

FINAL REPORT

Annual environmental and occupational health and safety report for 2015

MARGONIN WIND FARM

RELAX WIND PARK I Sp. z. o.o.

EDP Renovaveis edp renewables

Date: February 2016



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1 Introduction

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EDP Renovaveis (hereinafter referred to as EDPR) is a global leader in renewable energy sector in Europe and America. Among others, the company is developing and operating wind farms in Poland.

The Margonin wind farm project received financial support from EBRD and other banks of the International Finance Corporation. The financial involvement of the banks was preceded by the analysis of project's impact on environment and its social consequences, and the development of two documents, Stakeholder Engagement Plan (SEP) and the Environmental and Social Action Plan (ESAP), which constitute a roadmap for the company, allowing to meet the requirements of good management practices and the internal regulations and procedures of the Bank.

This report was developed to inform the Banks about the status of the project and the EOHS issues, as well as to present the level of implementation of SEP and ESAP. As required by the Bank, the report contains:

- Information on the status of the project, its changes and information on the environmental impact of the project, mainly on the compliance with contractual specifications and environmental standards valid in the country and the European Union (section 2).
- Information about the compliance with ESAP and about new projects or changes to the planned project (section 3).
- Information about the results of monitoring performed after the completion of construction (sections 3.2 and 4).
- Summary of material changes in the law of a major impact to environmental or social issues, which affect the Company to a significant extent (above EUR 100 thousand) (section 5).
- Summary of all areas, where major non-compliances with the environmental laws were identified (section 6).
- Information on major social issues (section 7).

This report will be published on EDPR website.



2 Current status of EDP projects

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Project location

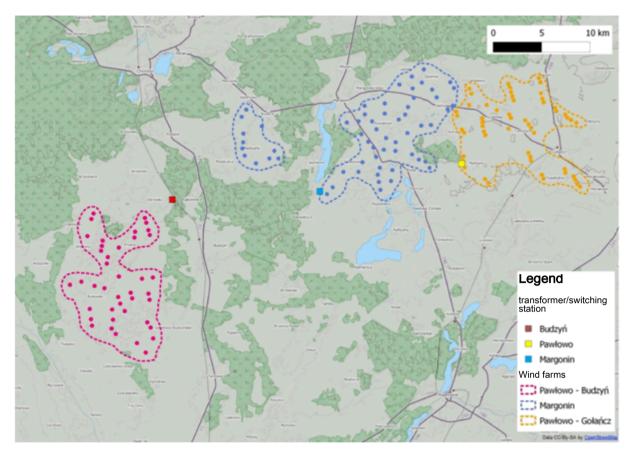


Fig. 1. Location of individual wind farms comprising the described complex and their transformer/switching stations

2.1 Margonin Wind Farm

Margonin Wind Farm consists of 60 single wind turbines of 2 MW each of total capacity of 120 MW.

Margonin WF comprises two major parts located on two banks of Margonińskie Lake:

- 1. Margonin West wind farm (11 turbines) of total capacity of 22 MW; and
- 2. Margonin East wind farm (49 turbines) of total capacity of 98 MW.

Power is fed from both parts of Margonin WF through the underground cable line to transformer/switching station in Sypniewo (Margonin TSS), and then through the overhead power line 110 kV Margonin-Piła Krzewina to the national power system. The described project has been in operation since 2010. Waste generation permits were obtained for Margonin East and Margonin West wind farms in 2011. Due to the amount of generated waste, in 2012 an application was made to the Chodzież District Head to change the permit in the scope of amount and quality of generated waste. The change of waste decision was granted in 2013 for Margonin West. In 2015 there was a need to increase the amount of contaminated sorbents produced, and new codes were added: 170503 –waste soil, 160216 – elements from used devices. The updates of waste decisions were granted in 10th of June 2015. Waste management is controlled on a current basis – waste registration is performed. Waste is selectively collected in the



designated place at the on-site switching station, and then passed to companies holding the suitable permits or administrative decisions.

Wind turbines are subject to service and maintenance program provided by Gamesa, the manufacturer of the turbines.

Electrical engineering maintenance of the on-site switching station is contracted to an external company, ENEA serwis and EDPR is responsible for operational management.

In 2015, the wind farm produced net 284 820 MWh of electrical energy and received 291 940 MWh of green certificates (renewable energy certificates – equivalent to gross energy produced by wind turbines).

