European Investment Bank

Luxembourg, 6th February 2024

Environmental and Social Data Sheet

Overview

Project Name:	*POKLECANI WIND FARM*
Project Number:	*2022-0241*
Country:	*Bosnia and Herzegovina*
Project Description:	*The Project concerns the design, construction and operation of an onshore windfarm with total installed capacity of 132 MW, located in the wider mountainous area in the West Herzegovina-Canton in the Municipality of Posusje.*
EIA required:	no
Project included in Carbon Footprint Exercise[1]:	yes

(details for projects included are provided in section: "EIB Carbon Footprint Exercise")

Environmental and Social Assessment

Environmental Assessment

The project concerns the development, implementation and operation of a 132 MW wind farm in the wider mountainous area of the Municipality of Posušje, West Herzegovina Canton, in Bosnia and Herzegovina (BiH), and the connection to the nearby national grid. The project's turbines and other components are still to be procured and the final design to be made. It is expected that in total the project will be equipped with 20 turbines with a unit capacity of around 6.6 MW with a hub height of 122.5m and diameters of 155m. The project will also include the construction of a 33/220 kV substation and connection to the nearby 220 kV line Rama-Posušje through a ca. 200 m overhead line, civil works for access roads and transformer station as well as the provision of installation equipment (cranes) and transportation of turbines. The project will also include a new ca, 3.5 km section of the service road Crvenice – Rakitno (outside of the concession perimeter) to facilitate the transportation of equipment and materials to the area of the project. The project site is located in a rural area, 1.2 km away from the nearest residential buildings. Most of the project area is bare rocky with sparse vegetation while a smaller part is covered with beech forest.

The project was initiated in 2010 through a declaration of public interest by the government for the construction of energy facilities. The wind farm was originally planned with 36 WTG of 2 MW each for a total of 72 MW, and was included in the Spatial Plan of the West Herzegovina County for the period from 2012 to 2032. The government granted the concession of the area in 2013 (the concession agreement was signed in 2014), and a new concession was signed in 2023 to accommodate the evolution of the technology and the use of larger wind turbines.

[1] Only projects that meet the scope of the Carbon Footprint Exercise, as defined in the EIB Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: 20,000 tonnes CO2e/year absolute (gross) or 20,000 tonnes CO2e/year relative (net) – both increases and savings.

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Once operational, the wind farm will supply electricity to the national transmission grid and thus significantly contribute to achieving national targets of electricity generation from renewable energy sources.

In 2021 the promoter voluntarily engaged a consultant to prepare an environmental and social impact assessment following international lenders' standards[2], with the goal of assessing environmental and social impacts and risks and ensuring that these are mitigated and/or remedied during the planning, implementation, and operation phases of the project. The assessment includes a noise study, a shadow flickering study, birds and bats studies based on a one-year survey (July 2021 – June 2022), and a draft Environmental and Social Management and Monitoring Plan (ESMMP).

The project, if located in the EU, would fall under Annex II of the EIA-Directive 2011/92/EU, (as amended by Directive 2014/52/EU), requiring the competent authorities to determine whether an EIA is required or not. In line with the national legislation, the promoter submitted to the competent authority the required information, to determine if the project shall be subject to an EIA or not (request for a preliminary environmental impact assessment). The information submitted was based on the environmental and social impact assessment studies above and is in line with the requirements of the Annex IIa of the EIA Directive. This preliminary environmental impact assessment report is extensive and includes a non-technical summary. It was made available to the public in June 2023, in the frame of the consultation for the screening decision. Eventually, the competent authority determined that it was not necessary to carry out an environmental impact assessment (screen-out decision). As per the national legislation, this determination is based on a list of criteria consistent with the Annex III of the EIA Directive. The decision, covering all project components, has been made available to the public in August 2023, and outlines the main mitigation measures.

The main environmental and social (E&S) issues associated with the project include: (i) biodiversity (flora, fauna, avifauna), (ii) increased noise pollution, and vibrations during construction, (iii) negative visual impact including shadow flickers, (v) increase of dust emissions during the construction phase (air quality), (vi) impact on water, (vii) generation of waste and (viii) general workplace and community safety (e.g. traffic). The environmental studies detailed the baseline conditions, the likely environmental and social impacts, assessed the significance of the impacts through specific studies and modelling and proposed mitigation measures to be put in place in accordance with the mitigation hierarchy. The environmental approval contains requirements to mitigate environmental impacts from noise and shadow flickering. It further details the requirements for precautionary mitigation measures during construction regarding nesting locations for birds, and the monitoring programme for birds and bats during construction and operation. With the mitigation measures in place, the competent authority concluded that the project will not have significant negative residual environmental impacts.

