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DK WIND FARM

Environmental and Social Management Plan

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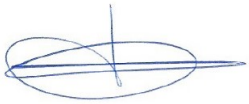
Task and objective:
This construction and operation phase Environmental and Social Management Plan has been compiled for the the Debnica Kaszubska Wind Farm project to be located in Pomerania, Poland.

Prepared by:	Verified by:	Approved by:
		
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Abbreviation	Meaning
DNRE	Department of Natural Resources and Environment
DNV GL	DNV GL Energy Renewables Advisory, GL Garrad Hassan Ibérica S.L.
EHS	Environmental, Health, and Safety
EIA	Environmental Impact Assessment
ED	Environmental Decision
EPC	Engineering Procurement and Construction
ESIA	Environmental & Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
IFC	International Finance Corporation

1 OVERVIEW

This Environmental and Social Management Plan (ESMP) has been completed for the Debnica Kaszubska Wind Farm (the "Project") being planned by Ibereolica (the "Sponsor").

The Debnica Kaszubska Wind Farm project to be located in Pomerania, Poland, which is planned to consist of 6 wind turbines of the model Vestas V126 3.45 MW and corresponding grid connection infrastructure, with a total installed capacity of 20.7 MW. The Project will include power production facilities (wind turbines) and auxiliary infrastructure, including access roads, transmission lines, substation, etc. Construction is planned to commence in the last quarter of 2021.

Environmental Impact Assessment (EIA) reports [1] have been compiled as part of the EIA process to assess the environmental and social impacts associated with the construction, operation and decommissioning activities of the Project, and to ensure that the Project fulfills the requirements of Polish laws and regulations. An Environmental Decision (ED) was issued for the Debnica Kaszubska Wind Farm obtained its ED from the Mayor of Debnica Kaszubska in February 2015 [2]

The ESMP provides a set of guidelines and actions aimed at addressing potential environmental and social impacts associated with the construction and operation of the Project. The ESMP incorporates relevant mitigation measures from the EIAs, the conditions of the EDs, and additional management and mitigation actions that have been identified as necessary to implement the project in the manner that ensures that the Equator Principles and the International Finance Corporation's (IFC) Performance Standards are satisfied.

This ESMP describes and prioritizes the actions needed to implement mitigation, management, monitoring, and institutional measures to be taken during implementation to avoid adverse environmental and social impacts or reduce the impacts to acceptable levels. The ESMP also defines roles and responsibilities for its implementation. Separate environmental management plans will be developed for each phase of the Project development, and the key aspects are summarized in this report.

Finally, an Environmental and Social Management System (ESMS) will be established to provide a framework for integrating the ESMP. An ESMS in line with ISO 14001 is based on the principles of the Plan-Do-Check-Act cycle, which helps to assess and control risks on a continual improvement basis. The ESMP, as the one proposed, assures stakeholders that their requirements for the Project's environmental and social performance will be met as a continuous process that will be implemented to ensure that impacts are mitigated throughout the Project construction and operation.

1.1 Structure of the ESMP

This ESMP is structured as follows:

Section	Heading	Content
Section 1	Overview	Background information regarding the proposed wind farms, EIA and management.
Section 2	Environmental and Social Management Program	Provides details of the environmental and social policy, responsibilities of key role

Section	Heading	Content
		players and ESMS elements to ensure continuous improvement.
Section 3	Stakeholder Engagement	This section outlines consultation activities already carried out and proposed and a further plan for ongoing engagement with stakeholders.
Section 4	Environmental and Social Management Plans	This section details the proposed specific plans and monitoring for the sites.

2 ENVIRONMENTAL AND SOCIAL MANAGEMENT PROGRAM

2.1 Environmental and Social Policy

The Sponsor is committed to undertaking the Project in an environmentally and socially responsible manner. The provisions of the ESMS will apply equally to all Project-related personnel (including contractor, subcontractors, suppliers and visitors) and will be required to perform tasks in a manner that prevents or mitigate environmental and social adverse impacts. The primary Project's objectives in this regards are:

- Complying with all applicable environmental, health and safety legislation;
- Implementing pollution prevention practices and international best practices;
- Engaging regularly with stakeholders regarding the implementation of the pProject; and
- Ensuring continual improvement by maintaining monitoring and reviewing this ESMS.

