

*The format for notification to an affected Party of a proposed activity under article 3 of the Convention was adopted by the Meeting of the Parties to the Convention on Environmental Impact Assessment in a Transboundary Context by **Decision I/4** at its first meeting held in Oslo from 18 to 20 May 1998.*

This document contains excerpt from Annex to Decision I/4 (Table 1) and can only be used in conjunction with the full text of Decision I/4 and not as a stand-alone document.

Notification to an affected Party of a proposed activity

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1. INFORMATION ON THE PROPOSED ACTIVITY	
(i) Information on the nature of the proposed activity	
Type of activity proposed	Construction of the Wind Farm Virovi for production of electricity from wind energy, with a capacity up to 414 MW.
Is the proposed activity listed in appendix I to the Convention?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Scope of proposed activity (e.g. main activity and any/all peripheral activities requiring assessment)	<p>The Wind Farm Virovi is planned for construction in the northern part of the Republic of North Macedonia, covering an area that spans three municipalities: Staro Nagorichane, Rankovce and Kriva Palanka.</p> <p>The total output power of the wind farm will be up to 414 MW, which is planned to be implemented in three phases.</p> <p>The Wind Farm will consist of up to 69 wind turbines, with an expected. Potentially, the capacity per turbine will be increased, depending on the technological advancements, as this could allow reducing the total number of turbines.</p> <p>The area of the preliminary project site designated for the development of the wind park project in the municipalities of Staro Nagorichane, Rankovce, and Kriva Palanka is 7,545 hectares. However, it is estimated that the area to be considered for future construction activities is approximately 250 hectares (including access and service roads, wind turbine foundations, cables, transmission lines, substations, etc.</p> <p>Taking into account the topology of the existing network and the relatively high connection capacity of the wind farm, the chosen option is the Wind Farm Virovi to be connected with a 400 kV power line, that links the country with the neighbouring Republic of Serbia, specifically the SS Shtip – SS Vranje transmission line, located to the west of the project area. The route of the new transmission line that will connect the substation within the Virovi project area to the TS Shtip – TS Vranje transmission line will be further defined.</p> <p>The existing network of dirt roads can be taken into consideration when planning the road infrastructure for the wind park, serving as a basic indication of the possibilities for connecting the facilities within the project area. However, this does not necessarily mean that these routes will be fully utilized. Partial use of the existing routes is possible, during which the condition of the roads would be significantly</p>

	improved by adapting them to infrastructure standards appropriate for this type of project.
Scale of proposed activity e.g. size, production capacity	The Wind Farm Virovi will consist of up to 69 wind turbine generators, each with individual power of up to 7.2 MW, resulting in a total capacity of up to 414 MW.
Description of proposed activity (e.g. technology used)	<p><i>Production of electricity from renewable energy - wind power.</i></p> <p>As a reference choice for a suitable wind turbine, the "Siemens SG170 6.0 MW" wind turbine has been initially selected. Its operating system is automated, based on the principle of controlling reference airflows and operating moments to function at the optimal aerodynamic point, i.e. to achieve maximum electricity production.</p> <p>The foundations of the wind turbines are planned to have an octagonal profile, with a diameter ranging from 18 to 22 m, depending on the structural (static) calculations. The dimensions of the platforms and foundations for each of the proposed turbine positions depend on the specific turbine model.</p> <p>In the region where the wind farm will be constructed, medium-voltage infrastructure will be established to connect the turbines to each other and to the substations. To connect the wind park to the MEPSO transmission network, a new 400 kV transmission line will be built. The selected solution for connecting WP "Virovi" involves a 400 kV loop-in/loop-out connection from the 400 kV transmission line between SS Shtip and SS Vranje to a new 400/110 kV collector substation (Sst.1) located within the wind park area. The exact route of the new transmission line that will connect the substation within the Virovi project area to the Shtip – Vranje transmission line will be defined at a later stage.</p>
Description of purpose of proposed activity	<p>The purpose of the proposed activity is the production of electricity from renewable energy - wind power. With a planned installed capacity of up to 414 MW, the wind park will significantly contribute to the expected energy transition of the Republic of North Macedonia from its current dependence on fossil fuels toward renewable energy sources, serving as a foundation for sustainable development. In addition, with its capacity, the Wind Farm Virovi will be of great importance for achieving the goals set out in Macedonia's Green Deal, developed under the auspices of the United Nations Framework Convention on Climate Change. Among other, this agreement commits the country to decarbonize, decentralize, and modernize its energy system. These efforts align with the broader plan for carbon neutrality outlined in the European Green Deal, which EU member states aim to achieve by 2050. As a country whose electricity system relies heavily on energy production from fossil fuels, North Macedonia urgently requires a rapid energy transition - a need that has also been recognized in the national Action plan 21. In addition, the project will play an important role in the development of the</p>

