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EXTENSION OF POTĘGOWO WIND FARM BY WIELISZEWO AND BIĘCINO WIND FARMS

SUPPLEMENTARY REPORT

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1. INTRODUCTION

Potegowo Mashav Sp. z o.o. (the Company) has developed the Potęgowo Wind Farm project (Potęgowo WF), a complex of smaller wind farms (subprojects) located in Zachodniopomorskie and Pomorskie Voivodship, northern Poland. All of the subprojects passed environmental impact assessments (EIA) and were granted construction permits and after completion of the construction works also operational permits. Construction of Potęgowo WF was financed by a group of financial institutions with significant involvement of European Bank for Reconstruction and Development (EBRD, the Bank).

Following EBRD's Environmental and Social Policy (2014) Potęgowo WF was assessed as Category A project i.e. such that could result in potentially significant adverse future environmental and/or social impacts which cannot readily be identified or assessed. In order to provide the Bank with information necessary for assessment whether the Company and the project are capable to meet Bank's requirements, Ramboll Environ Poland (Ramboll), a member of Environment and Health global practice of Ramboll, acting as an independent consultant, has undertaken an environmental and social due diligence and gap analysis (ESDD) of the project. Within this process the project was, among others, assessed against applicable national and EU standards and legal requirements as well as EBRD Performance Requirements. Actions necessary for the Project being compliant with the international standards, good industry practice and Bank's requirements have been summarized in an Environmental and Social Action Plan. Further, a Stakeholder Engagement Plan has been prepared to allow effective an meaningful approach to Project stakeholders engagement.

In 2019 the Company took a business decision to extend the Potęgowo WF by construction of additional eight WTGs at the Bięcino wind farm (WF) and development of additional subproject – Wieliszewo WF (all further referred to as the Project). Both subprojects passed national EIAs and were granted environmental decisions (environmental decision defines conditions which must be taken into account in the building design and other obligations for the project; the decision must be achieved prior application for building permit) for total number of 25 WTGs in 2012 and 2013. According to the law in force at a time when decisions were granted, environmental decisions were valid for the period of four years (or six years, in case a project is to be developed in stages). Keeping the deadline of 4 years, the Company applied for construction permits for a total number of 25 WTGs along with associated infrastructure and obtained such permits in 2012 and 2017, with further amendments in 2016 and 2017.

As the currently considered Project is a part of Potegowo WF this shall be also classified as Category A, according to EBRD Environmental and Social Policy (2018). Therefore Ramboll undertook additional ESDD in 2019 and 2020 which findings were summarized in additional ESDD report. Further, the SEP, ESAP and non-technical summaries (NTS) were updated.

This Supplementary Report is aimed at presentation of the recent ESDD major findings and filling the gaps identified during the assessment. As part of the Company commitment, this Supplementary Report will be publicly available and will be disclosed along with:

- National EIA[1,2] reports prepared for the subprojects, based on which the environmental decisions were granted for all of the subprojects;
- ESAP;

[1] „Raport o oddziaływaniu na środowisko zespołu elektrowni wiatrowych „Wieliszewo" z infrastrukturą techniczną" (Environmental impact assessment report of the "Wieliszewo" wind farm complex with technical infrastructure), in Polish, Proeko, March 2011

[2] Raport o oddziaływaniu na środowisko zespołu elektrowni wiatrowych „Bięcino" z infrastrukturą towarzyszącą, w obrębach Bięcino i Karżniczka, gm. Damnica" (Environmental impact assessment report of the "Bięcino" wind farm complex with accompanying infrastructure, in geodetic regions Bięcino and Karżniczka, Damnica commune), in Polish, Proeko, January 2013

- SEP;
- Non-technical Summary (NTS),

as the extension of the already made publicly available Project Disclosure Package, to allow meaningful public consultations and help the Company build and maintain a constructive relationship with the stakeholders.

2. PRESENTATION OF THE PROJECT

The Potęgowo WF has been developed since 2007 by the company EWG Słupsk. This company and the Potęgowo WF were purchased by Potęgowo Winergy in 2014 (currently Potegowo Mashav). Initially, the Project was developed as two projects, Potęgowo West (comprising of Przystawy, Bartolino and Sulechówko wind farm subprojects) and Potęgowo East (comprising of Karżcino, Wrzeście- Kępno, Bięcino and Głuszynko- Grapice wind farm subprojects). In 2018, upon decision taken by the Company, both Potęgowo West and Potęgowo East were considered a single project which constituted 81 fully permitted wind turbine generators (WTGs) of a total nominal capacity of 219.5 MW and auxiliary infrastructure. Such configuration was subject to ESDD conducted by Ramboll and summarized in the ESDD report[3]. Currently Potęgowo WF is at advanced stage of development – construction works at the subprojects were commenced in 2018.

Current extension of the Potęgowo WF includes construction of additional eight WTGs at the Bięcino WF and development of additional subproject – Wieliszewo WF. Both subprojects passed national environmental impact assessment (EIA) procedures and were granted environmental decisions (environmental decision defines conditions which must be taken into account in the building design and other obligations for the project; the decision must be achieved prior application for building permit) for total number of 25 WTGs in 2012 and 2013. According to the law in force at a time when decisions were granted, environmental decisions were valid for the period of four years (or six years, in case a project is to be developed in stages). Keeping the deadline of 4 years, the Company applied for construction permits for a total number of 25 WTGs along with associated infrastructure and obtained such permits in 2012 and 2017, with further amendments in 2016 and 2017.

The Wieliszewo and Bięcino WFs will be situated at the territories of Potęgowo and Damnica communes respectively. The wind farms configuration comprises respectively:

- Bięcino WF subproject:
  - Additional eight WTGs to existing five ones wind turbine generators, model GE 2.75-120, hub height 110 m, rotor diameter 120 m, max. sound power level 106 dB, nominal capacity 2.75 MW;
  - Two main electrical substations of which one is already constructed (within the framework of the Potęgowo WF) and the other will be constructed approximately 500 m away
  - underground infrastructure of power transmission and control cables;
  - access roads to the individual WTGs and assembly and service yards.
  - underground HV line that will be laid in parallel to the one that is already constructed in the framework of the Potęgowo WF
- Wieliszewo WF subproject:
  - 17 WTGs model Vestas V90, hub height 100 m, rotor diameter 90 m, max. sound power level 103,7 dB, nominal capacity 2.2 MW;
  - power transmission line connecting the WTGs with MES Bięcino 2;
  - underground infrastructure of power transmission and control cables;
  - access roads to the individual WTGs and assembly and service yards.

The planned installed Project's power capacity of 25 WTGs will be equal to 59,4 MW, which will increase the number of Potęgowo WF WTGs to 101 and the total installed capacity to 278,9 MW.

[3] Environmental and Social Due Diligence. Potęgowo Wind Farm, Poland, June 2018.

The energy generated by WTGs of both subprojects will be transferred to MES Bięcino 2 via underground medium voltage power transmission lines (PTL). The length of the PTL will be approximately 11.4 km. MES Bięcino 2 will be connected with a high voltage underground PTL laid along the existing PTL with MES Wierzbięcino (operated by Transmission Service Operator – PSE Operator S.A.).

Location of all subprojects of the Potęgowo WF, including the Bięcino and Wieliszewo WFs is presented on Figure 1.

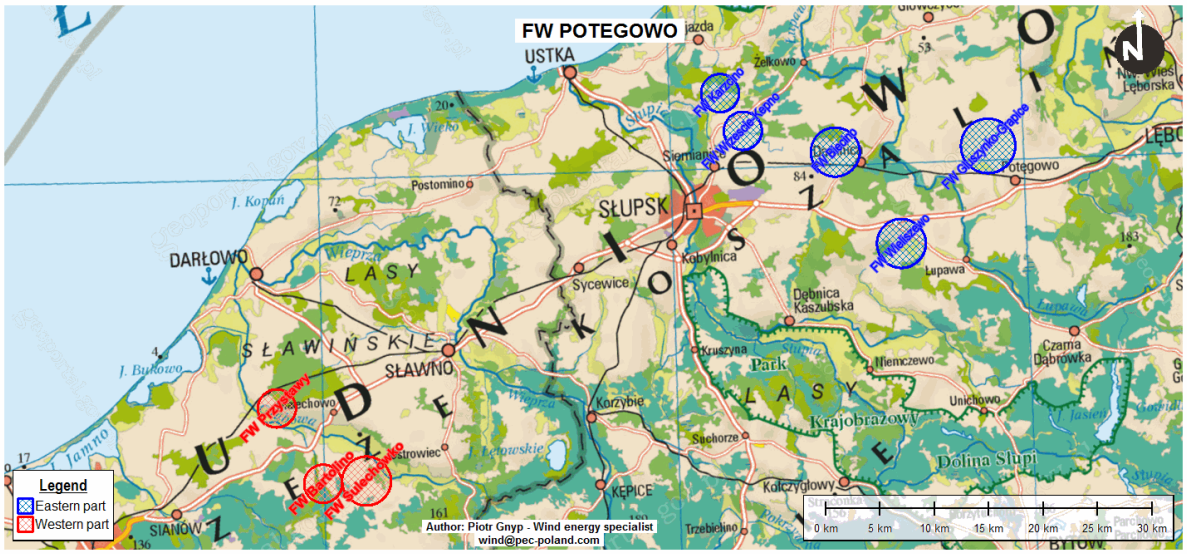

Figure 1. Location of the Potęgowo WF subprojects

The Project sites are currently used for agricultural purposes and are covered by Local Zoning Plans for Potęgowo and Damnica communes respectively, which dedicate these areas for development of wind farms. The typical rural area of both sites is presented on Figure 2 and Figure 3 below. Both sites are relatively flat, with the elevation above sea level varying approximately between 70 and 84 m at the Wieliszewo site and 70 and 90 m at the Bięcino site.

The Potęgowo commune population density is 30.8 per square km. Approximately 66% of the commune is utilized for agricultural purposes and 26% is covered by forests. The Damnica commune population is density is 37.2 people per square km. 64% of the commune area is occupied by agricultural areas and 29% by forests. The communes population density is much lower than the average for the country which is 123 people per square km.

All WTGs are located distant from the forests or linear landscape elements, such as roads, rows of trees or bushes or rivers. The sites are also located far from the protected areas. Location of the nearest protected areas are presented on Figure 6 and Figure 7.