An avifauna survey was carried out between July 2021 and June 2022, to establish a baseline condition for birds and bats. Specific surveys were undertaken to identify breeding locations of raptors in the wider landscape, considering that those species are vulnerable to collision with wind turbines and can have large breeding territories. Species-specific surveys were undertaken for nocturnal bird species as well. For bats, transects were performed and automated bat detectors were also installed on the ground.

Ten bird species of interest[3] were recorded in the area of the wind farm during the surveys. All these species are Least Concern (LC) as per the IUCN Red List, except the Alectoris graeca (Rock Partridge) which is Near Threaten (NT). Out of the ten species, six were present in the

[2] Including EIB and World Bank Standards

[3] Species of birds with a known risk of collision with wind turbines according to previous research and literature, as per the avifauna study

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collision risk window. The Common Buzzard (Buteo buteo - LC) has the highest estimated risk of collision (0.65 collisions per year), followed by the Kestrel (Falco tinnunculus - LC) (0.4 collisions per year). The rest of the target species observed in the collision risk window had low rates of collision risk. Ten bat species were registered during the baseline study, but no bats shelters or roosting places were found. The assessment indicates that the project area is not of special importance for bats.

The assessment concluded that the impact of the project on the biodiversity of birds and bats is considered relatively small. Two years of birds and bats operational monitoring is mandatory under the environmental consent, which will inform further mitigation and adaptation measures if necessary.

Regarding terrestrial fauna and flora, the assessment is based on desk studies and field studies over the period between the end of 2022 and the first half of 2023. Four plant species listed as NT or LC on the Red List of Flora of BiH[4] were recorded inside the concession area. The concession area also includes two habitat of community interest: the Alpine and subalpine calcareous grasslands (code: 6170) and the Eastern sub-Mediterranean dry grasslands (Scorzoneratalia villosae) (code: 62A0). The project has been designed to minimize the potential impacts on subalpine and alpine pastures and meadows. During the preparation of the preliminary design, three wind turbine locations were changed to minimize the impact on the subalpine forest present in the area. The impact on terrestrial fauna is anticipated as minor, except potentially for reptile species that might be potentially affected due to noise and vibration (e.g. Vipera ammodytes, LC under the IUCN Red List).

The project is located nearby two protected areas, which are both overlapping with proposed Natura 2000 sites. The project is bordering to Blidinje Nature Park, which would correspond/overlap with the proposed Natura 2000 site Prenj-Čvrsnica-Čabulja (Site Code - BA8300064). The main conservation objectives of Blidinje are to protect one of the few glacial lakes in BiH (Blindje Lake) and to protect habitats specific to the Alpine region, in particular to protect the largest population of Bosnian pine (Pinus Heldreichii), with also the Alpine and subalpine calcareous grasslands habitat mentioned in the draft standard data form. The project is also located 6-7km away from the IBA Duvanjsko polje (BA006), which would correspond/overlap with the proposed Natura 2000 site Duvanjsko polje (Site Code - BA8300022). The Duvanjsko polje is in the valley, northwest from the mountain where the wind farm is located, and is an important area for some migratory birds, of which only two species of interest were recorded in the project area during the surveys (Circus aeruginosus - Marsh Harrier - and Circus pygargus - Montagu's harrier – both LC as per the IUCN Redlist). The Alectoris graeca (Rock Partridge - NT) is another species of interest that is also listed in the draft standard data form of the proposed Duvanjsko polje Natura 2000 and that was observed during the avifauna study.

Considering the status of alignment with the EU acquis on nature protection[5], and in view of the presence of those biodiversity features and potential Natura 2000 sites, the promoter is engaging in further pre-construction detailed botanical and biodiversity surveys to determine more precisely if areas of high-value biodiversity could be impacted by the project. A biodiversity management plan will be established accordingly, with the corresponding mitigation strategy to achieve the related biodiversity protection objectives.