2.2 Pawłowo Wind Farm (Pawłowo – Gołańcz)

Pawłowo-Gołańcz Wind Farm, comprising 53 turbines, neighbours with the Margonin East WF from the east. The project was commissioned in July 2013.

Initially, the project included three subprojects, assuming the construction of 65 wind turbines in the area of Gołańcz commune (stage I and II) and 31 turbines in the area of Wągrowiec commune. In Gołańcz commune, the administrative procedures were performed separately for two subprojects: for 60 wind turbines comprising stage I of the Pawłowo-Gołańcz WF (90 MW), for which it was intended to obtain the zoning decision, and for 5 turbines comprising stage II of the discussed Farm (7.5 MW), for which a local master plan was enacted. Commune Council in Wągrowiec was not favourable to the wind farm project, and therefore EDPR decided to suspend the project in this commune.

In Gołańcz commune, after lengthy administrative proceedings, the project was limited to 53 turbines:

- Pawłowo WF, consisting of 49 wind turbines of up to 1.5 MW each and of total capacity of 73.5 MW located in Gołańcz commune, for which the Mayor of Margonin Town and Commune issued the decision on environmental conditions (decision dated 21 September 2011, ref. No.: ROŚ.7624/01-84/2010/2011 (stage I)); and
- Pawłowo WF, consisting of 4 turbines of up to 1.5 MW each and of total capacity of 6 MW located in Gołańcz commune, for which the Mayor of Gołańcz Town and Commune issued the decision on environmental conditions (decision dated 20 May 2011, ref. No: NR OŚ.7624.08/14/10 (stage II)).

In the case of stage I of the project, the procedure of developing the decision on environmental conditions resulted in the removal of a few turbines from the original plans due to noise and environmental requirements, including the need to minimize impact to bats. The environmental decision was issued for 73.5 MW.

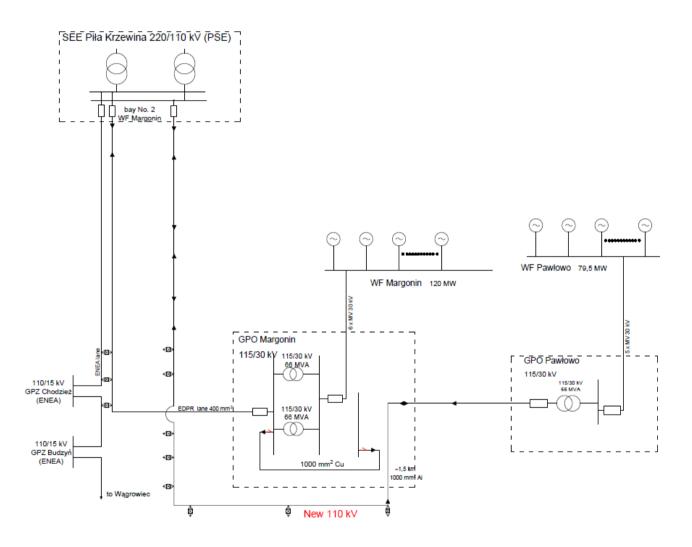
In the case of stage II, the Project Owner removed one turbine from the original layout due to noise impact. The environmental decision was issued for 6 MW.

One appeal against the environmental decision (for 73.5 MW) was submitted on 13.10.2011 by BUTEO Association. On 23 December 2011 the Local Government Appeal Court (SKO) in Piła through the decision No. SKO-41/Oś-1443/D/2011 upheld the appealed decision on environmental conditions No. NR OŚ 7624.08/14/10, which therefore became final. BUTEO Association filed an appeal against the decision of SKO, which was dismissed by the Province Administrative Court in Poznań (27.09.2012, file No. IV SA/Po216/12). On 25.11.2012 BUTEO Association submitted a cassation appeal against the ruling of the Province Administrative Court (WSA) in Poznań. The Supreme Administrative Court (NSA) issued a ruling (file No. II OSK 236/13) on 8.07.2014, referring the case for judicial review to the WSA in Poznań, and the WSA rejected the appeal of BUTEO Association (file No. IV SA/Po1130/14) on 18.11.2014 for



failure to meet the deadlines for curing formal defects in the appeal of BUTEO. The environmental decision thus became valid and final.

The analysed Pawłowo – Gołańcz wind farm (stage I and II – 79.5 MW in total) until 2015 was connected to the transformer/switching station in Rybowo (Pawłowo TSS), and then through a 110 kV single circuit overhead power line to the feeder bay at Margonin station in Sypniewo and then through the existing overhead line Margonin – Piła Krzewina to the national power network. This was a temporary solution intended for operation until the end of 2015. The Final solution is to transfer energy produced in Pawłowo Wind Farm separately through the new HVL to Piła Krzewina. The diagram of this connection is presented below.