Figure 2. Example of the rural character of the Wieliszewo WF

Figure 3. Example of the rural character of the Bięcino WF

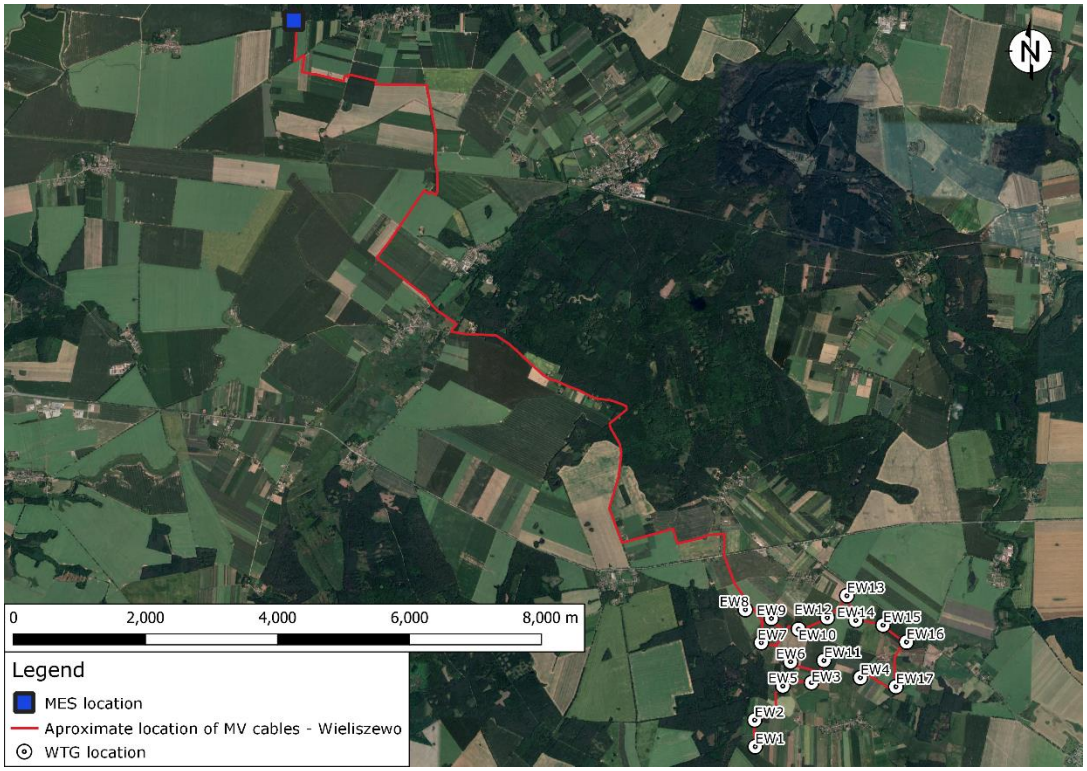

Figure 4. Wieliszewo WF layout

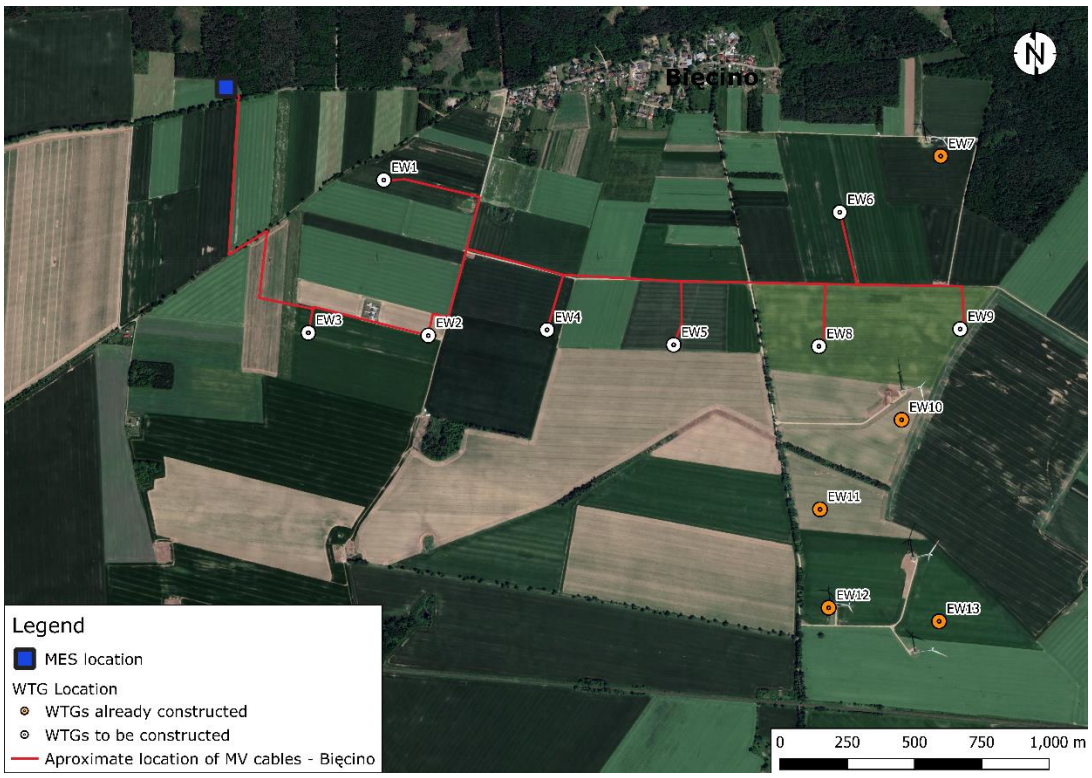

Figure 5. Bięcino WF layout

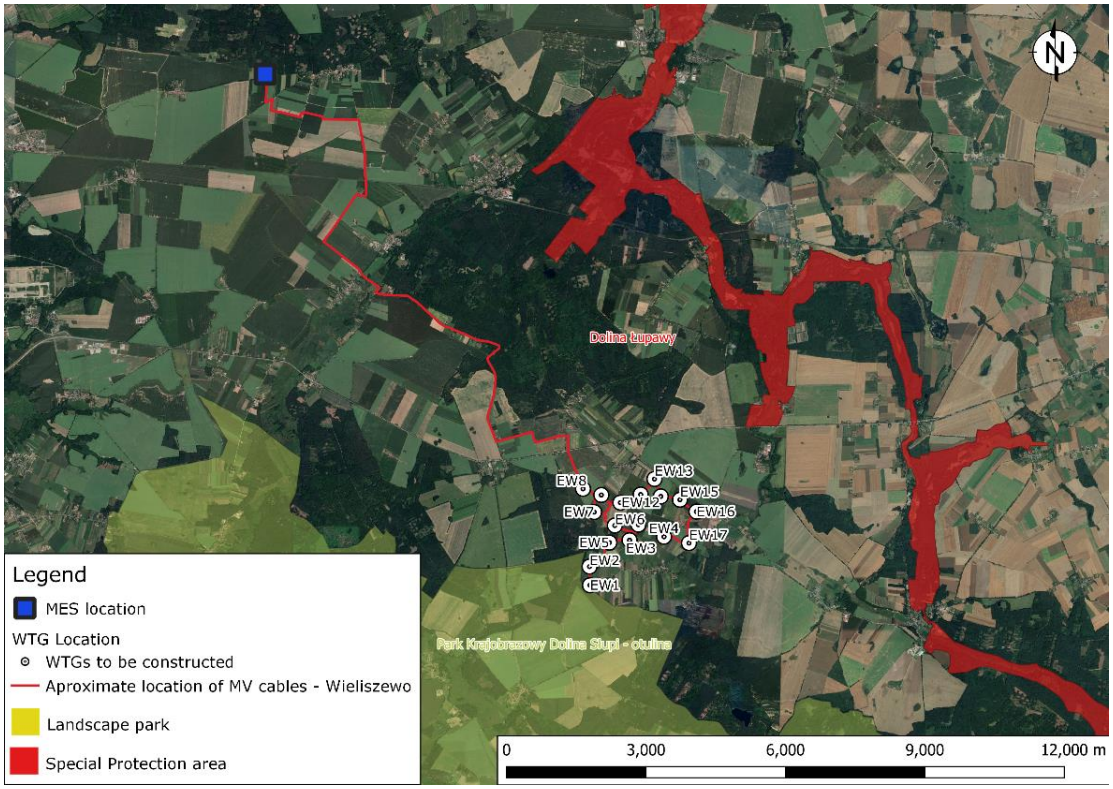

Figure 6. Location of the Wieliszewo WF against protected areas

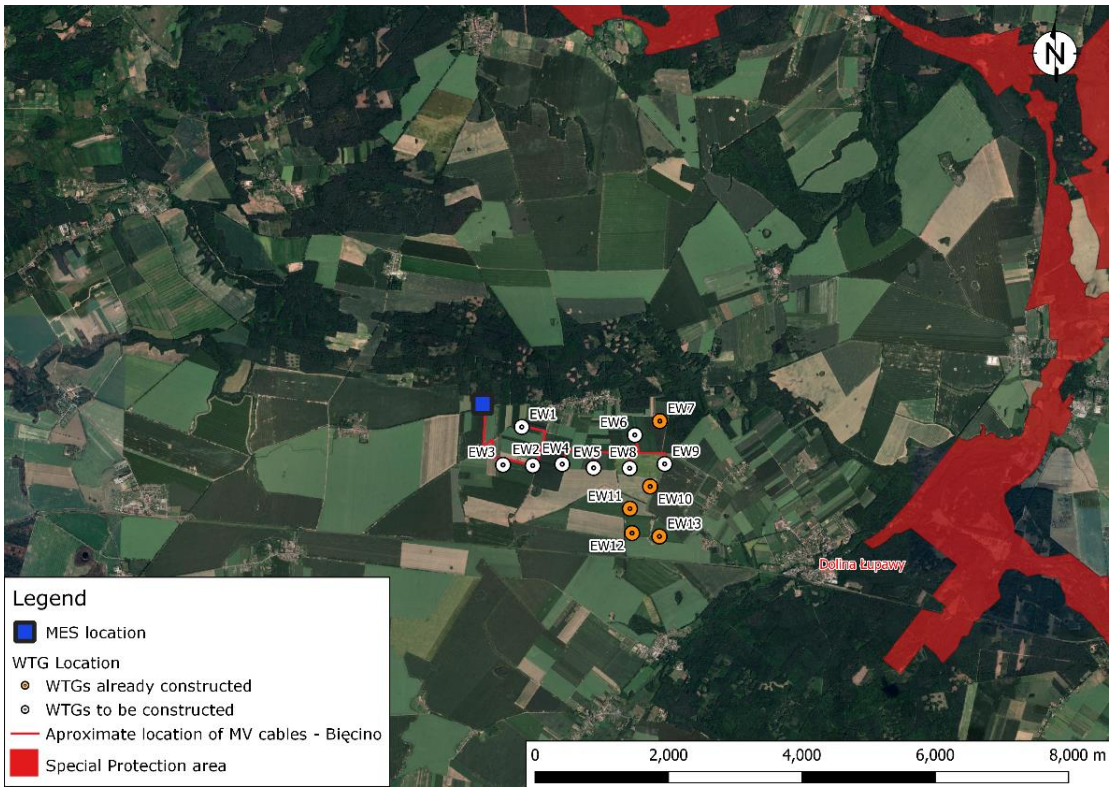

Figure 7. Location of the Bięcino WF against protected areas

Based on the review of the relevant cultural heritage registers, as well as on the basis of *Regulations on Conservation and Care of the Monuments*, no objects or cultural heritage monuments are located at the Project sites. The nearest objects listed in the Monuments Register are located in villages, which surround the area of the planned WFs:

- in case of the Bięcino subproject - a house from the 19th century with an arcade, in a distance of 750 m from the nearest WTG, located in the village of Bięcino;
- in case of the Wieliszewo subproject - a park in the village of Malczkowo, in a distance of 2 km from the nearest WTG).

