

Environmental and Social Action Plan (ESAP)

The ESAP will be updated based on ongoing consultations with Masdar.

Action	Description	Completion Dates
PS 1 - Assessment and Management of Environmental and Social Risks and Impacts		
1	Environmental & Social Management Systems: The company will develop and implement an overarching Environmental & Social Management System (ESMS), appropriate for the scale & complexity of the project, per the general requirements of IFC PS1. This ESMS will include an overarching E&S policy defining the company's E&S objectives and principles and incorporate all necessary policies, procedures, and plans (including a construction environmental & social management plan) required, including those described within the project ESIA.	23 rd May 2022 (2 weeks prior to construction)
2	Operation Environmental & Social Management: The company will develop and implement an Operations Environment & Social Management System (OESMS) acceptable to IFC, and consistent with the project ESIA, IFC PS and national requirements. The OESMS will include a suite of sub-plans, which will address all relevant E&S risks including but not be limited to pollution prevention; water management; hazardous materials; waste management, emergency response; community health, safety & security; biodiversity management; environmental monitoring; stakeholder engagement (including grievance management).	30 th September 2024 (2 months prior to full COD)
3	EHS Resourcing – During construction, the company will employ, at a minimum, a project Biodiversity Manager, Human Resources Officer, one Social Manager and one Community Liaison Officer, who will be supported by the Project Management Consultants' Health, Safety & Environment (HSE) staff and, as needed, E&S consultants. During the O&M phase, the company will employ, at a minimum, a Biodiversity Manager and sufficient support staff to implement project commitments. The O&M contractor shall appoint adequate resources to ensure oversight.	23 rd May 2022 (2 weeks prior to construction) 30 th June 2023 (2 months prior to COD)
PS 2 – Labor and Working Conditions		
4	Human Resources Management - The company will develop and implement a project human resources (HR) policy and associated plans/procedures according to IFC PS2, International Labor Organization (ILO) requirements, and local labor codes. The policy/procedures will define the company's commitments with respect to labor and working conditions, maximizing local employment, equal opportunities and non-discrimination, anti-sexual harassment and gender-based violence, prohibition of child and forced labor, whistleblower protection, freedom of association, and collective bargaining. The company will further develop an enforceable code of conduct applicable to all workers (including worker conduct within project worker accommodation facilities).	23 rd May 2022 (2 weeks prior to construction)
5	Worker Grievance Mechanism (WGM) - The company will establish a 'worker's grievance mechanism and implement it, in accordance with 'IFC's PS2 standards. The WGM will be made available to all project workers, irrespective of their employer. The company will disseminate information about its use to the workforce (in a language the workers understand). The WGM is to include specific considerations related to the harassment/gender-based violence grievances. This should include multiple entry points to raise and address allegations including options to report anonymously if preferred. The company will appoint a grievance officer to coordinate the implementation of the WGM.	23 rd May 2022 (2 weeks prior to construction)
6	Labor Conditions - The company will hire a suitably qualified and experienced independent consultant, to undertake semi-annual monitoring during the construction phase of the project to assess contractor and sub-contractor adherence to local labor laws and project labor and working condition commitments.	6 th December 2022 (6 months after the start of construction)
7	Worker Accommodation - The company will conduct an audit of project provided worker accommodation facilities prior to occupancy. The auditors will be supported by a life and fire safety expert with relevant experience. The audit will assess the accommodation facilities compliance with IFC/EBRD 'Workers' accommodation: processes and standards, internationally recognized life & fire safety standards, and ensure adequate considerations have been made related to Covid-19 management and gender aspects. All material non-compliances identified will be addressed prior to use of accommodation facilities.	23 rd May 2022 (2 weeks prior to construction)
8	Contractor Management – The company will develop, as part of their ESMS, a Contractor Management Plan defining their approach to managing the EHS performance of their contractors, subcontractors, and other third parties during the various phases of the project. The contractor management approach will be consistent with the general principles described within IFC Good Practice Note: Managing Contractors' Environmental and Social Performance.	23 rd May 2022 (2 weeks prior to construction)
9	Supply Chain Management - The Company will contractually require, the WTG Vendor to commit to adopting a robust supplier management and traceability system for their pre-screened project primary suppliers in order to ensure that project level requirements integrated in the ESMS are applied systematically. The company will develop and implement an 'E&S Supplier & Vendor Management Plan' for primary suppliers. The Company will contractually require its EPC Contractor to undertake supplier/vendor E&S risk assessments for primary suppliers and review potential supplier/vendor labor issues and risks including child labor, forced labor, working conditions etc. Include assessment of gender and safety risks in bidding process for contractors.	5 th May 2022 (Prior to commitment)
10	Health & Safety - The company will ensure through contractual clauses that its EPC and O&M contractor develop and implement site-specific Occupational Health and Safety (OHS) management system, including plans and procedures of a scale appropriate to their scope of work and to the risks associated with each stage of the project. The requirements defined within these documents will apply to all project workers, including sub-contractors.	6 th May 2022
PS 3: Resources Efficiency and Pollution Prevention		

