supply chain compliance with International Labour Organization's (ILO) core labour standards: (e.g. abolishment of child labour and the elimination of forced labour) • Provide a grievance mechanism for employees and workers engaged by third parties • Adopt a clear human resources policy
Performance Requirement 3 Resource Efficiency and Pollution Prevention and Control	<ul style="list-style-type: none"> • Identify opportunities and alternatives for resource efficiency • Apply cost effective measures for improving resource efficiency • Integrate resource efficiency measures and principles for cleaner production • Structure projects to meet relevant EU substantive environmental standards • Consider alternatives and implement technically and financially feasible and cost-effective options to avoid or minimize project-related greenhouse gas (GHG) emissions during the design and operation of a project • Minimize a project's water use

EBRD PERFORMANCE REQUIREMENT	OBJECTIVES
	<ul style="list-style-type: none"> • Avoid or minimize the generation of hazardous and non-hazardous waste materials • Obtain chain of custody documentation to the final destination and use licensed waste contractors
Performance Requirement 4 Health and Safety	<ul style="list-style-type: none"> • Identify and prevent accidents, injury and disease to workers and affected communities arising from or associated with, or occurring in the course of a project activities. • Prepare and implement preventative measures and plans to manage health and safety risks in accordance with the mitigation hierarchy approach and Good International Practice (GIP) • Provide workers and affected communities with relevant information, guidance and training relating to health and safety hazards, risks, protective and preventive measures and emergency arrangements that are necessary for their safety throughout a project • Ensure investigation, documentation and analysis of any accident disease or injury arising from or associated with, or occurring in the course of a project activities and adopt measures to prevent reoccurrence and, where required by law, notify and cooperate with the relevant authorities • Develop a project-specific health and safety plan, where appropriate, that will be integrated into the ESMS • Implement occupational health and safety measures • Ensure that nonemployee workers, contractors and other third parties engaged to work on project sites or perform work directly related to the core functions of a project, comply with the health and safety plan. • Ensure adequate implementation, maintenance and enforcement of the health and safety measures through continued and appropriate supervision to all workers. • Monitor the health of workers and consult and encourage the workers to participate in matters related to health and safety in the workplace. This shall include, although not be limited to, accident investigation, risk assessment and selection of work. • Undertake risk assessment in situations where certain work activities could result in adverse effects on the health and safety of susceptible workers (age, gender, disability, pre-existing health conditions) to perform adjustments to prevent injury and ill health • Identify and assess project related risks and adverse impacts to the health and safety of the potentially affected communities and develop protection, prevention and mitigation measures proportionate to the impacts and risks, and appropriate to the stage, size and nature of a project • Cooperate with the relevant authorities and other stakeholders, as appropriate, on mitigation measures and plans. These measures will be consistent with the mitigation hierarchy approach and GIP • In case measures to avoid and mitigate community health and safety impacts of a project are the responsibility of the relevant public authorities, ensure notification and cooperation of the relevant authorities • Incorporate health and safety considerations into the design, construction, operation and decommissioning of the structural elements or components of a project in accordance with GIP, taking into consideration safety risks to third parties and affected communities • Third-party life and fire safety audits should be undertaken both for existing buildings, which are used for communal purposes, and for new buildings prior to their commissioning or use • The construction and major refurbishments of buildings used for communal purposes should be designed in accordance with the concept of universal access • Prepare hazardous material risk assessment and control plan, to protect workers and community and to prevent exposure by modifying, substituting or eliminating the condition or substance causing the hazards. Where use of such materials cannot be avoided, the client will take the necessary measures for handling, storage and transport in accordance with GIP • Ensure the safe transport of raw materials, and products, and transportation and disposal of wastes, and will implement measures to avoid or control community exposure • Risk assessment and control plan for traffic and road safety risks • Incorporate technically and economically feasible and cost-effective road safety components into a project design. Where appropriate undertake a road safety audit for each phase of a project • Monitor incident and accident reports to identify and resolve problems or negative safety trends • Provide appropriate training to workers on driver and vehicle safety • Ensure regular maintenance of all project vehicles • Identify and assess the potential impacts and risks caused by natural hazards

EBRD PERFORMANCE REQUIREMENT	OBJECTIVES
	<ul style="list-style-type: none"> • Prevent/Minimize the exacerbation of impacts caused by natural hazards or land use changes to which a project activities may contribute • Take measures to avoid or minimize transmission of communicable and endemic diseases that may be associated with the influx of temporary and/or permanent project workers • Identify opportunities throughout a project life cycle to improve conditions that could help reduce endemic diseases both among the workers and communities • Prepare an emergency preparedness and response plan to respond to incidents, accidents and emergency situations in a manner appropriate to the operational risks related to a project and in accordance with regulatory applicable requirements and integrated into a project's overall ESMS • Assessment of major accidents, and prepare plan to prevent major accidents or limit their impact on workers, affected communities and the environment • Assist and cooperate with the relevant authorities and a project affected community in their preparations to respond effectively to emergency situations. If local authorities or responders have little or no capacity to respond effectively, provide an active role in preparing for and responding to emergencies associated with a project, and provide adequate evidence to demonstrate capacity to respond to reasonably predictable incidents, either directly or indirectly
Performance Requirement 5 Land Acquisition, Involuntary Resettlement and Economic Displacement – NOT APPLICABLE TO THIS PROJECT	
Performance Requirement 6 Biodiversity Conservation and Sustainable Management of Living Natural Resources	<ul style="list-style-type: none"> • Protect and conserve biodiversity to avoid, minimise and mitigate impacts on biodiversity with the aim of achieving no net loss or a net gain of biodiversity • Avoid natural and critical habitats' conversion or degrade and act in a consistent manner with defined protected areas' management plans • Promote the sustainable management and use of natural resources • Provisions for supply chain of living resources (timber, earth etc.): sustainable resources procurement policy • Foster the development of pro-biodiversity business that offers alternative livelihoods in place of unsustainable exploitation of the natural environment • Avoid and proactively prevent accidental or deliberate introduction of alien species that could have significant adverse impacts on biodiversity
Performance Standard 7 Indigenous Peoples – NOT APPLICABLE TO THIS PROJECT	
Performance Standard 8 Cultural Heritage	<ul style="list-style-type: none"> • Support the conservation of cultural heritage. • Protect cultural heritage from adverse impacts of project activities • Promote the awareness of and appreciation of cultural heritage where possible • Screen for risks/impacts on cultural heritage • Develop a chance find procedure • In case there are adverse impacts, establish mitigation measure in a Cultural Heritage Management Plan
Performance Standard 9 Financial Intermediaries – NOT APPLICABLE TO THIS PROJECT	
Performance Standard 10 Information Disclosure and Stakeholder Engagement	<ul style="list-style-type: none"> • Identify people or communities that are or could be affected by a project, as well as other interested parties incl. disadvantaged or vulnerable groups/people (as part of the scoping process under ESIA process) • Information disclosed must include a full ESIA report • Stakeholder engagement will be free of manipulation, interference, coercion, and intimidation • The engagement need to be done through a process of information disclosure and meaningful consultation • The information will be disclosed in the local language and in a manner that is accessible and culturally appropriate • Maintain a constructive relationship with stakeholders on an ongoing basis through meaningful engagement during project implementation. • Report on progress with implementation of the ESAP

2.6 AFDB OPERATIONAL SAFEGUARDS

The AfDB has established five operational safeguards to ensure that projects financed by the bank adhere to social and environmental standards. These safeguards aim to minimize negative impacts on communities, ecosystems, and natural resources, while promoting sustainable practices and inclusive growth. These safeguards are summarised in Table 2-12.

Table 2-11 Summary of AfDB Operational Safeguards

OPERATIONAL SAFEGUARD	SUMMARY
OS 1: Environmental and Social Assessment	This safeguard requires the borrower or client to conduct an assessment of the environmental and social impacts of a project. It focuses on identifying potential risks and developing mitigation measures to minimize negative effects on communities and ecosystems.
OS 2: Involuntary Resettlement: Land Acquisition, Population Displacement and Compensation	This safeguard aims to protect the rights and well-being of people who are affected by a project's land acquisition or physical displacement. It requires the borrower or client to provide appropriate compensation, support livelihood restoration, and develop a resettlement action plan.
OS 3: Biodiversity, Renewable Resources and Ecosystem Services	This safeguard focuses on the conservation and sustainable management of biodiversity, renewable resources, and ecosystem services. It aims to minimize a project's impact on critical ecosystems, protect endangered species, and promote sustainable use of natural resources.
OS 4: Pollution Prevention and Control, Hazardous Materials and Resource Efficiency	This safeguard addresses the prevention and control of pollution resulting from project activities. It requires the borrower or client to implement measures to minimize pollution, manage hazardous materials safely, and promote resource efficiency in project design and implementation.
OS 5: Labour Conditions, Health and Safety	This safeguard ensures the protection of workers' rights, labour conditions, and occupational health and safety. It requires the borrower or client to comply with relevant labour laws, provide safe working conditions, and support the well-being of workers involved in a project.

3. PROJECT DESCRIPTION

The New and Renewable Energy Authority (NREA) is the Project owner, with Siemens Gamesa Renewable Energy (SGRE) acting as O&M contractor since the commercial operation date of all three subprojects (see *Table 2-1 below*). SGRE is responsible for the maintenance of all turbines under three full-service agreements, including civil and electrical balance of plant up to the MV switchgear, and covering preventive and unscheduled maintenance, consumables and trouble shooting. SGRE is supported by the following subcontractors:

- Elmasrya for Maintenance Service: Switch gear and cable maintenance
- Altertec-Petrotec(APTEC): O&M contractor
- Petrotec Engineering: Waste management and security services (Bedouin security is contracted via Petrotec)
- Al Nisir: Air conditioning and civil work maintenance
- El Masrya Equipment: Crane service
- EgyWind: Spare part and consumable warehouse management

All three subprojects connect to the national grid via a substation and transmission lines. Infrastructure beyond the medium voltage (MV) switchgear is the responsibility of the Egyptian Electricity Transmission Company (EETC).

Details of the subprojects are listed in *Table 2-1*, with an overview of the Projects' sites shown in *Figure 2-1*.

The Project is located on the western side of the Gulf of Suez, approximately 150 km north of Hurghada and approximately 30 km south of Ras Ghareb, the closest settlement (based on Google Earth satellite imagery). The Project area can be accessed from the Suez-Hurghada road. The project is located within the wider NREA wind concession area.

The Project houses three consumable warehouses (storing grease, oils and other materials needed for maintenance activities) and five spare part warehouses.

Table 3-1 Details of the Subprojects

PROJECT	CAPACITY (MW)	AREA (KM ²)	NUMBER OF TURBINES	TYPE OF TURBINE	HEIGHT OF TURBINE (M)	INTERNATIONAL LENDER (S)	COMMERCIAL OPERATION DATE (COD)
Gabal el Ziet 1 (referred to as the KfW 240 MW WPP in this report)	240	38.5	120	Gamesa G 80	100	Kreditanstalt für Wiederaufbau (KfW) & European Investment Bank (EIB)	08/2014 (200 MW) 07/2018 (40 MW)
Gabal el Ziet 2 (referred to as the JICA 220 MW WPP in this report)	220	44.9	110	Gamesa G 80	100	Japan International Cooperation Agency (JICA)	03/2017
Gabal el Ziet 3 (referred to as the FIEM 120 MW WPP in this report)	120	107.2	60	Gamesa G 80	100	The Corporate Internationalization Fund (FIEM)	06/2018

The Project is located in a hyper arid desert area (hamada desert), mostly with bare rocky soil with very sparse vegetation. All the plant species present in the area are common and widespread. As a consequence, the area's resident fauna is also composed of very few species occurring at low densities. The only resident non-bird threatened species is the Egyptian Spiny-lizard (*Uromastix aegyptia*) classified as Vulnerable by IUCN.

However, the Project is located in an Important Bird Area (IBA)¹ and Key Biodiversity Area (KBA) within the Red Sea/Rift Valley flyway: Gabel el Ziet Important Bird Area (*Figure 2-1*). This is a globally important migration corridor for soaring birds (diurnal birds of prey, storks, pelicans and cranes), which connects breeding grounds in Europe and Western Asia with wintering areas in Africa. The flyway is used by over 1.5 million individuals from 37 species of migratory soaring birds (most of them present in the Project area) as well as a suite of migratory passerines. The Project area is crossed by hundreds of thousands of soaring birds every Spring and Autumn, representing more than 1% of the global population for 17 species. The Gabel el Ziet IBA was designated to protect a strategic location within this flyway where soaring birds are funneled along the Gulf of Suez during their Spring and Autumn migration, often landing in large numbers. The area also serves as a stepping-stone for some species (notably White Storks *Ciconia ciconia*) to cross between the western coast of the Gulf of Suez and South Sinai in Spring.

¹ The Important Bird Areas programme has been conducted by BirdLife International in the world. BirdLife International states its objective as "The IBA Programme of BirdLife International aims to identify, monitor and protect a global network of IBAs for the conservation of the world's birds and other biodiversity. The selection of Important Bird Areas (IBAs) has been a particularly effective way of identifying conservation priorities". (<http://www.birdlife.org/action/science/sites/>)

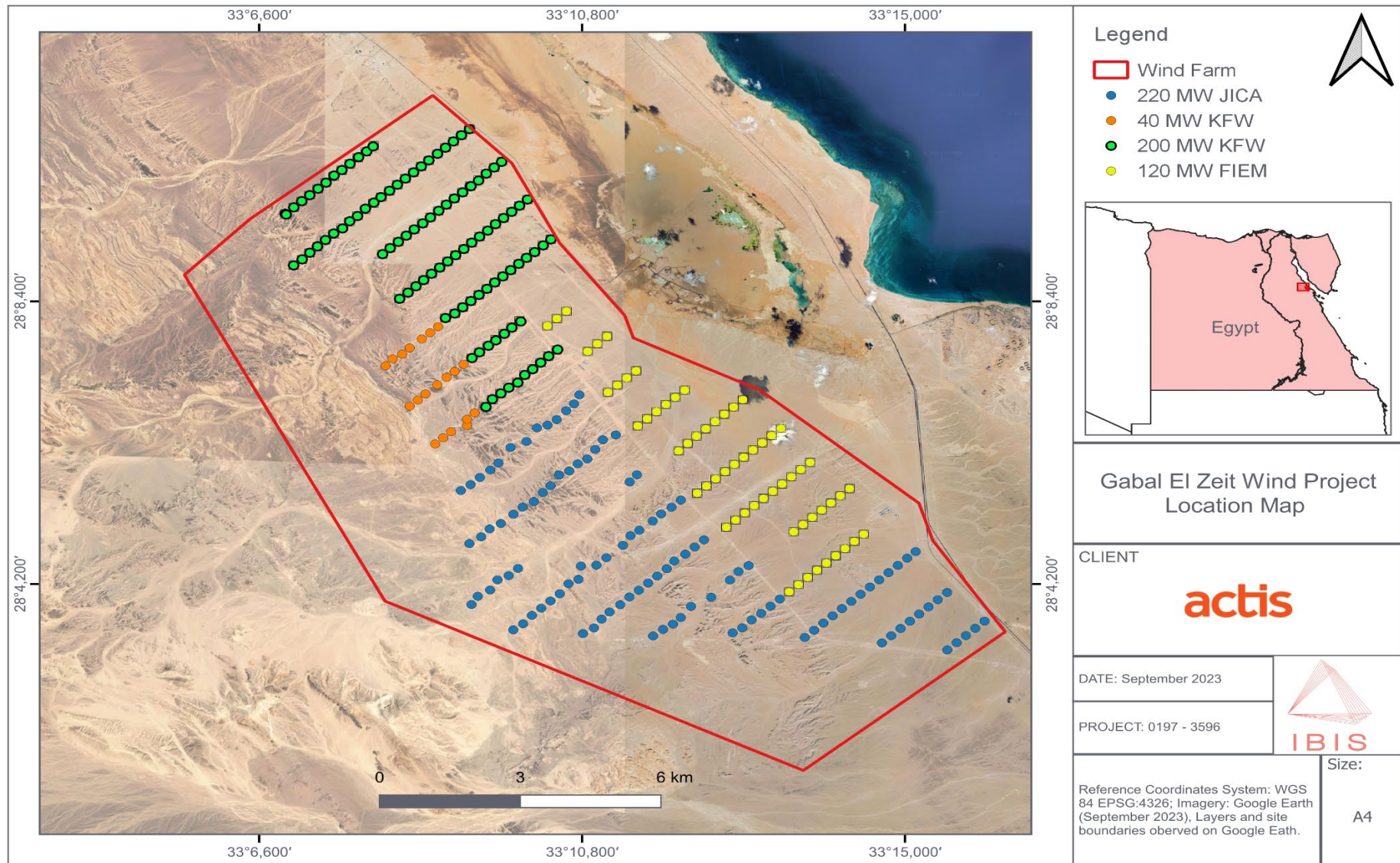


Figure 3-1 Overview of Project Site



Figure 3-2 Overview of Project Site Relative to Gabal El Ziet IBA/KBA (Image Source: NREA)

4. E&S BASELINE

This section provides a baseline assessment of the E&S conditions within Project area. It aims to establish a comprehensive understanding of the existing E&S factors that may be affected by the Project. The baseline assessment serves as a starting point for evaluating potential impacts and designing appropriate mitigation and management measures.

This section describes the geographical and ecological context of the study area, including its physical features, climate, and ambient air and noise quality. It highlights key environmental components such as water bodies, vegetation types, and biodiversity hotspots that contribute to the area's ecological significance.

Furthermore, this section examines the social aspects of the study area, including its demographic characteristics, cultural heritage, and socioeconomic conditions. It explores the presence of local communities, and any social obstacles caused by the operation of the Project.

Baseline information on the Project area's avifauna presented in section 4.1.1 is derived from the Biodiversity Action Plan and Offset Feasibility Study conducted by The Biodiversity Consultancy in November 2023 specifically for the Project. The remaining baseline information is sourced from the ESIA for the Gulf of El Zayt Wind Power Plant Project, conducted by Al-Amar consulting group in collaboration with Energy and Environment Consultant (private consulting firms in Egypt) (date unspecified). Additionally, the ESIA for the 1,000 MW Wind Farms at the Gulf of Suez conducted by the Joint Venture Lahmeyer International GmbH, Bad Vilbel And Ecoda Dr. Bergen & Fritz Gbr, Dortmund, Germany in October 2011 also contributed to the baseline information.

4.1 GEOGRAPHICAL LOCATION AND SURROUNDING AREA

The Project is located in the western coast of the Gulf of Suez, approximately 220 km south of Suez City. It lies to the immediate west of the Suez/Red Sea arterial Highway and is within the administrative boundary of the Red Sea Governorate. The site is located approximately 6 km inward to the southwest of Ras Shuqayr port and is also within the Gulf of El Zayt NREA concessionary zone.

The project site is positioned on the coastal plain of the Gulf of Suez, west of the oil settlement of Ras Shuqayr. It is approximately 6 km inland from the Gulf of Suez shoreline and approximately 20 km east of the main spine of the Red Sea mountains. The site is at the northern end of a series of small hills known as the Sufr, which extend for about 90 km parallel to the Red Sea coast. The highest peak in the region, Jabal Ghareb, is located about 25 km northwest of the project site.

The project site, which is concessioned to the New and Renewable Energy Authority (NREA), measures approximately 46 km² of flat desert land. It is affiliated with the Ministry of Electricity and Energy (MoEE).

4.2 TOPOGRAPHIC AND GEOLOGICAL FEATURES

The Project is located on the east side of the Eastern Desert, 6 to 15 km inland from the Gulf of Suez. It ranges in elevation from 19 m to 176 m above sea level, with the sea being close to the site's northeastern side. Along the slope, several wadis (valleys of rain)² are observed in parallel. Additionally, there is a wetland named al Mallahah, located 2 km north of the project area. A mountain range higher than 1,000 m is situated 20 km southwest of the project area. No topographic areas nearby have been identified as requiring special environmental protection.

The topography around the site is mostly flat desert, gradually transitioning into slightly hilly elevated terrain in the west. The site slopes eastward toward the sea, with an elevation ranging from approximately 150 m in the west to about 20 m in the east. The landscape consists of a sand and gravel plain intersected by shallow wadis and smaller runnels in the east. The site can be divided into a northwestern section characterized by low-lying hills and higher elevation, and a southeastern section that is open and relatively flat or slightly undulating.

The mountains and hills surrounding Project play a crucial role as stepping stones for soaring birds during migration (see Section 4.11 for more information on avifauna). These elevated landforms create strong hot air updrafts, facilitating efficient altitude gain for the migrating birds. Soaring bird migrants move from one hill to the next,

² Wadis are dry gullies that typically remain devoid of water except during periods of rainfall. The water found in wadis is not saline since it originates from rainwater.

taking advantage of these excellent updrafts. Three main mountainous clusters contribute significantly to the bird migration scenarios in the area: the Red Sea mountains, the Surt hills, and Gabal el Ziet.

The majority of the project site is covered by sand and gravel stones. The geology of the site consists of undivided features from the Quaternary, Pliocene, and Miocene periods. Thus far, no significant geological conditions nearby have been confirmed that would necessitate special protection.

Fault lines do not affect the area. According to studies conducted by Said, R, in 1990, which are documented in "The Geology of Egypt" published by ELSEVIER in Amsterdam, it has been confirmed that the occurrence of shallow earthquakes in the Gulf of Suez was infrequent between 1953 and 1981. Tectonically, the Gulf of Suez is situated in Egypt's stable shelf. Furthermore, even if earthquakes of low to medium strength were to occur, the design loads of an IEC Class Ia turbine, which would be used for wind power development in the area, would sufficiently account for the seismic peak ground acceleration loads.

Overall, the surface and underground conditions are deemed favourable for tower foundation construction, with good bearing conditions. Minor soil improvement measures may be necessary in areas where Gypsum reaches the surface layers. However, major construction measures that could adversely affect the environment are not anticipated based on the geological conditions.