None of the planned WTGs location poses a risk to the abovementioned objects. The table below presents objects located in the vicinity of Wieliszewo and Bięcino subprojects, belonging to the Monuments Register:

Table 1. Cultural heritage objects in the vicinity of the Project

Location	Object/Monument	No. in the Monuments Register
Bobrowniki	A Palace complex in Bobrowniki located in the Damnica commune	A-243 of April 14,1987
Damnica	A Palace complex in Damnica located in the Damnica commune	A-240 of March 12, 1987
Damno	An Evangelic church in Damno located in the Damnica commune	A-372 of June 11, 1999
Domaradz	A Park in Domaradz located in the Damnica commune	A-453 of April 12, 1965
Karżniczka	A Palace complex in Karżniczka located in the Damnica commune	A-410 of April 28, 1964
Świecichowo	A Palace complex in Świecichowo located in the Damnica commune	A-566 of February 15, 1966
Bięcino	A Historic house in Bięcino located in the Damnica commune	Register No. 297 of February 1, 1961
Malczkowo	A Park in Malczkowo located in the Potęgowo commune	Register No. 1612 of December 11, 1996

According to the EIA reports, in the area of both subprojects (including WTGs and PTL) there were identified zones of archeological protection. Following the provisions of the Act on Cultural Heritage Protection, if any archaeological stands are identified during the ground works associated with the Project, such works should be stopped and construction area should be made available for archaeological research. The works can be stopped for a period of maximum 6 months, if identified objects are of particular importance, or for a period of maximum 1 month, if such objects are not particularly valuable. Respective decision should be made by the authorities within 8 days since formal notification.

There are over 20 wind farm projects developed and over 40 wind farm projects under development around the Project. Ramboll Environ has completed a cumulative impact assessment of all these projects and presented the results in a separate report[4].

[4] Potęgowo Wind Farm. Assessment of cumulative Impact. Ramboll Environ Poland, June 2018

3. PROJECT COMPLIANCE WITH THE NATIONAL AND EU ENVIRONMENTAL LAW AND STANDARDS

3.1 Introduction

On May 1, 2004 Poland became a fully-fledged member of the European Union with the vast majority of the EU laws adopted into the national legal framework. From the perspective of the Project, the most relevant legal regulations are these related to spatial planning, environmental impact assessments and wild nature protection and conservation, as well as regulations related to general environmental requirements, permitting and environmental quality standards.

The most relevant environmental EU standards are implemented into the Polish legal framework by the Environment Protection Act (EPA), Waste Act, Water Law Act, Act on Environmental Information Disclosure and Environmental Impact Assessments (EIA Act), Nature Protection Act and others. All of these acts adopt certain EU directives (national implementation of EU acts can be checked at https://eur-lex.europa.eu/).

A development of most of the industrial projects in Poland is conducted in the following stages (designing and other associated works are not discussed here):

- If existing local zoning plan (a legal act of local range which defines conditions and constraints for spatial planning in certain areas) does not allow for a certain type of developments, the plan must be changed to allow such developments. Without the plan being changed the development is not possible. But if the local zoning plan does not exist, then the development requires an individual decision on land development and development conditions issued by the competent local authorities. For most of the projects the authority competent to establish the local zoning plans or issue an individual development decision is the local (commune) authority.
- For projects for which EIA is obligatory or may be required upon discretion of the authorities (an indicative list of such projects is provided in an executive order of the Minister of Environment; the list follows the EU EIA regulations), an EIA procedure is undertaken, which is finalized with an issue of decision on environmental conditions, which among others imposes requirements that must be taken into account by the construction designs and other environmental obligations for the development.
- Based on the building design assessed by the construction authorities, among others, for development compliance with decision on environmental condition a construction permit is issued based on application of the investor. The investor is free in taking decision, whether the development will be developed in phases and whether the whole investment as covered by environmental decision or just a part of it is to be developed. Since November 2008, another EIA assessment may be required by the competent authorities in certain circumstances, such as e.g. design noncompliance with the environmental decision, i.e. likely to generate more adverse impacts than analyzed at the EIA stage.
- Upon request of the investor, the issued construction permit can be amended, however, any request for such amendment is subject to assessment of compliance with the building law, decision on environmental conditions and others.

The spatial planning procedures in Poland, i.e. establishment of the commune development master plans (planning documents giving directions of development and spatial development and, which are not the acts of law) and local zoning plans are conducted under the regulations of the Spatial Planning Act of 2003 and EPA, which fully implemented the EU Directive 2001/42/EC of the European Parliament and of the Council of June 27, 2001, on the assessment of the effects of certain plans and programs on the environment. Therefore, the process of adoption of spatial planning documents completed for all communes where the Project is located shall be considered complaint with the national and EU law and standards.

By late 2008, the Directive No. 85/337/EEC (with further amendments, currently repealed by the directive No. 2014/52/EU) of the European Parliament and the Council (EIA Directive) on the assessment of the effects of certain public and private projects on the environment was implemented into the Polish legal framework by the EPA. Polish regulations in general followed the directive, however, some procedural aspects were assessed by the EU authorities as not compliant with the directive. The major objections were related to limitations for the NGOs to participate in the environmental assessment procedures, and the fact that the EIA procedure was allowed to be conducted only once. Such objections were finally taken into consideration by Polish lawmakers, which resulted with the establishment of the EIA Act in October 2008, fully effective in November 15, 2008. This act has eliminated shortcomings of the previous EPA regulations and fully adopted the directive into the Polish legal framework. Taking above into consideration, it can be concluded, that all Polish EIA procedures undertaken under the EPA rules, i.e. by November 2008, should be considered as not entirely compliant with the EU standards and these undertaken later as compliant.

Until 2016 there were no environmental regulations specific for wind farm industry in Poland. Environmental decisions allowing for wind farm development were issued based on EIAs, upon detailed analysis of expected environmental and social impacts and methods of their avoidance, mitigation or compensation. The only aspect of wind farms operations, which was measurable and regulated by environmental standards, was the noise impact. Hence, a need to limit the noise impact to the level not exceeding the permitted value determined a minimum distance the WTGs could be located from the acoustically protected areas, including human dwellings.

On July 1, 2016 The Wind Farm Investment Act of May 20, 2016 was announced, which among other introduces significant changes in the conditions and manners of the location and construction of new wind farms, as well as the conditions for the location of such installations in the vicinity of residential areas.

Pursuant to the Act, a new wind farm can be placed at a distance of not less than 10 times its height (counting with blades) from residential and mixed buildings and areas particularly valuable from the natural point of view (such as national or landscape parks, reserves etc.). Under the Act, it will not be possible to expand existing wind farms that do not meet the distance criterion - only the renovation and necessary for proper use works will be allowed. It will be possible to build residential houses at a smaller distance from the wind farm than required, if such investments are included in the existing local zoning plans. In case, where there are no such documents, the communes will have 36 months to adopt - on current principles - local plans providing for the location of residential buildings. The limitations introduced by the Act do not apply to wind farms developed before the Act was introduced as long as they posses valid construction permits.

3.2 Spatial Planning Procedures

Both developments of the local zoning plans and commune development master plan for Damnica commune (master plan for Potęgowo commune dated 1997) were conducted under the rules of the Act on Spatial Planning and Development of March 27 (ASPD), 2003 with further amendments, which adopted EU directive No. 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programs on the environment. Review of the administrative procedures aimed at adjustment of the commune development master plans and establishment of the local zoning plans did not indicate any obvious shortcomings with respect to procedural requirements of the spatial planning and environmental regulations. Both procedures involved strategic environmental impact assessments of the plans and secured public participation in the procedures. The plans were widely consulted by the competent sanitary and environmental authorities, as well as were consulted with relevant third parties, as required by the ASPD. Taking above into consideration, Ramboll did not reveal any non-compliances of the procedures with the EU standards and national regulations.

3.3 EIA Procedures

The EIA procedures preceding the Project to be granted the environmental decisions, were undertaken entirely under the EIA Act rules, which fully adopted EU EIA Directive. Review of the administrative procedures did not indicate any obvious procedural shortcomings. The Damnica Commune Head and Regional Director for Environmental Protection in Gdańsk properly secured public participation in the process and public disclosure of project related information, as well as consulted the process and EIA reports with relevant authorities (where appropriate) of State Sanitary Inspector and Regional Directorate for Environmental Protection. Ramboll did not reveal any procedural non compliances with the EU standards and national regulations.

The EIA procedures were based on the EIA reports[1,2] of 2011 and 2013. The reports were prepared by the Proeko company and represent very similar approach in presenting the impacts and their assessment. Although the scope of the reports was assessed by Ramboll as in general compliant with the EIA directive and EIA act, the following shortcomings were identified:

1. An outline of the main alternatives studied by the developer is required by the EIA Directive, however, the EIA Act requires also to discuss the main alternatives and to indicate the one, the most beneficial for the environment. Environmental reports, apart from "do nothing" alternative, present alternative options which are by definition more harmfull to the environment (by e.g. more WTGs than in the preferred variant) hence their rationality required by law may be questionable. Nevertheless such approach was accepted by the competent authorities by issue of environmental decision which are fully binding and valid.

- The EIA Reports do not contain detailed data regarding natural inventory of flora and fauna (except birds and bats), present on the Project's area, but detailed annual inventory was focused on birds and bats. This shortcoming is assessed by Ramboll as of procedural rather than merit character. As proved in section 4.16 of the report, the areas selected for Project's location are characterized by a very low nature value (under antropogenic pressure) and the nature of the Project demonstrates that no significant impacts on flora and fauna are to be expected, except for avifauna and chiropterofauna, which may be potentially subject to adverse effects during wind farm operation. Thorough analysis of effects on these animals' groups is crucial for a correct wind farm operation's assessment and such analysis is included in the EIA reports. Both WTGs', MESs' and PTL's construction activities will be conducted with application of mitigation measures imposed in decisions on environmental conditions. It is noteworthy that all works related to underground power line construction are short-term, their impacts have limited scope, are fully reversible and therefore negligible. Moreover, to prevent from any potential adverse effects during construction works (both regarding WTGs, PTL and others), Ramboll recommended additional measure – providing supervision of a nature scientist.
- The birds and bats monitoring programs were found by Ramboll to be compliant with the national guidelines and international good practice. A minor identified gap is a lack of the cumulative approach to birds' and bats' mortality rates, stemming from overall impacts generated by the subprojects and by other existing or planned wind farms in the vicinity. Authors of the inventory reports assessed this risk in a descriptive way, without presentation of quantitative data. Ramboll concludes that considering no significant effects of the planned project on bats and birds and planned (obligatory) post-construction monitoring (3- and 5-years long respectively), the real impacts will be examined and in case of high mortality of flying animals, the environmental authorities may oblige the Company to apply additional prevention measures (development of the Active Turbine Management Plan, which may exclude operation of certain WTGs in certain season/period or reducing rotor's speed). The Project was assessed as not causing significant impacts on bats and birds, if certain mitigation measures are in place. It should be noted, however, that at the Wieliszewo site WTGs No. 2, 6, 7 and 14 are less than 200 m distant from the nearest forests, which does not comply with the guidelines for assessment of wind farms

impact on bats. Further, the environmental decision imposes such distance as minimal for WTGs location, however, Ramboll was not able to establish based on available data, whether the trees complexes in question are classified as forests. In order to mitigate the risk for bats an Active Turbine Mitigation Plan must be developed and implemented. Monitoring of the impact on birds and bats, required by the environmental decision, should secure implementation of mitigation measures, if animals' mortality at the site is high.