	municipalities it will spans: Staro Nagorichane, Rankovce and Kriva Palanka.
Rationale for proposed activity (e.g. socio-economic basis, physical geographic basis)	<p>For the initial assessments of wind potential and characteristics in the municipalities of Staro Nagorichane, Rankovce and Kriva Palanka, the project investor used existing data on wind energy potential in R.N Macedonia, which indicated that the area planned for construction of the Wind Farm Virovi is the most suitable location. Due to the limited data available for the region where the construction of the wind farm is planned, the Investor initiated its own wind energy potential measurement campaign in the municipalities of Staro Nagorichane, Rankovce and Kriva Palanka. For the Wind Farm Virovi a Feasibility study was prepared after extensive wind campaign and includes the results of wind measurements as well as a financial assessment i.e. socio-economic basis.</p> <p>According to the results of the wind campaign, the average wind speed recorded at met mast no. 1 is 7.24 m/s at the height of 104 m. The met mast no. 2, located in the Municipality of Kriva Palanka, with height of 125 m recorded average wind speed of 6.94 m/s.</p> <p>Met mast no. 3, located in the Municipality of Rankovce, with height of 125 m, recorded average wind speed of 6.92 m/s.</p> <p>The fourth met mast located in the Municipality of Staro Nagorichane with height of 125 m, recorded average wind speed of 7.38 m/s.</p> <p>Additionally, for the needs of the project and in order to assess the state of the biodiversity, the Project Investor conducted biodiversity monitoring (flora, fauna and habitats) during two seasons during the period 2023–2024. Furthermore, birds and bats monitoring was carried out over the course of four seasons. Partial research was also conducted on the social aspects.</p> <p>The positions of the wind turbines, along with their construction and service platforms, are determined based on several factors, including the distance from settlements and religious sites, the relief and topographic characteristics of the area, proximity to other infrastructure facilities, presence of biodiversity, access road, elevation, wind energy potential, and others.</p> <p>To optimize the location of the infrastructure in relation to all these important factors and constraints and based on all the research conducted and data collected for the area of interest, the Investor has evaluated potential locations for the installation of infrastructure facilities through several iterations. In the Feasibility study, the geographic coordinates of the planned positions for the wind turbines are not final and will be further refined in accordance with the site's topography and the ongoing development of the project. This includes additional field investigations, such as social</p>

	campaign (it is planned to start soon), detail resolution of land ownership and property rights and preparation of the following documentation: Grid connection study, Urban planning documentation and Strategic Environmental Assessment (SEA), as well as the project design and Environmental Impact Assessment (EIA) Study.
Additional information/comments	/
(ii) Information on the spatial and temporal boundaries of the proposed activity	
Location	<p>The proposed area for construction of the Wind Farm Virovi spreads over three municipalities in the Republic of North Macedonia: Staro Nagorichane, Rankovce and Kriva Palanka. The wind turbine generators will be located within the following cadastral municipalities: Arbanashko, Bastevo, Bukovljane, German, Dejlavce, Dlabochica, Krivi Kamen, Malotino, M'glence, Metezevo, Nerav, Petralica, P'klishte, Ramno and Cvetishnica.</p> <p>Currently, locations of the wind turbine generators are distributed as follow:</p> <ul style="list-style-type: none"> • 23 in the Municipality of Staro Nagorichane within the following cadastral parcels: Arbanashko, Ramno, Bukovljane, Dejlavce, Dlabochica, Malotino, M'glence, Ramno, and Cvetishnica, • 38 in the Municipality of Rankovce, within the following cadastral parcels: German, Paklishte, Krivi Kamen, and Petralica. • 8 in the Municipality of Kriva Palanka, within the following cadastral parcels: Bashtevo and Metezhevo.
Description of the location (e.g. physical-geographic characteristics, socio-economic characteristics)	<p>The planned project area for construction of the wind farm Virovi is located in the Northeast statistical region of the Republic of North Macedonia, northeast of the town of Kumanovo and northwest of the town of Kriva Palanka. The area is located near the border with the Republic of Serbia.</p> <p>The Municipality of Staro Nagorichane covers an area of 451 km², has a population of 3,501 and includes 39 settlements. The Municipality of Rankovce covers an area of 239 km², has a population of 4,144 and includes 18 settlements. The Municipality of Kriva Palanka covers an area of 481 km², has a population of 18,059 and includes 34 settlements.</p> <p>The area planned for the Virovi Wind Farm is located at an altitude of over 1,000 m and covers a hilly-mountainous terrain and mostly includes Kozjak mountain.</p> <p>This is a region of the confluence of the Pchinja and Kriva Reka rivers. Pchinja river valley connects Morava River valley in Serbia and Vardar valley in North Macedonia and winds move between these two valleys via Pchinja river valley.</p> <p>The access road network allows entry to the project area from multiple directions. Given that the project area is located in the northern part of the North-eastern Region of the Republic</p>