Action	Description	Completion Dates
11	Water Management – The company will conduct a water resources assessment study, assessing the viability of the proposed water supply options for the project and its associated & ancillary facilities. The study is to verify whether increases in groundwater abstraction attributed to the project will impact third 'parties' access to water.	5 th May 2022 (1 month prior to construction)
12	Noise Management – The company will reassess project operational noise impacts. The assessment methodology used shall be aligned with WBG guidelines, specifically confirming that there are no exceedance of 45dB night time criteria at sensitive receptors. If the assessment identifies the need for mitigation measures, these will be implemented. If an alternate turbine supplier is to be used (differing from the model assessed in the ESIA), the company shall conduct a supplementary noise assessment assessing impacts specific to this turbine.	28 th Feb 2023 (6 months prior to commissioning first group of WTG)
PS 4: Community Health, Safety and Security		
13	Traffic Management - The company will require its EPC to develop and implement a traffic and transport management plan (TTMP) aligned with national requirements, IFC PS4, applicable to all sub-contractors. The TTMP will include appropriate control measures to address risks posed to road users and communities related to construction traffic, abnormal loads, and any road upgrade work required to be executed due to the project. Furthermore, the EPC will conduct a detailed pre-construction route survey of the local road network to assess existing road conditions and determine if specific control measures are required.	23 rd May 2022 (2 weeks prior to construction)
14	Security Management – The company will require its EPC to develop and implement a Security Management Plan aligned with IFC PS4 and the Voluntary Principles of Security & Human Rights. The plan will include a Code of Conduct for site security personnel, a security risk assessment and incident reporting, and investigation process. The EPC will ensure that reasonable inquiries are taken to ensure private security personnel are not implicated in past crimes/abuses and are appropriately trained. The company will monitor the implementation of this management plan via regular audits. The project's community grievance mechanism will be available for members of the community or employees in the event of a violation of the code for security personnel or other grievance related to security personnel.	23 rd May 2022 (2 weeks prior to construction)
PS5 - Land Acquisition and Involuntary Resettlement		
15	LRP Implementation -The company will develop and implement a Community Development Plan which will define compensation and assistance measures specifically designed to address communal loss of land. Furthermore, the company will establish a Zarafshan Community Development Committee to oversee the implementation of the LRP and allocate budget required for its implementation. The committee shall be chair by the company and be established prior to the commencement of construction activities.	6 th May 2022 (1 month prior to construction)
16	LRP Implementation Monitoring - The company will monitor the implementation of the LRP, providing bi-annual monitoring reports to the lenders during the construction phase, and annual reports during operations (as part of annual E&S monitoring reporting). The company will conduct a completion audit to assess if all the LRP provisions have been met. The completion audit will include, at a minimum, a review of the LRP mitigation measures implemented by the company, a comparison of implementation outcomes against agreed objectives, and a conclusion as to whether the monitoring process can be ended. Furthermore, the company will engage a third-party consultant 2 years after the completion of LRP activities to undertake an independent completion audit to verify whether livelihoods have been restored to pre-project levels or improved	6 th Jan 2023 (First report 6 months after the start of construction) 6 th June 2024 (2 years after completion of LRP activities)
PS 6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources		
17	Biodiversity Surveys - The company will contract a qualified consultant (ecologist/raptor specialist) to develop and implement a raptor breeding survey protocol based on good international raptor monitoring methods and considering the species-specific breeding season/s. Surveys will be conducted for the first 2 years of operations and then every 3 years for the following nine years. The company will also conduct a winter season bat roost survey with a qualified consultant (bat biologist) to assess the scale of a roost initially detected during ESIA surveys on the western edge of the project.	30 th April 2024 (6 months prior to full COD)
18	Construction Phase Biodiversity Management Plan (BMP) – the Company will develop and implement a construction phase Biodiversity Management Plan (BMP) that will include preconstruction surveys of habitat features associated with the Critical Habitat plant species and the terrestrial priority biodiversity values (the tortoise, monitor and invertebrate species) and will recommend any associated avoidance and minimization measures relevant to these species. The same approach will apply to the opening of trenches and installation of towers with respect to Identiflight infrastructure. The construction phase BMP will include a (raptor) Nest/Roost Protection Plan based on results from the raptor breeding survey (ESAP#20) with recommended measures to minimize disturbance to nests during the construction phase and during O&M activities of the operations phase. As part of the Nest / Roost Protection Plan, the Company will avoid construction activities in high-risk locations (i.e. T108A) near to nest selection period of the target species (1 st March to 15 th April).	6 th May 2022
19	Post-construction fatality monitoring (PCFM) Program and Operations Phase BMP - The company will contract an internationally recognized, specialized wind-wildlife consultancy / experts to collaborate with their locally contracted ecological consultancy to finalize the design of the PCFM program and develop and implement an operations phase BMP. As part of the PCFM workstream, the international consultancy will be retained for the first two years of operations to provide technical support to the local consultancy on PCFM analysis and reporting, training and capacity building. The contract will include two site visits per year (1-month per visit) to conduct independent verification of the PCFM program. The operations phase BMP will include a confirmation of priority biodiversity values based on PCFM results (and any other new regional data available), threshold setting for priority biodiversity values following the potential biological removal method, an adaptive management framework and protocols for all on-site	31 st June 2023 6 th March 2027 & 2029

