



Non-Technical Summary

Wrzesnia Wind Farm 8.8 MW, Poland

Company: Quadran Polska

7 October 2019

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CONTENTS

Contents

1.	INTRODUCTION	5
2.	SUMMARY OF THE PROJECT	6
2.1	Site selection criteria.....	6
2.2	Project Description.....	6
2.3	Other Wind Farm Projects in the Area	10
2.4	Project Environmental Performance	10
3.	SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES	11
3.1	Soil and Groundwater	11
3.2	Surface Water.....	11
3.3	Air Quality	12
3.4	Biodiversity and Nature Conservation.....	12
3.4.1	Site Context	12
3.4.2	Legally Protected Sites	12
3.4.3	Birds.....	13
3.4.4	Bats.....	13
3.4.5	Other Biodiversity Receptors	14
3.5	Landscape and Visual Impacts	15
3.6	Cultural Heritage.....	15
3.7	Socioeconomic Impact.....	15
3.8	Community Health, Safety and Security	16
3.8.1	Transportation Issues	16
3.8.2	Environmental Noise.....	17
3.8.3	Shadow Flicker	17
3.8.4	Ice and Blade Throw	17
3.8.5	Electromagnetic Interference	18
3.8.6	Public Access and Health and Safety	18
3.9	Cumulative Impacts	18
3.10	Transboundary Impacts	19
3.11	Impacts During Decommissioning	19
4.	ENVIRONMENTAL AND SOCIAL MANAGEMENT.....	19

List of Figures

Figure 2-1	Project Location Map with affected residential areas	7
Figure 2-2	Project layout map	7
Figure 2-3	The nearest protected areas.....	8
Figure 2-4	Diagram of a wind turbine	9
Figure 2-5	Approximate location of the existing windfarms within a buffer of 10 km to the Wrzesnia WF	10
Figure 3-1	Project site and ecological corridor Dolina Warty	13

Acronyms and Abbreviations

Name	Description
EBRD	European Bank for Reconstruction and Development
EIA	Environmental Impact Assessment
E&S	Environmental & Social
ESDD	Environmental and Social Due Diligence
GHG	Greenhouse Gas
NTS	Non-Technical Summary
PR	Performance Requirements
SPV	Special Purpose Vehicle
WF	Wind Farm
WT/WTG	Wind Turbine/ Wind Turbine Generators

1. INTRODUCTION

This Non-Technical Summary (NTS) provides an overview on the environmental and social (E&S) impacts associated with the construction, operation and decommissioning of the *8.8 MW Wrzesnia Wind Farm* Project (hereinafter referred to as "*the Project*") and the measures considered to keep these at acceptable levels, so that no harmful effects are induced and relevant norms and regulations are met.

The Project was initially proposed by the company Domrel through its Special Purpose Vehicle (SPV) EW Niechanowo. The ownership of the Project was changed in July 2016, when Quadran Polska acquired it to proceed with its development. The Project is located in the area of Gasiorowo, Chwalszyce and Podstolice villages, Nekla Commune, Wrzesinski County, Wielkopolskie Voivodeship, western Poland.

An Environmental Impact Assessment (EIA) prepared by a local consultant was completed for the Project in September 2009. The local EIA process was favorably approved through an Environmental Decision issued on January 18th, 2010 by the Mayor of Nekla City and Commune, which became final on February 10th, 2010. On January 28th, 2014 the Environmental Decision was extended, the Mayor of Nekla City and Commune stated that the Project would be conducted in stages and that conditions included in Environmental Decision issued on January 18th, 2010 were relevant and a revised Decision was not necessary. Furthermore, additional biodiversity surveys were performed during the Project pre-construction and the first two years of operation, with the purpose of confirming the results of the completed assessments and defining any additional mitigation, if necessary.

The above-mentioned EIA identified the environmental and social impacts anticipated to occur as a result of the Project implementation, and evaluated their significance. Where significant adverse changes were identified, measures to avoid, reduce or compensate for those changes have been defined and will be implemented during the course of construction and, furthermore, during the operation of the Project.

The Project Owner is seeking to enter a financial agreement with international lender institutions such as the European Bank for Reconstruction and Development (EBRD), having strict environmental and social requirements (Performance Requirements - PRs) for project financing. In order to assess how the Project meets these standards, ERM was commissioned to undertake a gap analysis of the environmental and social documents prepared for the Project (local EIA and follow up biodiversity surveys) against the EBRD PRs. As part of this process, and to bridge the gaps identified to lender requirements, ERM also developed additional documents such as:

- this NTS;
- a Corporate Stakeholder Engagement Framework (see Section **Error! Reference source not found.**).

The above documents will be translated into Polish and together with the local EIA (2009) will form the disclosure package for the Project and will be made publically available. Furthermore, the Corporate Stakeholder Engagement Framework will be used by the Project Owner to develop a Stakeholder Engagement Plan for the Project.