	<p>of North Macedonia, the most convenient access is from the south. Parallel to the longitudinal axis of the project area, at an aerial distance of approximately 10–17 km, lies the European route E-871, which connects the city of Kumanovo to the west with the city of Kriva Palanka and the Republic of Bulgaria to the east. In close proximity to this European route is the newly constructed express road Rankovce – Kriva Palanka. Several sections of these roads, three regional roads and one local road, are of crucial importance for the project. The proposed project area is intersected by regional roads R2244 (R-203) and R2248 (R-204). On a broader scale, general access to the North-eastern Region of the country and to the wind park area is provided by the European route E-75, which traverses the country in a north–south direction, in combination with the E-871.</p> <p>Some of the settlements within the project area are covered by a water supply network, and there is also a possibility of the presence of irrigation canals.</p> <p>The Municipality of Staro Nagorichane disposes of its waste at the landfill located in the Municipality of Kumanovo. Waste from Kriva Palanka is deposited at the “Gorna Luka” landfill, while in Rankovce it is managed at the “Combardino” landfill. The dominant types of waste at these landfills include municipal solid waste, animal waste, garden waste, and construction debris.</p>
<p>Rationale for location of proposed activity (e.g. socio-economic basis, physical-geographic basis)</p>	<p>The orientation of the wind farm is in a northwest–southeast direction, covering an area that includes parts of the Kozjak, German and Bilino mountains.</p> <p>Within the project boundaries, there are inhabited settlements; however, a large part of the area may be considered as a “greenfield” land.</p> <p>The planned 69 locations for installation of wind turbines are largely situated on state-owned land, designated primarily as agricultural land, pasture and forest land.</p> <p>The locations of the wind turbines are situated outside populated areas; however, some of them are located at an aerial distance of approximately 500 m from such areas. A number of the planned wind turbines in the Municipality of Staro Nagorichane are positioned near the border with the Republic of Serbia. This part of the Republic of Serbia is uninhabited (a hilly-mountainous area). The nearest populated areas, as well as the Prohor Pčinjski Monastery are located at an aerial distance of approximately 3–5 km.</p> <p>Major roads pass near the project area, while regional roads, as well as local and unpaved roads that lead to various locations, traverse the project site itself.</p> <p>Within the project area and its surroundings, there are populated settlements, primarily villages. Near some of the locations planned for the construction of wind turbines, there</p>