2.2 Roles and Responsibilities

The key role-players for the purposes of environmental and social management include but are not limited to:

CONSTRUCTION:

- Project Company;
- BOP Site Manager – person responsible for the construction site management. Its obligations are included in the BOP agreement as well as in the Polish Construction Law;
- BOP Contractor – managers and workers executing the construction works;
- OE Site Manager – person representing the Project Company and providing a general supervision of the construction works. Its obligation is also to coordinate the specialists and inspectors involved in the construction in line with the Onwer's Engineer Contract;
- OE Site Supervisors – group of civil, electrical and H&S supervisors. Their obligations are related to detailed supervision of respective aspects of the construction works. The team of site supervisors will include the Statutory Inspectors as requried by the Polish Construction Law;
- OE Environmental and Social Officers – group of environmetnal specialists taking the full responsibility on the performance of the ESMP.

OPERATION:

- WTG O&M provider – company responsible for the proper operation of the wind farm in terms of energy generation and meeting environmental standards by the wind turbines.
- BOP O&M provider - company responsible for the proper operation of the project's infrastructure in terms of general performance and meeting environmental standards.
- Owner's Operations Team – a group of specialists responsible for supervising the entire project at the operational stage.

Details of the responsibilities of key role players have been provided in Table 2-1.

Table 2-1 Roles and responsibilities of relevant personnel

Party	Responsibilities
Project Company	• Obtain the relevant environmental permits, consents and authorizations prior to commencing site works, • Ensure the implementation of the EIA and ESMP throughout the Project life cycle, • Continuously seek to improve any adverse environmental impacts which result from the operational phase, • Prepare and get approval for the ESIA report in which initiatives for preventing, eliminating and reducing potential impacts as well as corrective actions are proposed, • Appoint responsible contractors who have the capacity to comply with the requirement prescribed in this ESIA, • Ensure compliance with all applicable national requirements and IFC guidelines.
BOP Site Manager	• Manage the site according to the conditions of the Environmental Authorization and ESMP, • Prepare management plans and control strategies to ensure the Project commitments and obligations will be met during the various phases of the Project, • Ensure no violation of national requirements and IFC guidelines, • Ensure the necessary resources and processes are in place to implement the operation component of the ESMP.
BOP Contractor	• Ensure the implementation of actions proposed in the ESIA and ESMP throughout the construction works by contractor personnel and subcontractors, • Implement corrective and preventive actions where required, • Update, implement, monitor and maintain the effectiveness of the ESMP, • Training of contractor's personnel and training of subcontractors' personnel on meeting responsibilities with regard to applicable environmental legislation and international guidelines and the content of this ESMP.
OE – Site Manager;	• Organiznig the project procedures in line with ESIA and ESMP throughout the construction works, • Managing and coordinating the OE team, • Monitoring the risks of construction phases and reporting, • General supervisions on the project’s completion, quality and HSE
OE – Site Specialists;	• Supervision of the works in terms of compliance with the Building Permit‘s regulations, compliance with the Building Permit and Execution Design, work specifications, as well as acknowledged technical rules and binding regulations, • Participation in al all pre-acccptance tests, launches, reviews and surveys in order to confirm achieving assumed productivities and eficiencies of installations and systems, • Supervision ensuring the safety and compliancy with fire safety, environment proception, work and safety regulations
OE - Environmental and Social Officer.	• Monitor Project activities daily to ensure compliance with the ED and ESMP. • Maintain a daily register of incidents and indicating how these incidents were addressed, and what preventive or remediation measures were implemented,

Party	Responsibilities
	• Implement a grievance mechanism, including keeping records of each grievance or complaint case and actions taken to resolve the situation,
WTG O&M provider BOP O&M provider	• Regular checks of the project's infrastructure, • Maintenance of the technical equipment installed in the wind farm, • Providing the safe technology meeting the applicable environmental standards
Owner's Operations Team	• Supervision of the environmental specialists conducting the monitorings as required in the Environmental Decision, • Reporging and proposing mitigation meausres in case the Project causes unexpected threat to the environment.

2.3 Training and Awareness

To achieve effective environmental management, it is necessary that contractors be aware of the responsibilities in terms of applicable environmental legislation and international guidelines, and the content of this ESMP. The Project shall ensure that all personnel responsible for the implementation of this ESMP is competent on the basis of appropriate education, training or experience.

All employees and contractors involved in the Project construction are required to undertake a specific training program suitable for their level of involvement in the Project. The level of training will be decided upon the degree of risk exposure and the complexities of mitigation actions. More particular skills for performing measures proposed in the environmental management program will also be trained and strengthened in specialized staff. Specific training programs will be prepared prior to the start of Project activities.