An application to issue a decision on environmental conditions for the above line was filed with the Regional Environmental Protection Director (RDOŚ) in Poznań on 28.04.2014. On 27.05.2014, the RDOŚ set, by way of a decision, a requirement to carry out an environmental impact assessment. An environmental impact report was submitted on 12.06.2014, and then supplemented on 25.07.2014. In his letter dated 03.09.2014, the Wielkopolskie State District Sanitary Inspector approved the implementation of the project as compliant with the hygienic and health requirements. The pending administrative procedure and the possibility to access the case documentation and submit comments and motions in the relevant case within 21 days were announced between 04.08.2014 and 26.08.2014 (no such comments or motions were received from any interested parties within that time limit). Considering the above, the RDOŚ issued a decision on environmental conditions (ref. No.: WOO-II.4202.5.2014.JS.16) on 07.11.2014 for the project involving the construction of a buried cable-overhead 110 kV power line (with an optic fibre tract) at the Ostrówki TSS – Margonin TSS – Piła-Krzewina TSS section located in the



Budzyń commune, Chodzież – village commune, Margonin, Chodzież district, and Kaczory, Piła district That decision was not subject to an appeal and therefore became final on 18.12.2014.

10th of August 2015 the construction of a new 110 kV underground power line from Pawłowo feeder bay at Margonin station in Sypniewo to Piła Krzewina started. The construction works were completed 19th of December 2015. All appropriate building permits were obtained for this works

In the case of Pawłowo transformer/switching station, a decision on environmental conditions was obtained (decision of the Mayor of Gołańcz Town and Commune dated 23.12.2010, No. OŚ.7624-07/17/10). After consultation with the Regional Environmental Protection Directorate and the sanitary and epidemiological unit, the mayor did not impose the obligation to develop the environmental impact report.

In the case of the overhead power line from Pawłowo transformer/switching station to Sypniewo, the Mayor of Margonin Town and Commune issued a decision on environmental conditions (decision dated 14.02.2011, ROŚ 7624/02-19/10/2011). After consultation with the Regional Environmental Protection Directorate and the sanitary and epidemiological unit, the mayor did not impose the obligation to develop the environmental impact report. Furthermore, the decision on the site location of public purpose project was issued for the mentioned line (decision of the Mayor of Margonin Town and Commune dated 23.08.2011, No. GP 6730.22.22.2011).

The decision on environmental conditions for the extension of the existing Margonin Sypniewo transformer/switching station was obtained (decision of the Mayor of Margonin Town and Commune dated 8.08.2011, ROŚ 6220.03.09.2011). After consultation with the Regional Environmental Protection Directorate and the sanitary and epidemiological unit, the mayor did not impose the obligation to develop the environmental impact report.

Building permits were obtained for the entire project of Pawłowo – Gołańcz wind farm together with auxiliary infrastructure (Pawłowo TSS, overhead line, extension of Margonin TSS).

In 2013, the Pawłowo – Gołańcz wind farm was completed and commissioned. All construction works commenced in July 2012, and 23 turbines (Acciona 1.5 MW, towers of 80 m) were installed by the end of 2012. The construction of the 110 kV overhead line was completed by the end of 2012 as well. In June 2013, all the turbines were erected, and the works on Pawłowo transformer/switching station in Rybowo and the extension of Margonin TSS were finalised. All the turbines were issued with occupancy permits by 26.07.2013. The license to produce electrical energy from a renewable source was issued on 22.10.2013.

In 2015, the wind farm generated 186 917 MWh of electrical energy net and received 194 609 MWh in green certificates (renewable energy certificates – corresponding to the gross energy produced by wind turbines).

2.3 Pawłowo Wind Farm (Pawłowo – Budzyń)

The planned Pawłowo wind farm in Budzyń commune comprises 41 wind turbines of up to 2 MW each and of total capacity of 82 MW, and is located approx. 6.2 km to the south-west of the Margonin West wind farm. At the moment the administrative procedure for the decision on environmental conditions is in progress. Locations of wind turbines are planned in the master plan for Budzyń commune (Resolution No. VI/41/2003 of Budzyń Commune Council dated 30.06.2003).