	<p>are residential buildings, gardens, agricultural lands and forested areas.</p> <p>Sources of the existing air emissions in the project area include heating of residential buildings, agricultural and livestock activities, as well as commercial and industrial facilities located in and around the project site. The natural ventilation of the area is pronounced, which helps disperse air pollution. These same sources also emit greenhouse gases, contributing to climate change.</p> <p>In the absence of a developed national noise monitoring network, continuous noise monitoring has not yet been conducted in the municipalities where the project will be implemented, nor in the project area itself.</p> <p>Within the project area flow the rivers Pchinja, Bistrica, Radibushka, Kriva Reka, as well as other smaller rivers, intermittent streams and springs.</p> <p>No hydrographic, hydrological and geological investigations have been conducted in the project area.</p> <p>The project area includes high-quality forest and forest land, pastures, meadows agricultural area, etc. The forested areas are characterized by high-quality high stands of beech, black pine and other species. The largest parcel is located in the Municipality of Rankovce, within the cadastral municipality of Petralica. It is classified as pasture land and covers an area of more than 2.3 km².</p> <p>The project site overlaps with the proposed protected area “Kumanovski Kozjak” (proposed designation: Nature Park) and lies within the boundaries of the identified Emerald Site “Pchinja-German,” which is part of the national Emerald Network of Areas of Special Conservation Interest (ASCIs). These areas are designated for the preservation of natural habitats in accordance with the Bern Convention, which has been ratified by the R.N. Macedonia. The project area also falls within the boundaries of the Important Bird Area (IBA): MK014 Pchinja River – Petroshtnica River – Kriva Reka and is located near the migratory route “Danube–Morava–Pchinja–Vardar.”</p> <p>In the project area, ecologically important and sensitive zones have been identified, including habitats, flora and fauna species that are protected or recognized as significant at both national and international levels.</p> <p>Within the area of the preliminary project scope, there are existing religious sites, and there is also a possibility and expectation of the potential presence of immovable cultural heritage, such as archaeological sites. However, at this stage of the project, no detailed field investigations have been carried out to accurately identify and confirm the presence of cultural heritage.</p>
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	<p>Because, the project area is located in a region characterized by forests, meadows, and pastures possesses high landscape and scenic value.</p> <p>The area is located in a region prone to earthquakes, strong winds, erosion, and similar natural hazards.</p>
Time frame for proposed activity (e.g. start and duration of construction and operation)	Due to the scale of the project, the development and construction of the wind park is planned to take place in three phases. Previous experience indicates that the complete construction of one phase of this size requires approximately 12 months.
Maps and other pictorial documents connected with the information on the proposed activity	Maps are attached as Annex to this form because of the size.
Additional information/comments	/

iii) Information on expected environmental impacts and proposed mitigation measures

Scope of assessment (e.g. consideration of: cumulative impacts, evaluation of alternatives, sustainable development issues, impact of peripheral activities)	<p>During the construction activities, emissions of dust, volatile organic compounds (VOCs) and exhaust gases into the ambient air will be generated. Additionally, wastewater, various waste fractions, noise, and vibrations may occur, along with potential incidental events such as fires, floods, or accidental spills. Based on the above, during the construction phase, potential negative impacts may occur on air quality, surface and groundwater, soil, landscape, biodiversity and forest, and the population.</p> <p>During the operational phase of the constructed wind farm, noise emissions, electromagnetic radiation, and shadow flicker from the turbine blades will be generated. In addition, maintenance activities may produce waste and other by-products. The wind farm will cause changes to the landscape and may have negative impacts on biodiversity (habitats and species), particularly on birds and bats, as well as on local population. Moreover, environmental media and areas may be adversely affected in the event of malfunction or accident involving the wind turbines.</p> <p>In the Environmental Impact Assessment Study, the following environmental issues will be covered: impact on air quality and climate changes, water, soil, forest, noise emissions and vibration, electromagnetic radiation, generation of waste and possible impacts, impact on protected areas, landscape and visual impact, biodiversity with strong emphasis to birds and bats, socio-economic aspects which will include impacts on the population and communities, material assets, etc. Also, the possible risk of accidents and incidents will be analysed.</p> <p>In the municipalities, various projects are planned and underway which, if implemented simultaneously with the wind farm, could result in cumulative impacts. Of particular significance are the ongoing construction of the Beljakovce –</p>
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	<p>Kriva Palanka railway line, the planned expansion of the existing main road Kriva Palanka – Border with Bulgaria, construction of the railway corridor Kriva Palanka – Border with Bulgaria, etc. In the EIA study all possible cumulative impacts will be analysed.</p> <p>Due to the proximity to the border with the Republic of Serbia, the potential impacts and transboundary effects will be assessed in more detail within the scope of the EIA study.</p> <p>In the EIA study, the analysis of the alternatives will be taken into consideration.</p>
<p>Expected environmental impacts of proposed activity (e.g. types, locations, magnitudes)</p>	<p>On the basis of the preliminary data, it is expected that the construction of the Wind Farm Virovi will cause impacts during the construction and operational phase, presented as follow:</p> <p>Construction phase:</p> <ul style="list-style-type: none"> • Impact on air quality: As a result of construction activities, emissions of dust, VOC, exhaust gases, etc. will be generated, which may cause a deterioration in ambient air quality, visual disturbances (dust clouds) and dust deposition in the immediate vicinity of the site in the form of sediment. The possible impacts may be assessed as: negative, direct/indirect/cumulative, reversible, short-term local and transboundary (for activities carried out in the Municipality of Staro Nagorichane, near the border with the Republic of Serbia), with low to moderate magnitude, low to moderate sensitivity and significance. • Impact on climate change: The implementation of the project activities (use of fuels, removal of forest and other vegetation, generation of biodegradable waste, etc.) will contribute to climate change. The possible impacts may be assessed as: negative, direct/indirect/cumulative, reversible/irreversible, long-term that may occur after a certain period, with a high likelihood of occurrence, regional/transboundary, with moderate sensitivity, magnitude and significance. • Noise and vibration: During the construction activities increased levels of noise and vibrations will be generated, which may affect the local population and animal species. The possible impacts may be assessed as: negative, direct/cumulative, reversible, short-term that will occur immediately, with a high probability of occurrence, local within the area and transboundary (for activities to be carried out in the Municipality of Staro Nagoričane, near the border), with low to moderate magnitude, sensitivity and significance.