Relevant Environmental, Occupational Health and Safety (OHS) training will be provided for new employees to ensure that they are adequately trained before commencing any work in the Project. The training will be complemented by recommendations related to COVID-19, issued by the Healthcare Authority. Additional training may be supplemented as required depending on the results of competency screening.

Training records will be retained at the Project office and reviewed to assess the training effectiveness as well as the competency of participants in developing the Project.

2.4 Incident, non-conformance and corrective action

Regular inspection of action performance will be carried out to promptly detect potential incidents or non-conformances during the development and operation of the Project. Management at all levels will be responsible for investigating incidents and non-conformances in their respective areas and reporting to the Site Manager. Depending on the level of consequence, the local authority may be notified. All employees are empowered to stop working if they experience or observe unsafe working conditions or at-risk behaviour.

Major accidents and emergencies (e.g. chemical or hydrocarbon spill, fires) are addressed in the Emergency Preparedness and Response Plan, as described in Section 5.1.4.

An assessment of possible corrective and preventive actions is required when an incident occurs, a grievance or complaint is lodged, or non-conformances with the ESMS are identified. Any corrective or preventive action taken to eliminate the cause of actual or potential non-conformances will be commensurate to the nature and

magnitude of the potential environmental and social impact. Corrective actions may result in changes to the ESMS.

2.5 Grievance Mechanism

The purpose of this grievance mechanism is to ensure that grievances or concerns raised by local communities, landowners and other stakeholders are addressed in a transparent and consultative manner by the Project.

A dedicated team will be assigned as the contact person to receive and address all grievances and queries successfully.

All grievances or complaints relating to the Project construction and operation will be documented in a form. The Site Manager is responsible for maintaining a register of all complaints in the grievance register. Before responding to the complainant, an investigation will be conducted, and if necessary, corrective actions will be implemented. After resolution, the grievance must be formally closed out, documenting actions taken and closing out in the grievance register.

It is expected that key grievances received from stakeholders will mainly relate to:

- Compensation payment and support to land sellers;
- Health and safety issues related to environmental impacts on nearby residents; and
- Social issues resulting from construction activities.

As part of the ESMS monitoring and review, grievance indicators will be assessed to identify grievance process improvements.

2.6 Monitoring and Review

A monitoring program will be developed to ensure compliance with the Project's requirements. In the event that non-conformances with applicable standards are detected via monitoring programs, further investigation will be implemented along with corrective actions.

The Environmental and Social Officers are primarily responsible for implementing the monitoring program. Key details on location, parameters and frequency of the monitoring plan applied for each environmental and social component are provided in Section 4 below.

Results of monitoring programs will be reported periodically to the Site Manager to review the effectiveness of mitigation measures (See section 2.7.1). Based on these performance reviews, the Site Manager and Environmental and Social Officers will take the necessary and appropriate steps to ensure conformance.

2.7 Reporting

2.7.1 Monitoring report

The results of the monitoring program will be reported periodically to the Sponsor for the effectiveness review of the mitigation measures. Relevant stakeholders, including lenders, government authorities, and the affected community, will be notified about the progress of the monitoring programs. An environmental and social monitoring report will be provided on the status of implementing the ESMP and compliance with applicable standards. The reporting frequency will be determined.

2.7.2 Incident Reporting

Incident notification will be classified as non-routine reporting. Upon the occurrence of incidents associated with the Project's activities, the Site Manager will report related information to the Sponsor, including cause (if identified), consequence and response activities (if any). The Sponsor, in turn, will decide whether the incident must be reported to the regulatory authority and the Lender.

3 STAKEHOLDER ENGAGEMENT

The Sponsor will develop a Stakeholder Engagement Plan (SEP) for the Project that provides an outline of objectives, key stakeholders and communication methods. It will include a community engagement plan to secure good relations with local communities during construction. The stakeholder engagement process includes stakeholder analysis and engagement planning. Stakeholders vary in terms of the degree of interest, influence and control they have over the Project. Stakeholder mapping helps in identifying the different stakeholders based on the degree of impact on the Project and by analyzing the interest each of them has in the Project and the manner in which both the stakeholder group and the Project can benefit from each other. Various stakeholders and agencies were engaged as part of the development and permit review process, including the Regional Environmental Director, the Mayor of Debnica Kaszubska, and aviation authority. The Biały Bór Commune was also contacted throughout the Project development. These stakeholder engagement activities are relevant and appropriate for a wind energy project located within this jurisdiction.