The following gaps were identified in the EIA reports as compared to good industry practice codified under IFC Health and Safety Guidelines for Wind Energy:

1. The shadow flicker effect was poorly discussed in the Wieliszewo EIA Report. On request of Ramboll, additional shadow flicker study was undertaken. The results (see also section 4.4) indicated no significant adverse impact of shadow flicker.
2. Assessment of air emissions is provided in a descriptive manner in the EIA reports, without quantitative calculations. Given large distance of the WTGs from the nearest dwellings (at least 500 m), such emissions are not expected by Ramboll to be an issue of concern and consequently such a gap is of secondary importance.
3. As assessed by Ramboll, a traffic issue was poorly discussed in the environmental report. As estimated by Ramboll (please refer to section 4.5.2), increased transport can be an issue of concern during construction phase of the Project. In order to mitigate a traffic related risk, Ramboll recommends planning delivery routes to avoid as far as possible concentration of drives across nearby villages, to utilize as far as possible existing and newly developed network of dirt roads and access roads to the WTGs.
4. According to the information obtained from the Company, WTGs will be delivered:
   - for Wieliszewo subproject - via the National Road No. 6 and then via the road no 211,
   - for Bięcino subproject – via the asphalted road crossing the Bięcino village.

   From the access points the transports will leave the roads and enter the local network of asphalt and dirt roads. Based on the visual observations, the local road network provides easy access to the construction sites with no evident obstacles that could affect transport of an oversize cargo during the construction phase. Ramboll recommends, prior commencement of the construction works, to inform the citizens of the affected villages about increased traffic risks and already implemented by the Company grievance procedure.
5. An ice/blade throw risk were not discussed in the reports. As estimated by Ramboll (see section 4.3), three local roads may be in risk of ice or blade throw.

3.4 Building Permits Procedures

On the basis of environmental decisions there were issued decisions on building permit design approval and construction permit (with further amendments):

- 8 decisions for Bięcino subproject's WTGs,
- 17 decisions for Wieliszewo subproject's WTGs,
- 4 decisions for system of internal connections between the turbines, an underground power line, main electrical substations (MES).

All 17 decisions for Wieliszewo WF subprojects were changed by decisions approving application of different type of wind turbine generator (without changes of their location and other technical parameters), which was introduced in the building design.

Also, decisions for power grid infrastructure were changed by the competent authorities.

On July 27, 2016 the Act of 20 May 2016 *on Wind Energy Investments*, of high importance for wind farm projects, was introduced into the Polish legal framework. The regulation implements i.a. limitations for onshore wind farm projects with regards to the minimum distance (equal to or exceeding ten times the height of the WF) between WTGs and residential areas and nature

protected areas. When analyzing, how provisions of the new regulation can influence the Project and to what extent its transitional provisions are applicable, it is important to figure out that the act came into force after environmental decisions and building permits (with further changes) for the Project were issued. Therefore as long as the building permits remain valid, the Project does not fall under restrictions regarding distances settled in the act.

3.5 International Avifauna Good Practice and Polish Guidelines

BirdLife International is the world's largest partnership of conservation organisations that strives to conserve birds and their habitats as well as global diversity. The partnership is present in more than 100 countries around the world. The partnership has a programme for monitoring Important Bird Areas, a global framework for monitoring of species, sites and habitats. For the IBAs the partnership has worked out a program with closely align to the Birds Directive.

Important Bird Areas are selected based upon:

- Presence of bird species that are threatened with extinction or have highly restricted distributions;
- Assemblage of species characteristic for particular biomes;
- Exceptionally large numbers of congregatory bird species.

The framework provides a standardised way to assign the following scores to IBAs:

- Pressure – a score related to major threats to important bird populations, rates of agricultural expansion, over-exploitation and pollution;
- State – the qualitative and quantitative condition of IBAs – population counts of the birds, measures of the extent and quality of the habitat required by birds;
- Response – conservation action taken at IBAs.

The monitoring of IBAs must be kept simple, robust and inexpensive. Priority sites may require in-depth monitoring, which should be linked clearly to IBA conservation objectives.

The Birdlife has not standardized approach to monitoring of the wind farms. However, the location selected for a wind farm is considered by the partnership to be critically important in determining the likelihood of deleterious impacts on birds. Wind farms must be located, designed and managed so that there are no significant adverse impacts on birds of acknowledged national and international importance, or their habitats. Hence there should be precautionary avoidance of locating wind farms in the following:

- Special Protection Areas (SPAs) and Important Bird Areas (IBAs).
- Statutorily designated or qualifying international (Natura 2000 sites) or national sites for nature conservation.
- Other locations of significance for bird species identified by BirdLife International as being of Unfavorable Conservation Status in Europe.
- Sites along major migration routes and especially migration bottlenecks where large numbers of birds are highly concentrated, for example mountain passes.
- Habitats where wind farms are known to pose high collision risks to birds (to be assessed through site specific risk assessment). Wetlands and mountain ridges are examples of especially critical locations.

Birdlife does not promote any special methodology for birds monitoring, each case is rather considered individually and the methodology is determined by national organizations.

As an example of national implementation a guidelines of the Scottish Natural Heritage[5] can be used. These generic guidelines recommend to base monitoring on a BACI (Before-After-Control-Impact) principle, which will require knowledge of the pre-construction state, to provide a

[5] Guidance on Methods for Monitoring Bird Populations at Onshore Wind Farms, SNH, 2009

reference point for the state (and change in state) after the development has been constructed. The guidelines do not distinguish pre- and post-construction phases of the development, thus the applied methodology for these phases should be the same.

The guidelines stress the importance of proper monitoring planning, that should take into account local conditions, number and dimensions of WTGs and others. Monitoring program should concentrate on identification of breeding, nesting and migrating birds, both predators and other species. Observations should be undertaken from line transects and from reference control sites. The detailed methods of on-site survey are given in a separate guidelines[6]. Monitoring of a wind farm should be undertaken in the period of 15 years after it become operational, a year-long single monitoring campaign is the basic period.

Poland has developed its own birds monitoring guidelines applicable to wind farm developments[7] which are recommended by the Polish Wind Energy Association, Greenpeace, Polish Birds Protection Association (OTOP) and other organizations. The guidelines recommend a systematic approach which in general bases on BA (before-after) or BACI principle. The following assessment of wind farm impact on birds is recommended:

- screening which is aimed at preliminary site assessment as for its importance for birds and possibility of significant adverse impact;
- pre-construction monitoring, which scope should be decided based on the screening results;
- post-construction monitoring.

All phases of the assessment should be conducted by experienced ornithological experts. The screening phase should be based on a literature search and focused on classification of possible adverse impacts, taking into account numerous factors, which include among others nature properties and wind farm location and size. Based on such classification, one out of three possible monitoring schemes (simplified, basic and expanded) should be selected as a background for detailed pre-construction monitoring planning. The monitoring schemes vary in terms of recommended number of in-field observation campaigns.

The pre-construction monitoring program should concentrate on qualitative (species) and quantitative identification of breeding, nesting and migrating birds, both predators and other species. Flying birds should be noted it the spatial ranges (below-within-above rotor). Basic observations should be taken from line transects and observation points. Unlike e.g. Scottish guidelines, the Polish ones suggest length of transects and number of observation points depending on the wind farm's area size. The pre-construction monitoring should last at least one full year.

The post-construction monitoring in general repeats the pre-construction one, but includes also search for dead birds. Such monitoring should be undertaken for a period of three (not necessarily consecutive) years after the wind farm becomes operational.

Comparing the Polish guidelines with the BirdLife approach, one can conclude that both base on the same principles. These are focused on identification of birds present in the area during different seasons of the year and potential for the wind farm to pose an adverse impact. Polish guidelines shall be considered compliant with the international standards.

The bats monitoring approach is regulated by Annex 1 to the Resolution 5.6 of the EUROBATS – "*Wind Turbines and Bats: Guidelines for the planning process and impact assessments*." In Poland this annex was adopted by the national guidelines[8] of 2009, which are recommended by Polish

[6] Survey methods for use in assessing the impacts of onshore wind farms on bird communities, SNH, 2005
[7] Wytyczne w zakresie oceny oddziaływania elektrowni wiatrowych na ptaki (in Polish), 2008
[8] Tymczasowe wytyczne w zakresie oceny oddziaływania elektrowni wiatrowych na nietoperze (in Polish), 2009

Association for Bats Protection. The Polish guidelines fully adopt methodology of EUROBATS with an exception for a bat monitoring during construction of a wind farm.

4. ASSESSMENT OF IMPACTS NOT SUFFICIENTLY ASSESSED IN THE EIA REPORTS

In this section we present assessment of impacts which have not been or have been poorly analyzed in the EIA reports prepared for the Project. Please note, that a separate assessment of cumulative impacts[4] was completed by Ramboll Environ in 2018 and that assessment included both wind farms which constitute the current Project. Further please note, that both sites were inspected in 2019 by noise and nature experts and results of these inspections were summarized in the respective stand-alone documents[9,10].

4.1 Validity of Previous Noise Audit and Nature Monitoring

4.1.1 The Acoustic Audit

In 2019 the sites of the Project were inspected by a noise expert in order to identify any changes in land development as compared to the status at the time of the original EIA report preparation. No changes in land development were identified. In particular, no new acoustically protected areas (i.e. dwellings) were identified, hence, the results of the noise modeling for the purpose of EIA can still be considered valid and accurate.

Since in 2019 another than originally planned model of WTGs at the Wieliszewo site were considered by the company, additional noise distribution calculations were conducted[10].

The study analyzed impact of 17 WTGs type Enercon E-82, with a hub height of 97 m and rotor diameter of 82, and the max. acoustic power of 102 dB. The modeling results did not indicate any breaches of the noise standards in the wind farm vicinity.

The acoustic power of currently planned WTGs at this site, i.e. Vestas V90, is 103.7 dB. The originally planned WTGs (Nordex N90) has a slightly higher acoustic power (104.5 dB) and the same hub height (100 m). Given no observed changes in land development and lower than initially assumed acoustic power of the selected WTGs, the noise standards in the vicinity of this site are expected not to be exceeded.

Please note that the noise modeling gives only an approximation of the actual impact in the worst possible scenario. Therefore the actual impact of the Project on the acoustic climate will likely be lower than modelled which will have to be confirmed by mean of the noise measurements required for both sites of the Project after these are operational.

4.1.2 Additional Assessment of Natural Valuation

Since the monitoring of avians in the area of the Project was conducted in 2009-2010 (and based on this the EIA procedure was completed with still valid environmental decision granted to the Project), as a precaution measure, additional validation of natural conditions at the site was completed, in September and October 2019. The findings of the validation were presented in the validation report[9].

In order to assess the timeliness of the data obtained in 2009 and 2010, in 2019 monitoring studies were conducted aimed at censorship of selected breeding rare and medium rare species with simultaneous assessment of the existing habitat conditions in the area of the Project. In 2019, 4 field inspections were carried out on each of the originally two planned wind farms in

[9] Assessment of environmental monitoring of the area intended for construction of the BIĘCINO WIND FARM (Damnica Commune) and WIELISZEWO WIND FARM (Potęgowo and Damnica Communes). Bio Ekspert, November 2019

[10] The acoustic audit for Bięcino and Wieliszewo wind farms as part of the Potęgowo project. Eko-Pomiar, October 2019

September and October, which made it possible to assess the data collected in 2009/2010. The major findings of the valuation are summarized below.

