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Ras Ghareb 200 MW Wind Farm - ESAP

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For and on behalf of: European Bank for Reconstruction and Development

Project Location: Egypt

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Signed by:

Position: Director

Date: 3 August 2023

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1. ENVIRONMENTAL & SOCIAL ACTION PLAN (ESAP)

ESA #	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, EBRD PR, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
PR 1: Assessment and Management of Environmental and Social Impacts and Issues (including IFC PS1)							
1.1	Infinity Power Holding (IPH) will submit to the EBRD, and other Lenders, an environmental and social (E&S) report describing the E&S performance of the Project and the implementation of this ESAP. This report may also be compiled by an independent Lenders E&S Monitoring Consultant (LESMC), or equivalent.	E&S reporting	EBRD E&S Policy (2019) and PR1	IPH Or LESMC	Every four months during construction and the first year of operations. Annually from the second year of operations onwards	E&S monitoring reports satisfactory to the EBRD, and other Lenders (if required).	
1.2	Maintain a permits register and obtain all permits and licences for construction and operation as they become applicable, such as: <ul style="list-style-type: none"> Egyptian Environmental Affairs Agency (EEAA) approval Construction permit Power generation license Firefighting plan and system approval 	Legal compliance	PR1/PS1 National permitting requirements	IPH	Prior to construction and operation	Construction and operation permit register in place and all required permits and licenses in place and valid as and when required throughout the project phases	
1.3	IPH (IPH) will develop and implement an appropriate environmental and social management system (ESMS) for the Project in line with PR1/PS1 requirements and in conformance with commitments articulated in the Project HSSE MS Manual, including lender and local E&S requirements. The HSSE MS will be established and implemented by IPH during the construction and operation phase of the Project, and will apply to the Project (Ras Ghareb 200 MW Wind Power Plant) and incorporate the following: <ul style="list-style-type: none"> HSSE policy; Defined roles and responsibilities, including those of contractors/subcontractors during construction and operations, to implement the HSSE MS Procedures for identifying environmental, health, safety and social risks and impacts Management plans outlined in the HSSE MS Manual to control identified environmental (including biodiversity), health, safety and social risks and impacts Training matrix to cover the implementation of environmental, health, safety and social management plans and EBRD/IFC requirements, in particular labour management and subcontractor monitoring during construction. Controls for high risk activities through the implementation of a permit to work system Record keeping for total man-hours worked, incidents, accidents, fatalities, near misses, unsafe acts/unsafe conditions Monitoring and reporting procedures 	E&S risk and impact management	PR1/PS1	IPH, with Consultant support	Construction phase elements of HSSE MS: 1 month prior to construction commencing Operation phase elements of HSSE MS: 3 months prior to operations commencing	HSSE MS in place appropriate to nature of project. HSSE MS documentation retained for each project phase	

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1.4	<p>Tender documentation for the EPC and Operations and Maintenance (O&M) contractor to include environmental, health, safety and social requirements. These will include as a minimum:</p> <ul style="list-style-type: none"> • Complying with and explicitly referencing local environmental, health, safety and labour laws and regulations and EBRD/IFC Performance Requirements/Standards • Complying with IPH's HSSE MS • Preparation of a project specific ESMS • Ensuring sufficient HSE and labour management personnel are present onsite • Environmental, health, safety and social reporting requirements • Right of site access of IPH, the lenders and their advisors. • Ensuring all of the above minimum requirements apply to all subcontractors 	Improve environmental and social performance and compliance with local and lender requirements	PR1/PS1	IPH	<p>Prior to start of construction</p> <p>Prior to start of operation</p>	Tender documentation including environmental, health, safety and social requirements	
1.5	EPC and O&M contractors will develop and implement their own ESMSs in line with the Project HSSE MS. These ESMS will include the necessary resources, structures, policies, procedures, plans, monitoring and reporting requirements to deliver their responsibilities in line with the requirements of the Project ESMS and Project E&S commitments (lender and local E&S requirements). The EPC and O&M Contractors will ensure that the ESMS requirements extend to their contractors and subcontractors.	E&S risk and impact management	PR1/PS1	EPC and O&M contractors with IPH oversight	Prior to start of construction	EPC and O&M contractor ESMSs in place appropriate to nature of project. and approved by IPH	
1.6	Contractually require the EPC and O&M contractors, as well as Owner's Engineer (OE) to appoint sufficient E&S and HR staff to oversee the Project's E&S management at all times (during construction and operation) in line with the HSSE MS, lender and local E&S requirements. IPH will employ, at a minimum, a Project E&S Manager, a Community Liaison Officer (CLO), and an HR manager (familiar with internationally funded projects and issues around managing of subcontractors and casual labour), who will be supported by the Owner's Engineer (OE) and, as needed, E&S consultants. IPH shall require the EPC Contractors and other contractors to appoint sufficient counterparts to these staff, including appropriate Health & Safety Officers and HR staff to ensure satisfactory oversight of the entire construction labour force.	E&S risk and impact management	PR1/PS1	IPH	<p>Project E&S manager, HR manager and CLO – 2 months prior to construction</p> <p>OE and EPC E&S resources including HR manager: prior to start of construction</p>	E&S management resources in place. Organogram complete with names and roles/responsibilities.	