3.1 Roles and Responsibilities

A Social Officer will be assigned by the Project Company to coordinate engagement with Project stakeholders. The Social Officer is also responsible for ensuring that stakeholders, including local communities, are aware of Project's grievance mechanism. The Social Officer, in conjunction with the Site Manager, will release external communications regarding the Project. Communication includes updates on mitigation and management measures, community investment programs or initiatives, and progress regarding specific issues raised by the general public.

4 ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

The potential environmental and social impacts associated with the Project were identified and assessed during the Environmental Impact Assessment (EIA) process. Project-specific environmental impacts associated with the construction, operation and decommissioning phases, and proposed mitigation measures are presented in the Table 4-1.

Table 4-1 Environmental management plan for the Project

Project Activities	Valued Environmental component	Potential Impacts	Mitigation Measures	Responsibility	Monitoring	Contingency	Reporting
Construction / Decommissioning phase							
Land levelling	Land reclamation	Preventing the land reclamation after construction	• Removed soil layer will be stored in order to be used for land reclamation after the completion of construction • Remove a layer of fertile soil with a thickness of approx. 20 cm and store it in heaps, up to approx. 1.5 m high and up to approx. 3 m wide, located outside construction sites.	Implementation: BOP Contractor managed by the BOP Site Manager Supervision: Owner's Engineer	Monitoring parameters: • Land on which construction work is carried out Frequency: Daily	N/A	Monthly report
	Surface water	Negative impact on surface water	• When crossing roads, drainage network elements and watercourses, use trenchless methods of laying cables in the ground (by means of controlled drilling or jacking), in agreement with the management, manager or owner of the facility; • Protect the ground and water in work areas of the investment from pollution connected with the work of the mechanized equipment by taking care of the technical condition of the equipment, securing the places of temporary bases of the construction equipment (use impermeable surfaces) and eliminating possible repairs of the equipment outside these areas.	Implementation: BOP Contractor managed by the BOP Site Manager Supervision: Owner's Engineer	Monitoring parameters: • Roads, sewage network elements and watercourses along the route of the works • Land on which construction work is carried out Frequency: Daily	N/A	Monthly report
Operation of construction equipment	Noise protection	Negative impact on the surrounding area	• Construction work, which is a source of excessive noise, in the vicinity of acoustically protected areas will be carried out only during the daytime; • Transport the excavated material from the excavations for the foundations and the construction materials and elements of the	Implementation: BOP Contractor managed by the BOP Site Manager Supervision: Owner's Engineer	Monitoring parameters: • Land on which construction work is carried out Frequency: Daily	N/A	Monthly report

Project Activities	Valued Environmental component	Potential Impacts	Mitigation Measures	Responsibility	Monitoring	Contingency	Reporting
			power plant outside the night hours (10 p.m. - 6 a.m.) with the exception of the transport of bulky items (elements of the power plant), which may be carried out during the night hours; • Shut down machines and equipment during breaks (avoid idle operation).				
Construction and installation of infrastructure	Pollution prevention	Pollution of the environment caused by construction waste	• A Waste Management Plan shall be established to ensure proper storage, management and disposal of waste in accordance with country's legislation and best management practices.	Implementation: BOP Contractor managed by the BOP Site Manager Supervision: Owner's Engineer	Waste Management Plan	N/A	Prior to construction
			• Construction site shall be equipped with sorbents to enable efficient and effective removal of any oil contamination caused by leaks in mechanical equipment; • Secure the excavation site against the possibility of contamination associated with construction work; no waste may be left in the excavation site; • Shut down machines and equipment during breaks in operation (avoid idle operation);	Implementation: BOP Contractor managed by the BOP Site Manager Supervision: Owner's Engineer	Monitoring parameters: • Land on which construction work is carried out Frequency: Daily	N/A	Monthly report
			• Store waste selectively in appropriate sealed, labelled containers, in places that are hardened and protected against weather conditions and access by unauthorised persons and ensure its regular collection by authorised companies; • The sanitary needs of building crews and people on the construction site will be	Implementation: BOP Contractor managed by the BOP Site Manager Supervision: Owner's Engineer	Monitoring parameters: • Land on which construction work is carried out Frequency: Daily	N/A	Monthly report