Based on the assessment of habitats in the place of the planned location of the subprojects in 2019 and comparing it with the results obtained during the research in 2009-2010, it was concluded that the overall assessment of the impact of the wind farm on avifauna carried out in 2010 has not lost its relevance.

Due to field inspections carried out September/October 2019, no research was carried out aimed at assessing breeding avifauna. The only possible element of assessing the location of the planned wind turbines, in relation to breeding bird species requiring special protection of nesting areas, was the location of functioning protection zones for refuges and breeding sites. The conclusions are presented below.

4.1.2.1 Birds

"Bięcino WF" area

- In 2019 the area of the planned WTGs does not constitute attractive places for avifauna and therefore no negative impact is expected (domination of agricultural use). The lack of wetlands and water reservoirs also results in a small habitat diversity. All these aspects mean that the impact of planned wind turbines on avifauna will be consistent with the assessment contained in the pre-investment nature inventory;
- In the 10 km buffer zone around the planned wind farm, two nest protection zones of white-tailed eagles are located (species from Annex 1 of the Birds Directive, highly exposed to collisions with wind farms): in the distance of 5 and 9 km from the nearest WTG;
- At a distance of about 8.5 km there is a protection zone for black stork nesting (species from Annex I of the Birds Directive);
- The potential impact of planned WTGs may occur in the case of white-tailed eagles (nesting 5 km from the wind turbines), as the birds would penetrate the WTGs area, which in turn cause the risk of collision. However, the lack of observed individuals during the annual pre-investment monitoring, as well as during the inventory in 2019, and the lack of attractive feeding grounds in the WTGs vicinity contribute to minimizing the negative impact of the investment on this species;
- Two observations of the red kite was made (species considered to be highly exposed to collisions with wind farms and identified over the investment area during pre-investment monitoring). However, considered the fact there is no nesting protection zone of this species within 10 km of the wind farm, there are not expected significant negative impacts of planned investment.

"Wieliszewo WF" area

- In 2019 no habitat changes were found, compared to those existing in 2009 and 2010, which would contribute to increasing the attractiveness of the WTGs area for breeding avifauna (domination of agricultural use). Moreover, the reverse trend is taking place - the deterioration of the attractiveness of the area for breeding birds, due to observed gradual drying out of wetlands, i.e. meadows, as well as shrinking of the surface or drying of water reservoirs;
- In the area of Wieliszewo Project there is a water reservoir adjacent to wet meadows, which, as the time of the nature inventory was identified as the most valuable place for birds in the entire area of the planned subproject: a place of regular concentrations of birds, including those considered exposed to collisions with wind farms (during pre-investment monitoring there were observed i.a.: mute swans, mallards, herons, common teals, wigeons, goosanders; in 2019 field inspection confirmed these species' presence);

- In the vicinity of WTG No. 4, there is a wet meadow, currently partly dried and degraded. Depending on the humidity level, it can be an attractive biotope for selected species of birds, among others seedlings, although during the research in 2009-2010 no key breeding bird species were found there;
- The closest breeding place of white-tailed eagles was confirmed to be the same, as inventoried in 2009-2010 (7 km from the wind farm);
- In 2019 the presence of white-tailed eagles was observed in different areas (feeding place by the water reservoir), than during avifauna monitoring in 2009-2010 (the area east of the WTGs, excluded from the Project - only three observations throughout the year). Since 2010 the feeding/hunting grounds of white-tailed eagles have changed – due to disappearance of the water reservoir on the area east of the road no 211 and thus a different use of the site by birds;
- The reservoir together with the surrounding wet meadows, is the only attractive area of the planned wind farm and in its immediate vicinity for wading, *Anseriformes* birds. For this reason, this area is a potential feeding place for white-tailed eagles, also during the breeding season;
- Two observations of the red kite was recorded (species considered to be exposed to collisions with wind farms and observed over the investment area during pre-investment monitoring). However, considered the fact there is no nesting protection zone of this species within 10 km of the wind farm, there is no expected significant negative impacts of planned investment;
- In the case of WTGs planned in areas attractive for avifauna (WTG No. 4) or located in close proximity to forest areas (WTGs No.: 2, 5, 7, 14), the need to apply any mitigation measures should result from the post-investment monitoring outcomes;
- The WTG No. 16, planned at a distance of about 200 m from the water reservoir, seems to be of the highest concern given its attractiveness for birds (and likely also bats) observed in 2019 nature valuation. One should consider, however, that this increased attractiveness of the site results from the general drying of terrain in the entire area. Therefore there are two extreme possibilities: either the terrain drying will continue or, in opposite, the terrain irrigation will occur. In both cases the attractiveness for birds (and likely also bats) of the site will decrease, making this exact area comparable to the surroundings. Therefore the indicated attractiveness of this site should be considered temporary. As the precaution measure, however, this site should be of primary concern during the post-construction monitoring, and the results of the observations, upon agreement with the environmental authorities, should be duly included in the Active Turbine Mitigation Plan.

Based on the assessment of the occurrence of selected species of key birds in the Project area in 2019 and its comparison with the results obtained during the research in 2009/2010, it can be concluded that the assessment of the impact of the planned wind turbines on avifauna carried out in 2009 and 2010 has not become obsolete. However, the changes in habitat conditions (in terms of favourability for avifauna) in the area of the planned Wieliszewo WF observed in 2019, resulted in different use of the area by birds and further - in the necessity to apply additional mitigation measures. These should be defined by the birds and bats experts based on the current knowledge of the risks to avifauna and future post-construction monitoring outcome, and, after consultations/agreement with the environmental authorities included into the Active Turbine Management Plan.

The avifauna monitoring in the years 2009-2010 in the area of the planned Project was carried out in accordance with the modified methodology included in the study '*Guidelines for the impact of wind farms on birds*' (PSEW 2008). Due to the appearance of the updated methodology, it is recommended to perform post-investment monitoring strictly according to the methodological standards included in the study: '*Guidelines for the assessment of power plant impact wind farms*

for birds – project' (Chylarecki P., Kajzer K., Polakowski M., Wysocki D., Tryjanowski P., Wuczyński A. 2011. General Directorate for Environmental Protection. Warsaw).

4.1.2.2 Bats

The number of bats in a specific research area results from the attractiveness and availability of breeding and feeding habitats. Information on the species composition of bats, and in particular their numbers, is obtained indirectly by obtaining information on their activity (detector tests). The results of bat monitoring obtained in 2009 and 2010 in a methodical manner were derived from, among others, the prevailing habitat conditions in the studied area, which determined the specific species composition and number of bats.

In order to assess the validity of data on bats obtained in 2009/2010 on selected transects, field inspections were carried out in 2019 with the use of a detector (Pettersson D-230). The aim of the study was to assess their activity in selected, considered attractive places. The bats were registered during 4 night inspections, on each of the planned wind farms subprojects. Conducting research by sampling (4 controls) the activity and species composition of bats was treated as a method enabling to indicate places of increased activity in the reproductive period with the simultaneous possibility of comparing the data collected with those obtained in 2009/2010. At the Project site the presence of 4 bat species was stated (common noctule *Nyctalus noctula*, common pipistrelle *Pipistrellus pipistrellus*, Nathusius's pipistrelle *Pipistrellus nathusii*, Mouse-eared bat *Myotis spp.*). The obtained activity, defined as the average of all field controls on particular transects, was assigned to the low and moderate category.

The observations from 2019, on the activity of bats in the Project's area, differs from the data obtained during 2009-2010 monitoring, where no bats were found in the planned location of the wind turbines at Wieliszewo WF, while in the case of Bięcino WF only in the area of the rows of trees.

Due to obtaining new data on the activity of bats in the area of both subprojects, as well as the analysis of planned locations of wind turbines in relation to tree stands and rows, it is recommended to include in the post-construction bat monitoring (apart from mortality assessment) the assessment of the impacts on chiropterofauna associated with the trees in the WTGs vicinity. The post-construction monitoring will allow to determine the necessary minimizing measures, which shall be included in the Active Turbine Mitigation Plan.

Reports summarizing the annual monitoring of bats present the species composition of bats, constancy of occurrence and dominance in the research area. However, no activity indexes of bat species or groups found at individual listening points and transects were reported (the number of recorded bat encounters per listening hour). This makes it impossible to infer about bat activity and to compare the obtained results with available reference scales.

In the case of FW Wieliszewo, six wind turbines are planned closer than 200 m from tree stands and rows of trees, which does not comply with the guidelines on the impact of wind farms on bats. Potentially this may also be in conflict with the environmental decision, however, Ramboll was not able to identify whether the groups of trees in the area are really classified as forests. In order to mitigate a potentially increased risk for bats, the Company shall develop and implement an Active Turbine Management Plan.
It is worth mentioning that environmental decision was issued by Regional Directorate of Environmental Protection who at the stage of evaluation of EIA Report and issuance of the decision did not marked such location of WTG's as inappropriate or the location that may have negative impact on birds and bats.

Based on the assessment of the methodology of bat monitoring in 2009, carried out in 2019, which is consistent with the currently applied guidelines, it can be concluded that the monitoring was performed correctly, which served to conclude on the impact of planned wind farms on chiropterophauna. Additionally, four inspections carried out in 2019 on each surface in order to assess the activity and species composition of bats allow us to conclude that the data obtained during the monitoring in 2009 are up-to-date.

4.2 Assessment of Project Impact on Biodiversity

The wide monitoring and survey program undertaken prior application for the environmental decisions gives a wide picture of biodiversity in the Project development area. In Ramboll's opinion gathered information is sufficient for assessment of the impact on biodiversity and no further investigations are needed at this stage. Based on the results of this research program and nature and characteristics of the Project, it can be concluded that:

- There are no valuable habitats at the Project site, including location of WTGs and access roads, MES and routes of the underground infrastructure, hence no loss, degradation or defragmentation of habitats will occur;
- No invasive alien species will be introduced;
- No natural resources (except for occupation of land in small extent) will be used hence overexploitation will not occur;
- The Project will not change groundwater or surface water conditions;
- No chemical or biological pollution or nutrients will be introduced into the environment;
- The Project will have a positive impact on climate change, due to energy production without emitting any greenhouse gases.

Based on EIA reports for both subprojects, the dominance of agricultural land use and the small share of forests result in relatively low species diversity and small numbers of animals. Most present species of animals and birds are typical for agricultural/forest ecosystems and for the northern part of Poland. The WTGs locations and location of the associated infrastructure proposed by the investor will not significantly affect the valuable habitats from the birdlife point of view. No protection zones around species nesting sites have been designated in the research area requiring this form of protection. The closest zone concerns the nesting area of the white-tailed eagle (nest located in the nearest distance about 7 km from the Project). It is noteworthy, that according to executive order of the Minister of Environment of 16 December 2016, on the protection of animal species, the protection zone for white-tailed eagle can be designated up to 500 m from the nest. That means the Project does not affect the protection zone. The planned project will not affect the breeding species of birds, for which a protection zone around the nest is required.