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PR 2: Labour and Working Conditions (including IFC P2)							
2.1	<p>IPH will develop and implement a human resources policy and associated procedures and plans. The policy and associated procedures will apply to all Project workers, including contractors and subcontractors. All workers will receive written documentation concerning the terms and conditions of their employment including their rights under Egyptian labour law, social insurance law, as per PR2 requirements. This shall include a workers' grievance mechanism that will have to be made available to all workers, irrespective of their employer (See 2.2). The policies, procedures and plans should adhere to national legislation and EBRD/IFC requirements under PR2/PS2 and must cover workers contracts, working hours, wages, benefits, conditions of work, contract termination, right to join union or elect worker' representative, adherence to non-discrimination and equal opportunity practices, and provisions for retrenchment. It should clearly state that child labour and forced labour are prohibited.</p> <p>IPH will ensure that the policy, procedures, and plans are reflected in EPC and O&M documentation and implemented for all contractors. IPH will ensure that contractors have the capacity and experience, and ability to implement PR2/PS2 requirements and will monitor contractor adherence to such requirements.</p> <p>Human resources policy and associated procedures and plans would include a local hiring and training strategy or similar. Implementation will be supported by the relevant contractors.</p>	Labour risk management	PR2/PS2	IPH	HR policies, procedures and plans in place prior to construction. HR policies, procedures and plans implemented during project life cycle	HR policies, procedures and plans satisfactory to EBRD, and other Lenders (if required). HR policies, procedures and plans implemented and communicated to all Project workers. Contractor monitoring against PR2/PS2 requirements.	
2.2	IPH will implement a worker grievance mechanism as per PR2/PS2 requirements and ensure that EPC and O&M Contractors set up and implement similar workers' grievance mechanisms and provide access to all of their subcontractor's workers	Grievance management	PR2/PS2	IPH	Prior to construction works commencing	Worker grievance mechanisms in place.	
2.3	<p>Undertake labour and working conditions compliance monitoring during construction and which is to include the following:</p> <ul style="list-style-type: none"> • Daily observations of labour and working conditions; • Weekly monitoring of workers of all contractors through random spot checks of workers contracts, payroll, overtime, awareness and use of project grievance mechanism; through interviews and review of workers files; • Weekly review of worker grievance logs (including contractors and subcontractors on site); • Weekly review of training records; and • Monthly reporting on compliance against IPH's HR policies and procedures 	Labour risk management	PR2/PS2	IPH	During construction	Daily checklists Weekly inspection records Monthly reports	
2.4	IPH will ensure that the site has sufficient amenities for the workforce (including toilets, washing rooms, prayer areas, shaded lunch areas and water points).	Labour risk management	PR2/PS2	IPH and EPC contractors	During construction and ongoing implementation	Daily checklists Weekly inspection records Monthly reporting	
2.5	IPH will ensure that EPC Contractors have in place an appropriate workers' accommodation plan in line with EBRD/IFC guidelines on Workers' Accommodation: Processes and Standards.	Labour risk management	PR2/PS2	IPH	Prior to start of construction and ongoing implementation	Worker accommodation plan(s) in place satisfactory to EBRD, and other Lenders (if required).	

