

**Draft Environmental and Social Management Program**

**500 MW FULLY PERMITTED WIND FARM IN MELITOPOL AND PRIAZOVSK DISTRICTS OF ZAPORIZHIA REGION, UKRAINE, IN THE VILLAGE SETTLEMENTS OF DEVNINSKOE, DOBRIVKA, DUNAEVKA, GIRSIVKA, MORDVINIVKA AND NADESHINE VILLAGE COUNCILS, OUTSIDE THE BOUNDARIES OF THE VILLAGES**

No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, IFC PS, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
<b>PS 1</b>	<b>Environmental and Social Assessment and Management System</b>						
1.1	Develop and implement integrated environmental and social management system, based on international standards such as e.g ISO 14001 and OHSAS 18001.	Structured approach to management of environmental, social and H&S performance of the Project	IFC PS 1 Voluntary and best practice	Own resources, external consultants	2018	Formalized EHS management system. Consider official certification by 2019. Report to Lenders	
1.2	As part of the ESMS develop a clear environmental and social Policy that the Company will follow during construction and operation of the Project	Structured approach to environmental management.	IFC PS 1 Best practice	Own resources, external consultants	2017	Written environmental and social policy. Report to Lenders.	

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1.3	Within the existing organizational structure of the Company assign clear responsibility for management of environmental and social performance of the Company, as well as for implementation of the ESMP and its monitoring. This may be implemented as relevant extension of the duties of the recently nominated Environmental officer or spread around other employees of the Company.	Ensure organizational capability to properly identify, manage and mitigate environmental issues and properly monitor company performance.	IFC PS 1 Best practice	Internal resources	2017	Organizational Chart of the Company.	

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1.4	Provide relevant training to staff responsible for management of environmental and social performance of the Company, as well as for implementation of the ESMP and its monitoring.	Ensure that the staff is properly trained.	Best practice	External resources	2017-ongoing	Certificates of training. Report to Lenders	
1.5	As part of the ESMS the company develop a formalized procedures for Project Monitoring and Review.	Ensure that monitoring of the Project is undertaken in a structured way.	IFC PS 1 Best practice	Own resources	2017-ongoing	Procedures of the EMS. Report to Lenders	
1.6	Conduct independent review of the Project.	Independent review of the environmental and social performance of the Project.	Best practice	External consultant	1 <sup>st</sup> review in 2018 then every 3 years	Independent review reports. Report to Lenders	
1.7	Implement the Stakeholders Engagement Plan, including Grievance Mechanism.	A need for appropriately management stakeholders engagement	IFC PS 1	Own resources	2017-ongoing	Stakeholder engagement report prepared on annual basis. Report to Lenders	

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1.8	Obtain permit for special water use for discharged wastewater	Compliance with legal requirements	Legislative	External resources	Prior commencement of WWTP operations	Permit for Special Water Use Report to Lenders	
1.9	Extend the existing Contractor Monitoring Plan to address a need for construction works being conducted with respect to environment protection and H&S standards. Reserve the right to control/monitor EHS performance during construction works.	Securing that the construction works will be conducted in line with applicable national EHS laws and international standards.	PS 1 and 2	Own resources	Prior commencement of the construction works	Report to Lenders	
1.10	Develop, implement and maintain Emergency Preparedness a Response Plan to address risks to workers and communities during construction and operational stage of the Project.	Identification of risks and exposed workers and communities at different phases of Project development, structured approach to risk avoidance	PS 1 and 4	Own/external resources	In parts – prior to commencement of construction works and operation of the wind farm.	Emergency Preparedness and Response Plan Report to Lenders	

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1.11	Annual reports to the Lenders that present project development and environmental, social and H&S performance of the Project. Provide information on major operational KPIs, H&S statistics and others as indicated in this ESAP	Keep the Lenders informed about the operational and EHS issues	Best practice	Own resources,	Annually, by the end of March for the previous year. First report in 2018.	Annual reports	
<b>PS 2</b>	<b>Working Conditions</b>						
2.1	Develop human resources policy in line with the Ukrainian law and good international industry practice	Ensure compliance and reduce possible labor disputes	IFC PS 2	Own/ resources	2017	Written policy. Report to Lenders	-

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2.2	Secure in agreements with the contractors that all applicable national occupational regulations are followed and that high international standards with respect to employment, such as non-discrimination rule, ban on forced or child labor and others are strictly followed. Request the same rules to apply to contracts with subcontractors.	Ensure that workers' rights are respected by contractors and subcontractors	IFC PS 2	Own resources	2017-ongoing	Contract clauses with contractors Report to Lenders	
2.3	Develop Health and Safety Plan for the construction works which should reflect general requirements of IFC PS 2 and IFC General H&S Guidelines.	Ensure that all H&S risks at the construction sites are identified and that appropriate mitigation measures are properly planned.	IFC PS 2	Own/external resources	Prior to commencement of the construction works	H&S Plan Report to Lenders	

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2.4	Develop Health and Safety Plan for operational phase of the Project, which should reflect general requirements of IFC PS 2 and IFC General H&S Guidelines.	Ensure that all H&S risks at the wind farm are identified and that appropriate mitigation measures are properly planned.	IFC PS 2	Own/external resources	Prior to commencement of the construction works	H&S Plan Report to Lenders	
2.5	Formalize and maintain the existing internal grievance mechanism	Ensure that all employees can submit grievance	IFC PS 2	Own resources	During the Project lifetime	Internal instruction Report to Lenders	
<b>PS 3</b>	<b>Resource Efficiency and Pollution Prevention and Control</b>						
3.1	In agreement with local regulator develop, implement and maintain a wastewater monitoring program for treated wastewater discharged to a river.	Control of the quality and quantity of effluent from the wastewater treatment plant at the MTS	Best practice	External resources	Development of the program before the MTS is operational. Implementation and maintenance during the Project lifetime	Monitoring reports. Report to the regulator Report to Lenders	

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<b>PS 4</b>	<b>Community Health and Safety</b>						
4.1	Undertake post-construction measurements of noise generated by the wind farm. Should extensive noise impact be observed, work out and implement relevant mitigation plan.	Assessment of the actual impact on residential areas.	Best practice.	External resources.	After each phase of the project is operational.	Noise measurements reports. Report to Lenders.	
4.2	Place in appropriate distance warning signs on access roads to wind turbine generators	Mitigation of a risk to humans due to ice or part of blade throw potential	Best practice	Own resources	Prior to commencement of the wind operations	Report to Lenders	
4.4	Monitor compliances related to shadow flicker effect. Should extensive impact is observed implement appropriate mitigation measures.	Mitigation of possible nuisance of shadow flicker	Best practice	Own resources	During operational phase of the Project	Report to Lenders	

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4.5	Develop security management plan that addresses hiring, rules of conduct, training, equipping and monitoring security personnel	Minimization of a risk for security personnel.	IFC PS 4	Own resources	Project lifetime	Report to Lenders	
<b>PS 6</b>	<b>Biodiversity Conservation and Sustainable Management of Living Natural Resources</b>						
6.1	Undertake post-construction monitoring of birds and bats which should include causalities' search.	Assessment of the actual impact of the Project on birds and bats	Best practice	External resources	During 5 years after the wind farm is operational.	Monitoring reports. Report to Lenders	
6.2	Should the monitoring of birds or bats (item 3.3) reveals extensive impact of the Project (i.e. high mortality rates) on these species, work out and implement an impact mitigation plan.	Mitigation of the wind farm impact on avian.	Best practice	External resources	From the year following completion of the first year of monitoring until the end of the monitoring period.	Mitigation plan. Report to Lenders	