Action	Description	Completion Dates
	<p>operational phase monitoring and mitigation activities. The PCFM program as a whole will be carried out for an initial 5-year period with semi-annual reporting following a standardized template, but the actual timeframe of the PCFM program will depend on fatality results.</p> <p>The Operational BMP (including the PCFM program) will be subject to strategic review after a 2.5 year period and 4.5 year period.</p>	(2.5 and 4.5 years after commissioning)
20	<p>Biodiversity Action Plan (BAP) – The company will develop a fit-for-purpose Biodiversity Action Plan (BAP) and Biodiversity Monitoring and Evaluation Plan for critical habitat plant species. The BAP will include a loss/gain assessment informed by the pre-construction surveys and will identify measures to further guide habitat restoration measures in the ESIA to meet net gain objectives, including a replanting program to convert degraded agricultural land over a wider area. If offset measures are required, a qualified expert with international experience on offsets will be contracted to develop an Offset Management Plan.</p>	28 th June 2023 (6 months prior to operations).
21	<p>Scientific Advisory Body (SAB) - The company will establish a SAB of relevant international and national stakeholders (e.g., ornithologists) who will oversee the implementation and effectiveness of the mitigation strategy for priority bird biodiversity values and advise on adaptive management.</p>	30 th June 2023 (2 months prior to COD)