According to the inventory's conclusions, the occurrence of valuable bird species in the analyzed area is mainly associated with wetlands (i.e. wet meadows), small water reservoirs and forested areas. The most valuable areas are damp and marshy meadows, and small water reservoirs constituting the breeding biotopes of birds. In order to mitigate potential impacts on birds (and ecosystem's biodiversity), the following measures were recommended by Ramboll at the construction stage of the investment:

- the construction works should be conducted under a natural scientist supervision, in order to mitigate a risk if protected birds during construction works occupy areas different than these already inventoried;
- if the construction works are to be undertaken within the breeding season these should be supervised by an ornithologist
- construction work on the swampy areas or across the river should be conducted with application of a controlling jacking technology, to avoid disturbance of the groundwater conditions;
- on the swampy area the works should be conducted as quickly as possible;

- chemical substances used for construction works (petrol, oils etc.) should be stored protected against contamination of the ground water environment.

Despite the lack of detailed data regarding herpetofauna of the Project's area, it must be noted that the nature of the project demonstrates that no significant impacts are to be expected. During operation – both WTGs and related infrastructure will not generate any impacts on animals inhabiting the neighboring areas. In turn, Project's construction will be secured by mitigation measures, imposed in decisions on environmental conditions, concerning dedicated barriers protecting small animals from entering construction area and capturing of amphibians and taking them out of the excavation pits to appropriate habitats. The most valuable areas for herpetofauna are damp and marshy meadows, draining ditches and small water reservoirs constituting the breeding biotopes. In order to mitigate potential, adverse impact on amphibians and reptiles (which correlates directly to ecosystem's biodiversity), apart from above listed mitigation measures, Ramboll recommends also conducting construction works under supervision of a nature scientist.

Taking into account the nature of potential impacts of the planned construction phase (insignificant scope, short period, reversibility), lack of recognized negative impacts on habitats and flora/fauna species, recommended mitigation measures, as well as the characteristics of the WTGs area Ramboll emphasises that no effects on biodiversity is expected.

Further, the EIA reports in sufficient way identified, described and assessed Project related risks and impacts on biodiversity, their likelihood, severity and significance, as well as direct and indirect cumulative impacts and potential for impacts cumulation. Assessment presented in the EIA reports was later accepted by the environmental authorities. In consequence environmental decisions were granted to the Project.

The Project and local societies are not dependent on use of local ecosystems. No actions to eliminate, mitigate or compensate use of ecosystems to local society are necessary.

Considering the above, the Project is assessed as of low impact on biodiversity. Given the nature of the Project, however, birds and bats can be considered "priority biodiversity features" due to potentially increased risk for these groups of vertebrata.

The major conclusions of the birds monitoring (see section 4.1.2.1) are that the Project site is of low attractiveness to birds in terms of breeding/nesting area. The site is also not extensively used during spring and autumn migrations. Although some birds listed in Annex I to Birds Directive were observed at the site, the number and abundance of their species is negligible/low. A review of birds listed in the Annex I to Birds Directive observed at the site, along with the assessment of a risk for the population, is presented in Table 2 below. For most of the observed species, a risk for the population is assessed by Ramboll as negligible – the vast majority of identified species is classified "least concern" by IUCN, not classified at all by the Polish Red Book of Endangered Species (Polish Red Book) or classified "least concern". In one case (European Golden Plover), the Polish Red Book category is "expired/probably expired species", although European Golden Plover's concentrations of about a few hundred to several thousand flocks were observed in Poland. Golden plovers were observed mostly in the area of Wieliszewo WF inventory and outside the areas occupied by WTGs. For some observed species, due to their common behavior (e.g. altitude of flights), certain national protection regulations (e.g. protection zones around the nests), small population number/endangered status in Poland, the assessment scoring was elevated to "low". These include:

- Montagu's harrier;
- White-tailed eagle;
- Common crane;

- Golden plover.

The number of observed eagles did not exceed four at the time and their nesting zone is not affected by the Project - hence a risk for the entire population is negligible.

It is noteworthy that if necessary, mitigation measures can be established by the environmental authorities, based on the results of birds monitoring, which shall be commenced after the wind farm is fully operational (3 annual inventories carried out in 5 years, imposed by decisions on environmental conditions). The decision on implementation of the additional mitigation measures will be taken, if birds' mortality is high, upon authorities' discretion. Please note that if lack of impact on birds' mortality is observed, the authorities may also decide to allow the turbines to work without any curtailments.

Given the results of birds monitoring and found low risk of the Project for birds, Ramboll does not recommend any "shut down on demand" procedure, unless a need for such comes out from the Active Turbine Management Procedure.

All identified bats in the area are subject to strict protection in Poland and EU. Among them:

- Common noctule *Nyctalus noctula* is classified "least concern" according to IUCN;
- Natterer's bat *Myotis nattereri*, is classified "least concern" according to IUCN;
- Nathusius pipistrelle *Pipistrellus nathusii* is classified "least concern" according to IUCN;
- Brown big-eared bat *Plecotus auritus* is classified "least concern" according to IUCN;
- Common pipistrelle *Pipistrellus pipistrellus* is classified "least concern" according to IUCN.

As can be concluded from the bats monitoring campaigns, the species composition and their numbers indicate a very low species diversity of the bats in the studied area. Moreover, bats prefer linear elements of the landscape, which are distant from the WTGs location, and the internal space of the site was assessed as of low attractiveness for bats, however, mitigation measures due to possible threats to bats were required by the environmental decisions and are also recommended in section 4.1.2.2.

Ramboll assess imposed requirements as sufficient to mitigate the impact on bats, as per the current knowledge. Please note that the Company is obliged to conduct 3-years long post-construction monitoring of bats. Should the monitoring results indicate excessive impact (mortality) on bats, the environmental authority may impose other obligations on the Company, including planned shut downs of certain WTGs under particular meteorological conditions or reduction of rotor's capacity. Ramboll does not recommend any further actions to mitigate the impact on bats.

Table 2. Assessment of the Project impact on birds listed in Annex I to the Bird Directive

Species	**Status of inventoried species:** N – nesting species on the WF area or in close vicinity NX - nesting species beyond the WF area (> 500 m) M – migrating species (B) – Bięcino WF subproject area inventory data (W) – Wieliszewo WF subproject area inventory data			**Conclusions**
	N	NX	M	
White stork (*Ciconia Ciconia*)	-	2 pairs (B) 3 pairs (W)	5 individuals (B) 19 individuals (W)	White stork population in Poland is estimated at approximately 45 thousand pairs. Lack of individuals nesting on the area of the WF and low number of identified individuals. Individual occupied nests found only in the nearby villages. No migration's flock concentrations. Due to flight range a risk of collisions exist, however with a negligible impact on the entire population.
Marsh harrier (*Circus aeruginosus*)	-	1 pair (B) 1 pair (W)	21 individuals (B) 17 individuals (W)	One of the most common raptor birds in Poland, with growing population. Classified "least concern" according to IUCN (increasing European population); not indicated in Polish Red Book. Considering numerous domestic populations, the risk is negligible.
Montagu's harrier (*Circus pygargus*)	-	-	1 individual (B) 1 individual (W)	The European population is estimated at 30,000-46,000 breeding pairs (incl. 1,300-1,500 pairs in Poland). Classified "least concern" according to IUCN (increasing European population); not indicated in Polish Red Book. Considering numerous domestic populations and small number of observed individuals, the risk is low.
White-tailed eagle	-	-	4 individuals (W)	Observations confirmed nesting of individuals - 7 km away from the Wieliszewo WF area.

(*Haliaeetus albicilla*)				The autumn observations from 2019 identified using of the area in the vicinity of WTG No. 16 as feeding grounds – therefore Ramboll recommended additional mitigation measures concerning operation of this wind turbine. European population is estimated at 9-12.3 thousand breeding pairs (incl. 1-1.4 thousand in Poland), with increasing tendency. Classified "least concern" according to IUCN and Polish Red Book. Due to flights at the attitude within the rotor range in risk of collision. Considering distant nest location from the Wieliszewo WTGs and proposed mitigation measures regarding the WTG No. 16, expected impact on population is low.
Common redpoll *(Carduelis flammea)*	-	-	25 individuals (B)	Regularly appears in Central/Eastern Europe (in significant number of individuals) as migratory and wintering bird. No nesting birds found on the WF farm areas or in the buffer zone, and their findings were related to sporadic migrations near Bięcino subproject's area. Classified "least concern" according to IUCN and Polish Red Book. Negligible risk to population.
Hen harrier (*Circus cyaneus)*	-	-	3 individuals (W)	Low population in Poland (a few dozen pairs), classified "vulnerable" by the Polish Red Book. Likely incidental presence in the Wieliszewo area. Due to low flight altitude in low risk of collision. Classified "near threatened" according to IUCN. Considering very small number of observed (migratory) individuals during the whole year and no nesting at the site, the risk to the population is negligible.
Corn crake *(Crex crex)*	1 pair (B)	2 pairs (W)	1 individual (B)	Nest around the country. Only one pair found on the Bięcino WF area and apart from that likely incidental presence in the area. Classified "least concern" according to IUCN; not indicated in Polish Red Book. Negligible risk to population.
Common crane (*Grus grus)*	1 pair (B)	1 pair (B) 4 pairs (W)	242 individuals (B) 1548 individuals (W)	Concentrations of cranes (flocks) observed outside the area of FW subprojects. In case of the Bięcino subproject - no major flocks of cranes were found - the largest up to a dozen individuals, which, taking into account the scale of the territorial expansion of the species and its widespread occurrence in the agricultural landscape of the entire northern part of the country, is not above average.

				In case of Wieliszewo subproject, major presence of cranes recorded in the area located east of the road No 211, excluded from the Project. Hence cranes had been used this area for at least 20 years, no WTGs would be located there. It is noteworthy that about 100,000 individuals pass through Poland, mainly its northern part, twice a year, a large part of which stops in arable fields, gatherings up to several thousand birds up to time. Polish population is estimated at approximately 5-6 thousand pairs, with increasing tendency. Classified "least concern" according to IUCN; not indicated in Polish Red Book. Confirmed/ likely nesting, no feeding grounds at the site. Low risk to population.
Golden plover *(Pluvialis apricaria)*	-	-	134 individuals (B) 1869 individuals (W)	In Poland lastly nestled in the 19th century, and since then regularly appears as migrating bird (a few hundred to several thousand individuals). No nesting birds on the planned WF area; only migratory individuals observed. On the Wieliszewo WF area, the birds clung to the plowed fields at crane wintering areas, located east of the road No 211 (excluded from the Project), whereas in other areas of the WF there were only small groups. Classified "least concern" by IUCN (with increasing population trend) and "expired/probably expired species" by Polish Red Book. Low risk to the population.
Wood sandpiper *(Tringa glareola)*	-	-	15 individuals (W)	Observed only during individual controls. Small population in Poland, presence at the site assessed as incidental (migratory individuals). Classified "least concern" according to IUCN (stable population) and "critically endangered" by Polish Red Book. Low risk to population.
Red-backed shrike *(Lanius collurio)*	3 pairs (B) 2 pairs (W)	-	24 individuals (B) 10 individuals W)	In Poland, an average-number breeding bird. High number in appropriate habitats in Pomerania allows for a conclusion that there is no threat posed by WF construction. Confirmed nesting at Bięcino and Wieliszewo subsites. Population in Poland estimated at approximately 400 thousand pairs. Classified "least concern" according to IUCN (stable population); not indicated in Polish Red Book. Due to a small number of observed individuals/pairs, low risk to population.