The disclosure package will be publically available in hard copy at Quadran's office at the following address: 2c Wagonowa Street, 53-609 Wroclaw. Additionally, the electronic form of these documents will be available for consultation on:

- Project Owner website: www.quadran-international.com; and
- EBRD website (www.ebrd.com).

There is a mechanism in place to receive and address grievances, questions, comments and suggestions from stakeholders. Such grievances regarding the Project can be submitted through the following channels:

-
- by regular mail to: Quadran Polska, 2c Wagonowa Street, 53-609 Wroclaw, Poland;
 - by e-mail to: biuro@quadraninternational.com;
 - by contacting the Project's Communication Officer: Mirosław Polec, Head of Development, email: m.polec@quadran-international.com, phone: +48 512 086 694.

2. SUMMARY OF THE PROJECT

2.1 Site selection criteria

The location of the Wrzesnia wind farm was selected based on a number of criteria, for example:

- the site is located outside any protected and residential areas;
- wind measurements performed indicated that the site has good wind resources;
- relative proximity (approximately 6 km straight line to the east of the Project site) to a main energy distribution grid connection;
- the site has good access via the existing public roads;
- suitable geotechnical ground conditions;
- land availability;
- limited environmental, health and social predicted impacts (e.g. on noise and shadow flickering, complying with the health protection buffers, area of low-value landscape etc.).

2.2 Project Description

The Project will be located on flat arable land, in the area of Gasiorowo, Chwalszyce and Podstolice villages, Nekla Commune, Wrzesinski County, Wielkopolskie Voivodeship, western Poland. The nearest residential property is located approximately 600 m west of WTG No. 4.

The Project location and layout maps are illustrated in

Figure 2-21 and

Figure 2-2.

The Project is located outside of any legally protected areas. The nearest Natura 2000 site is the Site of Community Importance Grady w Czerniejewie (PLH300049), located approximately 5 km north-east of the Project site (see **Error! Reference source not found.** below).

Figure 2-1 Project Location Map with affected residential areas



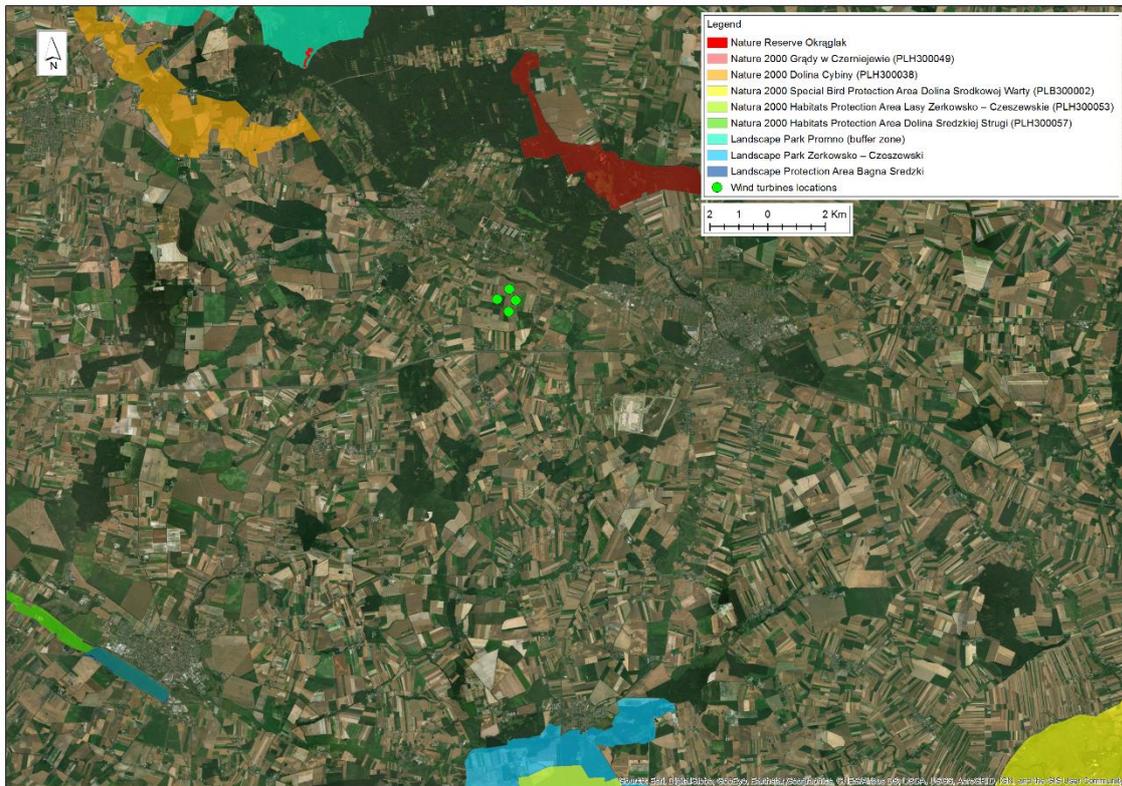
Source: Google maps, edited by ERM.

Figure 2-2 Project layout map



Source: Google Earth, edited by ERM.