In April 2012, an application to issue the decision on environmental conditions was submitted. The head of Budzyń commune requested an opinion from the Regional Environmental Protection Directorate (RDOŚ) in Poznań and the State District Sanitary Inspector in Chodzież (PPIS) on the necessity of the environmental impact assessment. The above mentioned bodies decided that the impact assessment is necessary (decision of RDOŚ dated 13.06.2012, WOO-1.4240.256.2012.PS, decision of PPIS dated



14.06.2012, ref. No.: ON.NS-72/2-12/12). The head of Budzyń Commune issued a decision of 13.07.2012 ref. No.: GKM.6220.4.2012 imposing the obligation to assess the environmental impact and determined the scope of the report, and then suspended the proceeding until the report is submitted (decision of 13.07.2012, ref. No.: GKM.6220.4.2012). The procedure is conducted with the participation of the local residents, who were informed with announcements posted in Budzyń, Chodzież and Ryczywół commune offices, on BIP website, and on announcement boards of the villages within the range of potential impact of the wind farm. On 14 March 2013, the Project Owner submitted to the Head of Budzyń commune a report on the impact of the project upon the environment. The authority conducting the proceedings decided to hold civic consultations. On 28 March 2013, the Head of Budzyń commune issued decision No. GKM.6220.4.2012 on launching the procedure and applied for the approval of the conditions of project implementation to the RDOŚ in Poznań and for an opinion of the PPIS in Chodzież. At this stage of the proceedings resolved to hold civic consultations. No motions or comments were received by the Head of Budzyń commune within the istatutory time limit.

In its letter dated 2 May 2013, the RDOŚ in Poznań asked the Project Owner – Relax Wind Park III Sp. z o.o. to supplement the report assessing the impact of this project. In its letter of 20 May 2013, Relax Wind Park III Sp. z o.o. responded to the comments of the RDOŚ in Poznań and supplemented the report (with copies sent to the Commune Office in Budzyń and the PPIS in Chodzież). On 8 May 2013, the PPIS in Chodzież approved the conditions of project implementation. In connection with the supplements to the report the Head of Budzyń Commune decided to repeat the civic consultations procedure. Between 21 June and 12 July 2013, every interested person could submit their motions and comments. No motions or comments were received by the Head of Budzyń commune within the statutory time limit.

On 12-13 June 2013, consultation meetings were held with members of the local community concerning the project planned by Relax Wind Park III Sp. z o.o. Apart from the representatives of the Project Owner and the Commune, the meeting was attended by the authors of the environmental impact report, experts in acoustics and the author of the birds and bats monitoring programme. The aforesaid meetings were held in the villages of Bukowiec and Prosna and were attended by numerous representatives of the local community. Apart from receiving information materials, the interested residents could listen to information on the project and address questions to experts in various fields.

After the analysis of the supplemented environmental impact report, the RDOŚ in Poznań issued decision No. WOO-I.4242.67.2012.KB dated 4 July 2013, approving the project and setting forth the conditions of its implementation. On 24 July 2013, the PPIS in Chodzież upheld its approval of the project. The Head of Budzyń commune decided to repeat the civic consultations procedure. Between 6 and 26 August 2013 (21 days), every interested person could submit their motions and comments. No motions or comments were received by the Head of Budzyń commune within the statutory time limit.

The following environmental organisations took part in the procedure: BUTEO Association, Instytut Kajetana Koźmiana Foundation.

A decision on the environmental conditions for a project consisting in the construction of Pawłowo Wind Farm with a power of up to 82 MW and with the accompanying infrastructure, located in Budzyń commune near the following villages: Grabówka, Prosna, Ostrówki, Wyszyny, Wyszynki, Nowa Wieś Wyszyńska, Bukowiec, Sokołowo Budzyński, was issued on 17 September 2013 (becoming final on 21.10.2013).

On 22.01.2014, the Commune Office in Budzyń received an application for the issuance of an environmental conditions decision for a project consisting in "Building a 110/30 kV transformer station with the necessary structures", planned on plot No 196/6, Ostrówki precinct, Budzyń Wielkopolski commune. By his letter of 06.02.2014 the State Sanitary Inspector and by his letter of 13.02.2014 the Regional Environmental Protection Director in Poznań issued opinions, according to which the project does not require conducting an environmental impact assessment and drawing up a report. On 21.02.2014, the Head of Budzyń commune issued a decision waiving the obligation to conduct an environmental impact



assessment for the planned project. The environmental conditions decision ref. No. GKM.6220.1.201⁴/₇ was issued on 31 March 2014 and became final on 23 April 2014.