2.6	IPH will integrate into the HSSE MS an approach and requirements for managing and monitoring potential risks associated with the core suppliers of the Project during construction and operations. This will include a position statement on avoiding supply chain risks (forced labour, child labour, risk of material harm to workers) and requirements for supplier risk screening, legal covenants for tenders and contracts, supplier verification and auditing, and supply chain traceability where risks are identified. During construction, IPH will require its EPC Contractors to align their procurement practices with the HSSE MS and report to IPH. IPH, or their representatives, will undertake audits as necessary.	Supply chain management	PR2/PS2	IPH and EPC contractors	Prior to contracting core suppliers During construction and during operation	Supply chain risk management and monitoring approach integrated into ESMS and cascaded down to EPC contractors. Supply chain risks considered and controls implemented. Evidence of implementation (records, labour audits, screening results).	
2.7	IPH will contractually require the wind turbine supplier to commit to implementing a robust supplier management and traceability system for their pre-screened Project core suppliers to avoid critical labour risks in the wind turbine supply chain.	Supply chain management	PR2/PS2 Good International Practices ILO labour standards	IPH	Prior to contracting wind turbine supplier	Appropriate requirements in wind turbine supply and O&M services contractor contracts to avoid critical labour issues and risks.	
2.8	IPH will develop a security management plan in accordance with the Voluntary Principles of Security and Human Rights, including procedures and code of conduct. The Plan will implement the Security strategy outlined in the HSSE MS Manual. Security personnel, including Bedoins, should be trained to avoid use of excessive force and vetting for past offences should be undertaken. Avoidance of armed security at all times.	Security risk management	PR2/PS4	IPH	Prior to construction	Security management plan in place satisfactory to EBRD, and other Lenders (if required).	

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PR 3: Resource Efficiency and Pollution Prevention and Control (including IFC PR3)							
3.1	IPH will quantify Project GHG emissions. IPH will ensure that the EPC Contractor adopts measures to minimise GHG emissions during the construction phase, where possible.	GHG reduction	PR3/PS3	IPH	Annually during construction	Project GHG emissions quantified. Evidence of measures taken to reduce Project GHG emissions during construction, where relevant.	
3.2	IPH will ensure that the EPC Contractor prepares and enforces Air Quality and Noise Management Plans for the construction phase in line with IPH's HSSE MS to mitigate impacts of noise and emissions (dust, etc.) on workers.	Worker health and safety	PR3/PS3	IPH	Plan in place prior to construction Implemented during construction	Air Quality and Noise Management Plan(s) in place and implemented	
3.3	IPH will ensure that the EPC Contractors prepare a robust management plan to manage wastewater and its treatment at the Ras Ghareb treatment plant and to manage disposal of waste (a waste management plan). This would include a waste manifest system. IPH will ensure that waste disposal facilities are licensed entities, and are visited and reviewed to ensure that they are well managed and appropriate for the waste to be disposed.	Waste management	PR3/PS3	IPH	Plan in place prior to construction Implemented during construction	Waste and Wastewater Management Plan(s) in place and implemented Audit reports.	
3.4	IPH will ensure that the EPC Contractors will install a sufficient number of proper septic tanks of suitable material (i.e., leak-proof, corrosion-resistant, etc.) and size	Waste management	PR3/PS3	IPH	During construction	Daily checklists Weekly inspection records Monthly reports	
3.5	IPH will ensure that the EPC Contractors prepare and enforce a Water Management Plan with adequate measures to minimise water use on site (e.g., reusing grey water for dust suppression activities).	Water use	PR3/PS3	IPH	Plan in place prior to construction Implemented during construction	Water Management Plan (s) in place and implemented	