Figure 2-3 The nearest protected areas



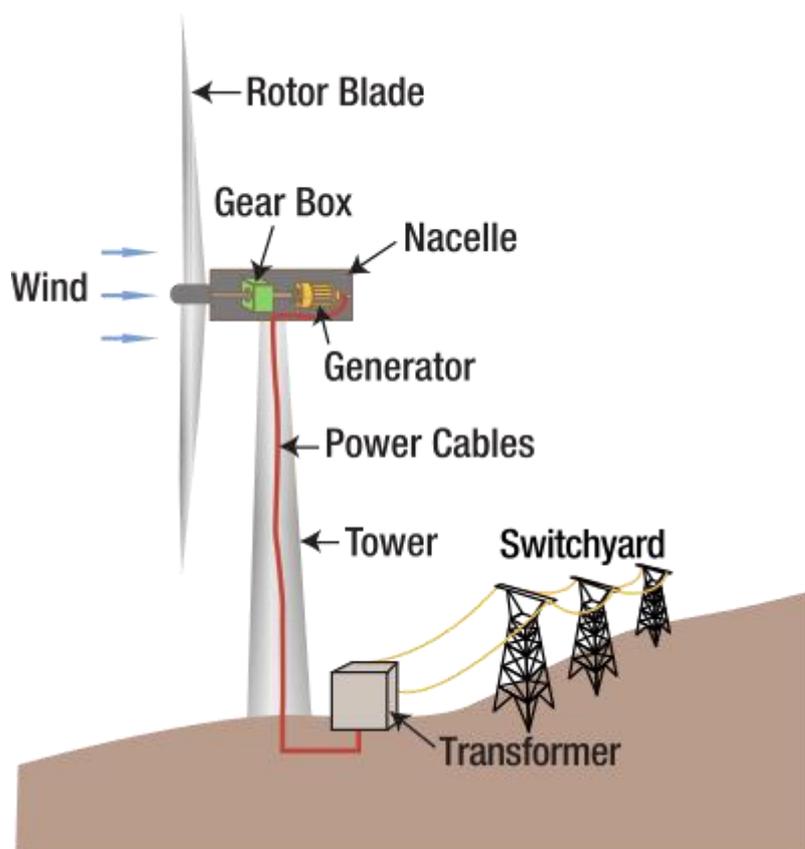
Source: Geoserwis, Goggle Earth, edited by ERM.

The main Project components will include:

- 4 Vestas V110 wind turbine generators (WTG), with a rotor diameter of 110 m and hub height of 115 m; each WTG will have a capacity of 2.2 MW, i.e. a total Project capacity of 8.8 MW; all WTGs will be located in Nekla commune;
- approximately 13 km of underground transmission lines, which will connect all WTGs directly to the existing 15/30/110 kV electrical substation located in Sokolowo (east of the Project site). The existing electrical substation belongs to the ENEA grid operator.
- internal access roads from the local asphalt roads to the individual turbine locations.

The diagram of a wind turbine is illustrated in Figure 2-4 below.

Figure 2-4 Diagram of a wind turbine



Source: https://en.wikipedia.org/wiki/File:Wind_turbine_diagram.svg

Project Schedule

The Project area is not covered by the Local Zoning Plan. However, the Project holds the Decision on Building Conditions¹ which allows the construction of all WTGs along with the transmission lines in the area of Nekla commune.

The Final Environmental Decision for the Project was issued on February 10th, 2010 by the Mayor of Nekla City and Commune. On January 28th, 2014 the Environmental Decision was extended, the Mayor of Nekla City and Commune stated that the Project would be conducted in stages and that conditions included in Environmental Decision issued on January 18th, 2010 were relevant and a revised Decision was not necessary. Moreover, designs and building permits for all WTGs and the transmission lines have already been issued and are currently valid.

Project construction is currently planned to start in January 2020. For the first two months, Project activities will consist in clearance of the land and construction of the roads and foundations. Turbine components will start to be transported to the site after these two months. It is currently foreseen that one turbine will be erected in two days. The Project start of operation is planned for May 5th, 2021.

Land acquisition

The cession and superficies agreements for the land required for the Project were concluded (by the previous Project owner) with land owners on a voluntary basis. No owners were forced to give up their land and no physical resettlement was required for the development of the Project. At the end of the construction period, the land areas not occupied by turbines and other infrastructure (e.g. roads) will be restored to agricultural use.