Project Activities	Valued Environmental component	Potential Impacts	Mitigation Measures	Responsibility	Monitoring	Contingency	Reporting
			secured by setting up portable lavatories with airtight sewage tanks and ensuring the collection of waste by specialized companies;				
	Birds protection	Negative impact on the birds population	• Works in forest areas and felling of trees and bushes will be carried out outside the period of breeding and rearing young birds (i.e. outside the period from 1 March to 31 August); • The construction work will be carried out outside the breeding period of birds nesting on the ground or shrubs, i.e. outside the period from 1 March to 31 August, or the commencement of construction work related to the transformation of plant cover will be preceded by verification of information on the occurrence of nests by an ornithologist. If it is found that the birds are nesting, the works will be carried out after the birds have hatched; • Do not create new green areas, especially those planted with high greenery • Do not introduce new afforestation; • Do not create new ponds	Implementation: BOP Contractor managed by the BOP Site Manager Supervision: Owner's Engineer, Environmental specialist hired by the Project Company	Monitoring parameters: • Land on which construction work is carried out Frequency: Daily	N/A	Monthly report
	Bats protection	Negative impact on the bats population	• Do not create new green areas, especially those planted with high greenery • Do not introduce new afforestation; • Do not create new ponds; • Do not plant trees and shrubs and remove spontaneous new bushes along the roads, which will reduce the frequency of bats appearing in the farm area;	Implementation: BOP Contractor managed by the BOP Site Manager Supervision: Owner's Engineer, Environmental specialist hired by the Project Company	Monitoring parameters: • Land on which construction work is carried out Frequency: Daily	N/A	Monthly report

Project Activities	Valued Environmental component	Potential Impacts	Mitigation Measures	Responsibility	Monitoring	Contingency	Reporting
			• When felling trees forming avenues and rows, do not cut down more than 3 trees growing one after another. If more trees or old and hollow trees need to be felled, consult a chiropterologist;				
	Trees protection	Negative impact on the trees around the site	• Secure roadside trees along the route, including in the area of exits of construction vehicles and transporting individual structural elements of the power plant from the existing roads to access roads, by covering tree trunks and proper vehicle manoeuvring; • Use, in agreement with the nature supervision, a cover that does not touch the moulds of the lichen; • To protect the root systems (trees and shrubs not planned to be felled directly adjacent to the building site, through the passageways of construction equipment), work must be carried out using micro-machines or by hand; • Do not store aggregate, cement, oils, fuels and other substances in a zone at least 10 m away from the tree trunks, and locate temporary yards outside the contour of the tree crown cast; • Trees damaged during construction work shall be treated with care, including protection of damaged roots and resulting wounds;	Implementation: BOP Contractor managed by the BOP Site Manager Supervision: Owner's Engineer, Environmental specialist hired by the Project Company	Monitoring parameters: • Land on which construction work is carried out • Trees outside the site area Frequency: Daily	N/A	Monthly report
	Protection of small terrestrial animals	Negative impact on the small terrestrial animals	• Protect the excavations from small animals (reptiles, amphibians and small mammals) by means of temporary fences, nets or baffles. If nets are used, the mesh will be	Implementation: BOP Contractor managed by the BOP Site Manager	Monitoring parameters:	N/A	Monthly report

Project Activities	Valued Environmental component	Potential Impacts	Mitigation Measures	Responsibility	Monitoring	Contingency	Reporting
			no larger than 5 mm in diameter. Use enclosures at least 50 cm above ground level with the top edge curved towards the passing amphibians, buried at least 10 cm deep; • Check pits regularly (daily) to ensure that there are no animals in them and, if found, move them into their proper habitat;	Supervision: Owner's Engineer, Environmental specialist hired by the Project Company	• Land on which construction work is carried out • Trees outside the site area Frequency: Daily		
	Debnica Kaszubska Wind Farm - Specific requirements Highly sensitive and "no go" areas	Negative impact on protected species and their habitat	• During the construction works on the whole length of the planned cable line and access roads to the power plant no. 5 (located on the plot of land no. 228, 229, Dobieszewo district) and power plant no. 6 (located on the plot of land no. 252, 253, 214/1, 215/2, 215/1, Dobieszewo district) must guarantee the nature supervision on a current basis controlling the conduct of the investment in the vicinity of natural habitats and habitats of protected species; • The entrances/exits of the controlled drillings will be conducted at a distance of at least 10 m from the patches of natural habitats: 3150 old river beds and natural eutrophic water reservoirs with communities of Nympheion, Potamion, 4030 dry heathlands (Calluno - Genistion, Pohlio-Callunion, Calluno-Arctostaphylion), 6510 lowland and mountain fresh meadows with extensive use (Arrhenatherion elatioris), 91E0 willow, poplar, alder and ash riparian forests (Salicetum albo-fragilis, Populetum albae, Alnenion glutinoso-incanae) and spring alder. Store the excavated material directly in the vehicle body;	Implementation: BOP Contractor managed by the BOP Site Manager Supervision: Owner's Engineer, Environmental specialist hired by the Project Company	Monitoring parameters: • Land on which construction work is carried out • Trees outside the site area Frequency: Daily	N/A	Monthly report