On 11.03.2014, an application for the issuance of a decision on the environmental conditions for a project consisting in "Building a buried cable-overhead 110 kV power line (with an optic fibre tract) at the Ostrówki TSS – Margonin TSS – Piła-Krzewina TSS section located in Budzyń commune, Chodzież – village commune, Margonin and Kaczory, Chodzież and Piła district" was filed with the RDOŚ in Poznań. However, the application was withdrawn and then supplemented and resubmitted on 28.04.2014 to the Regional Environmental Protection Director (RDOŚ) in Poznań. The RDOŚ issued a decision on environmental conditions (ref. No. WOO-II.4202.5.2014.JS.16) on 07.11.2014. That decision was not subject to an appeal and therefore became final on 18.12.2014. The project ensures connection of the Budzyń Wind Farm from its transformer station (GPO) to the National Power System (KSE).

The building permits for substation and turbines were obtained in 2015. The application for building permits for cables and roads are planned to be submitted in March 2016.

2.4 Other wind farm projects

EDPR is currently conducting a few projects related to wind farms in Poland. These include both development and construction of wind farms developed by the Company and by third parties.

Since EDPR is a joint stock company operating in multiple countries, distribution and release of detailed data on current activities without the written consent of the headquarters is not possible. As this report is designated for public release, information on projects other than the discussed one can be provided to the Banks upon a separate request.

3 Implementation of the Stakeholders Engagement Plan (SEP) and the Environmental and Social Action Plan (ESAP)

The agreement concluded between the banks and EDPR obliges EDPR to take actions necessary to meet the international standards and banking requirements determined in the SEP and ESAP plans agreed between the parties. The following sections of the report describe how the company fulfilled the SEP and ESAP.

3.1 Actions taken in 2015 to meet the SEP requirements

The Stakeholders Engagement Plan (SEP) was developed to formalize the communication of EDPR with the stakeholders and to build a complaint mechanism.

According to the requirements of SEP, the company maintains internal and external communication with the stakeholders in the conducted administrative procedures. Internal communication was based on routine exchange of information between different organizational units of the Company and persons engaged in project execution. In order to guarantee a free flow of information between the employees, the following means were applied: exchange of electronic messages, periodical meetings and announcements posted on information boards.

External communication was focused on assuring a good understanding of Margonin and Pawłowo projects among the local community, non-governmental organizations and authorities.

Information on Margonin wind farm and other projects of EDP RENEWABLES Polska Sp. z o.o. was made available at the EDPR website at: http://www.edpr.com/sustainability/documents-library-and-publications/. In addition, in 2013 a Polish website of EDP RENEWABLES was created at



http://poland.edpr.com/. The above websites were complemented in 2014 with the annual EOHS report 8 for 2013. The Polish-language website additionally contains basic information on EDP Renewables and its operating wind farms, and enables contact, questions and the filing of possible complaints from the community.

To improve communication, Margonin commune office has contacts to employees of EDPR Polska Sp. z o.o., and if any questions from the local people and related to Margonin WF arise, these are passed on current basis to the Project Owner.

In 2015, EDPR continued the cooperation with Q&A Consulting (Q&A) in order to maintain effective communication with the stakeholders. Since mid-2010, Q&A has been professionally handling all actions related to social consultations, providing the stakeholders with information and public opinion polls both for Margonin and Pawłowo projects.

Aiming to build positive relations with the local community and to promote the environmental attitudes, EDPR organized the following education and sponsorship activities <u>in Margonin commune in 2015</u>:

1. January : <u>Educational programme "Your Energy.</u>, focused on the renewable energy sources and their impact on the environment. The activities were carried out in all primary schools in Margonin. The methodology developed was based on learning by having fun and exploring the world under the guidance of professional trainers. The students were invited on a journey into the world of energy: solar, hydro, wind, geothermal and biomass. Each of the worlds had his hero. The goal was to make children realize how important for our environment is responsible use of energy and explain to them wide range of benefits that renewable sources bring. At the end, all students created "Ten Commandments" - special list of provisions for the protection of the Earth and the responsible use of energy.

All the participants were involved in activities and paid attention, mostly thanks to different forms of animation implemented during the class (puzzles, stories, movie, etc). After classes, children usually approached with questions or stories related to the topic, which proves the need for information on the topic of renewable energy sources.