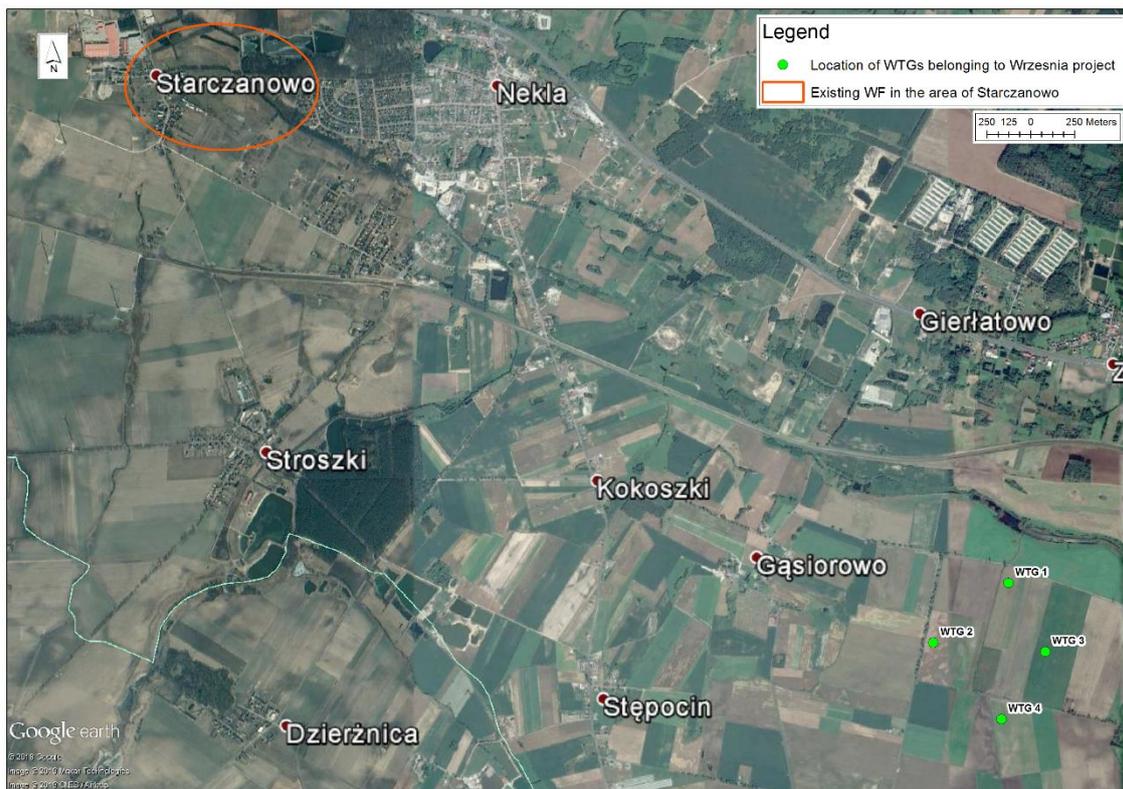
¹ Decyzja o warunkach zabudowy

2.3 Other Wind Farm Projects in the Area

Based on public information and on the data provided by the representatives of the local authorities, there is one operational WF located 7 km north-west of the Project site, in the area of Starczanowo village. It comprises 4 WTGs, of 2 MW each. The approximate location to this wind farm in relation to the Project site is illustrated in Figure 2-5 below.

Moreover, several photovoltaic power plants are currently being developed in the area. However, no detailed information was available with regard to their location.

Figure 2-5 Approximate location of the existing windfarms within a buffer of 10 km to the Wrzesnia WF



Source: Google Earth, edited by ERM.

2.4 Project Environmental Performance

The expected annual energy production from the Project will be of approximately 26,881 MWh. As a positive effect, the wind farm operation will result in a significant reduction of greenhouse gas (GHG) emissions, by replacing carbon dioxide (CO₂) emitting power generation facilities. Therefore, the environmental benefit of the Project will be the reduction of GHG emissions by an amount of 17,150 tons/year (calculated based on an emission factor, representative for conventional energy projects, of 0.638 t CO₂/MWh, for Poland in 2012).

In addition to GHG emission savings, the future operations of the Project will also result in significant avoidance of post-combustion emissions. As an example, the equivalent production of electricity by the largest Polish hard-coal power plant would result with the following emissions (estimations based on emission factors for 2011):

- Particulate matter (PM): approximately 2.4 tons/year;
- Sulphur dioxide (SO₂): approximately 70.7 tons/year;

-
- Nitrogen oxides (NO_x): approximately 46.1 tons/year.

3. SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

3.1 Soil and Groundwater

Potential impacts on soil and groundwater during Project construction could be associated with removal and handling of topsoil, soil compaction, and potential spills of fuel, lubricants and paint. Impacts on soil and groundwater generated by future operations of Wrzesnia WF could potentially result from leakage of lubricants from the wind turbine nacelle and the transformer substation. However, this is unlikely due to the liquid retention systems integrated into the structure of the wind turbine nacelle and electrical substation.

An Environmental Pollution Prevention and Control Plan will be developed for the Project and will include measures that will be implemented on site to avoid potential contamination, for example:

- all fuels and lubricants will be stored in secured designated fuel and chemical storage area in line with national requirements and international norms/ good practices for handling harmful materials (such as providing of secondary containment);
- procedures will be developed for responding to emergencies/spills of hazardous materials, and procedures for storage and handling fuel, construction materials and waste;
- refueling of vehicles, equipment and maintenance will be restricted to specially designated platforms with strict control of spills; and
- construction machinery and vehicles will be parked overnight on paved surfaces with storm water control (drainage system equipped with hydrocarbon separator).