[4] 7__Crvena lista ugroženih divljih vrsta i podvrsta biljaka, životinja i gljiva (Službene novine Federacije BiH, broj 7_14).pdf (fmoit.gov.ba)

[5] As per the European Commission Staff working Document Bosnia and Herzegovina 2022 Report, *"there is no progress on alignment with the EU acquis on nature protection. The list of potential Natura 2000 sites and implementing legislation still needs to be adopted*". (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52022SC0336)

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The project is fully aligned to the goals and principles of the Paris Agreement as set out in the Bank's Climate Bank Roadmap and Energy Lending Policy.

EIB Carbon Footprint Exercise

The wind farm will not generate any absolute CO_2 emissions. In accordance with the Bank's current Carbon Footprint methodology, it is calculated that based on the avoidance of electricity generation from a combination of existing and new power plants in BiH (combined margin for intermittent generation), the total relative effect of the project is a net annual reduction in CO_2 equivalent emissions of 368 000tonnes.

For the annual accounting purposes of the EIB Carbon Footprint, the project emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of project cost.

Social Assessment, where applicable

The project will be located in an uninhabited area, where most of the land is bare rock infertile land. There are some buildings inside and outside of the concession area that are used as holiday homes, stables or hunting lodges. Most of them are abandoned and in a state of decay. The agricultural land in the area was used for farming and as a livestock pasture up until the mid-20th century. Today, most of the agricultural land is uncultivated and is left to the unfolding of natural processes. Only in small part, near the few holiday homes that are still in use, small patches of land are used for growing seasonal crops for own needs. Current pasture and agricultural activities will continue to be carried out in the area with the normal precautionary measures in place and will not be affected by the project. Therefore, the implementation of the project is not expected to lead to any involuntary physical nor economic displacement.

Approximately 85% of the land intended for the project (including access roads and land for ancillary infrastructure) is owned by the state, while the remaining 15% is owned by private individuals. The promoter acquired the right to use state land for the purpose of the project and related easements based on the concession agreement from April 2023 and for the duration of the concession (i.e. 30 years). For the remaining 15% of the land, the promoter has obtained the legal basis for the expropriation through a declaration of public interest. The promoter is engaging with the landowners in order to secure voluntary agreements. If a voluntary agreement cannot be reached, the promoter is entitled to require expropriation and the landowners will have the opportunity to obtain a revised price through the appeal process (in court proceedings following the appeal of the land owner, only the amount of compensation for the expropriated land is discussed, not the basis of expropriation), all in line with BIH legislation and with the rights already acquired to use the land. In addition, the promoter will undertake to ensure that the land acquisition required for the project is carried out in accordance with the requirements of the EIB E&S Standards, and document and report on the land acquisition process accordingly. Accordingly, the promoter has prepared a land acquisition plan (including a grievance mechanism), which will be further developed to the satisfaction of the Bank.

Noise calculations were made in order to identify whether any areas would experience levels that exceed permitted noise levels. It was determined that there would be no noise exceedances for the selected receptors (nearby residential building in the vicinity of the wind farm). However, the noise study would need to be further refined (e.g. to include the background noise), and if necessary apply further mitigation measures.

Due to the particular location of the proposed wind farm, wind turbines will be visible across relatively long distances. However, it is considered that the views will not be significant due to the distance and the intervening terrain. The project will be mainly visible from settlements down the mountain, in the Rakitno field. The projects will also be visible from the holiday homes

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in the vicinity of the project or in the nearby Blindje natural park. The shadow flickering study indicates some potential limited effect on some nearby receptors. The environmental consent foresees that the wind turbines causing overshadowing should be stopped accordingly in those limited time periods. This aspect will have to be further described in the ESMMP. No cultural heritage features have been identified on the project site nor will be impacted by the project and no significant effects have been determined.

Public Consultation and Stakeholder Engagement

The first feasibility studies, including preliminary environmental and social studies, were developed around 2010-2014, including with the support of a technical assistance grant from the Western Balkan Investment Facility (WBIF). The stakeholder engagement process started therefore as early as 2013, with the promoter organizing a public hearing with the local community to present the project. When restarting the development of the project in 2020, after the successful implementation of the 50 MW Mesihovina windfarm, the promoter re-engaged with the stakeholders, and the part of the project related to the construction of the new section for the service road Crvenice – Rakitno was positively received. On June 13, 2023, the Federal Ministry of Environment and Tourism submitted for public review the request for the screening of the project, including by making available the corresponding environmental information[6]. The screen-out decision was also made available to the public in August 2023[7].