	<ul style="list-style-type: none"> • Impact on water: As a result of the site preparation and construction works in the project area, there is a risk of deterioration in the quality of surface and groundwater. Project activities may cause increased water turbidity due to direct actions near water bodies, washing off of deposited sediment from the air, contamination from accidental spills, and similar occurrences. The possible impacts may be assessed as: negative, direct/indirect, reversible, short-term/long-term, which may occur immediately or after a certain period, with a low probability of occurrence. Regarding the scope and significance, these cannot be assessed at this stage. • Impact on soil: The construction activities may negatively affect the surface and subsurface layers, geology and geomorphology of the project area, causing degradation, compaction, pollution, erosion of the soil, occurrence of landslides, etc. Forests and forest land, pastures, agricultural land will be destroyed, which will negatively affect the soil characteristics. The possible impacts may be assessed as: negative, direct/indirect, reversible/irreversible, short-term/medium-term/long-term impacts, which will occur immediately or with a delay, with a high probability of occurrence. In terms of the scope they are assessed as area-regional, with moderate to high magnitude, high sensitivity and significance. • Impact on biodiversity and landscape: Clearing the site of forest and vegetation and construction works, during which increased levels of noise, vibrations, air emissions, possible fires, and other types of incidents which may occur, may contribute to the destruction and degradation of the existing habitats and species, such as high-quality forests, plants, mammals, birds, bats, amphibians, as well as their disturbance and temporary migration to neighbouring areas. The construction of the wind farm may cause negative impacts on habitats and species of international and national value, some of which are protected or proposed for protection. The visual characteristics of the landscape will be significantly altered, as a new structure will be introduced. These impacts will continue even after the completion of the construction phase. The possible impacts may be assessed as: negative, direct/indirect, reversible/irreversible, short-term to long-term, which may occur immediately or with a delay, with a high probability of occurrence. In terms of the scope are assessed as
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	<p>local/regional/transboundary, with magnitude, sensitivity and significance ranging from low to high.</p> <ul style="list-style-type: none"> • Impacts on cultural heritage: There is a possibility of the presence of cultural heritage in the project area, which may be affected by the implementation of the project. In this phase the impact cannot be assessed. • Waste (construction and operational phase): During the construction phase, various waste fractions will be generated. Improper waste management may cause negative impacts on the quality of environmental media and areas. The possible impacts may be assessed as: negative, direct/indirect, reversible/irreversible, short-term/long-term, which may occur immediately or after a certain period, with a low probability of occurrence, local-area impacts, with low to moderate magnitude, low sensitivity and moderate significance. • Risk of Accidents and Incidents (construction and operational phase): The potential risks and hazards include: the risk of natural disasters, fire, risk of hazardous substance leakage, malfunction/failure of wind turbines and the power supply system, which may cause negative impacts on environmental media and the local population. The possible impacts may be assessed as: negative, direct/indirect, reversible/irreversible, short-term/long-term, which may occur immediately or after a certain period, with low probability of occurrence. In terms of scope and significance, these impacts cannot be assessed at this stage. • Impact on the Social Environment (construction and operational phase): The proposed project activities during the construction phase will create opportunities for local employment, reduce unemployment and migration, promote the development of the municipalities, and foster economic and commercial growth, among others. The possible impacts may be assessed as positive, direct/indirect that will appear immediately, with a high probability. In terms of the scope, they are assessed as regional, short-term/long-term, reversible, with large magnitude and high significance. <p>Besides positive impacts, construction activities may cause negative impacts on the local population as a result of changes in the current land use and reduced benefits derived from it, especially in locations where forests and forest land, pastures are present, and where ecosystem services are utilized. The construction activities may lead to temporary and/or</p>
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permanent leasing of private land from citizens or legal entities, causing restricted or limited access to properties, degradation of surrounding land quality if used for agricultural purposes, possible damage to existing infrastructure and facilities, increased emissions of noise, vibrations, air pollution, etc. The increased frequency of vehicles could lead to traffic congestion or temporary obstructions, affecting the local population and users of the main and access roads, resulting in financial and unexpected costs.