4.3 CLIMATE AND WEATHER CONDITIONS

The climate in the Project area is classified as a desert climate (BW)³ according to the Köppen climate classification system. It is characterized by mild winters and hot summers. The average annual precipitation in the area is relatively low, around 5.26 millimeters. The temperature patterns exhibit a significant daily temperature gap of approximately 10.5 degrees Celsius. The project site lies within the hyperarid climatic province of Egypt, with an average yearly temperature of 23.9 degrees Celsius and an average yearly humidity of 52.25%. The area experiences generally high air pressure throughout the year, with the minimum level occurring in August. Gabal el Ziet, an area close to the Project site, has a dry climate with limited rainfall. The annual evaporation rate reaches 300 millimeters, with the highest evaporation occurring in June or July. Rainfall is scarce, averaging only 11 days per year, with an average annual rainfall of around 16.2 millimeters. The rainy season typically spans from November to March, and heavy rainfall can lead to flash floods.

The Project's location benefits from favourable wind conditions. The annual average wind speed ranges between 6.85 and 7.75 meters per second, with wind speeds often exceeding 10 meters per second. The prevailing wind direction is generally from the North and/or North Northwest, persisting for over 60% of the year. These wind characteristics make the site suitable for harnessing wind energy.

The site's natural conditions, particularly the extreme dryness and strong winds, significantly limit its biodiversity. In years with unusually heavy rainfall, water accumulates in low-lying areas, allowing some plants to grow. However, these plants face prolonged dry periods that ultimately lead to their demise.

The site's high wind speed plays a crucial role in the erosion of the soil, which is primarily covered by a compact layer of pebbles and gravels. These materials act as a protective barrier, preventing rainwater or spilled water from seeping into the underlying soil. Additionally, the strong winds remove seeds and other plant propagules, greatly reducing the chances of successful germination and establishment. As a result, the site has very poor conditions for seed growth and establishment.

4.4 AMBIENT AIR QUALITY

Beyond the eastern part of the project area, emissions of acidic gases resulting from sulphate-containing flares from EPC exploration/production wells impact the surrounding areas. However, due to the prevailing wind patterns, with approximately 98% of the wind blowing from or parallel to the project area, the impact on the Project area itself is expected to be minimal.

³ According to the Köppen climate classification, BW represents a genuine desert climate. This desert climate type encompasses approximately 12% of the Earth's land surface and is primarily characterized by xerophytic vegetation, which is adapted to arid conditions.

4.5 AMBIENT NOISE LEVELS

No measurements of the ambient noise level have been conducted due to the clear absence of man-made noise sources and the lack of sensitive receiving bodies in the area, noting that the nearest sensitive receptor is 30 km away from the site. The existing natural source of noise in the region includes elevated natural ambient noise level during periods of frequent high wind speeds.

Given that there is no regular car traffic within or near the area (with the coastal Hurghada-Suez road being at a minimum distance of 6.5 kilometres from the eastern border of the project area), along with the absence of other human activities, there is no significant background noise generated by human sources that needs to be taken into consideration.

4.6 HYDROLOGY/WATER RESOURCES

The area surrounding the site to the southwest is locally known as Jabal Ghurmul, while the area to the north is known as Al-Mallaha, a wetland area located approximately 2 km from the Project. The Mallaha is an elongate depression with a northwestern to southeastern axis, measuring 20 km in length and 3 km in width. It is separated from the sea by a land bridge and consists mostly of dry sabkha. However, the southern area contains a large pool of hypersaline water, which is fed with sea water through underground seepages. The water level in the pools varies with the season, being highest during winter.

There are three medium-sized wadis that drain the surrounding territory and run through the project site, with the largest being Wadi Jart. These wadis have a local origin and only drain limited territories, resulting in a small volume of water passing through them. Even Wadi Jart, the largest wadi, has a catchment basin that is only 90 km². Flash floods are a significant force in shaping the landscape of the region. In contrast, to the north and south of the site, there are larger wadis, namely Wadi Khurm Ghuwayrb to the north and Wadi Dara to the south, which have more extensive catchment areas and include the high peak of Jabal Ghareb.

There are no perennial rivers in the Project area; only wadis are present. The frequency and intensity of water flow in these wadis remain unclear. It is very unlikely that a storm water event occurs that can flood the site area. The Al Mallahah wetland, located near the Project area, is a saline wetland, as it receives seawater from underground sources. The water level and humidity of the wetland do not change significantly throughout the year.

The groundwater in that particular zone can be categorized into three types. Firstly, there is fissure water, which is found in the weathering zone and is limited to igneous, metamorphic, and sedimentary rocks. This type of water can only be stored and collected during rainfall, and it can travel long distances through fissures. Secondly, there is groundwater in the alluvial fill of the Wadis, which is replenished by occasional rainfalls in the mountains and receives drainage from the fissure water. Lastly, there is deep groundwater contained within tectonic fractures and fissures.

Water is extracted from the deep zones, more than 100 meters below the surface, from the Nubian sandstone zones. These zones are recharged by existing watersheds in the region. Groundwater pumping occurs in the central part of the project area by GPC and in the southern part by GUPCO, both being petroleum companies. The water extracted from these zones has a slightly saline composition.

The overall water supply for the region comes from the Nile River. A major Nile water pipeline runs approximately 6 kilometres away from the outer eastern border of the Project area, running parallel to the Suez-Hurghada road.

4.7 LAND USE, INFRASTRUCTURE, AND DEVELOPMENT PLANS

The Project site belongs to the Al-Bahr al-Ahmar (Red Sea) governorate, with its capital in Al-Ghurdaqah (Hurghada). The governorate covers an area of 19,100 km² and has experienced population growth over the years. The main transport infrastructure linking the Suez South area to the country's main port facilities is primarily based on a road network, with three main highways providing access to the site.

The primary route of access to the area is the Suez-Hurghada road, which is a four-lane road. Despite its capacity, this road experiences minimal traffic and is suitable for heavy transportation.

Further access to the Project area is facilitated through private roads owned by GPC in the central region and GUPCO in the southern region. These roads have a width of approximately 4 meters and are either paved with asphalt or covered in gravel. The roads in the Project area are in good to moderate condition. Currently, these roads are exclusively used by the Project and petroleum companies and witness very low traffic frequency.

Land use within and near the project area is extremely limited and includes an oil exploration and production concession belonging to the GPC oil company approximately 1 km east from the Project.

4.8 PROTECTED AREAS

The Ras Ghareb - Gabel el ZietZiet region does not contain any nationally (legally) protected areas. The closest protected area is the Red Sea Islands, located 40 km southeast at the mouth of the Gulf of Suez, which is a Natural Protectorate under EEAA. The Project area encompasses the Gabel el Ziet Key Biodiversity Area (KBA)⁴ and Important Bird Area (IBA)⁵. It holds significant numbers of globally threatened species and species of special conservation concern. The Project site is located within this IBA, with Gabel el Ziet Mountain to the south serving as an important stepping stone for birds crossing the Gulf. Sabkhet Ras Shuqayr, a proposed protected area by EEAA, 2 km to the west, is used as a resting site by migrating soaring and waterbirds.

4.9 ARCHAEOLOGICAL, HISTORICAL AND CULTURAL HERITAGE

Non-existent within or in close proximity to the designated wind concession area, including that in which the Project is located.

4.10 TERRESTRIAL FLORA AND FAUNA (EXCLUDING AVIFAUNA)

The observations primarily targeted species considered particularly susceptible to collisions or other adverse effects resulting from wind turbines. These species primarily include large birds, such as birds of prey, storks, and pelicans, which mainly undertake soaring and gliding migration patterns during daylight hours.

4.10.1 FLORA

The arid environment of the Red Sea desert plains is characterised by limited biodiversity in its various natural habitats. The species found in this region have unique adaptations to the harsh physical and climatic conditions, including high temperatures and infrequent rainfall. The distribution of floral species is patchy and relatively sparse, aligning with landscape features such as rocky outcrops, dunes, and Wadis, where small patches of permanent vegetation can be found. Detailed information on the vegetation types of Egypt's Red Sea coastal land can be found in Kassas & Zahran (1967, 1971), Zahran & Willis (2009), and Zahran (1962, 2010). These sources mention different plant communities in the area that are influenced by available water and exposure to salt.

Within the study area, vegetation cover is generally low in terms of species composition, density, and distribution, primarily limited to depressions and Wadis. The dominant plant species observed in the monitored area were sparse communities of *Ochradinus baccatus*. These woody communities are widespread throughout the Arabian Desert, the coastal desert plains of the Red Sea, and the Sinai Peninsula. *O. baccatus* was mainly found in loose groups of bushes.

Another noticeable plant species was *Zygophyllum coccineum*, which belongs to the succulent half-shrub community, also common in Egypt's arid zones. *Z. coccineum* is the most widespread *Zygophyllum* species in Egypt, growing in diverse habitats and various soil types. It thrives in limestone Wadis and plains of the Eastern (Arabian) desert and can tolerate saline soils. Being unpalatable, it is not grazed by animals. Stands of this succulent xerophyte are often accompanied by the halophytic succulent leafless *Haloxylon salicornicum*, which forms its own communities in uncultivated desert areas and coastal mountains.

The only naturally occurring trees in the area, not cultivated, are stands of *Acacia tortilis* ssp. *raddiana*. This tree species, belonging to the Mimosaceae family, is considered a keystone species across arid ecosystems in Africa and the Middle East. It grows in a range of arid habitats, from moist savannas to hyper-arid deserts. *A. tortilis* ssp. *raddiana* is of importance to both people and their domesticated animals, as it improves soil fertility and enhances biodiversity. In Egypt, it can be found in desert Wadis and sandy plains, particularly in water catchment areas along the Red Sea coast, the Eastern Desert, Gabel Elba, and Sinai.

Stipagrostis plumose, a grass species that includes the subspecies *Cyperus conglomeratus*, was observed in the southern part of the Project area, both within Wadis. Specimens of *Handal* or *citrullus colocynthis* (L.) Schrad were encountered.

⁴ <https://www.keybiodiversityareas.org/site/factsheet/6217>

⁵ <https://datazone.birdlife.org/site/factsheet/geb-el-zeit-iba-egypt>

All the mentioned species are categorised as "least concern" on the IUCN Red List.

Furthermore, water pipelines belonging to the GPC oil company can be found in the vicinity, and patches of vegetation are observed around minor leaks from these pipelines.

4.10.2 FAUNA (EXCLUDING AVIFAUNA)

4.10.2.1 MAMMALS

During the fieldwork conducted in the study area by Lahmeyer and Ecoda (2011), few mammal species were documented, indicating a low diversity and density of mammals due to the challenging living conditions in the desert. It is important to note that many animals in the area are primarily active at night, which could contribute to the limited number of recorded sightings. Additionally, certain rodent species have adapted to the extremely hot summer periods by undergoing aestivation.

The scarcity of recorded mammals may also be attributed to hunting activities. Ammunition cartridges have been sporadically found in the study area, and a Desert Red Fox (*Vulpes vulpes pusilla*) that had been shot was discovered near the oasis. Some individual Red Foxes have been observed with varying regularity near Highway M65, which connects Suez to Hurghada. According to literature, it is suspected that wolf-like Egyptian Jackals (*Canis aureus aureus*) and Rueppel's Foxes (*Vulpes rueppellii*) may also traverse the study area.

In the vicinity of Ras Ghareb and at the access control post to the Project area, domestic dogs (*Canis lupus familiaris*) have been regularly observed. These dogs scavenge for food, often feeding on the waste and garbage from human settlements.

Although rodents have not been directly observed in the study area, the presence of signs left by these animals suggests that rodent species do exist in the region. Among the species known or strongly suspected to inhabit the area are the Lesser Egyptian Jerboa (*Jaculus jaculus*), the widespread and abundant Greater and Lesser Egyptian Gerbil (*Gerbillus pyramidum*, *Gerbillus gerbillus*), and the nocturnal Cape Hare (*Lepus capensis*) (Osborne & Helmy 1980, Hoath 2003). It is possible that the former three species occur in significant numbers, while the latter species may require more vegetation than is currently available.

During nocturnal site visits, no bats were detected, and bat calls were not recorded using the equipment utilized. In a brief bat survey conducted in 2009 near ponds in the sewage farm at Ras Shukayr, four species were identified: Desert Pipistrelle (*Hypsugo ariel*), Kuhl's Pipistrelle (*Pipistrellus kuhlii*), Rüppell's Pipistrelle (*Pipistrellus rueppellii*), and Botta's Serotine (*Eptesicus bottae*).

During bird watching observations, varying numbers of domesticated dromedaries (*Camelus dromedarius*) were irregularly recorded roaming in groups of up to nine individuals or solitary through the area. Another artiodactyl mammal that could potentially inhabit the area is the Nubian Ibex (*Capra ibex nubiana*). Nubian ibexes typically inhabit rough, dry, mountainous terrain where they primarily consume grasses and leaves. While one Ibex was sighted far in the South at Wadi Abu Marwa, it is possible that they occur throughout the Red Sea Mountains and around Gabel Ghareb. However, other larger herbivore species that were once present in the Eastern Desert, such as the Dorcas Gazelle (*Gazella dorcas*) and the Barbary Sheep (*Ammotragus lervia*), are unlikely to exist within the Project area.

4.10.2.2 REPTILES

According to Baha el Din's research in 2006, it is estimated that there could be around 15 to 25 species of herpetofauna (reptiles and amphibians) between Ras Ghareb and Gabel Ghareb.

During the site visits conducted in the study area, no amphibians, crocodiles, or turtles were observed. However, eight species of lizards and two species of snakes were detected within the study area.

One of the reptiles sighted in the Project area in 2010 was the Elegant Gecko (*Stenodactylus stenodactylus*). This gecko is insectivorous, nocturnal, and primarily inhabits large wadis, gravelly plains, and sandy areas. While it is one of the most widespread reptiles in Egypt, it is not particularly abundant in any specific location. The Elegant Gecko can tolerate some habitat disturbance, but it is more susceptible to the negative impacts of unregulated vehicular use compared to other geckos in the region (Baha El Din 2006).

Another gecko species observed in the Project area was the Steudner's Pigmy Gecko (*Tropicolotes cf. steudneri*). This gecko is distributed throughout the Eastern Desert, ranging from the southern margins of the Delta to the Sudanese border (Baha El Din 2006).

The Saharan Fan-toed Gecko (*Ptyodactylus siphonorina*) was observed in May 2010 in the Project area. This gecko is sporadically found in the hyper-arid hilly regions of the Eastern Desert and occasionally along the Red Sea coast. The Fan-toed Gecko prefers vertical rocky surfaces, boulders, ledges, and caves as its habitat.

Furthermore, three additional species belonging to the Gekkonidae family were discovered in the study area. These include the Egyptian Gecko (*Tarentola annularis*), Egyptian Fan-toed Gecko (*Ptyodactylus hasselquistii*), and Keel Rock Gecko (*Cyrtopodion scabrum*), which were recorded in the rocky hills surrounding the area.

Within the study area, three species from the Agamidae family were also identified. A colony of Egyptian Dabb Lizard (*Uromastyx aegyptia*) consisting of approximately ten to fifteen individuals was in the Project area. These lizards were regularly observed roosting outside their burrows or feeding on vegetation. In autumn, a pair of lizards caring for two offspring was recorded.

The distribution of the Egyptian Dabb Lizard extends from the northern Eastern Desert to the coastal plains of the Gulf of Suez. In this region, it has a scattered distribution, with a concentration along the coasts of the Gulfs of Suez and Aqaba. However, it is also found in larger wadis and plains of the area. The species is facing a decline throughout its range in Egypt due to intense collection pressure and the vulnerability of its habitats to development activities. The increasing use of off-road vehicles is reducing available habitats for the species and causing disturbance. As a result, the Egyptian Dabb Lizard is classified as near threatened by the International Union for Conservation of Nature (IUCN) (Cox et al. 2006).

Occasionally, individual Sinai Agamas (*Pseudotrapelus sinaitus*) were in the Project area. This species can be found not only in the Eastern Desert but also in the Western Desert and Sinai. However, its distribution in the region is patchy due to limited and sporadic availability of suitable rocky habitats.

The Pallid Agama (*Trapelus pallidus*) was observed within the Project area. This species is known to inhabit the northern part of the Eastern Desert, particularly on the plains of the Gulf of Suez (Baha El Din 2006). It is fairly common and widespread in this area.

Two species from the Lacertidae family, known as True Lizards, are reportedly present in the Project area. Bosc's Lizard (*Acanthodactylus boskianus*) was observed across the entire area. It was recorded in furrows under shrubs, as well as in gravel and stony soil. In Egypt, it is one of the most common, prominent, and widely distributed reptiles, found in suitable locations ranging from altitudes over 1,500 m down to sea level.

The Long-footed Lizard (*Acanthodactylus longipes*) was detected in the Project area. The distribution of this lizard extends to the northern Eastern Desert, where it is found in sandier habitats.

Two snake species were found in the Project area. The Shokari Sand Snake (*Psammophis schokari*), which is slim and medium to large in size. This snake is highly prevalent in coastal areas characterized by sandy and rocky deserts and subdeserts. It often takes refuge on trees and bushes, particularly during bird migration periods when it preys on small passerines.

The Horned Viper (*Cerastes cerastes*), one of the most adaptable reptiles in the Egyptian deserts, was observed in the Project area. It commonly conceals itself beneath the loose soil surface in relatively exposed locations to ambush potential prey. This snake is distributed throughout most of Egypt.

It's important to note that the site visits were conducted during daylight hours, while many species of the herpetofauna are nocturnal. Consequently, the recorded number of individuals and species may have been underestimated.

4.10.2.3 INSECTS

The vegetation in the Wadis serves as the foundation for the local insect population. Although no comprehensive investigations of the insect fauna were conducted as part of the ESIs, cursory examinations before or after bird observations did not uncover any herbivorous insects. However, insects, particularly flies, are abundant in the area. During several bird observation periods, especially during times of low wind speed, birdwatching was challenging due to hundreds of flies swarming around the observers. Additionally, flies were plentiful, and occasional butterflies or moths were observed in the oasis.

The Desert Pebble Mantis (*Eremiaphila zetterstedti*) was regularly observed in the Project area. This robust mantis is found in the hottest parts of Africa and hunts its prey with remarkably long legs. Adult individuals of this species have small, underdeveloped wings since they do not need to fly in the desert.

During fieldwork for the ESIs, migratory insects were also encountered. Mass migrations were evident in hoverflies (*Simosyrphus spec.*) and the Painted Lady butterfly (*Vanessa cardui*). The Desert Locust (*Schistocerca gregaria*) and the Vagrant Emperor dragonfly (*Anax ephippiger*) were regularly observed throughout the entire Project area. The primary breeding areas for these two species are likely in the Nile Valley region.

4.10.2.4 SPIDERS

Camel Spiders (*Galeodes arabs*) were abundant throughout the entire Project area. This species is found in northern Africa and the Middle East. Its diet consists of insects, small mice, lizards, birds, amphibians, other spiders, and scorpions. *Galeodes arabs* is not currently considered endangered or threatened.

4.10.2.5 THREATENED SPECIES

The only species of conservation concern in the area is the Egyptian Dabb Lizard, which is considered near threatened according to the IUCN. Although there is no national Red List specifically for reptiles, the Egyptian Dabb Lizard is protected by Egyptian legislation. Furthermore, the only resident non-bird threatened species is the

Egyptian Spiny-lizard (*Uromastix aegyptia*) classified as Vulnerable by IUCN. This species was not reported to be encountered during any of the surveys completed for the ESAs.

Apart from these two species, none of the other mentioned animal species are globally or nationally threatened.

4.11 BIODIVERSITY (AVIFAUNA)

The Project is situated within the migratory route known as the Red Sea/Rift Valley flyway, which serves as a pathway for migratory soaring birds traveling between their breeding grounds in Europe and their wintering areas in Africa (see Figure 4-1). This flyway is utilized by more than 1.5 million individuals from 37 species of migratory soaring birds, as well as various other migratory passerines and bird groups. Recognizing the Project's location and potential interaction with migratory birds, a systematic bird migration monitoring program was initiated in spring 2016, coinciding with the operational phase of the first wind farm within the Project, the KfW wind farm. In autumn 2020, the monitoring program was expanded to encompass all three wind farms within the Project and to include both the spring and autumn migratory periods.

The number of migratory soaring birds passing through the Project area is substantial during both the northward spring migration and the southward autumn migration, with estimates exceeding 400,000 individuals. Notable species observed include the White Stork, European Honey Buzzard, Eurasian (Steppe) Buzzard, Black Kite, Levant Sparrowhawk, Great White Pelican, and Steppe Eagle. These findings are supported by sources such as STRIX (2018), GreenPlus (2022), and reports from NREA and SafeSoar (2023).