Similarly, during the construction, the Project Owner will develop and implement a Waste Management Plan to cover all waste streams generated by the Project activities and will make sure that the waste is temporarily stored and managed in line with national requirements and international best practice.

With the above mitigation measures in place, impacts on soil and groundwater are not expected to be significant.

3.2 Surface Water

The nearest surface water bodies are:

- Wielka river, located approximately 2.3 km south-east of the Project site;
- Maskawa river, located approximately 3.7 km north-west of the Project site;
- Wrzesinski reservoir, located approximately 5 km east of the Project site.

Considering the distance from the Project site to the nearest surface water bodies and the fact that there will not be any direct discharge of wastewater generated during the construction phase by Project activities into groundwater or surface water bodies, it is anticipated that the Project will not impact surface water quality.

However, earthworks will be avoided during heavy rains, where practicable, to reduce the risk of runoff of sediment, oils or chemicals into the natural drainage system.

During construction, potable water and wastewater facilities will be provided at the Project Site by the general contractor, as part of the construction site organization.

No significant impacts on surface water quality are expected during the Project operation.

3.3 Air Quality

During the Project construction, air emissions sources will consist of dust generated from construction activities (e.g. land clearance and excavation, traffic on local roads) and combustion related emissions from vehicles and construction equipment. These impacts will be mitigated by employing good construction practices including use of well-maintained construction equipment and employing dust abatement measures. Such measures will be included in the Environmental Pollution Prevention and Control Plan to be developed and implemented for the Project.

No significant air quality impacts are associated with the Project operational phase. Operational traffic emission impacts will be associated with a limited number of vehicles accessing the site for maintenance or security purposes.

3.4 Biodiversity and Nature Conservation

3.4.1 Site Context

The Project site elevation varies between 107 m above sea level (a.s.l.) and 112 m a.s.l. No legally protected areas are located within or in the immediate vicinity of the Project site.

3.4.2 Legally Protected Sites

The protected areas identified on a range of 20 km around the Project site are the following:

- Natura 2000 Site of Community Importance Grady w Czerniejewie (PLH300049), located approximately 5 km north-east of the Project site;
- Natura 2000 Site of Community Importance Dolina Cybiny (PLH300038), located approximately 8.7 km north-west of the Project site;
- Nature reserve Okraglak, located approximately 10 km north-west of the Project site;
- Landscape Park Promno (buffer zone), located approximately 10 km north-west of the Project site;
- Landscape Park Zerkowsko-Czeszewski, located approximately 15 km south of the Project site;
- Natura 2000 Special Protection Area Dolina Srodkowej Warty (PLB300002), located approximately 15 km south of the Project site;
- Natura 2000 Site of Community Importance Lasy Zerkowsko-Czeszewskie (PLH300053), located approximately 15 km south of the Project site;
- Natura 2000 Site of Community Importance Dolina Sredzkiej Strugi (PLH300057), located approximately 18 km south-west of the Project site;
- Landscape Protection Area Bagna Sredzkie, located approximately 18 km south-west of the Project site.

Nekla Commune is partially located within the ecological corridor Dolina Warty. However, the Project site is located outside of this corridor. The Project site and ecological corridor are presented in the figure below.

Figure 3-1 Project site and ecological corridor Dolina Warty



Source: EIA report prepared for the Project.

3.4.3 Birds

Two site visits and observations were conducted in the Project site in August 2009 in order to feed the local EIA Report. As a result, 25 birds species were identified, none of them listed in the Birds Directive. However, most of them were under strict national protection.

The Environmental Decision issued for the Project does not require post-construction bird monitoring. However, relevant Polish Guidelines² recommend bird monitoring to cover three full years along five years of the wind farm operation (i.e. first, second / third and the fifth year), thus covering the possibility of delayed effects.

The Project will be aligned to national requirements and international standards and will undertake additional bird monitoring before construction and during the operational phase. Considering the above, if adequate mitigation measures are implemented, no significant impacts on birds are expected.

3.4.4 Bats

Two site visits were conducted in the Project site in August 2009 in order to feed the local EIA Report. The EIA report concludes that the Project is unlikely to affect bats.

The Environmental Decision issued for the Project does not require post-construction bat monitoring. However, relevant Polish Guidelines³ recommend bat monitoring to be conducted for three years, during the first five years of wind farm operations (first, second / third and the fifth year). The Project will be aligned to national regulations and international standards and will undertake bat monitoring during the operational phase, to confirm the EIA conclusions.

² Wytyczne dotyczące ocen oddziaływania elektrowni wiatrowych na ptaki. Projekt. (Chylarecki i in. 2011, Generalna Dyrekcja Ochrony Środowiska, Warszawa)

³ Wytyczne dotyczące oceny oddziaływania elektrowni wiatrowych na nietoperze PROJEKT - WERSJA Z XI 2013 Andrzej Kapeł, Mateusz Ciechanowski, Radosław Jaros. Wykonano na zlecenie Generalnej Dyrekcji Ochrony Środowiska.