Merlin *(Falco columbarius)*	-	-	1 individual (W)	In Poland appears very rarely, only during flights and extremely rarely overwinters. On the area of the whole country regularly seen from the end of August to mid-May (in other months exceptionally), usually individually. Classified "least concern" according to IUCN; not indicated in Polish Red Book. Considering the fact, it is not typically domestic species and the number of observed individuals was very small, the risk to the European population is negligible.
Woodlark *(Lullula arborea)*	2 pairs (B) 2 pairs (W)	-	10 individuals (B) 11 individuals W)	In Poland occurs on the entire territory of the country with lower mountains, although unevenly. High numbers in appropriate habitats in Pomerania noted. Classified "least concern" according to IUCN (increasing population); not indicated in Polish Red Book. Considering lack of this species in Polish Red Book of Animals and a small number of observed individuals during the whole year of inventory, the risk to the population is low.
Great egret *(Egretta alba)*	-	-	1 individual (W)	In Poland, an extremely rare breeding bird, but commonly visiting Polish territory. Until recently no breeding was recorded. Earlier, the northern range of nesting was through the Czech Republic and Slovakia, now the species is expanding to the north. One individual recorded at crane wintering areas, located east of the road No 211 (excluded from the Project). Classified "least concern" according to IUCN; not indicated in Polish Red Book. Considering the fact, it is not typically domestic species (and only during expansion to the north), it is beyond the scope of interest of Polish Red Book and the number of observed individuals was very small (and limited to area excluded from the Project), the risk to the European population is negligible.
Black woodpecker *(Dryocopus martius)*	1 pair (B)	1 individual (B)	1 individual (W)	In Poland widespread throughout the country. Classified "least concern" according to IUCN; not listed in Polish Red Book. Considering the fact, it is common species in Poland and small number of observed individuals during the whole year, the risk to the population is negligible.
Whooper swan (*Cygnus cygnus*)	-	-	212 individuals (B)	The world population can count about 60,000 - 65,000 individuals, with increasing tendency.

			45 individuals W)	No nesting birds on the planned WF areas and in the vicinity. Population in Poland estimated at a few dozen nests. Classified as "Least concern" according to IUCN. Low risk on population.
Tundra swan (*Cygnus columbianus*)	-	-	17 individuals (B) 19 individuals W)	The world population can count about 10,000 - 12,000 individuals. Tundra species. During autumn and spring flights appears throughout the Poland, but the main trail leads through the central part of the country and along the Baltic coast. Very few winters in the west part of Poland. Classified as "Endangered", according to IUCN. The risk to the population is low.
Red kite (*Milvus milvus*)	-	1 pair (W)	1 individual (B)	Appeared sporadically on the inventoried surface (only 1 observation in Bięcino area). On Wieliszewo area nested area off the surface with irregular visits of individuals on the subproject's area. The world population can count about 20,000 - 30,000 individuals. Very few breeding birds in Poland (600–700 pairs, more recent estimates provide 1 - 1.5 thousand with an upward trend). Classified "Near threataned" according to IUCN and Polish Red Book. The risk to the European population is negligible.
Kingfisher (*Alcedo atthis*)			1 individual (W)	Widespread in Europe; in Poland it is found throughout the lowland area of the country. Appeared sporadically on the inventoried surface (only 1 observation in Wieliszewo area). Classified "vulnerable" according to IUCN. The risk to the European population is negligible.

* Number of individuals refers to a total annual number of observations (where not excluded counting of the same individuals appearing repeatedly).

4.3 Ice and Blade Throw Effect

The risk of ice throw must be taken into account during planning of the wind farm investment. This effect may occur when ice generated on the turbine blades under certain meteorological conditions is thrown away of the blade driven by a centrifugal force. The potential risk was not analyzed in none of the EIA report. Ramboll accomplished calculations according to the guidelines provided by the Wind Energy Production in Cold Climate (Wind Energy Production in Cold Climate Tammelin, Cavaliere, Holttinen, Hannele, Morgan, Seifert, and Säntti, 1997), which suggest the following formula for calculating the safe distance: 1.5 * (hub height + rotor diameter). The rough calculations for the planned WF indicate that for assumed max. hub height and rotor diameter (110 m and 120 m, respectively), the maximum throw range will be approximately 350 m.

The blade or part of blade throw risk occurs in certain circumstances, e.g. if blade structure is affected by ice or production error, or, if an accident caused e.g. by fire or thunder strike occurs while the blades are rotating. Damaged part of the blade or entire blade is then thrown away by a centrifugal force. Theoretically, the throw range can be calculated based on the kinematic of angular throw, which, for given WTGs correspond to a maximum range of throw of some 1500 m. However, in real conditions the thrown blade or its part is still subject to aerodynamics forces and air resistance and actual distances of throw are typically shorter, which was proved both numerically and by observations of real accidents. Following presentation of Mr. Scott Larwood of California Wind Energy Collaborative presentation (2004 Forum Palm Springs), a throw range for near 100 m tall WTGs is approximately equal to WTG overall height for entire blade, and 2.5 times WTG height for part of it. In lack of the sound scientific background we have assumed, that the blade throw range for the selected WTGs will be 500 m.

Ramboll have analyzed location of the WTGs versus potential places of concern, such as human residences and public roads. The results of the analysis are presented in Appendix 1.

Although no human residences were found to be in danger of the ice or blade throw, the local roads are within the risk range as presented in the table below:

Table 3. Identified roads in risk of ice or blade throw effect

Wind farm subproject	WTG	Affected road	Risk
Bięcino WF	WTG 1 Bięcino	Local road crossing Bięcino (connecting Rogawica and Bięcino)	Blade
Wieliszewo WF	WTG 13	Provincial road no. 211	Blade
	WTG 15	Provincial road no. 211	Blade and ice
	WTG 16	Provincial road no. 211	Blade and ice
	WTG 17	Local road linking road no. 211 with Wieliszewo village	Blade and ice

In order to mitigate the risk for humans, Ramboll recommends development in cooperation with the WTGs manufacturers an Ice Throw Mitigation Plan , which will define the measures to minimize a risk for accidental ice throw, which may include e.g. ice "shaking". Ramboll also recommends:

- Placing warning signs in due distance at all access roads to individual WTGs;
- Placing (in agreement with the public roads authorities) information boards informing about entering wind farm area providing contact details to the Company.

4.4 Shadow Flicker Effect

The rotating blades of the turbine may cause the shadow flicker effect.

Polish law does not regulate in any way the issues related to the reduction of shadow flicker effect. Therefore, any recommendations or restrictions associated with it cannot be applied to the investor. The applied guidelines are based on a document *Hinweise zur Ermittlung Und Beurteilung der optischen Immissionen von Windenergieanlagen (WEA-Schattenwurf-Hinweise)*, which is a basis for shadow flicker analysis in Germany. According to that document, the ratio of the shading duration should not exceed 30 hours per calendar year and should be a maximum of 30 minutes per day. Although these values are not regulated by law, they are also used in many other European countries (eg. Great Britain, France, Netherlands).

Such impacts were analyzed in the Bięcino EIA Report. The conclusions indicate a low, short-term annual exposure of the flicker effect of people present in the vicinity of the subproject's location. This is justified by the atmospheric conditions in the area (a large number of cloudy days) and the considerable distance from residential buildings to planned wind turbines. The highest forecasted lengths of shadow flicker- 3 hours and 36 minutes per year (average 35 seconds per day) were recorded in the eastern region of the village of Bięcino. The lengths of shadow flicker effect found on other receptors are lower and range from about 20 to about 2:25 minutes per year.

The shadow flicker effect has not been however mentioned in the Wieliszewo EIA Report, therefore commissioned by REH, the subcontractors undertaken a detailed assessment. The calculations undertaken for Wieliszewo WF subproject showed no exceedances of annual shading levels, which were treated as safe for the real conditions (taking into account data from long-term observations derived from meteorological stations). In none of the points designated for measurements, the meteorological probable length of shading exceeded 30 hours per year and varied between 4:45 and 17:33 hours per year. However, in 10 out of 14 receptor points the maximum duration of shadow flicker exceeded 30 minutes per day, varying between 34 and 66 minutes, which indicates that some citizens may be temporarily exposed to burdensome shadow flicker.

The Company will carefully monitor grievances related to shadow flicker and if necessary will address this issue in the Active Turbine Management plans.

4.5 Social Impacts

4.5.1 Characteristics of the Social Environment

The Project is being developed in the communes of Potęgowo and Damnica (Pomorskie Voivodeship).

Potęgowo is a rural commune with the sit in Potęgowo village. The commune occupies an area of 227,92 km^2 of which 66% are arable fields and 26% are forests. There are 36 villages and settlements in the commune. There are no large industry in the commune, however there are some production plants of national and international character, the major occupation of the inhabitants is farming. No detailed information on other forms of employment is available, but most likely some percentage of inhabitants works in services, such as transportation, construction works or other services.

Damnica is a rural commune with the sit in Damnica village. The commune occupies an area of 167,81 km^2 of which 64% are arable fields and 29% are forests. There are 27 villages and settlements in the commune. There are no large industry in the commune, the major occupation of the inhabitants is farming. No detailed information on other forms of employment is available, but most likely some percentage of inhabitants works in services, such as transportation, construction works or other services.

The demographical structure of the communes, established based on the "Statystyczne Vademecum Samorządowca" book, published for the year 2016 in 2017 by Statistics Office in Szczecin is presented in Table 4.

Table 4. Basic demographic data as for the end of 2016

Demography /Commune	Damnica	Potęgowo
Population	6222	7031
Population density[1)] persons/square km	37	31
Women	3069	3487
Men	3153	3544
Number of people of productive age	4025	4485
Percentage of people of productive age	64.69	63.79
Number of people employed out of 1000 people[2)]	120	142
Unemployment rate [%]	6.6	7.1
Migration rate (annual)	-50	-52

1) Own calculations
2) In the companies that employ more than 9 people, small, family operated farms are excluded.

It is worth mentioning here, that the population in the communes is much less dense that the average for the country, which is 122.9 persons per square kilometer. The unemployment rate is close to the average for the country which is 8,2 (according to the Annual Statistical work, published for the year 2016, in 2017), however, a negative migration rate indicates that the communes' inhabitants are not satisfied with the living conditions and migrate in search of better income or other benefits.

Information of the basic infrastructural facilities in the communes, established on the cited above statistical book is presented in Table 5.

Table 5. Basic data regarding municipal infrastructure as for the end of 2016

Infrastructure/Commune	Damnica	Potęgowo
Percentage of population using municipal sewerage	81.4	66.4
Number of flats	1727	1943
Number of social flats	10	5
Nurseries	0	1
Kindergartens and preschool education facilities	4	4
Elementary schools	5	3

Gymnasiums (were transformed to elementary schools in 2017)	4	2
Libraries	1	2
Medical clinics	4	2

Information on the demographic satiation and municipal infrastructure for the villages and towns in the proximity of the subprojects is not available. However, based on the sites' inspection, the kindergartens, schools, libraries and medical clinics are concentrated in the commune's sits and other towns, distant from the Project sites.

Summary of population of the villages and settlements in the direct proximity of the project is presented in Table 6.