The Project area encompasses the Gabel El Ziet Key Biodiversity Area (KBA)⁶ and Important Bird Area (IBA)⁷. This IBA holds significant importance as a migration pathway for soaring migrants, particularly birds of prey and storks. It serves as a crucial stopover site within the Red Sea/Rift Valley flyway. The IBA is located at the narrowest point in the southern part of the Gulf of Suez, creating a funnelling effect for migratory birds using this flyway during both their spring and autumn journeys. The northern portion of the IBA consists of a wide coastal plain with several sabkha areas, characterized by coastal mudflats where evaporite-saline minerals accumulate. These areas contain pools of hyper-saline water and extensive patches of saltmarsh.⁸

⁶ <https://www.keybiodiversityareas.org/site/factsheet/6217>

⁷ <https://datazone.birdlife.org/site/factsheet/gebel-el-zeit-iba-egypt>

⁸ <https://www.keybiodiversityareas.org/site/factsheet/6217>

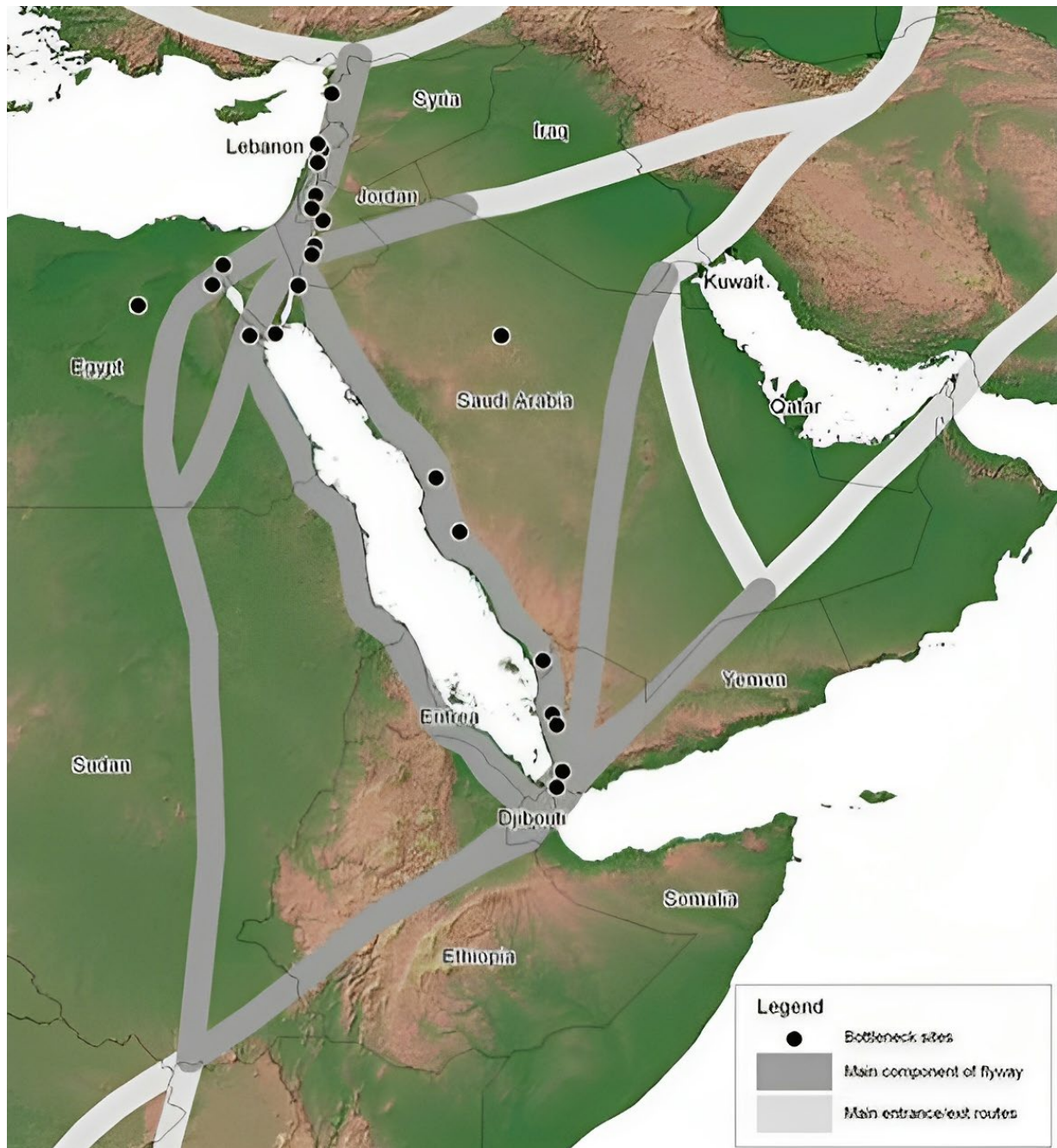


Figure 4-1 Map of the Main Elements of the Rift Valley/Red Sea Flyway Showing Key Bottleneck Sites (source: BirdLife International).

At present, the Project has identified 15 Priority VECs (Vulnerable Ecological Components) that specifically pertain to migratory soaring birds (see Table 4-1).

Table 4-1 List of Screened-in Priority VECs for the Project Accompanied by their Respective Global Conservation Status ⁹

COMMON NAME	SCIENTIFIC NAME	IUCN RED LIST ^A	LIKELY CRITICAL HABITAT SPECIES ^B
Black Kite	<i>Milvus migrans</i>	LC	No
Black Stork	<i>Ciconia nigra</i>	LC	Yes
Booted Eagle	<i>Hieraaetus pennatus</i>	LC	No
Common Crane	<i>Grus grus</i>	LC	No
Eastern Imperial Eagle	<i>Aquila heliaca</i>	VU	No
Egyptian Vulture	<i>Neophron percnopterus</i>	EN	No
Eurasian Buzzard	<i>Buteo buteo</i>	LC	No
European Honey-buzzard	<i>Pernis apivorus</i>	LC	Yes
Great White Pelican	<i>Pelecanus onocrotalus</i>	LC	Yes
Greater Spotted Eagle	<i>Clanga clanga</i>	VU	No
Lesser Spotted Eagle	<i>Clanga pomarina</i>	LC	Yes
Levant Sparrowhawk	<i>Accipiter brevipes</i>	LC	No
Pallid Harrier	<i>Circus macrourus</i>	NT	No
Steppe Eagle	<i>Aquila nipalensis</i>	EN	Yes
White Stork	<i>Ciconia ciconia</i>	LC	Yes

^A LC = Least Concern, NT = Near Threatened, VU = Vulnerable and EN = Endangered.

^B Noting that a Critical Habitat Assessment has not been conducted for the Project yet, some species were preliminarily considered as likely qualifying as Critical Habitat.

4.12 SOCIO-ECONOMIC AND DEMOGRAPHIC

The nearest settlements to the Project area include Ras Ghareb, which is approximately 30 km north of the Project. There is also a small settlement located approximately 15 km to the south, called Wadi Dara. A workers' camp belonging to a petroleum exploration company is located approximately 10 km to the southeast. NREA also have an accommodation complex located within the Project area.

There are reportedly no formal and/or informal users of the Project area according to the ESIA prepared for the KFW site. IBIS did not site the presence of any formal and/or informal users of the Project area. The Project area reportedly does not contain any historic, scenic, cultural or archaeological areas of significance. IBIS did not sight the presence of any historic, scenic, cultural or archaeological areas of significance during the site visit. A substantial portion of the Project area has been granted oil exploration and production concessions to petroleum companies. This is managed through a general agreement between the General Petroleum Company (GPC), a state owned entity, and NREA. There are different layers of security in the Project area, including the Egyptian armed forces and Bedouins whom provide security in the wider area. It will be difficult to replace these two security arrangements from the Project area. The Egyptian armed forces' presence is a matter of national security. The Bedouin groups, including the Tabbna and Hamadin families, often assert their rights to the land based on their extensive knowledge of the area and their claimed ancestral ties to the land. Other WPP developers in the area often engage Bedouin groups as part of their projects, employing them to provide support, security, and protection in exchange for agreed financial compensation. Bedouin groups can undertake various tasks related to the Project, including working as security guards, supplying raw materials, providing food supplies, and ensuring access to water for the workers, among other responsibilities.

⁹ <https://www.iucnredlist.org/>

5. E&S PERFORMANCE

This section presents an E&S assessment of the Project performance against the legal and institutional framework (i.e., Applicable Standards). The assessment evaluates the project's potential environmental and social impacts against the criteria set forth by the International Development Finance Corporation (DFC) (through an assessment against the International Finance Corporation (IFC) Performance Standards), European Bank for Reconstruction and Development (EBRD) Performance Requirements, World Bank Environment, Health, and Safety (EHS) Guidelines, and operational safeguards of the African Development Bank (AfDB).

The assessment encompasses a wide range of aspects, including but not limited to biodiversity, air quality, water resources, land use, cultural heritage, labour and working conditions, community health and safety, and stakeholder engagement.

By conducting the assessment against these international standards, the project aims to ensure compliance with best practices and enhance its overall sustainability performance. The findings and recommendations of the E&S assessment will inform the Project's performance in alignment with local and international standards.

The assessment of the Project's performance against the Applicable Standards is summarised in Sections 5.1 to 5.6. Note that the requirement summaries in the sections below regarding the IFC Performance Standards, the associated WBG EHS Guidelines, the EBRD Performance Requirements, and the AfDB Operational Safeguards have been abbreviated. The full reference documents should be referred to for full detail, where required.

Table 5-1 provides guidance for scoring indicators related to compliance with lenders' requirements, environmental, health, and safety policies, and guidelines. The scoring system includes four categories: Exceeding Compliance (EC), Fully Compliant (FC), Partial Compliance (PC), and Material Non-compliance (MN).

Table 5-1 Compliance Indicator Score and Description

INDICATOR SCORE	DESCRIPTION
EC	The project has gone beyond the expectations of Lenders' requirements.
FC	The project is fully in compliance with Lenders' requirements, and EU and local environmental, health and safety policies and guidelines.
PC	The project is not in full compliance with Lenders' requirements, but has systems, processes or mitigation measure in place which is working toward addressing the deficiencies.
MN	The project is not in material compliance with Lenders' requirements, and the systems, processes and mitigation measures in place are not working toward addressing the deficiencies.

5.1 ENVIRONMENTAL & SOCIAL MANAGEMENT SYSTEM: IFC PS 1/EBRD PR1/AFDB OS 1

ASPECT	SUMMARY OF THE REQUIREMENTS	COMMENTARY/FINDINGS	SCORE	CORRECTIVE ACTION								
Assessment and Management of Environmental and Social Risks and Impacts												
Environmental and Social Assessment and Management (ESMS)	<p>The client, in coordination with other responsible government agencies and third parties, as appropriate, will conduct a process of environmental and social assessment and establish and maintain an ESMS appropriate to the nature and scale of the project; commensurate with the level of its environmental and social risks and impacts.</p> <p>The ESMS should cover the following elements: (i) Policy; (ii) Identification of Risks and Impacts; (iii) Management Programs; (iv) Organisational Capacity and Competency; (v) Emergency Preparedness and Response; (vi) Stakeholder Engagement; and (vii) Monitoring and Review.</p>	<p>Licenses and Permits</p> <p>According to Egypt's Environmental Law 4/1994 and its Executive Regulations (amended in 2011, 2015, 2016 and 2017), a project proponent is required to carry out an Environmental Impact Assessment (EIA) in order to obtain an environmental approval for their project. An EIA is also required in the case of expansions and renovations for existing projects. The EIA is submitted to the Competent Administrative Authority (CAA) for review before a decision is made on its approval, modification or rejection.</p> <p>The following environmental approvals have been issued by the EEAA:</p> <table border="1"> <thead> <tr> <th>SUB-PROJECT</th> <th>APPROVAL DATE</th> </tr> </thead> <tbody> <tr> <td>KfW 200 MW</td> <td>29 July 2008</td> </tr> <tr> <td>JICA 220 MW</td> <td>16 April 2009</td> </tr> <tr> <td>FIEM 120 MW</td> <td>19 April 2012</td> </tr> </tbody> </table> <p>The environmental approvals for all three subprojects listed above contain key conditions for maintaining the validity of the approvals, which otherwise does not have expiration and/or renewal dates. According to NREA, none of the conditions in the environmental approvals have been violated to date and there are no pending penalties or fines from the EEAA jeopardizing the validity of the environmental approvals.</p> <p>As previously noted, all expansions are required to undertake an EIA and obtain an environmental approval as per Law 4/1994. IBIS has not obtained a copy of the ESIA nor the environmental approval for the 40 MW expansion of the KfW 200 MW WPP. The absence of an environmental approval for the 40 MW expansion would constitute a contravention of Law 4/1994 and potentially result in a penalty of up to EGP 1 million.</p> <p>IBIS has not sighted an approval from the Civil Defence Authority on the project's firefighting plan and systems. This is a contravention of Law 148/1959 and its amendments. IBIS cannot provide accurate information on the penalties associated with this non-compliance.</p> <p>Environmental and Social Management System</p> <p>SGRE have established a quality, health, safety and environment (QHSE) management system based on SGRE's ISO9001 (Quality Management System), ISO45001 (Occupational Health and Safety Management System) and ISO14001 (Environmental management System). SGRE also have a set of social policies and procedures. Elements of the environmental and social management system (ESMS) include the following:</p> <ul style="list-style-type: none"> Environment, health and safety policy signed and dated (16 December 2022) by the company's CEO, committing the company to comply with all relevant laws and regulations, protecting the environment, promoting resource efficiency, ensuring the safety of their employees and maintaining continuous communication with relevant stakeholders (copy provided to IBIS). Health, safety and environment plan framework outlining the SGRE's health, safety and environmental management principles for all project phases (copy provided to IBIS). Basic health and safety rules, including specific instructions for working at height, turbine access requirements, electrical safety, working in hot weather and fire prevention Site specific organizational chart with roles and responsibilities indicated across the various health, safety and environment plans (copy provided to IBIS). Traffic management plan defining driver and vehicle requirements and management measures for ensuring proper traffic management and pedestrian safety onsite (copy provided to IBIS). Generic emergency preparedness and response procedures displayed onsite in English with measures to address heat related emergencies such as heat stroke, dehydration, etc. and emergency contact numbers (displayed onsite and observed by IBIS during the site visit) Business code of conduct which includes prohibitions on discrimination, child and forced labour (disclosed on SGRE's webpage). Supplier code of conduct setting out the rules for ensuring that working conditions in the company's supply chain are safe and that all business transactions are ethically, socially and environmentally responsible (disclosed on SGRE's webpage). Whistle blowing channel for employees to file unethical, lack of integrity or any other issues (disclosed on SGRE's webpage). Grievance mechanism allowing employees and external parties to file complaints relating to the environment, health and safety, security, cybersecurity and procurement. General HSE requirements for contractors to ensure contractors and their subcontractors adhere to SGRE's policies. These requirements form part of contract and framework agreements (disclosed on SGRE's webpage). Active Turbine Management Protocol (ATMP) consisting of turbine shutdown on Demand (based on five pre-defined criteria), assisted by radar in Spring, migratory soaring bird monitoring and fatality monitoring (copy of monitoring reports and presentation on shut down on demand provided to IBIS) <p>SGRE maintain their management system on the Enablon Integrated Risk Management software. The software enables SGRE to digitize elements of their management system, including risk assessments, permit to work system, management plans for health and safety and emergency response, HSE training schedules and materials and HSE inspection programs. IBIS was not given the opportunity to thoroughly review documentation evidencing the implementation of the management system. Sample documentation reviewed onsite included a generic risk assessment, incident register, waste manifests, waste contractor environmental approvals, HSE training alerts, anonymized medical checkup reports, and internal email communications on HSE statistics. IBIS has not sighted any Project-specific management plans covering key topics, such as health and safety, emergency response, etc. A random cross check of hazardous waste manifests and data entered into SGRE's software showed data was not up to date.</p>	SUB-PROJECT	APPROVAL DATE	KfW 200 MW	29 July 2008	JICA 220 MW	16 April 2009	FIEM 120 MW	19 April 2012	PC	<ul style="list-style-type: none"> Provide a copy of the environmental approval for the KfW 40 MW expansion. NREA to obtain approval from the Civil Defence Authority for the Project's firefighting system and firefighting plan.
SUB-PROJECT	APPROVAL DATE											
KfW 200 MW	29 July 2008											
JICA 220 MW	16 April 2009											
FIEM 120 MW	19 April 2012											
			PC	<ul style="list-style-type: none"> Update SGRE's Project-specific ESMS, drawing on ESIA's, environmental approval conditions, Applicable Standards and legal requirements. ESMS should include all policies, procedures addressing topics such as equal opportunities, non-discrimination, welfare, journey management, journey management, work at height, waste management, wastewater management, security, emergency response, etc. Ensure all signage onsite is available in Arabic language to enable all personnel to understand posted policies, instructions, etc. Update Enablon to include up to date information on the management system's implementation, including waste records, water and fuel consumption records, risk assessments, permits to work, contractor selection assessments, HSE training records etc. Environmental register and hazardous waste and substances register for each subproject developed in accordance with the requirements set out in Law 4/1994 and its executive regulations. 								

ASPECT	SUMMARY OF THE REQUIREMENTS	COMMENTARY/FINDINGS	SCORE	CORRECTIVE ACTION
		<p>Overall, the SGRE is observed to have a management system on a group level which is broadly aligned with the requirements of the Applicable Standards but is not currently adapted to be Project-specific. The Project is currently lacking environmental registers and hazardous waste and chemicals registers documenting the performance of each sub-project as per the requirements of Law 4/1994 on the protection of the environment.</p> <p>Environment & Social Policies</p> <p>SGRE have adopted an environment, health and safety policy signed and dated (16 December 2022) by the company's CEO, committing the company to comply with all relevant laws and regulations, protecting the environment, promoting resource efficiency, ensuring the safety of their employees, and maintaining continuous communication with relevant stakeholders. The policy states that executive, senior and line management will take ownership of their decisions regarding health safety and environment. SGRE also have a set of social related policies with principles and commitments including the prohibition of child and forced labour, the prohibition of discrimination, equal opportunity, and freedom of association.</p> <p>IBIS observed SGRE's policies displayed at the site offices visited.</p> <p>Identification of Risks and Impacts</p> <p>NREA have shared three environmental and social impact assessment (ESIA) studies completed for the project area:</p> <ul style="list-style-type: none"> - An ESIA specific to the 220 MW WPP prepared by AL AMAR Consulting Group in 2009 and financed by the Japan International Cooperation Agency (JICA); - An ESIA for a 300 km² wind farm concession prepared by LAHMEYER INTERNATIONAL GMBH, BAD VILBEL and ECODA DR. BERGEN & FRITZ GBR, DORTMUND, GERMANY in 2013 and financed by the Arab Fund for Economic & Social Development; and - An ESIA for a 200 km² wind farm concession prepared by LAHMEYER INTERNATIONAL GMBH, BAD VILBEL and ECODA DR. BERGEN & FRITZ GBR, DORTMUND, GERMANY in 2011 and financed by KfW. This ESIA covered the area in which all three sub-projects are located. <p>The ESIA for KfW's 200 MW WPP was prepared by decon and Fichtner in 2008 and financed by KfW. This ESIA is publicly disclosed on the European Investment Bank's (EIB) (a co-financier of the WPP) webpage at the following link: https://www.eib.org/en/projects/pipelines/all/20070089. The ESIA for the 200 km² wind farm concession is also publicly disclosed on EIB's webpage at the following link: https://www.eib.org/en/registers/all/64059502.</p> <p>The ESIA's made available for review clearly reference lenders' E&S standards and were reportedly developed to meet the requirements of both lender and Egyptian Environmental Affairs Agency (EEAA) requirements. The disclosure of the ESIA for the 200 km² wind farm concession and ESIA for the KfW 200 MW WPP indicate that they had been reviewed and approved by their respective lenders. Although IBIS has not sighted the ESIA's for the FIEM 120 MW and KfW 40 MW WPPs, NREA have confirmed that both these subprojects completed ESIA's according to EEAA and lender requirements and have obtained the necessary environmental approvals.</p> <p>ESIA's reviewed included baseline assessments for the following:</p> <ul style="list-style-type: none"> • Air quality; • Noise; • Hydrology; • Geology; • Flora and fauna (excluding avifauna); • Avifauna; • Land use; • Climate; • Social and economic context; and • Archaeology, historical and cultural heritage. <p>The ESIA's applied quantitative and qualitative methods to assess the Project's environmental and social impacts during the construction and operation phases. Mitigation measures were devised for components which had been identified to be impacted by the project's construction and operation phases.</p> <p>Article 3 of Egypt's Ministerial Decree 211/2003 requires industrial facilities to undertake an analysis and evaluation of hazards, potential natural and industrial catastrophes. IBIS has not sighted any procedures documenting the process by which SGRE identify the environmental, health, safety and labour risks and impacts associated with their operations.</p>	<p>FC</p> <p>PC</p>	<p>-</p> <ul style="list-style-type: none"> • Develop Project-specific risk assessment procedure and completed risk assessments for the various activities undertaken onsite.
Management Program	<p>The client will establish management programmes that describe mitigation and performance improvement measures and actions that address the identified social and environmental risks and impacts of the project.</p> <p>As per the AfDB safeguard requirements, Category 1, which includes programme-based operations, regional and sector loans, and investment projects with significant adverse environmental and social impacts, must develop a Social and Environmental Safeguard Assessment (SESA) or an Environmental and Social Impact Assessment (ESIA). These assessments lead to the preparation of an Environmental and Social Management Plan (ESMP). Category 2 projects, which have site-specific impacts that are less adverse than Category 1, also need to conduct an appropriate level of environmental and social assessment (SESA for program operations, investment plans, and some corporate loans, or ESIA for investment projects). This tailored assessment helps the borrower prepare and implement an adequate Environmental and Social Management Plan (ESMP) or Environmental and Social Management Framework (ESMF) to effectively manage the environmental and social risks of subprojects. The borrower or client is expected to carry out the assessment and development of an Environmental and Social Management Plan (ESMP) in a way that aligns with the</p>	<p>SGRE have developed a set of procedures to manage occupational health and safety, waste, emergency response as part of their health and safety basic rules. The procedures include management measures and responsibilities for a wide range of topics including the following:</p> <ul style="list-style-type: none"> • Turbine access; • Working inside turbines; • Working at height; • Working in cold and hot weather; • Hazardous energy; • Rotating and moving machinery; • Lifting; • Working with chemicals; and • Fire prevention. <p>The basic rules are broadly aligned with health and safety measures included in the World Bank's EHS Guidelines for Wind Energy as well as Egypt's Ministerial Decree 211/2003 on occupational safety. In addition to SGRE's procedures and rules, the ESIA for the JICA 220 MW WPP made available for review included an environmental and social management plan (ESMP) including mitigation measures, implementation schedules, monitoring frequency, responsibility, monitoring indicators and budgets. The ESIA also includes an ESMP for the overhead transmission line. Operational management measures for the WPP identified in the ESMP include the following:</p> <ul style="list-style-type: none"> • Liquide Effluents: sanitary wastewater to be either collected in tanks by a licensed contractor and transported to the nearest wastewater treatment plant or undergo two stage anaerobic treatment and reuse of treated effluent for irrigation. 	PC	<ul style="list-style-type: none"> • Develop site specific management plans drawing on Egyptian regulations. The management plans should include the following components as a minimum <ul style="list-style-type: none"> ○ Regulatory limits ○ Objectives ○ Roles and responsibilities of management and site teams ○ Mitigation measures ○ Key performance indicators (KPIs) ○ Monitoring parameters and frequencies of monitoring ○ Training requirements ○ Reporting ○ Budgets