3.4.5 Other Biodiversity Receptors

3.4.5.1 Habitats and Flora

The total area that will be permanently occupied by the Project, i.e. project footprint (land effectively taken up by WTGs, access roads, accompanying infrastructure), is approximately 0.009 km².

A habitat and flora survey was conducted in August 2009 during two site visits. Based on the desktop information provided in the EIA Report, the Project area is dominated by agricultural land and includes small areas with trees and shrubs. The latter host willows, poplars, blackthorns, hawthorns and roses and, as the EIA Report indicates, they will not be affected by the Project activities.

The EIA report concluded that the Project site is not a suitable habitat for any protected flora species and therefore will not have a significant impact on vegetation. However, the Project Owner will voluntarily develop and implement an additional monitoring survey on vegetation in line with Poland and international guidelines. Considering the above, if adequate mitigation measures are implemented, no significant impacts on vegetation are expected.

3.4.5.2 Amphibians and Reptiles

Herpetofauna survey was performed in August 2009 in the Project site area. The survey indicated the presence of the following species approximately 200 m outside of the Project area, in the vicinity of the nearest ponds:

- common frog (*Rana temporaria*);
- pool frog (*Rana lessonae*) and
- viviparous lizard (*Lacerta vivipara*).

Two species (*Rana temporaria* and *Rana lessonae*) are listed in Annex IV of Habitats Directive. In Poland, all reptiles (in total 18 species) and all amphibians (in total 9 species) are under legal protection.

The EIA Report concluded that the habitats present in Project site are not suitable for amphibians and reptiles and, therefore, no significant impacts are expected to arise on these biodiversity features.

However, the Project Owner will voluntarily develop and implement an additional monitoring survey on herpetofauna in line with Poland and international guidelines. Considering the above, if adequate mitigation measures are implemented, no significant impacts on bats are expected.

3.4.5.3 Mammals

Observations of mammals at the Wrzesnia WF and in its vicinity revealed the presence of at least 5 species, among which one is under national protection. Only three of the five species were identified within the Project site and none of them is listed in the Habitats Directive.

The following mammals, other than bats (see Section 3.4.4), were identified:

- common shrew (*Sorex araneus*);
 - European hare (*Lepus europaeus*);
 - striped field mouse (*Apodemus agrarius*);
 - red fox (*Vulpes vulpes*);
 - European roe deer (*Capreolus capreolus*).
-

The Project is not expected to generate significant impacts on mammals in the area of Gasiorowo and Podstolice villages. However, the Project Owner will voluntarily develop a desktop screening to identify potentially occurring species and depending on the conclusion further survey and assessment might be required.

3.5 Landscape and Visual Impacts

The WTGs dominate the flat landscape and are visible or partially visible within a radius of about 20 km of the WF area, in particular to people from Kokoszki, Gasiorowo, Chwalszyce, Podstolice, Opatowko, Zasutowo and Gierlatowo villages.

The sensitivity of the landscape in the Project area is not deemed high, as it would be the case for a protected landscape and/ or a landscape widely acknowledged for its quality and value or a distinctive character landscape.

The EIA report concluded that Wrzesnia WF would not generate a significant landscape and visual impact.

However, in order to mitigate any potential landscape and visual impacts, the following measures will be implemented:

- WTGs will be placed in an orderly layout to avoid visual disturbances;
- smooth cylindrical towers will be used, as this type of tower has a simpler configuration, less complex surface characteristics and a lower reflection/shadow casting potential;
- non-reflective paints and coatings that do not reflect sunlight will be used to reduce glare;
- the Project will involve only underground transmission lines at the site, in order to minimize distortion of the surface;
- a uniform color will be used for painting the tower, nacelle and rotor, in order to reduce visual impacts.

3.6 Cultural Heritage

According to the information presented in the EIA report, within the Project site there are no known cultural heritage sites listed in the Monuments Register. The nearest known cultural heritage site is park and manor in Podstolice (*Dwór hrabiego Hedogrona Kierskiego w Podstolicach*), located approximately 1 km east of the Project site.

According to the Building Permit requirements, the construction works related to the Project will be conducted under archaeological supervision. Additionally, during the construction phase, the Project Owner will develop and implement a Chance Find Procedure which will describe the process of managing situations when Project construction activities lead to the identification of cultural heritage unknown until then.

Taking into account the above, potential Project impacts on cultural heritage are not expected to be significant.

3.7 Socioeconomic Impact

During the construction phase, the following types of socioeconomic impacts are likely to arise as a result of the Project implementation:

- direct employment opportunities with the Project; the exact number of required construction workforce is still to be defined at this stage but the Project could involve approximately 10-15 workers; the Project owner will seek to employ locally available workforce for the Project construction;
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- direct economic impacts as a results of Project purchase of goods and services such as construction materials for civil works, construction equipment and machinery, catering, transportation; the Project owner will seek to maximize local procurement of goods and services for the Project;
 - induced economic effects of spending by construction workers;
 - permanent loss of approximately 0.009 km² of arable land;
 - increase of the commune income through payment of taxes by the Project owner;
 - increase of the household income of land owners leasing their land for each WTG. The land for the Project was secured based on land lease agreements signed with the land owners by the Project owner
 - improvement of the local communication routes;
 - potential impacts on community cohesion arising from the influx of construction workers;
 - potential increased pressure on local infrastructure and utilities as a result of transporting goods and services, constructing new roads and rehabilitating existing ones, wiring the wind farm.