Table 6. Population of the villages, settlements and towns in the Proximity of the Project

Project	Village	Population	Approx. distance to the wind farm
Wieliszewo	Wieliszewo Malczkowo Nowa Dąbrowa Karznica Total	202 504 93 203 1002	0.6 km 2 km 0.6 km 2 km
Bięcino	Bięcino Grąsino Rogawica Dębniczka Damnica Mrówczyno Zgojewko Total	198 500 259 44 1240 52 27 2320	1 km 4.2 km 3.4 km 0.4 km 2.5 km 2.7 km 5 km

4.5.2 Social Impacts During Construction and Dismantling

Social impacts for the local societies during construction phase will be related to construction works and transportation of the building materials, excavated soil and WTGs elements. The same impacts will occur during dismantling of the Project, which is expected to happen in a 25-30 years horizon.

The impacts related to construction works were analyzed in the EIA reports prepared for the subprojects. Noise, vibrations and primary and secondary emissions, i.e. typical impacts generated during construction works, are not likely to directly impact inhabitants of the villages located in proximity of the construction sites (such are at least 0.6 km distant from the sites), and their range typically do not exceed a few hundred meters. Such impacts were analyzed in the EIA reports for the Project and no excessive adverse impacts have been identified. Hence, the related social impacts will be limited, short-term and reversible.

Transportation issue appears to generate more social impacts than the construction works themselves. Based on the construction assumptions the construction related transport of materials and excavated soil will require approximately 3,500-4,000 truck drives, which

corresponds to approximately 2.5 drives per hour during the construction works. This value should be considered average but occasionally traffic intensity on the roads in close proximity to the construction sites may be significantly higher. It should be noted, that the details of the routes used for delivery of building materials and transfer off the sites excessive soil from excavations are currently unknown. Necessary planning will be done by the work contractor at the later stage of the Project. Such transport will be conducted during daily hours only unless the technological requirements (e.g. concrete foundations laying and maturing) require otherwise.

Expected traffic-related nuisances for the societies include noise, vibrations and primary and secondary air emissions, but also increased road traffic hence accident risk. Some road damages may also occur and in case of transport of oversize cargo of WTGs elements also disruption of traffic flow.

Delivery of the WTGs elements and cranes to the construction camps will require approximately 230 journeys, also distributed in time and space. Given the size of WTGs elements, these elements will have to be delivered during night hours only, upon permits issued by the road authorities. The delivery points and transport routes are already planned and include:

- for Wieliszewo subproject - on the National Road No. 6 and then on the road no 211,
- for Bięcino subproject – on the asphalted road crossing the Bięcino village,

which entails that local communities of Wieliszewo/Bięcino villages may be potentially affected by truck drives. It must be noted that the Nowa Dąbrowa village and the Domaradz village (Wieliszewo WF site), although located in the vicinity of the National Road No. 6 and the road No. 211, buildings are focused in a considerable distance from the roads and no significant impact is expected.

The oversize cargo transport at night will directly affect inhabitants of the villages and towns along the delivery routes, in particular these of a local character, as the citizens of towns and villages along the road No. 6 are permanently exposed to road traffic nuisances. The following villages have been identified as the most likely affected by the increased traffic during construction works: Potęgowo, Damnica, Dębniczka, Bięcino, Budy, Rogawica, Nowa Dąbrowa, and Wieliszewo. No vulnerable institutions have been identified to be located in these villages by the transportation routes. The total number of these villages inhabitants exceeds 3.5 thousand of which approximately 20% (i.e. 0.7 thousand) are believed to be exposed to oversize cargo transport nuisances. No vulnerable social infrastructure can be affected by such transport in these villages (except for schools and nurseries which, however, do not work at night).

Both construction works and traffic are likely to affect farmers – owners of the land where the Project will be developed. With all affected farmers the appropriate contracts were signed for land lease or easement (over 100 in total). The contracts allow for land use both during construction and exploitation and exclusion of the occupied land is compensated by the lease/easement fees, established on the fair market places. During construction and delivery of materials and equipment, additional damages may occur, e.g. due to storage of materials or vehicles movement out of the designated land. The contracts foresee such possibilities and include clauses guaranteed that the potential damages will be compensated based on the market price for lost production.

The construction works will also generate some social impacts for the contractors and their employees. These may include:

- Employees of the construction works' contractors and subcontractors may be hired from the Project area but also from other parts of the country or even from abroad. As the general requirements of the national law, all workers, never mind they origin, must have an appropriate

medical examination, must be provided with PPE appropriate for the type of undertaken works, and must have appropriate H&S training. Other rules guaranteed by the constitution and the Labor Code, such as ban on any form of discrimination or forced labor, employment of children or pregnant women and other rules will be also in force. The compliance of the contractor/subcontractors with the law can be checked at any time of the works by the national labor inspectorate. Hence the workers' rights shall be considered secured in general by the national law and practice.

- Provision of accommodation to the contractor/subcontractors' employees will depend on the individual or group contracts with them. Both individual and group accommodation of workers will the most likely be provided by use of hotels, B&B or apartments'/rooms' rental.
- The construction stage is not expected to have a negative impact on the employment of the Company. But it is possible that it will positively influence employment rates in the area as well as stimulate local businesses, by creation of working places and new business opportunities.
- Some H&S risks may occur during the construction phase of the project both due to the character of works at the construction site (e.g. deep excavations, maneuvering of heavy equipment, work at height, electric issues, etc) and at the delivery routes (e.g. risk of traffic accidents).

4.5.3 Social Impacts During Exploitation

Due to the nature of the Project, the social impacts during exploitation phase may apply to residents of villages in proximity of the Project, people traveling nearby or the Project sites and the employees of the Company and the service providers.

The social impacts to the residents can be caused by the impacts generated directly by the wind farms. These include:

- Noise impact: the noise impact was subject to detailed analysis in all EIA reports completed for the wind farms. The cumulative impact assessment confirmed that the final configuration of the wind farms will result with the noise impact complying with the noise standards both during day and night. According to the Polish law the environmental noise standards apply only to certain areas. In case of the Project the only identified areas for which such standards apply are residential areas of human residences and villages located in the proximity of the Project sites.
- Shadow flicker: as shown in section 4.4, a shadow flicker effect was not expected to occur at the Bięcino WF site, however, at the Wieliszewo WF site this effect can affect 10 dwellings with the daily duration exceeding recommended value of 30 minutes per day. At this site, however, the recommended threshold value of 30 hours per year is not exceeded. The Company is aware of that and will implement a shadow flicker monitoring program and based on that will develop and implement a mitigation plan. The mitigation measures foreseen at this stage can be planting of tall vegetation at the affected properties to reduce the shadow flicker duration.
- Exclusion of some area of land from agricultural production. Please note that the Polish law requires investors to prove their legal right for land where the investment will be developed. Legal right to the land can be either ownership or lease agreement. This will be compensated In case of the Project land needed for the investment acquired by the land lease agreements, with the compensation fee agreed with the landowners and established based on the fair market prices.

The social impact to the travelers is related to ice and blade throw risk. As presented in section 4.3, there are three roads potentially in danger of this risk.

The social impact common for both travelers and residents is the scenic impact. As presented in the Cumulative Impact Assessment Report[4], these cumulated impacts have been assessed as low. For the residents, the individual wind farms will introduce new landscape dominants and, from the

perspective of distance from the villages to the WTGs, such impacts can be scored in most cases as significant to moderate, in less extent also insignificant. For the travelers, the wind farms will be visible mainly from the local roads, and the scenic impact will be moderate.

The major social risks which can affect the company and service providers' employees is the employees exposure to different H&S risks typical for the type of conducted operations (e.g. related to electric hazards or working at heights) and related to accidents at the site, such as e.g. fire events, ice or blade throw.

4.5.4 Measures to Mitigate Identified Social Impacts

The social impacts related to construction and then operation of the project can be mitigated at different levels, depending on their nature and area of influence.

The impacts generated during construction and dismantling phase will be mainly associated with nuisances for the local society, risks related to increased traffic and H&S risk for the construction workers and drivers. Mitigation of such impacts will be achieved by proper impacts' management by the Company.

The impacts to the local society will be limited by proper organization of the construction\dismantling works, such as:

- Conducting delivery of equipment and building materials during the day hours only, unless delivery at night is necessary due to technological reasons (e.g. construction of concrete foundations) or legal requirements (e.g. delivery of oversize cargo). Further, delivery of materials to the construction site should be properly planned by meaning of a Delivery Management Plan which will optimize delivery routes to reduce impact on residential areas, in particular by avoiding crossing residential areas if alternative routes are available, avoiding increased impact on traffic jams and improving road safety. The oversize cargo transport will be conducted based upon the permits issued by relevant road authorities. The residents of villages, along the transportation routes will be informed in advance about commencement of the construction works and potential road safety issues.
- Conducting the works during day hours only, unless such works must be conducted at night due to technological requirements. Such action would prevent to some extent emissions of noise that might be detrimental to health and comfort of people residing in the nearby area,
- Conducting works and deliveries of material with full attention in order to avoid damages to agricultural crops,

as well as:

- Maintaining the Stakeholders Engagement Plan and informing in advance the local society about planned works, including construction phase and related increased road traffic risks, so the people are aware of the upcoming increased risk;

The impacts to the local society during the operational phase of the Project will be mitigated by:

- Monitoring of the facility environmental performance, in particular, noise impact and shadow flicker effect but also electromagnetic interference events (very much unlikely) and others.
- The Company will maintain a Stakeholders Engagement Plan and grievance mechanism to secure appropriate exchange of information with all the stakeholders, including local society, and properly address all situations assessed by individuals or organizations as the issues of concern;
- The Company will place warning signs in due distance at all access roads to individual WTGs and in agreement with the public roads management authorities, will place boards to inform

about entering wind farm area and providing contact details to the Company in order to mitigate risk related to ice/blade throw potential.

The mitigation of impacts to the internal stakeholders, i.e. own workers and supply chain will be achieved by implementation of the following measures:

- The Company will comply with all Polish labor and health and safety regulations, specifically Labor Code and EBRD PR 2 requirements including Core ILO conventions during all phases of the project. For the construction period, the Company already developed Health and Safety Plan and Emergency Preparedness and Response Plan, which, at the later stage, will be implemented into an environmental, social and health and safety management system. For execution of the construction works only reputable companies will be selected who will be required to follow at least the same labor and health and safety standards as the Company, unless these implemented in the contractors' organizations are more restrictive.
- The Company developed a Labor Management Plan, which will apply also to contractors during construction and operation of the Project, and will outline procedures and requirements to ensure that the Company and its Contractors respect and protect the fundamental principles and rights of workers through promoting personal respect and a safe work place. This will include, despite of the nationality of workers:
  - fair treatment;
  - non-discrimination and equal opportunities for all workers;
  - establishing, maintaining and improving a sound worker-management relationship;
  - compliance with applicable national labor and employment laws;
  - protecting and promoting the safety and health of workers, especially by promoting safe and healthy working conditions;
  - preventing the use of forced labor and child labor (as defined by the ILO and Polish legislation).
- The Company will monitor employee standards of its contractors throughout the lifetime of the Project through regular labor and OHS audits.
- The listed above Emergency Response Plan will provide the process and procedures for the Company and contractors to follow, together with local emergency service organizations, in the event of an occupational safety or environment incident during the life of the Project.
- Requirement imposed by the draft contract for the construction works to follow all applicable H&S standards and regulations, which means that the employees as a minimum will be:
  - provided with H&S training appropriate for the type of executed works;
  - sufficiently skilled and experienced and will possess necessary authorizations;
  - equipped with appropriate PPE.