Project Activities	Valued Environmental component	Potential Impacts	Mitigation Measures	Responsibility	Monitoring	Contingency	Reporting
	Health and safety of site personnel	Negative impact on site personnel's health and safety	• A health and safety plan must be developed and implemented in accordance with the Polish Occupational Health and Safety regulations	Implementation: BOP Contractor managed by the BOP Site Manager Supervision: Owner's Engineer	Health and Safety Plan	N/A	Prior to construction
	Traffic safety	Negative effects associated with the increase of vehicle traffic	• Develop a Traffic Management Plan that includes driver training, vehicle maintenance, speed restrictions, road safety signage, and other control measures.	Implementation: BOP Contractor managed by the BOP Site Manager Supervision: Owner's Engineer	Traffic Management Plan	N/A	Prior to construction
	Socio-economic impact	Claims of stakeholders	• Develop a Stakeholder Engagement Plan indicating organizations or individuals that may be affected or have an interest in the Project and stakeholder engagement and disclosure activities, and stakeholder register.	Implementation: Project Owner	Stakeholder Engagement Plan: Periodic external communications regarding the Project: updates on mitigation and management measures, community investment programs or initiatives, and progress regarding specific issues raised by the general public.	N/A	Prior to construction
		Claims with Municipality	• Establish a compensation payment schedule under a signed agreement between project owner and municipality	Implementation: Project Owner Supervision: Social Officer designated by Project Owner	Annually report documenting and verifying the use and destination of the investments made with the contributions provided by the Project Owner	N/A	Prior or during construction as established in the compensation agreement

Project Activities	Valued Environmental component	Potential Impacts	Mitigation Measures	Responsibility	Monitoring	Contingency	Reporting
		Claims and protest of landowners	• Follow up on rearranged Land Lease Agreement with Mr. Motarski: ▪ Plan and execute regular land surveys works in order to establish a clear division of WTG used lands and lands that can be used for agriculture. ▪ Removal of the top layer of the soil and storage of the same (in order to return it to the correct levelling after construction).	Implementation: Project Owner Supervision: Social Officer designated by Project Owner	Report of land plot division	N/A	Prior and during and construction
	Archaeological findings	Damage or destruction of objects of archaeological value	• Any archaeological findings should be properly secured and delivered to the authorities in line with the Polish regulations. Construction works in places of the findings must be coordinated in line with the applicable regulations.	Implementation: BOP Contractor managed by the BOP Site Manager Supervision: Owner's Engineer	Monitoring parameters: • Land on which construction work is carried out Frequency: On each occurrence of the archaeological findings	N/A	On each occurrence of the archaeological findings
	Shadow Flicker	Negative impact on the neighbouring households	• Assessment of the shadow flicker effect and its impact on the nearby households.	Implementation: Environmental specialist hired by the Project Company Supervision: Project Company	Monitoring parameters: • Wind farm neighbourhood	N/A	Prior to construction
	Labour and Working Conditions		• Adopting and implementing human resources policies and procedures appropriate to its size and workforce that set out its approach to managing workers consistent with the requirements of this Performance Standard and national law. • Document and communicate to all employees' conditions and terms of employment.	Implementation: BOP Contractor managed by the BOP Site Manager Supervision: Owner's Engineer	Health and Safety Plan and other relevant plans delivered by the BOP contractor	N/A	On demand

Project Activities	Valued Environmental component	Potential Impacts	Mitigation Measures	Responsibility	Monitoring	Contingency	Reporting
			• Practice non-discrimination and equal opportunity in making employment decisions • Provide a mechanism for workers to raise workplace concerns. • Provide workers with a safe and healthy work environment, taking into account risks inherent to the particular project sector				
Operation phase							
Operation of the Project	WTG Maintenance	Technical failures	• Carry out a periodic check of the technical condition of the equipment in order to detect irregularities and prevent technical failures; • Carry out maintenance work (gear and hydraulic oil changes) under favourable weather conditions (no precipitation) and, during the maintenance work, equip the area around the engine room with substances allowing for quick collection of possible accidental leaks; • Carry out continuous monitoring of the operation of the power plant and its associated equipment in order to reduce the risk of failure;	Implementation: WTG O&M provider Supervision: Owner's Operations Team	Site inspection Frequency: Monthly	N/A	Annually
	BOP Maintenance	Technical failures	• Carry out a periodic check of the technical condition of the equipment in order to detect irregularities and prevent technical failures; • Carry out scheduled and unscheduled maintenance works;	Implementation: BOP O&M provider Supervision: Owner's Operations Team	Site inspection Frequency: In line with the substation O&M contract	N/A	In line with the substation O&M contract