ASPECT	SUMMARY OF THE REQUIREMENTS	COMMENTARY/FINDINGS	SCORE	CORRECTIVE ACTION																								
	<p>environmental risk assessment and management systems established by the country and meets the requirements set by the AfDB.</p>	<ul style="list-style-type: none"> Noise: maximum speed of turbines to be kept under 30 rpm as per Audobon Washington's guidelines. Workers to be provided with hearing protection in areas with high noise emissions. Migratory Birds: Carry out post construction ornithological monitoring during peak migratory seasons. Temporal shutdown of critical turbines. Solid Waste Management: collection and segregation of waste and safe storage. Waste disposal by a licensed contractor and auditing of the disposal procedure. <p>The ESMP includes operational management measures for the overhead transmission lines, such as installing deflectors on lines in areas with potential for bird collision. IBIS notes through observations made onsite that no such deflectors have been installed (see PS6/PR6 for more details).</p> <p>Although there are mitigation measures implemented onsite, some of which correspond to the measures in the ESIA, IBIS notes that there are mitigation measures which have not been implemented, such as the management of wastewater and auditing waste disposal activities.</p> <p>The ESIA for the KfW 200 MW WPP only includes brief mitigation measures and an ESMP implementation budget. The ESMPs in both ESIA's do not constitute full standalone management plans for different topics (e.g., waste, wastewater management, etc.) with clearly defined laws and regulations, defined roles and responsibilities, key performance indicators, monitoring measures or auditing requirements. There is a clear inconsistency in the management measures devised within the reviewed ESIA's.</p> <p>IBIS notes that there are certain topics which require additional detail and standalone management plans such as waste management, wastewater management, security management stakeholder engagement and labour management, all of which are discussed in further detail under the relevant sections of this report. In the absence of Project-specific management plans with clear regulatory requirements, training requirements, monitoring measures and key performance indicators, the Project is subject to perform poorly and potentially contravene national laws and regulations.</p>																										
<p>Organisational Capacity and Competency</p>	<p>The client will establish, maintain and strengthen as necessary an organisational structure that defines roles, responsibilities, and authority to implement the ESMS.</p>	<p>Egypt's Ministerial Decree requires industrial facilities with a workforce between 50 to 200 workers to employ one occupational health and safety technician (one holding a degree below a university degree) and non-industrial facilities with a workforce between 50 to 200 workers to appoint one occupational health and safety worker.</p> <p>HSE onsite is the responsibility of SGRE's HSE Manager, who holds a bachelor's degree in agricultural sciences and has over 15 years of experience. The HSE Manager is supported by two SGRE HSE Specialists assuming dual responsibilities (team lead and HSE specialist) and HSE Managers from their subcontractors (APTEC and Masrya). IBIS did not sight the qualifications of the other HSE team members and only had an opportunity to meet one of the SGRE HSE Specialists. The current organizational chart (presented below) does not accurately reflect the HSE workforce onsite. All HSE related aspects of the Project are under the responsibility of SGRE. It is not clear what the role and responsibility is for each of the HSE personnel present onsite.</p> <p>Based on available information, the HSE manager has also completed training and obtained certificates for the following:</p> <ul style="list-style-type: none"> Occupational Safety and Health Administration (OSHA) General Industry Standards National Association of Safety Professionals General Safety Diploma National Association of Safety Professionals Environmental Management Diploma Fire Prevention Chemical and Explosives Firefighting Rescue and Civil Defence Working at Height Risk Assessment Waste Management Incident Management First Aid <p>Copies of certificates and diplomas were not made available for review. The table below presents the number of full time workers engaged in the Project, excluding NREA personnel whose details have not been provided and would not be relevant post-acquisition:</p> <table border="1" data-bbox="964 1501 1988 1835"> <thead> <tr> <th>TITLE</th> <th>PAX</th> <th>ORGANIZATION</th> </tr> </thead> <tbody> <tr> <td>Service Operation Manager</td> <td>1</td> <td>SGRE</td> </tr> <tr> <td>Health and Safety Coordinator (Manager)</td> <td>1</td> <td>SGRE</td> </tr> <tr> <td>Field Technician Support</td> <td>1</td> <td>SGRE</td> </tr> <tr> <td>Spare Parts Order and Logistics Professional</td> <td>1</td> <td>SGRE</td> </tr> <tr> <td>Quality Inspector</td> <td>1</td> <td>SGRE</td> </tr> <tr> <td>SCADA Administrator</td> <td>1</td> <td>SGRE</td> </tr> <tr> <td>KfW 240 WPP Team Lead</td> <td>1</td> <td>Subcontractor (name not provided in reviewed organization chart)</td> </tr> </tbody> </table>	TITLE	PAX	ORGANIZATION	Service Operation Manager	1	SGRE	Health and Safety Coordinator (Manager)	1	SGRE	Field Technician Support	1	SGRE	Spare Parts Order and Logistics Professional	1	SGRE	Quality Inspector	1	SGRE	SCADA Administrator	1	SGRE	KfW 240 WPP Team Lead	1	Subcontractor (name not provided in reviewed organization chart)	<p>PC</p>	<ul style="list-style-type: none"> Update the Project's organizational chart to reflect HSE personnel present onsite, including roles and responsibilities. Develop health, safety, environment and social training needs assessment, followed by a training matrix showing topic, target audience, duration, frequency, trainer. Maintain training statistics for the entire workforce, including Bedoion security guards. Ensure labour management responsibilities are covered by a designated Project staff member to ensure the Project is performing in compliance with Egypt's labour law 12/2003 and Applicable Standards.
TITLE	PAX	ORGANIZATION																										
Service Operation Manager	1	SGRE																										
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ASPECT	SUMMARY OF THE REQUIREMENTS	COMMENTARY/FINDINGS	SCORE	CORRECTIVE ACTION
		<p>KFW 240 WPP Service Technician 7</p> <p>JICA 220 MW WPP Team Lead 1</p> <p>JICA 220 MW WPP Service Technician 7</p> <p>FIEM 120 WPP Team Lead 1</p> <p>FIEM 120 MW WPP Service Technician 3</p> <p>TOTAL WORKFORCE (excluding NREA and seasonal bird surveyors) 26</p> <p>The figure below presents the organizational structure of SGRE's O&M team, including country and Project level personnel:</p> <p>Given the size of the workforce (approximately 26 personnel excluding NREA personnel and seasonal bird surveyors) the HSE staff to worker ratio is compliant with Egyptian regulations (Ministerial Decree 134/2003: 1 HSE technician for 50 to 200 workers per shift) and international good practice (1 HSE officer to 50 workers). The HSE Manager demonstrated that he had prior experience and knowledge in implementing environmental, health and safety management systems for wind energy projects in Egypt and in the project area.</p> <p>Ministerial Decree 211/2003 requires employers to communicate occupational health and safety risks to their employees and communicate measures in place to protect the workforce. SGRE has confirmed that all personnel engaged in the Project, including those of contractors, have had to attend an HSE induction.</p> <p>In addition to attending HSE inductions, all site personnel are required to complete mandatory health, safety and environment training, including job specific training, such as advance rescue training, work at height and the use of rescue evacuation ropes inside turbines.</p> <p>Although health, safety and environment training is embedded within the Project's ESMS, IBIS has not sighted a training matrix. During a random interview with a worker at one of the consumable warehouses, the work was not aware of key information within a sample material safety data sheet and indicated that he had not received any training on the handling of hazardous materials. Without a formalized and well communicated training matrix, some workers may not be receiving the training needed for them to continue to perform their tasks safely and potential expose them to injuries.</p> <p>According to SGRE's HSE Manager, the Project does not employ labour management personnel to oversee the day-to-day management of the SGRE workforce. Labour management for SGRE employees is done remotely using the company's online portal (i.e., timesheets, leave requests, etc). No information on labour management roles for contractors was made available to IBIS.</p> <p>Organizational capacity and competency relating to biodiversity monitoring is discussed under PS 6/PR 6.</p>		
Emergency Preparedness and Response	Where the project involves specifically identified physical elements, aspects and facilities that are likely to generate impacts, the ESMS will establish and maintain an emergency preparedness and response system so that the client will be prepared to respond to accidental and emergency situations.	Ministerial Decree 211/2003 requires facilities to develop emergency preparedness and response plans. IBIS has sighted a standalone emergency preparedness and response procedure with information on building evacuation procedures, assembly point instructions, instructions for injury/illness, environmental incidents, building damage, criminal activity and instructions in the event of a fire. IBIS sighted a list of measures to address heat related emergencies and an emergency contact list with the telephone numbers of multiple hospitals in the Red Sea governorate. SGRE have also shared an emergency drill schedule for 2023 including three emergency scenarios as follows: 1) site evacuation due to bad weather (March 2023 – completed); 2) evacuating an injured person from a turbine elevator (November 2023); and 3) a fire in the warehouse (November 2023).	PC	<ul style="list-style-type: none"> Update the Project-specific emergency preparedness and response plan which may include the following elements): <ul style="list-style-type: none"> Determination of potential emergency scenarios. Training requirements for specialized emergency response teams.

ASPECT	SUMMARY OF THE REQUIREMENTS	COMMENTARY/FINDINGS	SCORE	CORRECTIVE ACTION
	<p>Where applicable, the client will also assist and collaborate with potentially Affected Communities (under Performance Standard 4) and the local government agencies in their preparations to respond effectively to emergency situations.</p> <p>The AfDB requires the borrower or client to assess the operational risk of potential accidents or emergencies associated with the project and evaluate response options. If deemed necessary, an emergency response plan should be developed, proportionate to the identified risk, to effectively mitigate risks to human health and the environment during such events.</p>	<p>The emergency response plan is aligned with Ministerial Decree 211/2003 but can be strengthened for further alignment with the Applicable Standards to include the following key elements as defined in IFC's PS1:</p> <ul style="list-style-type: none"> • Identification of the emergency scenarios (such as rescue from a turbine) • Trained emergency response teams • Emergency contacts and communication systems/protocols (including communication with Affected Communities when necessary) • Procedures for interaction with government authorities (emergency, health, environmental authorities) • Permanently stationed emergency equipment and facilities (e.g., first aid stations, firefighting equipment, spill response equipment, personal protection equipment for the emergency response teams) • Protocols for the use of the emergency equipment and facilities • Clear identification of evacuation routes and muster points • Emergency drills and their periodicity based on assigned emergency levels or tiers • Decontamination procedures and means to proceed with urgent remedial measures to contain, limit and reduce pollution within the physical boundaries of the project property and assets to the extent possible <p>Egypt's Ministerial Decree 211/2003 prescribes that a qualified nurse and physician are contracted if the number of workers in the same site, or the same town, or in a circle with a radius of fifteen kilometres exceeds fifty workers. The Project does not have a nurse or physician appointed and is compliant given the size of the workforce being less than 50. The nearest government ambulance to the Project is located approximately 500 meters south east of the main buildings.</p>		<ul style="list-style-type: none"> ○ Maintenance of a list of emergency contacts and the implementation of communication systems and protocols, which may include communication with bird surveyors. ○ Guidelines for interfacing with government authorities, including emergency, health, and environmental agencies. ○ Continuous presence of emergency equipment and facilities, such as first aid stations, automated external defibrillator, turbine rescue equipment, firefighting gear, spill response tools, and personal protective equipment for the emergency response teams. ○ Standard procedures for utilizing the emergency equipment and facilities. ○ Clear marking of evacuation routes and designated assembly points at consumable and spare part warehouses. ○ Scheduled emergency drills, with frequency based on assigned emergency levels or tiers. ○ Protocols for decontamination and immediate actions to mitigate, limit, and reduce pollution within the Project's physical boundaries and assets whenever feasible.
Monitoring and Review	<p>The client will establish procedures to monitor and measure the effectiveness of the management program, as well as compliance with any related legal and/or contractual obligations and regulatory requirements.</p> <p>Throughout the project implementation phase, the borrower or client holds the responsibility for executing the Environmental and Social Management Plan (ESMP) and providing reports to the AfDB on important management and monitoring activities specified in the ESMP. The Bank ensures monitoring of the implementation progress through quarterly reports submitted by the borrowers and clients, as well as during its own supervision missions.</p>	<p>Egypt's Law 4/1994 requires projects to document their environmental performance through the maintenance of an environmental register and hazardous waste and substances register documenting information such as type of waste generated, type of wastewater generated, quantities of waste and wastewater generated, type and quantities of hazardous substances stored and emergency response measures. No registers for the subprojects have been shared with IBIS which is considered a non-compliance with Law 4/1994 and its executive regulations.</p> <p>IFC/EBRD PS1/PR1 require the development of a monitoring plan which enables the Project to measure and monitor key risks and impacts of the project on its workforce, the natural environment and surrounding communities. The monitoring plan should also enable the Project to assess its compliance with laws and regulations and assess its progress in implementing the different management plans. According to site personnel, there are a number of monthly E&S related monitoring activities occurring at the site and reported to SGRE's senior management including those listed below:</p> <ul style="list-style-type: none"> • Number of hours worked; • Number of unsafe acts reported; • Number of unsafe conditions reported; • Number of near misses reported; • Number of toolbox talks delivered; • Number of permits to work issued; • Biannual health reporting to the labour authority on the number of incidents, injuries and diseases; • Medical surveillance programme of staff; • Tracking of resource use including water and electricity; • Tracking of hazardous and non-hazardous waste generated; and • Number of complaints. <p>IBIS has not received records for any of the above information.</p> <p>Although SGRE are actively monitoring their E&S performance, IBIS has not sighted a Project-specific E&S monitoring plan detailing monitoring requirements and notes that monitoring measures contained within ESIA's are not being implemented, such as the biannual monitoring of noise at nearest residential areas (i.e., onsite accommodation in this case). It is worth noting that NREA's reporting requirements are lenient. This may have implications on SGRE's reporting to Actis once the contract is transferred from NREA to Actis.</p> <p>Monitoring aspects relating to birds are discussed in detail under PS6/PR6.</p>	PC	<ul style="list-style-type: none"> • Define appropriate monitoring and review programmes / procedures within the Project-specific ESMS, including key performance indicators, and drawing on the conditions in the environmental approvals
Stakeholder Engagement	<p>Stakeholder engagement is the basis for building strong relationships that are essential for the successful management of a project's environment and social impacts. This may include stakeholder analysis and planning, disclosure and dissemination of information, consultation and participation, grievance mechanisms and ongoing reporting to Affected Communities. The nature, frequency and level of effort will be commensurate with the project's risk and adverse impacts.</p> <p>The AfDB requires the borrower or client to engage in meaningful and transparent consultation with affected communities, including vulnerable groups, throughout the</p>	<p>Egyptian EIA guidelines require public consultations be undertaken for Category C (equivalent to Category A projects under IFC and EBRD classification) projects. Consultation with governmental stakeholders, such as the Ministry of Energy, Ministry of Petrol, Ministry of Defence, the Red Sea Governorate and the General Petroleum Authority (GPC) was carried out prior to the definition of the NREA concession area and the results were summarised in the Agreement on the NREA concession area. The EIA states that there are no people living in proximity of the "European area", except people temporarily living in a petrol workers camp 9 km away from the borders of the wind park as such no further stakeholder engagement was undertaken. The ESIA for the JICA 220 MW WPP was classified as a Category C and had followed Egyptian guidelines for public consultation in impact assessments. No information on public consultations for the KFW 240 MW and FIEM 120 MW projects were available for review.</p> <p>Despite engaging with authorities for site entry permits and Bedoins for security purposes, there are no other specific stakeholder engagement records and/or registers for the Project available.</p>	PC	<p>Ensure key stakeholders are mapped. Determine how engagement with identified stakeholders will be carried out, including the timing and methods of engagement, the information to be disclosed, disclosure language(s) and the type of information to be sought from stakeholders. Maintain all stakeholder engagement records.</p>

ASPECT	SUMMARY OF THE REQUIREMENTS	COMMENTARY/FINDINGS	SCORE	CORRECTIVE ACTION
	environmental and social assessment process. This consultation should be free, prior, and informed, ensuring that communities have a say in decisions regarding environmental and social impacts. The borrower or client is responsible for conducting consultations with affected communities and local stakeholders, seeking broad community support, and incorporating the consultation outcomes into project design and documentation. For Category 1 projects, affected communities participate in key stages of project design and implementation, while for Category 2 projects, they are consulted on the environmental and social assessment report and the corresponding management plan. Additionally, the borrower or client engages in consultation and participation with vulnerable communities, beginning early in the project cycle and continuing throughout, ensuring effective representation of the affected groups.			
External Communication Mechanism	<p>The client will implement and maintain a procedure for external communications that includes methods to (i) receive and register external communications from the public; (ii) screen and assess the issues raised and determine how to address them; (iii) provide, track, and document responses, if any; and (iv) adjust the management program, as appropriate.</p> <p>The AfDB mandates that the borrower or client creates a reliable and impartial local grievance and redress mechanism that has the authority to address and resolve concerns and complaints raised by affected individuals regarding the environmental and social aspects of the project. This mechanism should be easily accessible to stakeholders throughout the project cycle. All grievances received must be properly recorded, and the responses and actions taken to address them should be included in project supervision formats and reports.</p>	<p>IBIS has not sighted a Project-specific procedure for external communications adopted and disclosed by NREA.</p> <p>SGRE have developed a grievance mechanism enabling both SGRE employees and third parties to submit any complaints, including those related to human resources, environmental, health & safety, security, cybersecurity, or procurement. According to SGRE, the grievance mechanism has the following channels for complaints to be submitted:</p> <ul style="list-style-type: none"> • “Integrity Hotline”: “Integrity Hotline” is a web-based tool through which reports can be submitted 24 hours a day, 7 days a week, either in writing or by telephone. It is available in numerous different languages: https://www.bkms-system.net/IntegrityHotline • Siemens Gamesa Compliance Organization: The Siemens Gamesa Chief Compliance Officer as well as the Compliance Officers responsible for the various legal entities/countries and any other Compliance employee are available to receive reports. • Reports may also be given to any other company representative or manager. <p>SGRE’s integrity hotline allows for anonymous reporting of complaints. The compliance organization within SGRE is responsible for receiving grievances and diverting them to the relevant department(s). The compliance team ensures that i) grievances are handled in a fair, respectful, objective and diligent manner; ii) grievance investigative measures are suitable, necessary and appropriate; iii) the grievance is resolved in accordance with local laws and regulations; iv) no retaliation against complainants. SGRE’s grievance mechanism procedure and channels to contact their compliance team are publicly available on SGRE’s webpage. The grievance mechanism is broadly aligned with the Applicable Standards.</p> <p>According to NREA and SGRE, there have been no external grievances filed since COD. It is worth noting that the location and nature of the Project are not likely to generate adverse environmental and social impacts on surrounding communities. As such, IBIS is of the opinion that there is no need for ongoing reporting, beyond SGRE’s annual sustainability report, to these communities other than to make them aware of the grievance mechanism.</p>	PC	Ensure the grievance mechanism is communicated to all relevant stakeholders, including Bedouin security personnel.