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PR 4: Health and Safety (including IFC PS2 and IFC PS4)							
4.1	IPH will oversee and monitor the activities of the EPC Contractors, and their contractors and subcontractors, during construction to ensure that all H&S risks are identified and adequately managed and addressed. H&S performance will be monitored against the HSSE MS, management plans and H&S performance targets. Performance will be reported and feedback provided.	Contractor H&S performance	PR4/PS2	IPH with support of OE.	During construction	Contractor and subcontractor H&S performance overseen, monitored and reported	
4.2	IPH will ensure that during construction the Project establishes a clinic with a nurse and physician and makes provisions for an ambulance to be present onsite. The clinic should include key medical equipment such as an Automated External Defibrillator (AED), stretchers and backboards, immobilization equipment, sphygmomanometer, oxygen tank, fridge and other medical equipment deemed necessary. The clinic should be equipped with antivenom (snake bites).	Worker's safety	PR4/PS2	IPH with support of EPC Contractor	During construction	Fully equipped clinic and ambulance	
4.3	IPH will develop and implement a Workers' Influx Management Plan. This may include the support from EPC Contractors and/or consultants. If construction works overlap with other major construction projects in the area, IPH will conduct an assessment of potential cumulative impacts of worker influx to the area and implement mitigation measures if necessary.	Worker influx management	PR4/PS4	IPH	Plan in place prior to construction Implemented during construction Cumulative assessment conducted if required.	Workers' Influx Management Plan in place satisfactory to EBRD, and other Lenders (if required).	
4.4	IPH will ensure that the EPC Contractors develop and implement a Transport Management Plan for the transportation and movement of wind turbines, equipment/machinery/materials and project workers. This transport plan is to include consideration of community health and safety risks – especially where the transport may pose risk to sensitive receptors.	Transport risk management	PR4/PS4	IPH	Plan in place prior to construction Implemented during construction	Transport Management Plan(s) in place satisfactory to EBRD, and other Lenders (if required).	
4.5	A security management plan, scaled to the security risks associated with the project, must be developed. The site must have secure access control points established that controls access to site. Security guards must be vetted for past human rights infringements and be appropriately trained in respecting human rights.	Community health and safety risks	PR4/PS4	IPH and EPC contractor	Plan in place prior to construction Implemented during construction	Security Management Plan in place satisfactory to EBRD, and other Lenders (if required).	

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PR 5: Land Acquisition, Involuntary Resettlement and Economic Displacement (including IFC PS5)							
	Not applicable to the project						

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PS 6: Biodiversity and Living Natural Resources (including IFC PS6)							
6.1	<p>IPH will ensure that an appropriate Biodiversity Management Plan (BMP) is developed and implemented during construction. This plan is expected to include measures to mitigate impacts occurring during the construction phase, including the Egyptian Spiny-tailed Lizard. These should include:</p> <ul style="list-style-type: none"> • Identification and mapping of suitable translocation sites • Monitor active burrows during construction • Translocate individuals if necessary <p>IPH will oversee and monitor the implementation of the plan.</p>	Biodiversity Risk Management	EBRD PR6, IFC PS6, Best practice	IPH resources	Six months prior to start of construction and during construction	BMP in place, satisfactory to the Lenders. Reporting on implementation	
6.2	<p>IPH will ensure that pre-construction biodiversity surveys are undertaken prior to the start of construction to ensure that impacts to terrestrial biodiversity, including the Egyptian Spiny-tailed Lizard are avoided, as per the Project BMP (see 6.1). A specialized ecologist will be hired to conduct the surveys and develop the Spiny-lizard related actions.</p> <p>Pre-construction surveys are also to include non-soaring bird species, which were not addressed in the ESIA, to confirm if mitigation actions that are proposed are suitable to deal with possible impacts on these species.</p>	Biodiversity impact management	EBRD PR6, IFC PS6, Best practice	IPH resources	Surveys prior to construction and mitigation actions during construction	Surveys undertaken. Reporting on implementation	
6.3	<p>IPH will ensure that an appropriate Operations Phase Biodiversity Management Plan (BMP) is developed and implemented. This plan is expected to include detailed protocols on:</p> <ul style="list-style-type: none"> • Shutdown on demand (shutdown criteria, applicable period during spring and autumn migration, team requirements, equipment requirements, shutdown protocol, communications protocol) • Migratory soaring bird monitoring • Fatality monitoring, including bias correction trials and calculating fatality rates • Adaptive management taking into consideration the fatality thresholds presented in the Cumulative Effects Assessment. 	Migratory soaring bird collision risk management	EBRD PR6, IFC PS6, Best practice	IPH resources	Six months prior to start of operations	Operations phase BMP, acceptable by the Lenders, in place and implemented. Implementation reports and data available.	
6.4	IPH will ensure the implementation of shutdown on demand during spring and autumn migratory periods according to the protocol defined on 6.3	Migratory soaring bird collision risk management	EBRD PR6, IFC PS6, Best practice	IPH resources	Procedures in place six months prior to start of operation and during operation	Procedures in place and implemented and acceptable by the Lenders. Reports to the Lenders and data available.	
6.5	<p>IPH will ensure that post-construction fatality monitoring according to the protocol defined in 6.3 both in spring and autumn spring seasons are undertaken. This includes:</p> <ul style="list-style-type: none"> • Carcass search • Bias correction trials for scavenger removal and searcher efficiency <p>A wind and wildlife expert will be hired to develop fatality rate estimates with statistical correction factors and implement this work in the field.</p>	Bird fatality monitoring	EBRD PR6, IFC PS6, Best practice	IPH resources	Six months prior to the start of operation and during operation	Procedures in place and implemented (acceptable by the Lenders). Reports to the Lenders and data available.	
6.6	IPH will ensure that an organisational structure is in place, including IPH personnel, for the operational phase able to support the implementation of the mitigation and monitoring measures required, including as an example, a Wind and Wildlife Expert	Biodiversity risk management resources	EBRD PR6, IFC PS6, Best practice	IPH	Structure presented six months prior to operation	Organisation structure presented	