- May <u>Student's visit in Wind Farm</u>: Students from the University of Life Sciences in Poznań visited the wind farm on May 20th. Students learned about wind power and visited the substation and the turbine inside. It was a great opportunity for them to learn by exploring, and served to strenghten the collaboration between the University and EDPR.
- 3. <u>June :</u>
- a. <u>Global Wind Day:</u> To celebrate the Global Wind Day, EDPR prepared a set of activities for students from primary schools in the municipalities of Margonin. The main goal was to learn about the benefits of the wind and the renewable energy in general by having fun. The activities involved competitions, games and arts and craft classes where children could make wind mills form recycled materials, among others. EDPR also donated some corporate gadgets the served as prizes for the winners and participants.
- b. <u>HAVE FUN WITH THE WIND</u>: EDPR in cooperation with local cultural center organized event for kids during the festival Wiatrakalia on 18 July. Involvement in this event was continuing activities in building investor image as a reliable company which invest and support education, sport and local bond. The program of the event included:
 - Workshops of kites constructing
 - Kite flights show
 - On the transparencies shaped by the wind created fascinating images a child's imagination, creating a unique, open-air art gallery



- Play with rainbow scarf waving in the wind
- Workshops performing musical instruments that mimic the wind
- Gallery of works inspired by the wind
- Workshops performing windmills, connect your child's imagination with technical precision.
- Magical finale colored bubbles dropped into the wind,
- Awards from EDP given to all contestants









c. **Festival "Wiatrakalia":** EDP Renewables sponsorship of the most important local festival "Wiatrakalia". The program includes concerts of Polish music. Involvement in this event was continuing activities in building investor image as a reliable company which invest and support education, sports and local bond.

This special event has been organized in cooperation with the local cultural center for past four years and is now an important part of the local culture. It aims to show the positive side of having operating wind farms, showing its attraction for the local community. The program includes concerts of popular Polish music bands, sport and cultural contests of different nature and fun activities for children, among other attractions.



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- September Cooperation with local television WTK regarding to the material about ecology. The material was prepared in cooperation with municipal authorities and journalist. Emission took place on 4 October <u>http://wtkplay.pl/video-id-21011-wiatraki_i_biogazownie</u>
- October Editorial material summarizing the summer activities co-organized and sponsored by EDP Renewables in Gołańcz municipalities. Prepared in cooperation with the local newspaper - Voice of Wągrowiec.



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6. December – Christmas gifts for children in cooperation with local mayor and opinion leaders

EDPR engaged in a Christmas Event for children from the villages where windmills stand. Local event strengthen the presence of EDPR in the community and good relations with the local authorities, opinion leaders and residents. Thanks to this action, more than 300 children received Christmas gifts.





3.2 Actions taken to meet ESAP requirements

Actions undertaken by EDPR in order to meet the requirements specified in the adopted action plans are presented below. For convenience, each action required by ESAP is described individually.

Development of the annual report on environmental, social and occupational health and safety issues (ESOHS)

The purpose of this report is to meet the above requirement. The report will be made available at the company website <u>http://poland.edpr.com/</u> and_www.edpr.com/sustainability/documents-library-and-publications/.

Monitoring of avifauna after the completion of each stage of the project

Monitoring of birds and bats for Margonin wind farm has been conducted since March 2011. The results of yearly survey (March 2011 – February 2012) prove a minor impact to birds – death rate of



0.28 individual/turbine and to bats – 0.43 individual/turbine. Throughout the entire year of monitoring, 13 46 victims of collision with wind turbines were found; 17 of these were birds (37%) and 26 (63%) bats. Most of the dead individuals were common birds; only one key individual – red kite – was found. As far as bird activity in the area of the farm is considered, the participation of predators of large body dimensions (eagles, lesser eagles) was marginal; most predators were observed at the outskirts of the farm. The dominant species displayed a varied usage of the wind farm area. Common buzzard avoided the interior of the farm, harriers preferred the project area, and red kites showed similar behaviours. The most collision-prone species are: red kite in all phenological seasons, and western marsh harrier during autumn migration.

Results of the subsequent six months of survey (March 2012 – August 2012) confirm the relatively low number of the collision victims, which proves that direct death rate related to wind farm operation in the surveyed area is very low (36 victims of collisions with wind turbines were found: 14 of these were birds, and 22 – bats). No bird species listed in the annexes to the EU Birds and Habitats Directive were found among the individuals which fell victim to the collision. Monitoring of birds and bats will be continued to complete the full survey periods.