The current Project Owner will develop and implement a SEP (see section 4) which will also include a formal

management procedure for the Project. This mechanism will be disseminated to the affected communities so that people understand how to proceed in case they have questions or complaints in relation to the Project.

Following the completion of construction activities, local farmers will be allowed to access and continue to use agricultural land around the turbines, mainly for farming and occasional cattle grazing activities.

During the operational stage, there will also be direct employment opportunities with the Project, as well and indirect opportunities as the Project will subcontract maintenance and security services.

3.8 Community Health, Safety and Security

3.8.1 Transportation Issues

The potential impacts of increased heavy and oversized transportation may include:

- Increased noise, vibrations and particulate matter;
- Increased traffic on the local roads;
- damages to road's surface and possibly also building structures;
- temporary roads access.

The road survey has been completed by the wind turbines provider. During the construction phase, the Project Owner will develop and implement a Traffic Management Plan and Community Health and Safety Plan which will describe trucks routes and planned schedule when heavy and oversized transportation can be expected. The Plan will also define health and safety rules, which should be followed prior to the commencement of construction works.

Taking into account the relatively small number of WTGs to be constructed and the abovementioned mitigation measures to be implemented, the transportation impacts should be limited.

3.8.2 Environmental Noise

The nearest noise receptors are the residential areas in Gasirowo, Chwalszyce, Podstolice, Zasutowo and Gierlatowo villages. The closest residential property to the Project is located approximately 600 m west of WTG No. 4.

Construction activities may result in noise impacts due to equipment operation and vehicle traffic; however, the activities will take place only during the daytime and the construction noise generation will not be continuous. Construction works will be carried out so that the regulated noise levels at the nearest residential areas are not exceeded.

At the stage of preparing the EIA Report, the former owner Domrel completed a noise calculations to determine whether the Project meets mandatory noise levels defined as 55 dB for daytime and 45 dB for night-time in residential areas. The noise calculations did not reveal exceedances of permissible levels.

However, the following measures to mitigate potential noise impacts should be implemented:

- loud construction works will be limited to the least sensitive times of the day (between 8.00 am and 08.00 pm Monday-Friday);
- construction equipment will be subject to periodical maintenance and regular checks in order to avoid release of hazardous substances and proper function of the noise protections;
- fixed construction equipment (compressors, generators, etc.) will be placed as far as possible from the nearest residential areas;
- residents of the nearest settlements will be notified in advance of performing noisy works during construction; and
- post-construction noise generation monitoring will be carried out in order to verify the results obtained during preconstruction monitoring and adjust accordingly.

While the Environmental Decision issued for the Project does not impose an obligation to conduct a post-construction noise monitoring campaign, which will be conducted in order to validate the results obtained during pre-construction monitoring. If the results show exceedances, mitigation measures, such as fitting silencing mode for designated WTGs with silencers, will have to be implemented.

3.8.3 Shadow Flicker

Any moving object that comes between a viewer and a light source can cause a flicker effect. Wind turbines, like other tall structures, will cast a shadow on the neighboring area when the sun is visible.

According to the recommendations of the World Bank Environmental, Health and Safety Guidelines For Wind Energy⁴, the minimum distance between the turbines and the nearest residential areas should be 337.5 m. The closest residential property to any of the Project turbines is 600 m or more.

Consequently, it is anticipated that no shadow flicker effect is likely to occur as a result of the Project.

3.8.4 Ice and Blade Throw

Wind farms operating in cold climates may suffer from icing in certain weather conditions and ice accretion can result in 'throwing' of ice from the wind turbines, which may affect public safety. The average annual temperature in the Wrzesnia WF area is +8.1°C, with average monthly temperature in January -3.1°C. Icing of the wind turbines is rather unlikely under such climatic conditions.

The Project area is located in agricultural area, with regular farmer car traffic, farmers working the land as well as grazing livestock.

⁴ ENVIRONMENTAL, HEALTH AND SAFETY GUIDELINES FOR WIND ENERGY, AUGUST 7, 2015. WORLD BANK GROUP, IFC, MIGA.

To minimize risks from ice throw, the following mitigation measures will be adopted:

- all WTGs will be equipped with special ice detecting systems, to control ice formation on the rotor blades. In case of icing detection, wind turbines will be shut down automatically;
- warning signs will be placed at the entrance to the individual WTGs location;
- the wind farm personnel and local farmers will be informed about the conditions that could lead to WTG icing, about the risk of ice falling from the wind turbine rotor, as well as the risk area;
- if a change in WTG operation is detected, which may be associated with the start of rotor blade icing, the turbine will be shut down.