Project Activities	Valued Environmental component	Potential Impacts	Mitigation Measures	Responsibility	Monitoring	Contingency	Reporting
			• Carry out continuous monitoring of the Project's and its associated equipment in order to reduce the risk of failure;				
	Land protection	Land pollution and damages	• Any spills of hazardous substances which may occur during the operational phase shall be immediately eliminated; • Decommission/dismantle wind power plants within 1 year of the end of their operation, in accordance with the legal provisions in force during the dismantling period. The land after the dismantled power plant is reclaimed; • Waste generated in connection with maintenance works (in particular, containing oil-derivative substances) will be transferred for recovery or disposal to a consignee holding a relevant permit for its further management; • Ensure access to spill neutralising sorbents for the time of oil change.	Implementation: WTG O&M provider Supervision: Owner's Operations Team	Site inspection Frequency: Monthly	Incident/Accident event	Annually
	Noise protection	Noise pollution	• The noise protection mode of the individual turbines shall be such that the noise emitted by them does not exceed the permissible noise standards for protected areas; • To meet the permissible noise levels in the environment in the protected areas in terms of acoustics, as specified in the applicable regulations, the acoustic power of the turbines at night must be limited to 104.5 dB for the level: • Operate the project in a manner that enables it to meet noise standards and in a	Implementation: WTG O&M provider Supervision: Owner's Operations Team, Environmental specialist hired by the Project Company	Site inspection Frequency: Monthly	N/A	Annually

Project Activities	Valued Environmental component	Potential Impacts	Mitigation Measures	Responsibility	Monitoring	Contingency	Reporting
			manner that does not endanger human safety and health				
	Noise monitoring	Noise pollution	• A noise level measurement (including 24-hour measurements)	Implementation: Environmental specialist hired by the Project Company Supervision: Owner's Operations Team	Noise measurement Frequency: • Within 3 months after start of operation	N/A	Available upon request
	Bats protection	Negative impact on the bats population	• Carry out chiroptera or bat monitoring under the supervision of a chiropterologist for 3 years from the date of commissioning	Implementation: Environmental specialist hired by the Project Company Supervision: Owner's Operations Team	Post-construction bat mortality monitoring Frequency: For the first 3 years of wind farm operation	N/A	Annually
	Bats protection	Negative impact on the bird population	• Carry out ornithological monitoring for a period of 5 years from the date of commissioning, repeating the survey three times (in 1, 2 and 3 years or in 1, 3 and 5 years of the farm's use), each time covering the annual observation cycle, covering the entire wind farm area	Implementation: Environmental specialist hired by the Project Company Supervision: Owner's Operations Team	Post-construction bird mortality monitoring Frequency: Annually for the first 5 years of operation	N/A	Annually
	Shadow flicker	Negative impact on the neighbouring households	• Measurement of the shadow flicker effect and its impact on the nearby households. • Confirmation of the pre-construction assessment	Implementation: Environmental specialist hired by the Project Company Supervision: Owner's Operations Team	Monitoring parameters: • Wind farm's neighbourhood Frequency: First year of operation from commissioning	N/A	Post construction

Project Activities	Valued Environmental component	Potential Impacts	Mitigation Measures	Responsibility	Monitoring	Contingency	Reporting
	Socio-economic	Social impact	• Implement and monitor the Stakeholder Engagement Plan developed before construction • Follow-up on any re-arising complaint or grievance	Implementation: Project Owner Supervision: Social Officer designated by Project Owner	Periodic external communications regarding the Project: updates on mitigation and management measures, community investment programs or initiatives, and progress regarding specific issues raised by the general public.	N/A	Annually, during the operation of the wind fam (30 years)
		Claims with Municipality	• Establish a final signed compensation agreement between Municipality and Project Owner and a corresponding compensation payment schedule as part of a Social management plant (Stakeholder Engagement)	Implementation: Project Owner Supervision: Social Officer designated by Project Owner	Verification of the use and destination of the investments made with the contributions provided by the Project Owner	N/A	Annually during operation as established in the compensation agreement
		Claims and protest of landowners	• Follow up on rearranged Land Lease Agreement with Mr. Motarski, after individual claim: ▪ Project owner will be responsible of removing the non-used infrastructure after construction ▪ Project owner will be responsible of returning the land to its original stage (ground restauration and removal of road top layers)	Implementation: Project Owner Supervision: Social Officer designated by Project Owner	Report of restauration measures	N/A	Post construction (no later than 6 months after LLA expiration date)
			• Land Lease Agreements with Landowners		Periodic attention to landowners		Annually or as established in land lease agreements for operation phase