The results obtained during the second year of conducting the survey for the period between 1 March 2012 and 28 February 2013 show only a negligible impact upon birds: death rate of 0.33 individuals/turbine and upon bats: 0.47 individuals/turbine. During the entire year of monitoring, 48 victims of collisions with the wind turbines were found, i.e. 2 victims more than during the first year of monitoring; 20 victims were birds (41.7%), and 28 (58.3%) – bats. Most of the dead birds represented common species (the highest death rate was recorded among larks – 9 individuals), with just one key individual – a young white eagle. As regards birds' activity at the farm, the share of large birds of prey (eagles, lesser eagles) was marginal. Most birds of prey were observed at the edge of the farm. Dominant species differed in the degree of use of the farm area.

In compliance with the current *guidelines on the assessment of the impact of wind farms on birds (PSEW, Szczecin 2008)* in March 2013, a one-year break in the monitoring of birds and bats began. The last year of monitoring (third) began in March 2014 and finished in February 2015.

Results of the third year of monitoring reveals 48 victims of collisions with wind turbines I: 19 of these were birds, and 29 – bats). No bird species listed in the annexes to the EU Birds and Habitats Directive were found among the individuals, which fell victim to the collision in last monitoring year. Generally the collision rate of birds was low, and the monitoring team didn't find any correlation with seasonal or habitat changes. The number of collision of bats calculated for turbines for whole 3 years monitoring is 1,33.

Noise level monitoring

Survey conducted at Margonin WF in April and May 2010 (after the start of facility operation) by Eko-Pomiar and the Province Environmental Protection Inspectorate did not register any exceeding of the normative noise level for night-time, which is stricter than for the daytime.

The survey was repeated in January 2011 in less favourable sound propagation conditions (without vegetation, which partially absorbs sound waves). Additionally, in January 2011 noise propagation simulation analyses were made in relation to operation of Margonin Wind Farm. These were based on acoustic power data from Gamesa, the manufacturer of the turbines. Then the measurements of the actual acoustic power of turbines were made; acting on this basis, Eko-Pomiar at the request of the Project Owner developed a detailed analysis related to the introduction of a noise reduction system (July/September 2011). Basing on the collected data, a decision was made to install a noise reduction



system (NRS) on selected turbines for use in the night-time (between 10 pm and 6 am) in specific atmospheric conditions (wind speed and direction). The NRS system was installed on 32 turbines. It will be enabled mostly during the three winter months (in the case of 10 turbines, also in spring and autumn). Additionally, at night-time during the three winter months one turbine will be disabled in specific atmospheric conditions. The energy loss resulting from installation of the noise reduction systems was calculated to be below 1%. No complaints in the scope of noise related to operation of the discussed project have been noted since 2011.

Cumulative impact of the wind farms

Due to execution of Pawłowo wind farm in the neighbourhood of Margonin farm, ESAP plan required an assessment of the cumulative impact of the farms.

The environmental impact reports for both 73.5 and 6 MW projects pertain to assessment of the cumulative impact of EDPR wind farms and the planned Kcynia – Task IV farm on nature and the environment. The environmental impact reports do not identify any negative cumulative impact. Additionally, in relation to the planned Pawłowo project in Budzyń commune, the Project Owner took into consideration the cumulative impact of the entire complex of wind farms Margonin and Pawłowo in Gołańcz commune, and also of all other existing wind farms, and of the projects, which are now in the stage of administrative procedures related to environmental decisions. At the moment, the environmental impact report is being developed for Pawłowo Wind Farm in Budzyń commune. The previous analyses aimed to assess the impact of Pawłowo Wind Farm in Budzyń to the environment suggest that there will be no negative cumulative impact on birds or bats or related to acoustic impact. The complete analyses and conclusions were assessed in the administrative procedure.

Installation of deterrent spirals

In August 2013, every 10 metres spirals designed to deter birds were installed on the existing overhead 110 kV transmission line in the Natura 2000 area – the River Noteć Valley and the River Noteć (between pylons No. 8-20) in line with the guidelines in the environmental impact report.

In 2016 the balls designed to deter birds are planned to be installed in new HVL line between Sypniewo and Piła Krzewina. Certain solution is under discussion with ornitologists.

EOHS management systems

In 2011, EDPR implemented and certified the environmental management system for the operation of Margonin wind farm compliant with ISO 14001 standard (date of certificate – 5 January 2012). In 2012, an occupational health and safety management system was implemented in compliance with OHSAS 18001 standard (date of certificate: 8 January 2013). The system covers development, construction and operation of wind farms. During the implementation of the systems, internal and external audits of the project were performed. Prior to these, the EOHS management was conducted on the basis of corporate procedures and routine practices.