With the proposed mitigation in place, no significant impacts from ice throw are predicted.

3.8.5 Electromagnetic Interference

Wind turbines could potentially cause electromagnetic interference with aviation radar and telecommunication systems (e.g. microwave, television, and radio). As part of the construction permitting procedure, the relevant authorities were consulted and no concerns were raised with in relation to the Project.

The nearest airport is located approximately 65 km west of the Project site; therefore, there are no risks associated with aviation radar interference.

Electromagnetic fields (EMF) are produced by any wiring or equipment carrying electric current. The potential effects of EMF on human health vary depending on the frequency and intensity of the fields. For wind power projects, EMF generation is associated with overhead transmission lines and the substation (which will not be present at the Wrzesnia WF).

No significant impacts from electromagnetic interference are predicted to arise in associated with the Project.

3.8.6 Public Access and Health and Safety

Appropriate public communication to allow timely notice of affected residents before major construction milestones, for example, transport of turbine components to the Project site, will be implemented during the construction phase, prior to commencing said activities.

Measures to allow safe access to grazing/farming areas will be identified and implemented in consultation with local authorities and residents. These mitigation measures will be included in management plans to be developed and implemented by contractors, including a Community Health and Safety Plan, Traffic Management Plan and an Emergency Response Plan.

With the above mitigation measures in place, impacts on public health and safety are not expected to be significant.

3.9 Cumulative Impacts

Projects can generate impacts in isolation or cumulatively with other projects, either existing or planned to be developed in the area. Additional projects identified in the Project area are presented in *Section **Error! Reference source not found.*** above.

According to the EIA, the presence of cumulative impacts is considered unlikely given the distance between the projects.

The Project Owner is committed to exchange information on the results of the environmental monitoring (with focus on bird and bats mortalities) for the Project. In case of any increase of the number of carcasses identified in the Project site, the Project Owner will liaise with the developers of the other windfarms in the area, to identify and agree proper mitigation measures. Such actions will

be done upon consultation of relevant stakeholders (e.g. bird protection associations and NGOs, experts, community members, lenders, authorities etc.).

3.10 Transboundary Impacts

The Project is located approximately 225 km from the nearest border with the neighboring country – the Czech Republic. Therefore, a potential transboundary impact generated by the Project is excluded.

3.11 Impacts During Decommissioning

Impacts caused by decommissioning activities are, in principle, comparable with construction impacts.

The projected operational lifetime of a typical wind farm is 25 years. After this period, there are two options: repowering the site and replacing existing wind turbines or decommissioning the site, removing the wind turbines and other major structures and reinstating the site. At this stage, the Project Owner has not decided which of the two options will be selected for the Project. However, the Project Owner will comply with the relevant mandatory requirements and best practice in force at the time of Project decommissioning.

Prior to decommissioning, a method statement, detailing how the site would be restored is usually prepared and approved by the relevant authorities.

At present, wind turbines are removed by crane and reused elsewhere, if possible. In the case of the foundation works, upper sections are removed and the voids backfilled with appropriate materials to support land use. Underground cables and deep concrete foundations are usually left in place, as removal is likely to cause more disruption than leaving them in-situ. However, if techniques allowing removal of underground cables with limited disruption and impacts are available at the time of decommissioning, they will be considered. Areas affected by decommissioning activities will be restored to the use defined for the respective land plots at that moment in time. As with the turbines, the electrical control building and internal equipment are removed and reused or recycled, where possible.

4. ENVIRONMENTAL AND SOCIAL MANAGEMENT

The EIA Report performed for the Project identified the potential environmental and social impacts associated with the Project and also defined mitigation measures to be implemented in order to maintain these impacts within acceptable limits. The gap analysis of the EIA Report against EBRD PRs also indicated a number of actions that still are necessary for the Project to meet the respective standards. These measures were defined within the following documents that will be used during Project implementation:

- the Environmental and Social Action Plan (ESAP), which represents a roadmap for the implementation of key environmental and social actions required for the Project; furthermore, the ESAP will define additional monitoring measures (e.g. birds, bats, habitats/flora) which will be implemented during Project operation, including responsibilities and timelines for implementation;
 - the Corporate Stakeholder Engagement Framework (SEF) defines the overall engagement strategy and will be further used by the Project Owner to develop a Project specific Stakeholder Engagement Plan (SEP). The SEP will define the relevant Project stakeholders, planned engagement activities, resources from the Project Owner to deal with stakeholder engagement, community grievance mechanism and management process, along with monitoring and evaluation. The Project SEP will aim to lay the foundation for an effective, bilateral communication between the Project and its stakeholders, and to build reliable relations between the Project and affected communities. Regular stakeholder engagement will also enable the Project Owner to gain a better understanding of the ways in which communities prefer for receive
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information about the Project. The Project SEP will be made available to the public on the Project Owner's website, and as hard copy to local authorities and communities. It will be periodically updated as needed, to reflect engagement undertaken, stakeholder feedback and potential changes in the Project.