5.2 LABOUR & WORKING CONDITIONS: IFC PS 2/EBRD PR 2 & 4/AFDB OS 5

ASPECT	SUMMARY OF THE REQUIREMENTS	COMMENTARY/FINDINGS	SCORE	CORRECTIVE ACTION
Labour and Working Conditions				
Human Resources Policies and Procedures	<p>The client will adopt and implement a human resources policy appropriate to its size and work force that sets out its approach to managing employees consistent with the requirements of this Performance Standard and national law.</p> <p>When the borrower or client plans to hire a workforce for a project, they are required by the AfDB to develop and implement a human resources policy and procedures that are suitable for the project's nature and size, taking into account the operating standards and relevant national laws. The borrower or client must provide all employees with documents containing information about their employment terms, conditions, and rights, including those outlined in national employment law. These documents should cover essential areas such as working hours, wages and benefits, rest periods, arrangements for overtime, entitlement to leave for illness and maternity/paternity, and mechanisms for addressing grievances.</p>	<p>IBIS made multiple requests to SGRE for Project-specific labour related policies, employee handbooks or manuals but had not received any at the time of writing this report.</p> <p>As a government entity, NREA is required to comply with Law 18/2015 on managing civil servants. NREA reportedly has a set of internal regulations aimed at managing its workforce in compliance with Egypt’s Labour Law 12/2003.</p> <p>The following social-related policies are available on SGRE’s webpage and applicable to all SGRE projects:</p> <ul style="list-style-type: none"> • Diversity and inclusion policy to ensure equality and inclusion, and avoid any kind of discrimination based on race, gender, civil status, ideology, political opinions, nationality, religion or any other personal, physical or social characteristic. • Business code of conduct which requires working hours to compliant with host country regulations; prohibits discrimination, child and forced labour; recognizes the rights of workers to form or join existing trade unions and to engage in collective bargaining; ensures fair wages for labour and adheres to host country applicable wage and compensation laws and observes equal pay. • Harassment protocol prohibiting any form of sexual, gender-based and/or psychological harassment • Supplier code of conduct setting out the rules for ensuring that working conditions in the company’s supply chain are safe and that all business transactions are ethically, socially and environmentally responsible. • Grievance mechanism allowing employees and external parties to file complaints relating to the environment, health and safety, security, cybersecurity and procurement. • Work from home policy to promote a good balance between work and family life. <p>All of the above policies are generally aligned with the requirements of the Applicable Standards and Egyptian labour law.</p> <p>According to Egypt’s labour law 12/2003 and Ministerial Decree 185/2003 on workplace regulations, employers are required to display their workplace regulations, including information on working hours, breaks, probationary periods, disciplinary measures, complaints, non-discrimination, annual wage increases and annual leave. Based on observations made during the site visit, no workplace regulations were observed to be displayed onsite.</p> <p>Egypt’s labour law 12/2003 requires contracts to be in triplicate and contain the following information as a minimum:</p> <ul style="list-style-type: none"> • the name of the employer, the address of the workplace / work location; • the employee’s name, qualifications, occupation, address, proof of identity and social insurance number, if any; • the nature and description of the agreed job; and 	PC	<p>It is recommended that SGRE develops and adopts Project-specific HR policies and procedures that are aligned with the local labour laws and regulations, SGRE existing policies and ILO conventions ratified by Egypt. Topics in the HR policies and procedures to incorporate and/or refer to already existing policies on prohibition on the use of child and forced labour, and provide clear guidance on equal opportunity and non-discrimination, welfare, employment conditions, such as work hours, overtime, annual leave, non-discrimination, collective bargaining, workers engaged by third parties and internal grievance management.</p> <p>SGRE to communicate the HR policies and procedures to all of their contractors, including Bedouin security, and as a minimum, display workplace regulations as required by Egyptian labour laws and regulations. SGRE to perform random labour inspections of the Project subcontractors to ensure the HR policies and procedures are adequately implemented, with results documented and forming part of periodic reporting</p> <p>Ensure all Project employees, including those of contractors and Bedouin security guards, have employment contracts meeting Egyptian labor law requirements as a minimum. All new employment contracts should be drafted to include terms and duration of the employment relationship, wages</p>

ASPECT	SUMMARY OF THE REQUIREMENTS	COMMENTARY/FINDINGS	SCORE	CORRECTIVE ACTION
		<ul style="list-style-type: none"> the salary agreed upon between the parties and all other financial and real privileges. <p>Based on information reviewed, the current SGRE O&M workforce stands at 26 including SGRE subcontractors, excluding NREA (approximately 10 personnel), seasonal bird surveyors (up to 30 surveyors) and Bedouin security guards (approximately seven personnel). All workers employed by SGRE, and their contractors, with the exception of the Bedouin security guards, have signed employment contracts. SGRE contracts are open ended contracts but no information on subcontractor contract terms is available. None of the employees interviewed during the site visits raised any concerns with regards to their contracts.</p> <p>IBIS could not verify the content of contracts or confirm whether contracts are made in triplicate, with copies retained by SGRE/the contractor, the employee and the labour office, as per Egypt's labour law. All workers employed by the Project are paid above the Egyptian minimum wage of EGP 3,000 per month (eq. 97 USD per month). Collective bargaining agreements do not exist at the Project.</p> <p>According to SGRE, there are no casual workers employed by the Project. Approximately 50% of Project workers are considered migrant workers. There is no risk that working conditions and terms of employment are different to those of non-migrant workers performing the same type of work.</p> <p>The Project adopts a rotation work shift with eight-hour shifts per day (7 am to 3 pm) for 10 consecutive days followed by five days of rest. Working hours for the Project conform to Egyptian labour law. SGRE has confirmed that night shifts are prohibited. Overtime payments are made according to Egypt's labour law. All Project employees are reportedly granted annual leave in accordance with Egypt's labour law. SGRE and their subcontractors have social and medical insurance. SGRE shared sample social insurance slips for APTEC employees. The above terms of employment do not apply to Bedouin security personnel who have a different arrangement (unknown to IBIS at this stage) which sees them present onsite 24/7. Security guards are not granted annual leave. One security guarded stated that he had to be replaced by his brother to take five days off after two months of consecutive work. Security guards do not any form of social and/or medical coverage, and do not have access to any immediate first aid equipment despite their continuous exposure to snake and scorpion bites.</p> <p>SGRE has confirmed that the Project provides gives its workforce an allowance for accommodation (in Ras Ghareb and Hurghada) and free transportation and basic services including water, sanitation, and medical care. SGRE has confirmed that all of the aforementioned services are provided in a non-discriminatory manner. Discussions with random Project personnel did not identify any issues and/or complaints regarding transportation and/or accommodation.</p> <p>According to SGRE's basic health and safety rules, welfare facilities must be provided for access to sanitary water, potable water and toilets. The rules also state that personnel must have access to facilities for cleaning and washing hands. IBIS received complaints from two Bedouin security guards: one regarding safety from snakes, exposure to wind and dust and food expenses; and the other relating to access to electricity. Out of four security posts visited by IBIS, only one had access to the site office washrooms, while other posts did not have access to sanitary facilities within 500 m. Security posts are constructed of scrap wood and metal and do not offer safe conditions for personnel.</p> <p>This is not in alignment with international standards, especially given the presence of one female at one of the security posts (the spouse of one of the Bedouins), and raises concerns regarding equality across the Project workforce.</p>		<p>and benefits, wage calculation (including overtime, if applicable) and pay slips, hours of work, overtime, rest days, breaks, grievance procedures, deductions, working conditions, termination procedures, health insurance, and pension. All contracts (old and new) will be made in triplicate, with copies retained by SGRE/the contractor, the employee and the labour office, as per Egypt's labour law.</p> <p>Reassess the welfare conditions of Bedouin security guard posts across the site. The assessment should include required actions and associated costs to upgrade Bedouin security welfare equally across all Bedouin personnel, considering the following:</p> <ul style="list-style-type: none"> Shaded and protected structure Access to clean, safe and cold potable water Access to proper dry and wet food storage facilities Access to electricity Access to sanitary facilities Access to cloth storage facilities Access to first aid kit and emergency response equipment (e.g. mobile phone or radio) and team Access to proper training on dealing with snake and scorpion threats Access to training on lone working Access to medical aid for work-related injuries Optional social insurance for casual labor
Working Conditions and Terms of Employment	<p>Where the client is party to a collective bargaining agreement with a worker's organisation, such agreement will be respected. Where such agreements do not exist, or do not address working conditions and terms of employment, the client will provide responsible working conditions and terms of employment.</p> <p>The AfDB requires the borrower or client to respect collective bargaining agreements with workers' organizations and, in the absence of such agreements, provide reasonable working conditions and terms of employment that comply with national laws and the operating standards. Migrant workers should receive comparable treatment to non-migrant workers.</p>	See above.	PC	See above.
Worker Accommodation	<p>Where accommodation services are provided to workers covered by the scope of this Performance Standard, the client will put in place and implement policies on the quality and management of the accommodation and provision of basic services.</p> <p>The AfDB mandates that if the borrower or other third parties are involved in offering workers residential or temporary accommodation, the facilities must ensure the provision of essential services such as water and sanitation. In certain situations, medical care should also be made available. These services must be provided in accordance with the principles of non-discrimination and equal opportunity.</p>	<p>Egypt's Ministerial Decree 200/2003 on the determination of areas far from urbanization considers the Red Sea governorate as an area far from urbanization. The decree mandates the following requirements for accommodation:</p> <ul style="list-style-type: none"> For collective housing for unmarried individuals, each individual must have a living space of no less than 6 square meters, including bathrooms and kitchens. For married individuals, each family consisting of two people must have a room with a minimum area of 10 square meters and a separate bathroom. If the family size exceeds two individuals, an additional area, as specified, must be added for every 3 days. This does not include children under the age of 6. Wall thickness and public areas designated for workers, such as restaurants, clubs, and other recreational, sports, and social facilities, are excluded from the mentioned areas In collective housing, there should be one toilet and shower for every eight individuals and one sink for every 12 individuals at a minimum. In independent housing for married individuals, each bedroom should be equipped with a toilet, a handwashing sink, and a shower. The dimensions of the toilet should not be less than 0.80 x 1.20 meters, and if a shower is placed within the toilet, the dimensions of the toilet should not be less than 1.20 x 1.50 meters. Sanitary water systems should be approved by the relevant health department and arrangements for proper waste and garbage disposal methods. Each dwelling should be equipped with sleeping facilities, clothing storage, and adequate fire prevention measures. 	PC	<p>The Project should develop and implement policies and procedures to set quality and management standards for new accommodation to meet the requirements of IFC/EBRD standards and Egyptian regulations. Procedure to include accommodation inspection requirements and a code of conduct at external residences to avoid any issues with the host community. Include grievance channels for host community to file complaints against migrant workers.</p> <p>If the NREA accommodation buildings onsite will form part of the concession or be used as part of the Project on a leased basis, a full assessment against IFC/EBRD accommodation standards and Egyptian firefighting standards should be completed.</p>

ASPECT	SUMMARY OF THE REQUIREMENTS	COMMENTARY/FINDINGS	SCORE	CORRECTIVE ACTION
		<p>All Project migrant workers¹⁰ (exact number not known) are accommodated in Ras Ghareb or Hurghada. The Project gives workers an allowance and workers are free to select accommodation of their choice. IBIS has not sighted any accommodation policies and/or procedures setting quality and management expectations, and ensuring that accommodation is available based on equal opportunity and non-discrimination without restricting workers' freedom of movement or of association. IBIS cannot verify if accommodation in Ras Ghareb or Hurghada is compliant with Egyptian regulations.</p> <p>NREA have four buildings onsite, each having 12 apartments (i.e., total of 48 apartments) measuring approximately 100 m². Apartments are occupied by unmarried NREA personnel. During the bird migration season, and/or other NREA organized events, additional guests are accommodated in these buildings. IBIS notes that the accommodation onsite does not meet all of the accommodation requirements of Ministerial Decree 200/2003, such as in the case of waste and wastewater management. The number of fire extinguishers will need to be increased, with at least one fire extinguisher per apartment.</p>		
Workers' Organisations	<p>In countries where national law recognises workers' rights to form and to join workers' organisations of their choosing without interference and to bargain collectively, the client will comply with national law.</p> <p>The AfDB mandates that the borrower or client must respect workers' rights to form and join workers' organizations, such as trade unions, enabling them to collectively voice their demands and address grievances related to working conditions and employment terms. The borrower or client must not interfere with or control these organizations. Furthermore, the borrower or client must allow workers to elect their own representatives and engage in collective bargaining. They should actively collaborate with workers' representatives and organizations, providing them with relevant information for effective negotiations. Discrimination or retaliation against workers involved in these organizations or engaged in collective bargaining is strictly prohibited.</p>	<p>Egyptian Labour Law permits (but does not require) employees to be part of a workers' organisation if the workforce exceeds 50 workers in one company. None of the Project staff reportedly belong to a trade union or worker organisation. There was no evidence that staff have been discouraged by SGRE or their contractors from joining labour unions.</p>	FC	No further action expected.
Non-Discrimination and Equal Opportunity	<p>The client will not make employment decisions on the basis of personal characteristics unrelated to inherent job requirements. The client will base the employment relationship on the principle of equal opportunity and fair treatment, and will not discriminate with respect to aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, promotion, termination of employment or retirement, and discipline. In countries where national law provides for non-discrimination in employment, the client will comply with national law.</p> <p>The AfDB requires the borrower or client to make employment decisions solely based on job-related criteria and not on personal characteristics like race, gender, nationality, religion, disability, age, sexual orientation, or social background. They must ensure equal opportunity and fair treatment throughout the employment relationship, including recruitment, compensation, working conditions, training, promotion, termination, retirement, and disciplinary practices. These principles of non-discrimination also extend to migrant workers. The borrower or client is expected to address and prevent harassment, intimidation, and exploitation, particularly towards women, and work towards eliminating social exclusion and employment inequalities for women and workers with family responsibilities. Even in the absence of explicit national laws on non-discrimination, the borrower or client must adhere to the operating standards. If there is a conflict between national laws and the standards, the borrower or client should strive to align their operations with the standards and relevant International Labour Organization (ILO) guidelines while still complying with applicable laws.</p>	<p>Egypt's labour law prohibits employers from engaging in salary discrimination against their employees based on factors such as gender, origin, language, religion, or beliefs. Furthermore, the labour law stipulates that terminating an employment contract due to factors like colour, gender, marital status, family responsibilities, pregnancy, religion, or political opinion will not be considered a legitimate reason, giving the affected employee valid ground to file a discrimination claim. Egypt's Rights of People with Disabilities Law (10/2018) ensures that persons with disabilities are provided with equal employment opportunities based on their educational qualifications. The law specifies that employers with a workforce of at least 20 employees (regardless of whether they work at a single location or multiple locations and regardless of the nature of their work), must include a minimum of 5% of their workforce from individuals with disabilities. SGRE claims to have exceeded this percentage by an additional 5%.</p> <p>SGRE's Diversity and Inclusion policy promotes diversity, equity and inclusion. The policy also promotes the employment of persons with disabilities. According to SGRE, all terms and conditions relating to employment such as hiring, wages, benefits, promotion, termination or retirement are based solely on an employee's qualifications and ability to perform the job function. It was stated during the interview with SGRE's HSE Manager that recruitment is based on the flow of applicants and their suitability for the advertised position. The recruitment process does not include any discriminatory practices.</p> <p>During the site visit, IBIS noted that Bedouin security guards were not employed on equal terms and did not have access to welfare facilities offered to other Project personnel. This is not aligned with the Applicable Standards.</p>	PC	See corrective action on HR policies and procedures.
Retrenchment	<p>Prior to implementing any collective dismissals, the client will carry out an analysis of alternatives to retrenchment. A retrenchment plan will be developed and implemented to reduce the adverse impacts of retrenchment on workers.</p>	<p>Project-specific HR policies, employee handbook and labour management procedures have not been sighted by IBIS. According to SGRE, no retrenchment has taken place since the Project entered O&M and no retrenchment is planned.</p>	FC	-

¹⁰ Migrant workers here is meant to describe workers that are not from Ras Ghareb but other governorates in Egypt.

ASPECT	SUMMARY OF THE REQUIREMENTS	COMMENTARY/FINDINGS	SCORE	CORRECTIVE ACTION
	<p>The AfDB requires that, in the event the borrower or client intends to carry out collective dismissals, they must first explore alternative options to avoid retrenchment. If such alternatives are not identified through analysis, the borrower or client is obligated to develop and implement a retrenchment plan aimed at mitigating the negative impacts on affected workers. This plan must adhere to the principle of non-discrimination and reflect the borrower's consultation with workers, their organizations, and, where relevant, the government. Additionally, the borrower or client must comply with all legal and contractual obligations regarding notification to public authorities, as well as provide information and engage in consultations with workers and their organizations. Finally, the borrower or client must adhere to national laws concerning the provision of severance payments and benefits.</p>			
Grievance Mechanism	<p>The client will provide a grievance mechanism for workers (and their organisations, where they exist) to raise workplace concerns. The client will inform the workers of the grievance mechanism at the time of recruitment and make it easily accessible to them and should not impede access to other judicial or administrative remedies.</p> <p>The AfDB mandates that the borrower or client establishes a permanent workforce grievance mechanism that is accessible to all workers, including those employed by third parties. This mechanism allows workers and their organizations to raise legitimate concerns about their workplace in a transparent manner, without the fear of facing retaliation. Workers should be informed about the existence of this grievance mechanism during the recruitment process. Importantly, this mechanism does not hinder workers' access to other legal or administrative remedies that may be available under the law or through existing arbitration procedures. It also does not replace any grievance mechanisms provided through collective agreements.</p>	<p>Egypt's labour law allows for employment-related complaints to be resolved through optional mediation within 10 days of the complaint arising. The dispute resolution can be mediated by a panel composed of representatives from the authorities, the employer and a member of a syndicate (if applicable). Unresolved complaints can be escalated to the labour court.</p> <p>See section on External Communication Mechanism for information on SGRE's grievance mechanism. SGRE's grievance mechanism is largely aligned with the Applicable Standards.</p> <p>From discussions with SGRE, it is not clear that workers, including third party workers, were informed of the grievance mechanism at the time of recruitment and the measures put in place to protect them against reprisal for its use, and the accessibility of the grievance mechanism.</p>	PC	<p>HR policies, employee handbook and labour management procedures to be developed should include an internal grievance management process; the grievance mechanism should be communicated to all direct workers and contracted workers, including Bedouin security personnel, made easily accessible (through the availability of different channels, such as grievance boxes) and understandable. The mechanism will also allow for any grievances related to the overhead transmission lines.</p> <p>Maintain a grievance register to log all worker (including contractors) grievances. The register should include the following information:</p> <ul style="list-style-type: none"> the name and contact details of the complainant, if appropriate the date and nature of the complaint the name of the technical staff charged with addressing the complaint, if appropriate any follow up actions taken the proposed resolution of the complaint how and when relevant Project decisions were communicated to the complainant whether longer-term management actions have been taken to avoid the recurrence of similar grievances in the future, if applicable.
Child Labour	<p>The client will not employ children in a manner that is economically exploitative or is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development.</p> <p>The AfDB mandates that the borrower or client strictly prohibits the employment of children in any way that is economically exploitative or poses risks to their safety, education, health, or overall development. This requirement aligns with national laws and the provisions stated in the International Labour Organization (ILO) Convention C138 and C182. All work activities undergo a comprehensive risk assessment, and there is regular monitoring of factors such as health, working conditions, and working hours to ensure compliance with these standards.</p>	<p>SGRE prohibits all forms of child labour (including within its supply chain and third party intermediaries). Their Code of Conduct for Suppliers and Third Party Intermediaries prohibits the employment of workers under the age of 15 or, in those countries subject to the developing country exception of the ILO Convention 138, employ no workers under the age of 14.</p>	PC	See corrective action on HR policies and procedures.
Forced Labour	<p>The client will not employ forced labour, which consists of any work or service not voluntarily performed that is exacted from an individual under threat of force or penalty.</p> <p>The AfDB mandates that the borrower or client strictly prohibits the use of forced labour, which refers to any work or service that is obtained from an individual through coercion or threats of punishment. This includes various forms of involuntary or compulsory labour, such as indentured labour, bonded labour, or similar arrangements where individuals are forced to work against their will.</p>	<p>SGRE's Business Conduct Guidelines and Code of Conduct for Suppliers and Third Party Intermediaries prohibits all forms of forced labour (including within its primary suppliers and third party intermediaries).</p>	PC	See corrective action on HR policies and procedures.

ASPECT	SUMMARY OF THE REQUIREMENTS	COMMENTARY/FINDINGS	SCORE	CORRECTIVE ACTION
Occupational Health and Safety	<p>The client will provide a safe and healthy work environment, taking into account inherent risk in its particular sector and specific hazards in the client's work areas.</p> <p>The AfDB mandates that the borrower or client ensures a safe and healthy work environment for workers, considering the specific risks associated with the sector and the hazards present in the work areas. As part of the environmental and social management system, the borrower or client must incorporate a health, safety, and environmental program. This program should include plans and procedures to prevent accidents, injuries, and diseases related to the work being carried out. Measures to identify and minimize potential safety and occupational hazards, such as noise, temperature, radiation, and lighting, should be implemented. The provision of preventive and protective measures, including modifying or eliminating hazardous conditions or substances, is also required. Adequate equipment must be provided to mitigate risks, and workers should be trained and incentivized to comply with health and safety procedures and use protective equipment. Documentation and reporting of occupational accidents, diseases, and incidents are essential. Additionally, the borrower or client must adhere to local and national environmental, health, and safety laws and regulations.</p>	<p>Egypt's Ministerial Decree 211/2003 requires an employer to communicate occupational risks and safeguards in place to protect its workforce. Employers are also required to undertake a risk assessment.</p> <p>During the site visit, various HSE related signage and instructions were observed relating to firefighting, evacuation, occupational safety and personal protective equipment (PPE) requirements. Workers onsite were observed to be wearing appropriate PPE. Workers engaged in maintenance work within turbines were observed to be equipped with fall arrest equipment, safety glasses, hardhats with chin straps, safety gloves, safety shoes, lanyards & tool bag for tools/equipment. SGRE has confirmed that they have placed an order for protective clothing for medium voltage works.</p> <p>IBIS made the following observations during the site visit:</p> <ul style="list-style-type: none"> Lack of an inspection program in place for the 10 ton crane located inside a warehouse housing large components, such as gearboxes, generators, middle voltage switchgear, turbine transformers, and drive trains. Although SGRE have confirmed the crane is not in use, IBIS could not observe any clear signage prohibiting its use. Using the crane without the required inspections in place poses a potential risk of non-compliance with Ministerial Decree 211/2003. <p>Incidents and Lost Time Injuries</p> <p>SGRE reportedly has an incident investigation and reporting procedure in place (this was not shared with IBIS) following the Five Whys approach, which is considered good practice. A sample investigation report was reviewed during the site visit in July 2023. The investigation report includes a description of the incident, why the incident happened, corrective actions, the status of the incident, the classification of the incident (e.g., unsafe act).</p> <p>Based on discussions with site management, the site has had no occupational fatalities, permanent disabling injuries or occupational diseases since COD. SGRE submit their biannual health and safety statistics to the labour office on a biannual basis, as required by Egyptian law.</p> <p>Medical Surveillance</p> <p>In terms of Egyptian law, Project workers are required to undergo pre-employment medical checkups and medical surveillance. SGRE requires that all employees on site must have a valid medical examination before being engaged to perform any of the following tasks:</p> <ul style="list-style-type: none"> Working at height; Working in confined space; Tool handling; Overstrain; Hot works; Driving; Exposure to noise; Forced postures; Exposure to chemicals; and Working with heavy machines or cranes. <p>No information on pre-employment and periodic medical check ups for bird surveyors have been provided given they are contracted through The Regional Center for Renewable Energy and Energy Efficiency (RCREEE).</p> <p>Occupational Hygiene</p> <p>Egypt's Ministerial Decree 211/2003 and Law 4/1994 prescribe limits for noise, heat stress, light intensity and humidity in the workplace. SGRE have not performed any occupational hygiene sampling to ensure compliance with Egyptian limits. This is considered a breach of conditions prescribed in the environmental approvals and may render the environmental approvals invalid if not corrected.</p> <p>Electrical Safety</p> <p>IBIS did not have an opportunity to observe electrical safety measures in place within turbines. According to the health and safety basic rules, electrical work is only to be performed by a trained and nominated, electrically qualified person. SGRE reportedly have a "PRO-52254_Ap7 Energy Isolation Guideline" but which has not been shared with IBIS. SGRE requires their contractors to implement a Lock out/Tag Out program for electrical works. This has been confirmed to be implemented onsite. This is in alignment with Egyptian regulations on electrical safety.</p> <p>Fire and Emergency Response</p> <p>Egypt's Ministerial Decree 211/2003 requires all facilities to take all necessary precautions to prevent and control fire hazards in accordance to the guidelines established by the decree. These include the use of firefighting equipment that meets the standard Egyptian specifications and Law 58/1973 on the manufacturing of firefighting equipment; installing automated alarm and firefighting systems when possible; connecting firefighting equipment to an alternate electricity source in cases of power outage; providing suitable emergency exits and entrances (at least two emergency exits); recruiting qualified firefighting personnel; maintaining firefighting equipment and alarm systems on a regular basis; and supplying adequate water flow to the fire hydrants and hoses and constructing reserve water tanks where applicable. Based on observations made by IBIS during the site visit, the main buildings (housing the consumable warehouses, spare part warehouses, offices, transformers) are equipped with the following (noting that no specific details have been provided to IBIS):</p> <ul style="list-style-type: none"> Fire alarm across the site; Smoke detectors in the spare part warehouses; Water sprinklers in the spare part warehouses; Foam suppression system in the consumable warehouses; Powder suppression system in the transformer room; Handheld powder fire extinguishers in multiple locations; Water hydrant across the site; Two underground firefighting water tanks; and First aid kits. <p>According to SGRE, the site has a backup generator, but details of which are not available to IBIS.</p>	PC	<p>Implement a crane inspection program to ensure the crane is in good and safe working condition.</p> <p>Provide occupational health and safety statistics for the Project for the past three years, including near misses, unsafe acts, unsafe conditions, etc.</p> <p>Ensure bird surveyors have pre-employment medical checkups performed prior to joining.</p> <p>Perform occupational hygiene sampling at least once a year to include measurements for heat stress, light intensity, humidity and noise within a randomly selected hub from each subproject. Assess measurements against Egypt's Law 4/1994.</p> <p>Purchase a rescue kit for each subproject to be used as a dummy kit for rescue drills only.</p> <p>Ensure there is at least one trained paramedic, one automated external defibrillator and sufficient snake and scorpion anti-venin with proper storage conditions available at each subproject.</p> <p>Wind health and safety expert to assess the Project's occupational health and safety management and safety controls in place, and emergency response competency of SGRE's relevant personnel.</p>