In 2015 the company was audited for compliance of the implemented Safety Management System with the OHSAS 18001:2007 standard. The outcome of the audit was positive, and thus the Certificate awarded to the company in 2013 was upheld. The compliance audit was performed by a renowned and reputable company, Bureau Veritas.

In 2015 also the ISO14001 external audit was performed by Lloyds Register which intended to maintain the current certificate. The audit reveal only one minor non conformity, and some areas for improvements which required corrective actions – mostly in waste management. Necessary actions



will be completed in 2016 - like new instruction for waste inspection in Wind Farm. Investment in the 15 clean point also are planned to be made in 2016 to protect from oil leakage outside the shed.

Project monitoring

Margonin wind farm is operated by the company headquarters through field representatives. Polish branch of the company is responsible for business management. Regular maintenance of the wind turbines is performed by an external company Gamesa. General management of environmental issues is the responsibility of Ms. Paulina Szuliga-Piętka and Ms. Barbara Sidoruk. Ms. Monika Weis is responsible for safety management issues. The planned project operation audit was performed by an external company ENVIRON Poland Sp. z o.o. in early 2013, and included the operation of Margonin wind farm, the development and construction of Pawłowo-Gołańcz wind farm project and the development of Pawłowo-Budzyń wind farm project.

SEP execution

The company has executed the SEP plan. For details please refer to section 3.1.

4 Environmental issues related to Margonin wind farm

The environmental issues related to the wind farm operation were continuously monitored, and all identified issues were solved on a current basis. No environmental problems occurred in 2015.

Waste generation issues are monitored at the farm on current basis – waste is selectively collected in the designated place at Sypniewo station, and then passed to the waste collectors holding the appropriate permits. Waste inventory is kept with use of registration cards and disposal cards. Quantity of produced waste is once a year reported to the Marshall of the Wielkopolskie Province. Annual quantity of generated waste, including oil filters, oils and sorbents in 2012 exceeded the levels allowed in the permit of the Chodzież District Head (decision dated 25.03.2010, No. OS.I.7647-10/10 amended with the decision dated 16.11.2011, No. OS.6220.13.2011.LE and the decision dated 16.11.2011 No. OS.6220.14.2011.LE). Greater amounts of waste are an effect of intensive maintenance and service works and too low forecasts. Due to exceeding of the values from waste generation permits, an application was submitted in early 2013 to update the waste generation decisions. The Chodzież District Head in the decision dated 21.02.2013 r. changed the permits for wastes to include the Project Owner's proposition. In 2015 there was a need to increase the amount of contaminated sorbents produced, and new codes were added: 170503 – waste soil, 160216 – elements from used devices. The updates of waste decisions were granted in 10th of June 2015.

The new instruction for improvement in waste management area is under preparation and will be issued at the beginning of 2016. This assume regular inspections in site (substation as well as wind turbines) conducted by Wind Farm Manager. The purpose is to identify any negligence in waste management and incorporation of necessary corrective actions.

5 Changes in environmental law affecting the project

In 2015 there were no changes affecting the Margonin and Pawłowo projects in a significant way.



6 Material compliance of the project with environmental, 16 social, and occupational health and safety regulations

The company is operating in compliance with all regulations valid in Poland.

The company evaluates the regulatory and other safety and environmental protection requirements twice a year under the internal procedure of the OHS management system. No deviations from the regulatory requirements have been found as a result of those evaluations. Moreover, company is following all the current legal changes in terms of safety via newsletter notifications.

Continuous OHS surveillance

To maintain high safety standards, EDPR conducts regular OHS inspections. The frequency and scope of such inspections are in compliance with the annual schedule approved by the company's Management Board. Inspections extend to the employees of EDPR and to all its contractors.

Three inspections were carried out at Margonin Wind Farm in 2015. They included an inspection of the facilities and the contractors performance.

Emergency response

Continuing the cycle started in 2013, EDPR held emergency drills at Margonin WF in 2015. Similar drills focused on environmental response took place at the farm on 16.10.2013.

7 Major social and OHS issues

No significant social or OHS issues were observed in relation to Margonin wind farm. In particular, in 2015 no proceedings related to social or OHS problems were instituted against the company, and no incidents posing a threat of death, injury or damage to property of third parties occurred at the farm. As identified in the public opinion poll (see section 3.1), the project induced a positive attitude of the local community towards the benefits resulting from the presence of a wind farm.