5 ENVIRONMENTAL AND SOCIAL MONITORING PROGRAM

A monitoring program will be implemented through all Project phases, to ensure the effective implementation of the mitigation measures. A description of key environmental and social aspects including actions, frequency, location and monitoring parameters have been provided in Table 4-1. Monitoring results will be collected and reviewed to examine the effectiveness of mitigation measures and determine whether there exist any non-conformances with applied standards.

As a critical component of this ESMP, several additional management plans have been developed to comply with the ED requirements or to avoid/minimize potential adverse environmental and social impacts. Each of these management plans includes specific monitoring and measurement process, and they are detailed as follows:

5.1.1 Waste Management Plan

[To be completed by the appointed contractor prior to construction]

5.1.2 Community and Stakeholder Engagement Plan

[To be completed by the Sponsor prior to construction]

5.1.3 Health and Safety Plan

A Project-specific Health and Safety Management Plan will be developed to implement all requirements and safe work procedures required in connection with construction and operation activities on-site pursuant to the Occupational Health and Safety (OHS) regulations and standards (e.g. OSHAS 18001, ISO 45001).

Incidents/accidents will be investigated to identify the underlying causes and to put forward the most suitable measures to cope with the occurrence promptly. All aspects relevant to the issue will be reviewed, and a report of the investigation will be completed and sent to management and the appropriate authorities, as necessary.

Reports on incident/accident will include a conclusion on the type and level of damage and the causes of the incident/accident. The report will also propose measures and methods to avoid the reoccurrence of the same or similar problem.

Following the completion of the investigation and the finalization of the report, the Emergency Preparedness and Response Plan prepared to deal with incidents/accidents will be updated as necessary.

Records of health and safety issues will be collected throughout all Project phases and kept at the Site office. Biannually investigations will be conducted to review the number of incidents/accidents, its level of damage as well as determining underlying causes.

The investigation outcomes will facilitate the development of the management plan regarding the protection of workers/staff health from occupational accidents and illness.

5.1.4 Emergency Preparedness and Response Plan

The Emergency Preparedness and Response Plan (EPRP) will be developed to address risks and to mitigate any adverse impacts associated with the occurrence of emergency incidents. Emergency risks to be discussed include:

- Spillage or leakages of hazardous material
- Fire on-site and/or neighbouring properties

Even though the Project is not classified as a hazardous material industrial under the Act of 27 April 2001 Environmental Protection Law, an incident may be caused by the release of hazardous material during storage, use, or transport. According to the Act of 27 April 2001 Environmental Protection Law, "Anyone who notices the occurrence of an accident is obliged to immediately notify the persons located in the danger zone and the organizational unit of the State Fire Service or the Police or the commune head, mayor or city mayor". Local government (Municipality) departments that may be involved in an emergency response include, but not limited to, fire, police, emergency medical services, industry. The EPRP will identify the Project personnel who will initiate the notification process and authorities to be notified during an emergency.

An assessment of the EPRP is required after an emergency event, and the lessons learned must be incorporated.

5.1.5 Traffic Management Plan

[To be completed by the appointed contractor prior to construction]

6 REFERENCES

[1] Proeko, "Raport o Oddziaływaniu na Środowisko Farmy Wiatrowej Dobieszewo z Przyłączem Kablowym SN i Abonencką Stacją Elektroenergetyczną SN/110 kV Planowaną w Sąsiedztwie GPZ Dębnica Kaszubska" – Environmental Impact Assessment Report for Debnica Kaszubska Wind Farm Project, 21 March 2013.

[2] Mayor of Debnica Kaszubska commune, "Decyzja o środowiskowych uwarunkowaniach" – Environmental Decision for Debnica Kaszubska Wind Farm, issued on 10 February 2015

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