ASPECT	SUMMARY OF THE REQUIREMENTS	COMMENTARY/FINDINGS	SCORE	CORRECTIVE ACTION
		<p>Only the handheld fire extinguishers remain in service, with all of the remaining firefighting equipment being out of service since their installation in 2014. IBIS confirmed this by inspecting multiple gauges showing zero pressure. No information has been provided to IBIS as to why the remaining firefighting system onsite has not been maintained. IBIS also noted that some of the warehouses visited did not have at least two emergency exits.</p> <p>Although the infrastructure present is in alignment with Egyptian regulations, its current status renders the Project at risk of non-compliance with Egypt's Ministerial Decree 211/2003 and exposes the site to personnel injury or death and material asset damage in the event of a major fire. NREA have indicated that they are currently receiving offers from vendors to repair and upgrade the firefighting system but no details have been provided on what this entails exactly or costs associated. SGRE have confirmed that there have been no fire incidents at the warehouses since COD.</p> <p>According to information reviewed and discussions with site personnel, every turbine is equipped with 2 x 6 kg fire extinguishers; one on the ground floor and a second in the nacelle. Every turbine is equipped with restricted access gates, inspected and certified emergency descenders, emergency rescue equipment, an elevator, a fall arrest system and a life line.</p> <p>According to information provided to IBIS, the Project reported one fire incident in 2020 (burning turbine) and three fire incidents in 2021 (2 x burning turbine and 1 x transformer station). No incident investigation reports, including root causes, weaknesses, strengths and areas of improvement re emergency response, have been provided. Without this information, IBIS cannot assess the adequacy of the emergency response and corrective action measures.</p> <p>SGRE maintain a turbine rescue kit within each turbine. Every subproject has a stretcher and neck support equipment. Based on discussions with SGRE's HSE manager, rescue drills are not performed to avoid recertifying rescue kits by a third party. This could potentially impact the efficiency of rescue efforts in the event of a real emergency.</p> <p>All personnel have received firefighting training with training certificates maintained onsite. The Project relies on the ambulance available at the emergency check point located approximately 500 m south east of the main buildings. The Project does not have an automated external defibrillator and it is not clear from discussions with site personnel if there is at least one paramedic present for each subproject. Without a properly trained paramedic and defibrillator, injured personnel would not be adequately stabilized until the arrival of an ambulance. Although the site has posted instructions on how to deal with snake or scorpion bites, IBIS notes the lack of anti-venin.</p> <p>Site offices are equipped with smoke detectors and fire extinguishers. SGRE have confirmed and showed evidence of fire extinguishers being inspected by Bavaria. This is compliant with Egyptian regulations.</p> <p>See section on accommodation for firefighting arrangements at the accommodation buildings.</p>		
Workers Engaged by Third Parties	<p>With respect to contracted workers the client will take commercially reasonable efforts to ascertain that the third parties who engage these workers are reputable and legitimate enterprises and have appropriate management systems to operate in a manner consistent with the requirements of this Performance Standard (except for paragraphs 18 to 19 and 27 to 29).</p> <p>The AfDB requires the borrower or client to ensure that third-party contractors, subcontractors, or intermediaries who employ workers directly for or in support of the project are reputable and legitimate entities. These contractors must have appropriate management systems in place to comply with the requirements outlined in the operating standards. The borrower or client establishes policies and procedures to effectively manage these contractors, subcontractors, and intermediaries, and monitors their performance to ensure compliance with the operating standards. Furthermore, the borrower or client includes these requirements in contractual agreements with the contractors, subcontractors, and intermediaries.</p>	<p>SGRE has the following main contractors engaged on the Project:</p> <ul style="list-style-type: none"> • Elmasrya for Maintenance Service: Switch gear and cable maintenance • Altertec-Petrotec(APTEC): O&M contractor • Petrotec Engineering: Waste management and security services (Bedouin security is contracted via Petrotec) • Al Nisr: Air conditioning and civil work maintenance • El Masrya Equipment: Crane service • EgyWind: Warehouse management <p>According to information reviewed, SGRE have confirmed that all contractors are reputable and legitimate enterprises that have had to go through SGRE's vigorous vendor onboarding process. SGRE have a manual for general HSE requirements for contractors (which reportedly forms part of contractual agreements) and a code of conduct for suppliers and third party intermediaries. The code of conduct requires suppliers and third party intermediaries to:</p> <ul style="list-style-type: none"> • "Comply with host country laws and regulations • Respect the protection of internationally proclaimed human rights and avoid complicity with human rights abuses. • Refuse to tolerate any unacceptable treatment of individuals such as mental cruelty, sexual harassment or discrimination including gestures, language and physical contact, that is sexual, coercive, threatening, abusive or exploitative. • Promote equal opportunities and treatment of employees, irrespective of skin colour, race, nationality, ethnicity, political affiliation, social background, disabilities, sexual orientation, marital status, religious conviction, gender or age. • Avoid all forms of forced and compulsory labour and refuse to employ or make anyone work against their will. • Employ no workers under the age of 15 or, in those countries subject to the developing country exception of the ILO Convention 138, employ no workers under the age of 14. • Comply with the maximum number of working hours outlined in the applicable laws. • Provide fair remuneration and guarantee the applicable national statutory minimum wage. • Recognize, as far as legally possible, the right of free association and collective bargaining. Neither favor nor discriminate against members of employee organizations or trade unions." <p>IBIS has not been provided with sample E&S clauses in contractor agreements. Notes that the contractor supplying the site with sanitary water has not been formally initiated as a vendor for SGRE. IBIS was not provided with contractor selection criteria and completed assessments to verify that SGRE's code of conduct has been fully implemented, including monitoring of contractor performance. Without sufficient contractor monitoring, such as water and waste contractors, SGRE exposes itself, and the Project, to reputational risk.</p> <p>SGRE's grievance mechanism is reportedly accessible to all Project workers. As previously discussed, this could not be easily demonstrated during the site visit as randomly interviewed contractor workers and Bedouin security guards were not aware of the grievance mechanism.</p>	PC	Provide screening and selection criteria for contractors and suppliers, including completed assessments of current contractors. Ensure due diligence assessment of water contractor, waste disposal/treatment facilities and wastewater disposal facility are completed to ensure compliance with Egyptian laws and regulations.
Supply Chain	<p>Where there is a high risk of child labour or forced labour in the primary supply chain, the client will identify the risks consistent with paragraphs 21 and 22 above.</p> <p>The AfDB mandates that the borrower or client takes into account the potential adverse impacts associated with supply chains when there is a high</p>	<p>See notes above on SGRE's commitment to prohibition of all forms of forced labour and child labour which is applicable to its suppliers and third party intermediaries. SGRE have confirmed there are no forms of child or forced labour onsite. IBIS observed one individual suspected of being less than 18 years old at one of the security posts. The child was not engaged in any hazardous work. No children were observed onsite during the second site visit.</p>	PC	See corrective action on HR policies and procedures.

ASPECT	SUMMARY OF THE REQUIREMENTS	COMMENTARY/FINDINGS	SCORE	CORRECTIVE ACTION
	risk of child labour, forced labour, or significant occupational, health, or safety issues. Within the primary supply chains, the borrower or client identifies these risks and takes appropriate actions to address them, in line with the requirements of the operating standards. In cases where there is a high risk of these issues, the borrower or client engages in continuous monitoring of the primary supply chain. They establish procedures and implement mitigation measures to ensure that primary suppliers are actively working to prevent or rectify any imminent danger, potential fatalities, or serious harm to workers. If the borrower or client lacks sufficient management control or influence to enforce these remedies, they gradually transition the project's primary supply chain to suppliers who can demonstrate compliance with these requirements over time.			

5.3 RESOURCE EFFICIENCY AND POLLUTION PREVENTION: IFC PS 3/EBRD PR 3/AFDB OS 4

ASPECT	SUMMARY OF THE REQUIREMENTS	COMMENTARY/FINDINGS	SCORE	CORRECTIVE ACTIONS
Resource Efficiency and Pollution Prevention				
General Requirements	<p>During the project life-cycle, the client will consider ambient conditions and apply resource efficiency and pollution prevention principles and techniques that are best suited to avoid, and if not possible, reduce adverse impacts on human health and the environment. The client will refer to the most recent version of the WBG EHS Guidelines when evaluating and selecting resource efficiency and pollution prevention and control techniques for the project.</p> <p>As per AfDB requirements, the borrower or client must implement pollution prevention and control measures in line with national laws, international conventions, and recognized standards like the EHS Guidelines. If national regulations are less stringent than the EHS Guidelines, the borrower or client should strive to meet the stricter requirements. However, they can propose less stringent measures if justified through a thorough environmental and social assessment. The borrower or client should incorporate resource-efficiency and pollution-prevention principles into their project policy, considering cleaner production practices throughout the project's lifecycle. They should assess and implement feasible resource-efficiency and pollution-prevention techniques, taking into account technical and financial feasibility. Furthermore, the borrower or client must have dedicated environmental health and safety staff and develop a training action plan to ensure proper management of these obligations.</p>	<p>Given the nature of the Project (onshore wind farm), there are no significant resource demands. SGRE, as a group, has adopted a goal of reaching net-zero emissions by 2040. To achieve this, SGRE is introducing a number of measures, such as energy reduction efficiency measures and obtaining their supply of electricity from renewable sources. IBIS noted that site offices operated by SGRE were being supplied energy from the wind farm, which is aligned with meeting SGRE's goals. No information on energy reduction and efficiency was provided to IBIS. Based on discussions with SGRE and NREA, turbine design features, such as rotor diameter and tower height, have been adopted to allow for greater generating capacity and efficiency.</p> <p>With respect to pollution prevention, the key issues that are anticipated to need to be addressed include waste and wastewater generation resulting from the accommodation buildings and site offices. More details on waste and wastewater management are presented in the following subsections.</p>	PC	Please refer to the sections below.
Resource Efficiency	<p>The client will implement technically feasible and financially feasible and cost-effective measures for improving efficiency in its consumption of energy, water, as well as other resources and material inputs, with a focus on areas that are considered core business activities. Such measures will integrate the principles of cleaner production into product design and production processes with the objective of conserving raw materials, energy and water. Where benchmarking data are available, the client will make a comparison to establish the relative level of efficiency.</p> <p>The AfDB mandates that borrowers or clients assess and, if deemed suitable, adopt financially viable and efficient measures to enhance resource efficiency in the project. This includes measures to reduce consumption of resources such as energy, water, raw materials, and other resources in a cost-effective manner.</p>	Given the nature of the Project, it is not considered to be a significant user of fuel or other raw materials.	FC	No further action expected.
Greenhouse Gases (GHG)	<p>The client will consider alternatives and implement technically feasible and cost-effective options to reduce project related GHG emissions during the design and operation of the project. Where projects are expected to emit more than 25,000 tonnes of CO₂ equivalent annually the client will quantify direct emissions from the facilities owned or controlled within the physical project boundary.</p> <p>The AfDB will develop and implement a tracking tool to monitor greenhouse gas (GHG) emissions in accordance with the UNFCCC provisions. The tool will estimate GHG emissions produced by the Bank's investments on a project-by-project basis, and these emissions, both gross and net, will be reported in project documentation. The Bank will also report on the reductions in emissions achieved through its investments. The reporting will adhere to the principles of full disclosure of information and graduated reporting, initially focusing on Category 1 operations and gradually expanding the reporting based on the findings of the GHG tracking tool pilot.</p>	The subprojects individually or collectively are not considered to trigger the threshold 25,000 TPA of CO ₂ -equivalent threshold. As a company, SGRE reportedly achieved carbon neutrality in 2019, a milestone they accomplished five years ahead of schedule. To track their progress, the company annually releases its Greenhouse Gas Emissions report, which undergoes external verification in accordance with the specifications outlined in ISO 14064-1:2018. According to their webpage, SGRE has installed over 107 GW of wind power globally, resulting in a reduction of 300 million tons of CO ₂ emissions per year. No Project-specific CO ₂ emission reduction has been provided to IBIS.	FC	No further action expected.
Water Consumption	<p>When the project is a potentially significant consumer of water, in addition to applying the resource efficiency requirements of this Performance Standard, the client shall adopt measures that avoid or reduce water usage so that the project's water consumption does not have significant adverse impacts upon others.</p> <p>The AfDB mandates the establishment of a framework that promotes the efficient utilization of all raw materials and natural resources, with a particular emphasis on energy and water, throughout the project.</p>	<p>The main buildings and accommodation onsite are supplied with sanitary water from the municipal water network via a water pumping station located approximately 500 m southeast of the main operation building. SGRE reportedly source their water from a contractor who trucks sanitary water from the Ras Ghareb drinking water station. All potable water onsite is mineral bottled water.</p> <p>NREA estimates that the site (including the accommodation buildings, operation buildings and the three subproject site offices operated by SGRE, etc.) consumes approximately 4 to 5 m³/day of sanitary water during normal operation, except during</p>	FC	No further action expected.

ASPECT	SUMMARY OF THE REQUIREMENTS	COMMENTARY/FINDINGS	SCORE	CORRECTIVE ACTIONS
Pollution Prevention	<p>The client will avoid the release of pollutants or, when avoidance is not feasible, minimise or control the intensity or load of their release. This applies to the release of pollutants to air, water and land due to routine, non-routine or accidental circumstances with the potential for local, regional, and trans-boundary impacts.</p> <p>The AfDB requires the borrower or client to prioritize the avoidance of pollutants, and if avoidance is not feasible, to implement controls and measures to reduce the generation of pollutants at the source. They must prevent the release of pollutants into the air, surface water, groundwater, land, and soil during planned activities and unforeseen events that could have local, regional, and transboundary impacts. If complete prevention is not possible, specific actions should be taken to minimize the volume or effluents of the discharges. During project preparation, the borrower or client must conduct an environmental and social assessment to evaluate the potential impacts of pollutant discharges on the environment and assess factors such as environmental carrying capacity, land use, surrounding communities, potential impacts on sensitive areas and populations, proximity to water sources, water body use, and potential cumulative effects.</p>	<p>the bird migratory season (approximately six months per year) when the water consumption increases by an additional 8 m³/day due to an increased number of personnel staying onsite for the bird surveys. Water consumption records are maintained by NREA and SGRE but these have not been shared with IBIS. Given the nature of the Project, and estimated water consumption quantities, the Project is not considered to be a significant user of water.</p> <p>Given the nature of the Project (onshore wind farm), there are no significant pollution risks.</p> <p>Egypt's environmental law does not prescribe specific noise limits for wind energy projects. IFC's EHS guidelines for wind energy state that "preliminary noise modelling should focus on sensitive receptors within 2,000 m of any of the turbines in a wind energy facility." The ESIA completed for the 200 km² wind concession, including the subprojects, performed noise modelling using the ISO 9613-2 noise calculation standard for a typical 2 MW configuration with the Vestas V80, 67 m hub height and the highest noise emission level at full load being 105 dB(A). The result of the noise modelling showed that ambient noise levels were 50.8 dB at distances of 250 m around the wind turbines. The ESIA assessed the impact of noise (using modelling) to be insignificant. IBIS notes that ESIA did not assess the impact of noise on the other sensitive receptors, such as the accommodation buildings onsite located approximately 1 km away from the nearest turbine, or the pumping water station and emergency checkpoint located approximately 500 m away from the nearest turbine. Noise impacts from the Project on these receptors is likely to be negligible given the anticipated ambient noise levels resulting from highway traffic and the operation of noise emitting pumping equipment. According to NREA and SGRE, no noise measurements have been performed since COD within the residential building and/or emergency checkpoint. Randomly interviewed NREA staff have confirmed that there are no noise impacts. IBIS did not witness aerodynamic noise while onsite.</p> <p>Egyptian regulations do not include measures for managing shadow flickering. According to Egypt's EIA guidelines for wind projects, it is recommended that shadow flicker at neighbouring offices and dwellings within 500m should not exceed 30 hours per year or 30 minutes per day. Noting that the nearest accommodation building is approximately 800 m away, the impact of shadow flickering is insignificant. This has also been confirmed by the randomly interviewed NREA staff residing at the accommodation onsite. IBIS did not observe shadow flickering during the site visit. No further assessment for shadow flickering is needed.</p> <p>Egyptian regulations do not include measures for blade throw. IBIS notes that the setback distance between the nearest turbine and any buildings is more than 1.5x turban height, as is required by IFC's EHS guidelines for wind energy.</p> <p>Accordingly, under Egyptian law, the landowner could be liable for any clean-up of contamination caused by the unlicensed disposal of hazardous substances and waste by previous occupants, unless an indemnification has been entered into according to the general rules of the Civil Code. Although NREA has confirmed that they are unaware of any pollution caused by the current Project activities, oil exploration and production activities in GPC held concessions, and/or pre-existing infrastructure within the Project area, there is currently no information to demonstrate this.</p>	PC	<p>Retain a third-party consultant to perform a phased environmental site assessment according to American Society for Testing Materials (ASTM) standards to identify known and potential soil and groundwater contamination related risks from abandoned oil wells within the concession (if present), pre-existing infrastructure, improper hazardous waste and sanitary wastewater storage activities. Actis to obtain written confirmation by NREA that any soil and groundwater contamination identified as part of the site assessment and associated remediation will be the sole responsibility of NREA.</p>
Waste Management	<p>The client will avoid or reduce generation of hazardous and non-hazardous waste materials. Where waste generation cannot be avoided, the client will reduce the generation of waste, and recover and reuse waste in a manner that is safe for human health and the environment.</p> <p>The AfDB requires the borrower or client to implement measures to control and reduce the generation of hazardous and non-hazardous waste, following international conventions. If waste cannot be avoided, the borrower or client must adopt treatment measures and environmentally sound disposal practices. In the early stages of the project, they should identify potential hazardous waste throughout the project's lifecycle and explore cost-effective alternatives for environmentally sound disposal. If significant production or generation of hazardous materials or waste is inevitable, the borrower or client, in consultation with affected workers and communities, develops a management plan that includes transportation, handling, storage, recycling, and disposal practices. Opportunities for waste recycling and material reuse should be considered, and a plan for recycling and reutilization should be prepared. If third parties are involved in hazardous waste management, their legitimacy and legality must be evaluated, and chain-of-custody documentation should be obtained. Compliance with the rules of the Basel Convention is the responsibility of the borrower or client.</p>	<p>Non-hazardous and Hazardous Waste</p> <p>Egypt's Law 4/1994 on the protection of the environment mandates that the owner of an establishment whose activities produce hazardous to keep a register of such waste indicating the method of disposing thereof, and the agencies contracted with to receive the hazardous waste. Law 4/1994 prescribes the following measures for hazardous waste management:</p> <ul style="list-style-type: none"> • Specific locations for storing hazardous waste should be clearly marked with warning signs and equipped with safety measures to prevent any harm to the public or those who may come into contact with it. • Hazardous waste should be stored in specialized containers made of impermeable material, free from leaks, and fitted with a tight-fitting lid. The container's capacity should match the quantity of hazardous waste or adhere to storage guidelines based on its type. • Clear labels must be placed on containers used for storing hazardous waste to inform individuals about their contents and the dangers associated with mishandling them. • A schedule for the collection of hazardous waste should be established to ensure it is not left in storage containers for extended periods of time. <p>Law 4/1994 prohibits the open burning of any type of waste. Law 4/1994 also specifies that the owner of, or person in charge of managing, an establishment from which hazardous waste is produced, shall be responsible for decontamination of a site in the event of the facility being relocated or closed. Accordingly, under Egyptian law, the landowner could be liable for any clean-up of contamination caused by the unlicensed disposal of hazardous substances and waste by previous occupants, unless an indemnification has been entered into according to the general rules of the Civil Code.</p> <p>Hazardous waste transporters are required to hold an environmental approval from the EEAA permitting them to transport hazardous waste to licensed facilities within defined governorates. Egypt's Law 202/2020 mandates that hazardous waste transport be accompanied with transfer manifest and all entities involved in municipal waste management hold a valid license.</p> <p>SGRE's Health, Safety and Environment Plan – Overall Framework, states that a waste management plan should be developed for each site where waste is generated. According to SGRE's basic health and safety rules, all waste must be segregated and collected in labelled bins with appropriate secondary containment. Waste must be separated into combustible, household garbage, hazardous and special (e.g., batteries, chemicals, etc.). Waste must only be disposed of via licensed contractors and in accordance with host country regulations.</p> <p>IBIS notes that the ESIA for the 200 km² wind concession recommends that waste is burned and buried in sand. This is not in compliance with Egyptian law and SGRE has confirmed that this practice is not permitted within their operations. On the other</p>	PC	<p>Establish a permanent hazardous waste storage area for each subproject with the following features as a minimum:</p> <ul style="list-style-type: none"> • Restricted access with sufficient shading and ventilation • Impermeable flooring • Segregation and labelling • Secondary containment for liquid hazardous waste • Emergency response equipment, such as spill kits and fire extinguishers <p>Update Project-specific Waste Management Plan building on the cradle to grave approach to address:</p> <ul style="list-style-type: none"> • A hierarchy approach of prevention, reduction, reuse, recovery, recycling, removal and disposal of waste; • Identification of expected waste generation, pollution prevention opportunities and necessary treatment, storage and disposal infrastructure required; • Monitoring requirements, including random inspections, to ensure waste is being disposed of at licensed facilities; and • The use of reputable and legitimate waste collectors, and record keeping (e.g., chain of custody documentation to the final destination). <p>Develop a Project-specific Wastewater Management Plan and install sealed holding tanks at the main building, accommodation buildings (if within the concession) and each of the subproject site offices. Holding tanks to be constructed of material that is durable, corrosion resistant,</p>