6.7	<p>IPH will:</p> <ul style="list-style-type: none"> Collaborate with EETC on the installation of bird flight deterrents (BFD) on the Overhead Transmission Line (OHTL); Conduct fatality monitoring along the OHTL 	Bird collision risk management	EBRD PR6, IFC PS6, Best practice	IPH resources	Six months prior to the start of construction and during operation	BFDs in place, Procedures in place and implemented (acceptable by the Lenders). Reports to the Lenders and data available	
6.8	<p>IPH will develop reporting procedures for:</p> <ul style="list-style-type: none"> Reporting fatalities of priority bird species to authorities and lenders in a timely manner (within a week), including a review of the incident by the responsible wind and wildlife expert Bi-annual reports to Lenders detailing the results of soaring bird migration, shutdown on demand incidents (including near-misses) and energy production losses due to shut-down on demand, fatalities (corrected estimates) and adaptive management 	Migratory soaring bird migration, bird fatality reporting	EBRD PR6, IFC PS6, Best practice	IPH resources	Six months prior to start of operation and during operation	Procedures in place and implemented (acceptable by the Lenders). Reports to the Lenders and data available	
6.9	IPH will liaise with relevant national authorities, organisations and RCREEE to ensure that appropriate resources are available to deliver the Biodiversity Management Plan, specifically the turbine shut down on demand programme and fatality monitoring. This would include support for the training and capacity building of local bird observers and other resources required.	Biodiversity risk management resources	EBRD PR6, IFC PS6, Best practice	IPH	During life of the project	Appropriate evidence provided in Company initiatives and activities.	
6.10	IPH will contribute to management actions that further the conservation of migratory soaring birds in the Gebel Al Zeit IBA. This would involve engagement with various third parties, including EEAA and RCREEE, and the provision monitoring data.	Biodiversity risk management resources	EBRD PR6, IFC PS6, Best practice	IPH	During life of the project	Evidence of collaboration	

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PR 8: Cultural Heritage (including IFC PS8)							
8.1	IPH will ensure that the EPC Contractors concerned with civil works prepare and implement a Chance Find Procedure for construction in case of new cultural heritage discoveries during construction work.	Managing potential chance finds	PR8/PS8	IPH	Procedure in place prior to earth works. Procedure implemented during earth works	Chance Find procedure in place and implemented.	

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PR 10: Information Disclosure and Stakeholder Engagement							
10.1	IPH will implement and maintain the Project Stakeholder Engagement Plan, as well as the public grievance mechanism. Ensure that priority is given, and resources allocated, to implement stakeholder engagement and communication activities during the construction phase.	Stakeholder engagement and information disclosure	PR10/PS1	IPH	During all project phases	Stakeholder Engagement Plan and public grievance mechanism implemented and records maintained.	