The promoter is also preparing a stakeholder engagement plan to document the consultation process. It will list all known stakeholder groups and outline a set of future engagement activities and will include a project-level grievance mechanism.

Other Environmental and Social Aspects

The promoter has experience with managing E&S aspects related to wind power, having developed and implemented the first wind farm in the country (Mesihovina 50 MW), which started operations in 2018 and was financed by KfW.

The promoter will put in place a Project Implementation Unit (PIU) supported by an experienced project implementation consultant, including for E&S matters. The capacity and management structures to be put in place to address environmental and social impacts and requirements are expected to be sufficient.

An updated environmental and social management and monitoring plan (ESMMP) will be required to be in place prior to the start of construction that ensures that the project is implemented in line with the lenders environmental and social standards and practices. The implementation of the ESMMP is the responsibility of the promoter, who will be required to report regularly on compliance and major incidents relevant to the ESMMP during implementation. The promoter will establish a specific monitoring and evaluation mechanism to be applied during the construction, operation and maintenance of the project.

Conclusions and Recommendations

The promoter has drafted an Environmental and Social Action Plan (ESAP), which will be further developed to include the subsequent measures and actions required in line with the EIB

[6] https://www.fmoit.gov.ba/bs/okolisne-dozvole/javne-rasprave-i-javni-uvidi/javni-uvid-u-zahtjev-za-prethodnu-procjenu-utjecaja-na-okolis-investitora-jp-elektroprivreda-hzhb-d-d-mostar-za-projekat-izgradnje-ve-poklecani-instalirane-snage-132-mw-u-opcini-posusje

[7] https://www.fmoit.gov.ba/bs/okolisne-dozvole/javne-rasprave-i-javni-uvidi/javni-uvid-u-nacrt-rjesenja-kojim-se-utvrduje-da-za-projekat-izgradnje-vjetroelektrane-poklecani-instalirane-snage-132-mw-opcina-posusje-nije-potrebno-dalje-provodenje-procjene-uticaja-na-okolis-putem-izra

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E&S Standards. The finalization of the ESAP to the satisfaction of the Bank will be set as a condition for EIB financing. The ESAP will form part of the legal documentation. Its key aspects are listed below.

With the appropriate mitigation measures in place, the project is considered to be acceptable for Bank financing from an environmental and social perspective, including the following main conditions:

- The promoter shall appoint a PIU consultant with international E&S experience to further assist the project implementation in line with the requirements of the EIB E&S standards prior to first disbursement.
- The promoter will further develop the ESMMP in line with the requirements of the EIB E&S Standards prior to tendering the works.
- The promoter shall undertake further pre-construction biodiversity studies covering potential impacts on high-value biodiversity areas to the satisfaction of the Bank. A biodiversity management plan will be established accordingly to the satisfaction of the Bank, with the corresponding mitigation strategy to achieve the related biodiversity protection objectives prior to first disbursement.
- The promoter will undertake to ensure that the land acquisition required for the project is carried out in accordance with the requirements of the EIB E&S Standards, and document and report on the land acquisition process accordingly to the Bank, including through the update of the land acquisition and compensation plan prior to construction.
- The promoter will undertake to further update its set of environmental and social documents to take into account the results of any further studies (e.g. biodiversity studies) and to ensure compliance with all permits and authorisations, to the satisfaction of the Bank. Any mitigation and monitoring measures identified will be included in the project ESMMP.
- The submission of an updated Stakeholder Engagement Plan (SEP), including a project-wide grievance mechanism prior to first disbursement.
- The promoter will undertake to provide satisfactory evidence of the implementation of the mitigation and monitoring measures foreseen in the environmental and social assessment studies, the screen-out decision, the ESMMP and the SEP incl. grievance mechanism, including minimum two years of the birds and bats operational monitoring as mandated in the screen-out decision (environmental consent), which will inform further mitigation measures if necessary.