ASPECT	SUMMARY OF THE REQUIREMENTS	COMMENTARY/FINDINGS	SCORE	CORRECTIVE ACTIONS
		<p>hand, NREA have stated that municipal waste generated from accommodation may sometimes be burned and buried in sand. This practice would not fall within Actis' concession.</p> <p>IBIS has sighted a Project-specific waste management plan. The plan includes brief measures on waste storage onsite and references roles and responsibilities, the waste hierarchy approach without providing details on how it is implemented in practice. The plan is missing some key Egyptian legislation (i.e., Law 202/2020 and its executive regulations), detailed information on waste generation, detailed measures on collecting, storing, transporting and disposing of different types of waste, key performance indicators and more detailed information on monitoring measures.</p> <p>Non-hazardous waste generated onsite includes paper, plastic, glass, organic and other typical municipal waste. SGRE has distributed colour coded bins at their site offices for each subproject. According to SGRE, non-hazardous waste is transported to a licensed landfill in Ras Ghareb using a licensed contractor. No documentation supporting this claim was shared with IBIS.</p> <p>Hazardous waste generated at the site of each subproject includes spent oil (from gearboxes), oil filters, empty oil and grease plastic jerry cans and pails and contaminated cloths and rugs. IBIS observed evidence of improper storage of hazardous waste at each subproject (e.g., solid hazardous waste stored within steel barriers on bare soil or spent oil in tank without secondary containment) where different types of hazardous waste were stored without proper signage, restricted access, emergency response equipment. Evidence of soil contamination (approximately 1 m x 1 m) was observed at all subprojects. This is non-compliant with Egyptian law. SGRE provided a copy of the hazardous waste contractor's EEAA approval and samples of hazardous waste transfer manifests, showing compliance with Egyptian law. According to SGRE, hazardous waste is transported to licensed hazardous waste landfills and/or treatment facilities, including Green and UNICO. SGRE has not performed random audits to verify the proper disposal of hazardous and non-hazardous waste.</p> <p>Sanitary Wastewater</p> <p>Egypt's Law 93/1962 prohibits the discharge of wastewater into the ground. Each subproject site has a dedicated soakaway for the receipt of sanitary wastewater discharged from site offices. As previously noted, the ESIA for the JICA 220 MW WPP included measures for the collection of sanitary wastewater in septic tanks. Based on observations made during the site visit, the soakaways appear to be constructed of red bricks and are without any impermeable surfaces on their sides and bottom, therefore allowing wastewater to percolate directly into the soil. According to SGRE, these soakaways have not been previously emptied. The main building and accommodation buildings are also connected to a soakaway which allows wastewater to discharge directly into the soil. This is considered a non-compliance with Egyptian law on environmental protection, groundwater protection and wastewater discharge. Groundwater is reported to be 100 m below ground level, and although the risk of groundwater contamination from wastewater discharge is low, it cannot be fully ruled out.</p>		and capable of withstanding the pressure and weight of the wastewater and soil. Holding tanks to be installed within a concrete bunding. Holding tanks to be clearly labelled and fitted with appropriate ventilation to avoid the buildup of gases. Contract legal entity to collect, transport and dispose of wastewater at a licensed facility with a frequency that will not impact the treatment capacity of the wastewater treatment facility. SGRE to perform random inspections of wastewater contractor to ensure disposal at licensed facility.
Hazardous Materials Management	<p>The client will avoid or, when avoidance is not possible, minimise and control the release of hazardous materials. The production, transportation, handling, storage and use for project activities should be assessed.</p> <p>The AfDB mandates that during the initial stages of a project, the borrower or client must identify any hazardous materials that will be utilized or produced throughout the project's lifespan. They are expected to explore alternatives that involve the use or generation of less hazardous materials. Moreover, the borrower or client is prohibited from engaging in the manufacturing, trading, donation, or use of chemicals that are banned or undergoing phase-out according to international treaties. This includes substances such as ozone-depleting substances and persistent organic pollutants.</p>	<p>Egypt's Ministerial Decree 211/2003 on occupational safety requires employers to ensure that chemicals are stored in designated locations with sufficient labelling, safety signage and material safety information. The decree also requires employers to provide PPE and emergency response equipment.</p> <p>Hazardous materials used for the Project O&M activities include lubricants, oil and grease. The exact quantities of chemicals have not been provided to IBIS. Based on observations, the Project stores chemicals in four consumable warehouses at the main building and includes temporary storage locations at the office sites of each subproject. The consumable warehouses are constructed of concrete with hardstanding flooring and passive ventilation systems. The consumable warehouse visited by IBIS was equipped with a racking system and fire extinguishers. The spill kit at the warehouse visited was observed to be missing equipment such as an eye wash station, absorbent material and chemical resistant gloves. IBIS did not sight a hazardous materials management plan.</p>	PC	SGRE to develop a Project-specific Hazardous Materials Management Plan and ensure consumable warehouses have sufficient emergency response equipment in place (e.g., eye wash station, spill kits, etc.).
Pesticide Use and Management	<p>When pest management activities include the use of chemical pesticides, the client will select chemical pesticides that are low in human toxicity, that are known to be effective against the target species and that have minimal effects on non-target species and the environment. The client will not purchase, use, manufacture, or trade in products that fall in World Health Organization Recommended Classification of Pesticides by Hazard Class Ia, Ib or Class II, if the project host country lacks restriction on proper training, equipment and facilities.</p> <p>The AfDB requires borrowers or clients to implement integrated pest management programs for projects involving pesticides, utilizing cultural, biological, and chemical control methods as a last resort. If pesticides are used, only low-toxicity options that pose no threat to human health or the environment should be chosen, and proper management and disposal practices must be followed. The use, manufacture, or trade of banned chemicals, including ozone-depleting substances and persistent organic pollutants, is prohibited. Pesticides classified as extremely hazardous, highly hazardous, or moderately hazardous should not be used.</p>	Not applicable.	-	Not applicable.

5.4 COMMUNITY HEALTH, SAFETY, AND SECURITY: IFC PS1 SEC.20-21 & IFC PS 4/EBRD PR 4/AFDB OS 1

ASPECT	SUMMARY OF THE REQUIREMENTS	COMMENTARY/FINDINGS	SCORE	CORRECTIVE ACTION
Community Health, Safety, and Security				

ASPECT	SUMMARY OF THE REQUIREMENTS	COMMENTARY/FINDINGS	SCORE	CORRECTIVE ACTION
General Requirements	<p>The client will evaluate the risks and impacts to the health and safety of the Affected Communities during the project life cycle and will establish preventive and control measures consistent with GIIIP as described in the WBG EHS Guidelines to address them in a manner commensurate with the identified risks and impacts.</p> <p>The AfDB requires a comprehensive assessment of potential environmental and social impacts during project planning. This assessment involves identifying vulnerable groups based on their likelihood of facing more challenging conditions due to the project. Factors such as gender, economic status, ethnicity, religion, and disability are considered in determining vulnerability. The borrower or client must take appropriate measures to prevent and mitigate adverse impacts on these groups, ensuring they are not disproportionately affected. Additionally, the AfDB emphasizes the importance of gender mainstreaming and conducting gender assessments for every project. The bank evaluates the quality and relevance of gender data, specific measures for promoting gender equality, and allocated budget resources.</p>	<p>The Project's O&M is not anticipated to have an impact on any communities given its distance from the nearest residential area and the nature of operations.</p>	FC	No further action expected at this time.
Infrastructure and Equipment Design and Safety	<p>The client will design, construct, operate, and decommission the structural elements or components of the project in accordance with GIIIP to avoid injuries to persons. When new buildings and structures will be accessed by members of the public, the client will give particular consideration to potential exposure to natural hazards.</p> <p>The AfDB mandates that if certain groups are recognized as vulnerable, the borrower or client must implement suitable measures to ensure that any unavoidable negative impacts do not disproportionately affect these groups. It is crucial to prevent these vulnerable groups from being disadvantaged when it comes to accessing and benefiting from development opportunities and resources such as roads, schools, and healthcare facilities.</p>	<p>The Project has been designed to ensure turbines are constructed safely. Every turbine is equipped with restricted access gates, inspected and certified emergency descenders, emergency rescue equipment, an elevator, a fall arrest system and a life line. Members of the public are not permitted to enter the site and the site is not located in an area which is involves the frequent by members of the public.</p>	FC	No further action expected at this time.
Hazardous Materials Management and Safety	<p>The client will avoid or minimise the potential for community exposure to hazardous materials that may be released by the project. Where there is a potential for the community (including workers and their families) to be exposed to hazards, particularly those that may be life-threatening, the client will exercise special care to avoid or minimise their exposure by modifying, substituting or eliminating the condition or substance causing the hazards.</p>	<p>According to the ESIA of the JICA 220 MW WPP, it is very unlikely that a storm water event occurs that can flood the site area. No flood risk assessments for any of the subprojects has been provide for review. According to site personnel, the risk of floods is very low.</p> <p>Based on the information available, it is not expected that there will be any hazardous materials that will be used in the operation of the Project that would likely pose a significant risk to community health and safety through release. The only risk to communities exists in the event of an accident during transport of chemicals to site. No information on the source, quantities and frequency of chemical deliveries was provided to IBIS. SGRE has confirmed that no accidents resulting in chemical release have occurred since COD.</p>	PC	Ensure the Project-specific Hazardous Materials Management Plan includes measures for the safe transport of chemicals to site.
Ecosystem Services	<p>The project's direct impacts on priority ecosystems services may result in adverse health and safety risks and impacts to Affected Communities. The client will identify those risks and potential impacts on priority ecosystems that may be exacerbated by climate change. Adverse impacts should be avoided, and if those impacts are unavoidable, the client will implement mitigation measures in accordance with paragraphs 24 and 25 of Performance Standard 6.</p>	Not applicable to the Project.	-	Not applicable.
Community Exposure to Disease	<p>The client will avoid or minimise the potential for community exposure to water-borne, water-related and vector-borne diseases, and other communicable diseases that could result from project activities.</p>	Given the nature of the Projects, this is likely to pose no / low risk.	FC	No further action expected at this time.
Emergency Preparedness and Response	<p>In addition to the emergency preparedness and response requirements described in IFC PS1/EBRD PR1, the client will also assist and collaborate with Affected Communities, local government agencies and other relevant parties in their preparation to respond effectively to emergency situations, especially when their participation and collaboration are necessary to respond to such emergency situations. The client will document its emergency preparedness and response activities, resources and responsibilities.</p> <p>The AfDB requires the borrower or client to develop and implement comprehensive emergency preparedness and response plans. These plans should be designed to effectively address and mitigate accidental or emergency situations that could potentially endanger local communities. Additionally, the borrower or client is expected to provide relevant information to the affected communities regarding emergency preparedness, response activities, available resources, and assigned responsibilities.</p>	<p>Site-specific emergency preparedness and response plans have not been shared with IBIS. It is not anticipated that the Project will pose a significant community risk to the extent that the developer would have to develop emergency procedures beyond the requirements of Applicable Standards or that cannot be serviced by the local emergency services.</p>	FC	No further action expected at this time.
Security Arrangements	<p>When the client retains direct or contracted workers to provide security to safeguard its personnel and property, it will assess risks posed by its security arrangements to those within and outside the project site. In making such arrangements, the client will be guided by the principles of proportionality, good international practices in terms of hiring, rules of conduct, training, equipping and monitoring of such personnel, and by applicable national and international laws.</p>	<p>There are different layers of security in the Project area, including the Egyptian armed forces and Bedouins whom provide security in the wider area. It will be difficult to replace these two security arrangements from the Project area. The Egyptian armed forces' presence is a matter of national security. The Bedouin groups, including the Tabbna and Hamadin families, often assert their rights to the land based on their extensive knowledge of the area and their claimed ancestral ties to the land. Other WPP developers in the area often engage Bedouin groups as part of their projects, employing them to provide support, security, and protection in exchange for agreed financial compensation. In the case of the current Project, Bedouin security personnel are contracted through Petrotec, a SGRE subcontractor. Each subproject is guarded by a different tribe. According to SGRE, the number of Bedouin security personnel per subproject is as follows:</p> <p>KfW 240 MW: three personnel JICA 220 MW: four personnel FIEM 120 MW: two personnel</p> <p>There are no other private security providers onsite. According to SGRE, only the KfW subproject is equipped with two CCTV cameras. It is not known why CCTV is installed at the KfW site only. According to SGRE, Bedoins from the JICA subproject had</p>	PC	The Project should undertake a security risk assessment and develop Project-specific Security Management Plan in line with Applicable Standards

ASPECT	SUMMARY OF THE REQUIREMENTS	COMMENTARY/FINDINGS	SCORE	CORRECTIVE ACTION
		<p>stolen tools worth EGP 80,000 in 2022. SGRE subtracted this money from the subcontractor's security fees, who in turn deducted it from the Bedoins. Future theft from the Project cannot be ruled out.</p> <p>According to discussions with site personnel, no security training has been delivered to date.</p>		

5.5 LAND ACQUISITION AND INVOLUNTARY RESETTLEMENT: IFC PS 5/EBRD PR 5/AFDB OS 2

ASPECT	SUMMARY OF THE REQUIREMENTS	COMMENTARY/FINDINGS	SCORE	CORRECTIVE ACTION
Land Acquisition and Involuntary Resettlement				
General Requirements	<p>The client will consider feasible alternative project designs to avoid or minimise physical and/or economic displacement, while balancing environmental, social, and financial costs and benefits.</p> <p>The AfDB requires the borrower or client to consider feasible alternative project designs, such as re-siting or re-routing, to minimize or avoid physical or economic displacement. The aim is to balance environmental, social, and financial aspects. If the potential resettlement implications of a project are particularly severe, the borrower should explore options like downsizing or finding alternative projects that can reasonably replace the original plan. To ensure transparency and fairness, the borrower should involve all stakeholder groups early on during project planning, seeking their input to make appropriate adjustments to the project design. This stakeholder engagement should continue throughout project implementation, especially in monitoring and evaluating resettlement and compensation initiatives. Disseminating findings and project information to stakeholders is crucial for developing effective measures to mitigate adverse impacts and maximize benefits. The process of dissemination should be continuous, incorporating feedback from affected communities and incorporating changes in the project's conceptual design. The information should be widely shared in a timely manner and in a format that is accessible and understandable for local communities.</p>	<p>The Project did not entail any land acquisition activities given that the land on which the Project is located has been allocated to Egypt's New and Renewable Energy Authority by presidential decree for the purpose of constructing and operating wind farms. This does not trigger any expropriation activities, according to Egypt's Law 10/1990 on expropriation. No historical physical and/or economic displacement has occurred as a result of the Project according to documentation reviewed, interviews with site personnel and observations made during the site visit.</p> <p>No information on physical and/or economic displacement as a result of the overhead transmission lines under EETC's control has been shared with IBIS.</p>	FC	-
Compensation and Benefits for Displaced Persons	<p>When displacement cannot be avoided, the client will offer displaced communities and individuals' compensation for loss of assets at full replacement costs and other assistance to help them improve or restore their standards of living or livelihoods, as provided in this Performance Standard. Compensation standards will be transparent and applied consistently to all communities affected by the displacement.</p> <p>The AfDB requires a thorough and inclusive approach to resettlement in projects that involve displacement. Compensation is provided at full replacement costs, with a preference for land-based strategies whenever possible. The total project cost considers economic, social, and environmental impacts, and a livelihood improvement program aims to enhance the well-being of the affected population. Attention is given to the needs of different groups, such as women, men, the elderly, and the disabled. Transparent criteria guide site selection and the assessment of property values. Support is offered before, during, and after relocation to help people rebuild their lives. Cultural and psychological aspects are considered, and efforts are made to preserve social structures and community networks. The process promotes conflict avoidance and benefit sharing, and counselling is provided for wise compensation use.</p>	Not applicable	-	Not applicable
Community Engagement	<p>The client will engage with Affected Communities through the process of stakeholder engagement described in Performance Standard 1.</p> <p>The AfDB emphasizes the importance of specific guidelines for consultation, participation, and community support in its projects. These guidelines ensure that local communities are involved in decision-making processes and have opportunities to provide input and challenge resettlement plans. The AfDB requires effective dissemination of information, public hearings, and sufficient time for public review and objections. When displacement is unavoidable, meaningful consultation with all stakeholders, particularly affected individuals and host communities, is necessary throughout the project cycle. Community participation helps align compensation measures and development programs with the needs and priorities of affected people. The AfDB prioritizes incorporating local knowledge into the Resettlement Action Plan and gives special attention to consulting and involving vulnerable groups. Broad community support is seen as a measure of project success, and the AfDB allocates resources to monitor consultation, community participation, and the implementation of commitments to communities.</p>	Not applicable	-	Not applicable
Grievance Mechanism	<p>The client will establish a grievance mechanism consistent with Performance Standard 1 as early as possible in the project development phase.</p> <p>The AfDB requires the borrower or client to work with local committees, including representatives from key stakeholder groups and vulnerable communities, at the early stages of the resettlement process. Their goal is to establish a grievance and redress mechanism that is culturally appropriate, accessible, and impartial. This mechanism aims to resolve disputes arising from the resettlement process and compensation procedures in a timely manner. The grievance redress mechanism is monitored by an independent third party and does not hinder access to judicial or administrative remedies. The AfDB</p>	Not applicable	-	Not applicable

ASPECT	SUMMARY OF THE REQUIREMENTS	COMMENTARY/FINDINGS	SCORE	CORRECTIVE ACTION
	collaborates with the borrower or client to design and establish a legitimate, accessible, predictable, equitable, and transparent mechanism. Local communities are consulted and associated with the decision-making process, and they are informed about the Bank's Independent Review Mechanism (IRM). The AfDB ensures that adequate monitoring and evaluation of the grievance and redress mechanism are incorporated as essential elements.			
Resettlement and Livelihood Restoration Planning and Implementation	<p>Where involuntary resettlement is unavoidable, a census will be carried out to collect appropriate socio-economic baseline data to identify the persons who will be displaced by the project, determine who will be eligible for compensation and assistance. The client will establish procedures to monitor and evaluate the implementation of a Resettlement Action plan or Livelihood Restoration Plan and take corrective action as necessary.</p> <p>The AfDB mandates that the borrower or client conducts a comprehensive socioeconomic survey aligned with international standards to assess the impact of the project on affected communities. This includes a population census and an inventory of assets, considering the natural resources crucial for people's livelihoods. The survey provides information on vulnerable groups, gender and age-disaggregated data, and opportunities to improve community welfare. It ensures that ineligible individuals cannot claim benefits, although special consideration is given to seasonal resource users. The borrower or client must comply with host government procedures or establish an acceptable cut-off date for eligibility. They are required to document and disseminate this information in a culturally appropriate manner before implementing any land clearing or restrictions on community access to land.</p>	Not applicable	-	Not applicable
Displacement	<p>In the case of physical displacement, the client will develop a Resettlement Action Plan that covers, at a minimum, the applicable requirements of this Performance Standard regardless of the number of people affected. This will include compensation at full replacement cost for land and other assets lost. In the case of projects involving economic displacement only, the client will develop a Livelihood Restoration Plan to compensate affected persons and/or communities and offer other assistance that meet the objectives of this Performance Standard.</p> <p>As per the AfDB requirements, the borrower or client must develop a Full Resettlement Action Plan (FRAP) for projects involving 200 or more people or those that impact vulnerable groups. For projects with fewer than 200 people affected, an Abbreviated Resettlement Action Plan (ARAP) is prepared. The FRAP/ARAP must be transparently developed, ensuring the acceptance of affected people through negotiated settlements. It demonstrates the use of local knowledge in project formulation, undergoes participatory evaluation, and is subject to a midterm review for problem resolution. The FRAP/ARAP includes an executive summary, proposed resettlement measures, implementation timetable, outstanding issues, and dedicated financial resources. The finalized FRAP is submitted to relevant agencies and the Bank, while the ARAP is included in the Environmental and Social Management Plan. The FRAP/ARAP is made available for public review and comment, and the FRAP is released at least 120 days before Board presentation, while the ARAP is released at least 30 days prior.</p>	Not applicable	-	Not applicable
Private Sector Responsibilities under government managed resettlement	Where land acquisition and resettlement are the responsibility of the government, the client will collaborate with the responsible government agency to the extent permitted by the agency, to achieve outcomes, which are consistent with this Performance Standard.	Not applicable	-	Not applicable

5.6 BIODIVERSITY CONSERVATION AND SUSTAINABLE MANAGEMENT OF LIVING NATURAL RESOURCES: IFC PS 6/EBRD PR 6/AFDB OS 3

ASPECT	SUMMARY OF THE REQUIREMENTS	COMMENTARY/FINDINGS	SCORE	CORRECTIVE ACTION
Biodiversity Conservation and Sustainable Management of Living Natural Resources				
General Requirements	<p>The risks and impacts identification process as set out in Performance Standard 1 should consider direct and indirect project-related impacts on biodiversity and ecosystem services and identify any significant residual impacts. As a matter of priority, the client should seek to avoid impacts on biodiversity and ecosystem services.</p> <p>The AfDB requires the borrower or client to identify and evaluate the potential impacts on biodiversity and ecosystem services, considering direct, indirect, cumulative, and pre-mitigation effects. The borrower or client must follow a mitigation hierarchy, prioritizing avoidance of adverse impacts, followed by reduction, minimization, mitigation/restoration, and compensation/offset as a last resort. Specific attention is given to significant threats such as pollution, land conversion, habitat loss, deforestation, overexploitation, invasive species, migration barriers, capture of wild animals, exploitation of endemic species, and wildlife poaching. Experts should be consulted to assess the values of biodiversity and ecosystem services, including cultural, aesthetic, spiritual, educational, and recreational aspects. Furthermore, access to and utilization of indigenous knowledge must be done equitably and with fair benefits.</p>	<p>The available ESAs were developed 10+ years ago, and some of them correspond to earlier versions on the Project (with no defined layout). Baseline studies were not very intensive regarding plants and non-bird fauna and quantitative methods were not always employed. However, this effort may be considered appropriate since the Project is located in a hyper-arid desert with little or no vegetation. Predicted impacts on habitats and non-avifauna are considered non-significant.</p> <p>This ESIA recognized that the main threat to biodiversity is migratory soaring bird (MSB) mortality due to collisions with turbines. Seasonal (Spring and Autumn) monitoring reports concerning MSB have been produced for the three wind farms that compose the Project (KfW, JICA and FIEM). These are good quality reports that provide useful information concerning the number of birds that cross the area each season, their phenology and behaviour. The methodology employed is appropriate as well as the survey effort. These reports also provide information on the performance of the ATMP (see below). The reports confirm the importance of the area in the context of MSB migration, including significant numbers of threatened species such as Steppe Eagle (<i>Aquila nipalensis</i>), Eastern Imperial Eagle (<i>Aquila 55ncludin</i>), Greater Spotted Eagle (<i>Clanga clanga</i>) or Egyptian Vulture (<i>Neophron percnopterus</i>), and very high numbers of other soaring species. For at least 17 species, the numbers recorded exceed 1% of the estimated flyway population. For four species, the number of individuals crossing the wind farm is higher than one third of the flyway population.</p>	PC	Implement the BAP currently being developed by The Biodiversity Consultancy

ASPECT	SUMMARY OF THE REQUIREMENTS	COMMENTARY/FINDINGS	SCORE	CORRECTIVE ACTION
		<p>Measures to mitigate collision impacts on soaring birds have been implemented on the three wind farms that compose the Project, namely through the application of an Active Turbine Management Program (ATMP), which consists of radar assisted shutdown on demand (RASOD). Under this program, specific turbines are shut down for a variable period of time when the following criteria are met:</p> <ol style="list-style-type: none"> 1 Presence of threatened or nearly threatened species (according to IUCN) near the wind farm or heading towards it at flight heights involving collision risk. 2 Presence of flocks with 10 or more soaring birds near the wind farm or heading towards it at flight heights involving collision risk 3 Imminent risk of collision. 4 Extreme weather – in this case, turbines will be shut down during extreme weather events if conditions 1 or 2 have been met in the two hours that preceded the event. 5 Birds roosting inside or near the wind farm – whenever birds of a threatened species of flocks with 10 or more soaring birds are detected roosting inside or near the wind farm, the closest turbines are shutdown until the birds depart. <p>A team of professional field ornithologists (from an external company) monitor the area during the whole migratory seasons (spring and autumn), evaluating the risk to migratory soaring birds and deciding on the need to shut down any turbines according to the criteria above. The field team coordinator communicates with the wind farm SCADA technician who shuts down the relevant turbines. When the team concludes that the birds that triggered the shutdown are no longer at risk, the coordinator communicates with the SCADA technician to re-start the turbines that had been stopped.</p> <p>Vantage points are operated approximately from dawn to dusk by a single observer at each vantage point. Sometimes this observer is assisted by a trainee.</p> <p>The ATMP is implemented from 20 Feb to 20 May (90 days) in Spring and from 10 Aug to 30 Oct in Autumn (some small changes to this period have happened). This period was defined based on previous knowledge on migration phenology in the region. However, it has been found that, at least in some years, migrants have been recorded before the start of the season and also sometimes migration is still occurring at the end of the season.</p> <p>The process is assisted by two radar units, operated by the Egyptian Armed Forces (also communicating with the field ornithologists), aiming to provide early detection of large flocks or streams of soaring birds approaching the wind farm. The choice of the location of these radars was greatly influenced by security issues and had to be approved by the Egyptian military. It does not necessarily correspond to the best possible location for soaring bird detection, but monitoring results suggest that even with these constraints the radar is a useful tool for the ATMP. Radars are only operational during the spring migration season. Monitoring reports state, however that the northern radar is not useful during spring migration and that it should not be used during this period (but it is recommended that it should be used in Autumn)</p> <p>Turbine shutdown period due to the application of the ATMP corresponds to less than 1% of the available hours for energy production in each season.</p> <p>Fatality monitoring is being conducted by an external consultant for the Egyptian Environmental Affairs Agency (EEAA) and BirdLife International/UNDP/GEF Migratory Soaring Birds Project. This is in accordance with good practice as it ensures that fatality monitoring is independent from the team performing the shutdown on demand and also from the Developer. Latest fatality monitoring reports are aligned with GIIP.</p> <p>However, fatality monitoring under the Project's overhead transmission line (OHTL) is being conducted unsystematically, with mortality estimates not being reported.</p> <p>There were some inconsistencies in the mortality results from the available reports and the presentation shown during the site visit (6 Sep 2023). According to the presentation, estimated mortality is higher in Autumn (up to 84 MSB/three wind farms/season) than in Spring (up to 34 MSB/wind farm/season). White stork is the most frequently killed species. These mortality rates suggest that the performance of the ATMP should be improved, as residual impacts may be considered significant for some of the species. One identified cause of RASOD failure that explains some of this mortality is communication failure between the SCADA and the turbine, leading to it not responding to a shutdown command. Other possible causes are related to RASOD period not capturing the whole migration season, communication inefficiency between team members or team members and SCADA, roosting birds moving during the night, when turbines are operating, and observer fatigue from long hour shifts.</p> <p>The Project has identified one area where the need for shutdown is more frequent. This is a flat area at the south of the Project, in the JICA wind farm. This area is especially attractive for roosting storks and pelicans, which leads to the frequent need of shut down.</p> <p>A Biodiversity Action Plan designed to meet the requirements of PS6, PR6 and OS6 is currently being developed by The Biodiversity Consultancy.</p>		
Protection and Conservation of Biodiversity	The habitats within the Project area should be identified as terrestrial or aquatic and should be divided into modified, natural and critical. Critical habitats are a subset of natural and modified habitats. For the protection and conservation of biodiversity, the mitigation hierarchy includes biodiversity offsets, which may be considered only after appropriate avoidance, minimisation, and restoration measures have been applied. A biodiversity offset should be designed and implemented to achieve measurable conservation outcomes that can reasonably be expected to result in no net loss and preferably a net gain of biodiversity; however, a net gain is required in critical habitats. The design of a biodiversity offset must adhere to the "like-for-like or better" principle and must be carried out in alignment with best available information and current practices.	<p>The Project ESIA's do not make a distinction between Natural and Modified Habitat nor do they provide habitat maps. However, it is clear that the Project lies in Natural Habitat-- hamada desert.</p> <p>Project's ESIA's acknowledge that the importance of the area for plants is very limited, as vegetation is very scarce, and it does not harbour endangered species or plant communities. The plant species present in the area are common and widely distributed. No significant residual impacts on vegetation are expected.</p> <p>The only non-avian species of conservation concern present in the area is the Egyptian Spiny-tailed Lizard (<i>Uromastix aegyptia</i>) which is classified as Vulnerable by IUCN (it was classified as Near Threatened when the ESIA's were conducted). This species can</p>	PC	Implement the BAP currently being developed by The Biodiversity Consultancy

ASPECT	SUMMARY OF THE REQUIREMENTS	COMMENTARY/FINDINGS	SCORE	CORRECTIVE ACTION
	<p>For projects developed in natural habitats, modified habitats with significant conservation value, critical habitats, or legally protected areas, the AfDB emphasizes the incorporation of the best available science and engagement of recognized biodiversity experts. The impact assessment considers potential risks and impacts on biological diversity and ecosystem services, including direct, indirect, cumulative, and pre-mitigation effects. The borrower or client follows the mitigation hierarchy to avoid, reduce, minimize, mitigate, restore, and, as a last resort, compensate for adverse impacts. Special attention is given to major threats such as pollution, land conversion, habitat fragmentation, deforestation, over-exploitation, invasive species, and wildlife poaching. The borrower or client consults experts to assess biodiversity values and ensures equitable access to and commercialization of indigenous knowledge.</p>	<p>suffer impacts during construction, especially if the burrows are destroyed or disturbed, but significant impacts during operation are unlikely, hence no specific mitigation targeting this species was implemented during this phase.</p> <p>At present, the Project has identified 15 Priority VECs (Vulnerable Ecological Components) that specifically pertain to migratory soaring birds. The existing knowledge about the importance of the Project area for a very high number of migratory soaring birds strongly indicates that the area very likely qualifies as Critical Habitat for six species (see Table 4-1).</p> <p>See points above for a description of mitigation actions currently in place concerning migratory soaring birds.</p>		
Natural Habitats	<p>In areas of natural habitat, mitigation measures will be designed to achieve no net loss of biodiversity where feasible. Appropriate actions include avoiding impacts on biodiversity through the identification and protection of set-asides; implementing measures to minimise habitat fragmentation, such as biological corridors; restoring habitats during operations and/or after operations; and implementing biodiversity offsets.</p> <p>The AfDB requires that projects in natural habitats avoid significant modification unless no technically and cost-effective alternatives exist. The borrower or client must properly implement the biodiversity mitigation hierarchy and address the opinions and concerns of affected communities. If projects are developed in natural habitats or have downstream impacts, they should include measures to achieve net benefit or no net loss of biodiversity. These measures may involve ecological restoration, reduction of fragmentation, and restoration of ecosystem functioning. Biodiversity offset programs can be considered as a last resort, following established principles, and landscape/seascape-scale planning is used to determine the most environmentally sound approach.</p>	See above	PC	See above.
Critical Habitats	<p>Identification of critical habitat for areas of high biodiversity value within the Project area and following the requirements as set out in 6.17 – 6.19 of the standards where critical habitat has been identified.</p> <p>Projects proposed in critical habitats may be financed by the AfDB if clear benefits and positive outcomes for biodiversity and ecosystem services are demonstrated. The mitigation hierarchy must be implemented, and project-related activities should not have adverse effects on the criteria for which the critical habitat was designated. Critically endangered or endangered species should not be negatively impacted, and no offsets or "net gain" analysis should be required. A robust, appropriately designed, and funded long-term biodiversity monitoring and evaluation program must be integrated into the client's management program. The assessment and planning for critical habitats should be conducted through consultations with recognized experts, use of baseline data, consideration of conservation plans, landscape/seascape analysis, and exploration of possibilities for positive conservation outcomes. In cases where conservation is not the primary objective, a Biodiversity Action Plan should be developed and implemented, with sufficient organizational capability. The AfDB may decide not to finance projects with severe habitat/biodiversity implications.</p>	<p>The Project site is likely to be considered Critical Habitat, as the observed numbers of some species exceed the thresholds for PS6 Criterion 3 for Critical Habitat and for PR6 criterion for migratory and congregatory species. The area is located within a Key Biodiversity Area (see below). A BAP is currently being developed by The Biodiversity Consultancy for the Project.</p>	NC	Implement the BAP currently being developed by The Biodiversity Consultancy
Legally Protected and Internationally Recognised Areas	<p>Identification of Legally Protected and Internationally Recognised Areas within the Project footprint and where present ensuring that the requirements of the standard 6.13 to 6.19 are applied as well as demonstrating that the development is legally permitted; consultation has been carried out correctly with the relevant authorities and additional programs, as appropriate, to promote and enhance the conservation aims and effective management of the area are implemented.</p> <p>The AfDB mandates compliance with national regulations when a project is allowed to encroach on legally protected areas, internationally recognized areas, or areas proposed for protection or international recognition. The borrower or client must engage in appropriate environmental management and consult with relevant stakeholders during the development of management and mitigation measures. The project's alignment with the area's management plan or established objectives by responsible natural resource, protected area, or wildlife agencies is ensured. The borrower or client distinguishes whether the area is critical, natural, or modified and follows the relevant requirements outlined in the operating standards. Encouraging the removal or downgrade of protected area status is discouraged, and the AfDB does not finance projects in areas that have been degazetted or downgraded to facilitate development.</p>	<p>The Project site is located in the Gabel El Ziet Bottleneck Important Bird Area (IBA), which is also considered to be a KBA.</p> <p>As stated before, this area has been designated as a KBA because it is a major migratory bottleneck for soaring birds following the western Red Sea coast. Birds frequently land and roost in this area, which is also used as a stepping-stone for birds crossing to southern Sinai.</p>	PC	The Project is required to promote stakeholder consultation, including local environmental authorities, national and international NGOs and local experts to improve the existing mitigation actions (if possible), to identify additional conservation actions/offsets, as appropriate, and to assess the feasibility of these actions.
Alien Invasive Species	<p>No new alien species (not currently established in the country or region of the project) will be introduced as a result of the Project.</p> <p>The AfDB requires the borrower or client to exercise caution in introducing potentially invasive alien species into the project's country or region, unless it aligns with existing regulatory frameworks or undergoes a risk assessment. Introducing known invasive species into new environments is strictly prohibited. Measures should be implemented to minimize the accidental or unintended introduction of invasive species, and activities that enhance their competitiveness or promote their spread should be avoided. If invasive species already exist in the project area, efforts should be made to minimize their impact, and the feasibility and cost-effectiveness of eradicating them should be evaluated.</p>	It was not predicted that any alien species would be introduced as a result of the Project.	-	Not applicable
Management of Ecosystem Services	Where a project is likely to adversely impact ecosystem services, as determined by the risks and impacts identification process, the client will conduct a systematic review to identify priority ecosystem services.	Not applicable	-	Not applicable

ASPECT	SUMMARY OF THE REQUIREMENTS	COMMENTARY/FINDINGS	SCORE	CORRECTIVE ACTION
	<p>According to the AfDB's requirements, if a project's environmental and social assessment shows that it could affect important ecosystem services, the borrower or client must conduct a review to identify associated risks. The value of these ecosystem services is assessed based on their significance for the well-being of affected communities, their contribution to project sustainability (such as water resources), and their broader landscape-level or existence values. However, decisions regarding the assessment, prioritization, and strategies for preserving ecosystem services must be made in consultation with government resource management agencies and local community representatives to ensure alignment with conservation and development goals. Priority ecosystem services are identified in collaboration with resource managers and local communities, and the impact assessment takes into consideration the factors related to their value. The project aims to avoid negative impacts on priority ecosystem services, and if such impacts are unavoidable, measures should be implemented to minimize and restore these impacts, ensuring the continued value and functionality of these services. These measures are documented in the project's Environmental and Social Management Plan (ESMP).</p>			
<p>Sustainable Management of Living Natural Resources</p>	<p>Clients who are engaged in the primary production of living natural resources, including natural and plantation forestry, agriculture, animal husbandry, aquaculture and fisheries will be subject to the requirements of paragraphs of 6.26 to 6.30 in addition to the rest of this Performance Standard.</p> <p>The AfDB requires projects involving the extraction of renewable natural resources to be managed sustainably, with a preference for internationally recognized certification systems. For plantation forestry and commercial harvesting, industry-specific best practices and technologies should be implemented. In agriculture and livestock sectors, practices that do not deplete natural resources should be followed. In fisheries and aquaculture, compliance with the FAO Code of Conduct for Responsible Fisheries is required, along with adherence to relevant national laws and international standards. When promoting artisanal fisheries, methods should be sustainable, culturally appropriate, and avoid destructive or illegal practices.</p>	<p>Not applicable</p>	<p>-</p>	<p>Not applicable</p>
<p>Supply Chain</p>	<p>Where a client is purchasing primary production (especially but not exclusively food and fibre commodities) that is known to be produced in regions where there is a risk of significant conversion of natural and/or critical habitats, systems and verification practices will be identify where the supply is coming from and the habitat type of this area ii) provide for an on-going review of the client's primary supply chains, iii) limit procurement to those suppliers that can demonstrate that they are not contributing to significant conversion of natural and/or critical habitats and iv) where possible, require actions to shift the client's primary supply chain over time to suppliers that can demonstrate that they are not significantly adversely impacting these areas.</p> <p>In situations where the borrower or client relies on external suppliers for vital living resources but lacks control over how those resources are sourced, the AfDB mandates the development and implementation of a sustainable resources procurement policy, along with accompanying procedures and an action plan. This policy aims to guarantee that only legally and sustainably sourced resources are procured. It also requires monitoring the origin of the resources and prohibits their acquisition from legally protected areas or internationally recognized areas of significant conservation value.</p>	<p>Not applicable</p>	<p>-</p>	<p>Not applicable</p>

6. ANNEXES

ANNEX A: Documents Reviewed

#	DOCUMENT TITLE	DATE PROVIDED	LANGUAGE	DATE OF DOCUMENT
1.	ESIA for Gulf of El Zayt 220 MW	August 2023	English	No date
2.	Environmental and Social Impact Assessment Study for 1,000 MW Wind Farms at the GULF OF SUEZ	August 2023	English	October 2011
3.	Environmental and Social Impact Assessment for an Area of 300 km ² at the GULF OF SUEZ	August 2023	English	November 2013
4.	Multiple spring and autumn bird monitoring and fatality monitoring reports	July and August 2023	English	Multiple
5.	Environmental permit for the 200 MW WPP	August 2023	Arabic	July 2008
6.	Environmental permit for the 120 MW WPP	August 2023	Arabic	April 2012
7.	Environmental permit for the 220 MW WPP	August 2023	Arabic	April 2009
8.	Feasibility Study for A 120 MW Wind Farm at the Gulf of El Zayt	July 2023	English	August 2008
9.	Feasibility Study for a 120 MW Wind Farm at the Gulf of El Zayt	July 2023	English	June 2010
10.	SGRE EHS Policy (20437-Annex 1) Signed	August 2023	English	December 2022
11.	SGRE INS-110151 Ap1 HSE Plan Overall Framework _ Gabal	August 2023	English	July 2022
12.	SGRE INS-110151 Ap5 HSE Plan Onshore Services Specific Appendix _ Gabal	August 2023	English	July 2022
13.	INS-110151 Ap6 HSE Plan Relevant Contacts List _ Gabal	August 2023	English	July 2022
14.	INS-110151 Ap7 HSE Plan Setting to Work Flowchart _ Gabal	August 2023	English	July 2022
15.	INS-110151 Ap9 HSE Plan Traffic Management _ Gabal	August 2023	English	July 2022
16.	PRO-59501 Ap2 Basic Health and Safety Rules	August 2023	English	November 2021
17.	SGRE Emergency drill report	September 2023	English	September 2022
18.	SGRE Emergency response plan	September 2023	English	January 2022
19.	SGRE waste management plan	September 2023	English	June 2023
20.	SGRE operational risk assessment	September 2023	English	April 2022
21.	Gabal Al Zayt incident register	September 2023	English	No date

Johannesburg

3rd Floor, 4 Sandown Valley Crescent
Sandown, Sandton, 2031
South Africa

Cape Town

2nd Floor, The Citadel Building
15 Cavendish Street
Claremont, 7700
South Africa

Nairobi

5th Floor, Western Height
Karuna Road
Westlands, 00100
Kenya

Casablanca

59, Boulevard Zerktouni
6 éme Etage No18
Morocco

Cairo

Office 5-A2 – Building 3
The Polygon
SODIC West Sheikh Zayed
Egypt

Singapore

9 Raffles Place
#26-01 Republic Plaza
Singapore. 048619

Hong Kong

19/F, Lee Garden One
33 Hysan Avenue
Causeway Bay
Hong Kong

Paris

3 Rue de l'Arrivée
75749 Paris
Cedex 15
France