In addition to the impacts mentioned above, the following impacts may be expected during the operation phase of the Virovi Wind Farm:

- **Impact on air quality:** Positive impacts on ambient air quality are expected at the local, regional, and national levels, as a result of reduced use of fossil fuels for energy production and the use of wind energy as a renewable source.

Negative impacts on ambient air quality are expected from the activities related to the control and maintenance of the wind turbines and access roads, during which transport vehicles will be used and waste will be generated. The possible impacts may be assessed as: positive/negative, direct/indirect which may occur immediately, with a low probability of occurrence and reversible. In terms of the scope are assessed as localized, temporary, short-term, with negligible magnitude and significance.

- **Impact on climate change:** The operation of the wind farm is expected to have positive effects on climate change, as the production of electricity from a renewable source will contribute to reducing the percentage of fossil fuel use and lowering greenhouse gas emissions. The wind farm may have a negative impact on the local and regional climate. If large areas of forest are cleared, changes in the microclimatic characteristics of the area can be expected. Additionally, the local temperature around the wind turbine may increase by 0.8 to 1°C. These local changes can affect precipitation, radiation, cloud formation, wind direction, and other climatic factors. Such changes are typical for wind farms with an installed capacity of more than 400 GW. The possible impacts may be assessed as: positive/negative, direct/indirect, reversible/irreversible, which may occur immediately or delayed, with a certain probability of occurrence. They are assessed as regional/transboundary and long-term. The magnitude and significance cannot be determined at this stage.

	<ul style="list-style-type: none"> • Noise impact: Noise will be generated as a result of the wind turbines' operation. Noise emissions may affect the local population depending on the location of the turbine and its distance from residential areas and biodiversity. The possible impacts may be assessed as: negative, direct/reversible/irreversible, long-term which may occur immediately or after a certain period, with certainty of occurrence. In terms of the scope they are assessed as local/regional, or transboundary (for turbines located near the border). Regarding the magnitude, they are assessed as moderate, with moderate sensitivity and significance. • Impact on water: May occur as a result of maintenance activities of the wind turbines and access roads, due to accidental spills, improper waste management from the maintenance of the wind farm, inadequate maintenance of road drainage systems, etc. The possible impacts may be assessed as: negative, direct/indirect/reversible, short-term and may occur immediately or with a delay, with a negligible probability of occurrence. The scope and significance of these impacts cannot be assessed at this stage. • Impact on soil: The impacts may occur as a result of the pressure exerted on the ground by the weight of the materials used in each foundation, vibrations generated during the operation of the turbines. The possible impacts may be assessed as: negative, direct/indirect/reversible, short-to medium-term which may occur immediately or with a delay, with a low probability of occurrence. In terms of the scope of influence, they are assessed as local to regional, with low magnitude, sensitivity and significance. • Impacts on biodiversity and landscape: It may occur as a result of noise generation, collisions with blades, shadow flicker, electromagnetic radiation, collisions, changes in the local microclimate etc. Birds and bats that inhabit the areas around the wind farm or use them for foraging are most likely to be affected. The wind turbines will be located in a hilly area at an altitude of approximately 1000 m and will be visible from great distances and will cause significant impacts on the landscape and visual effect. The possible impacts may be assessed as: negative, direct/reversible/irreversible, long-term that may occur immediately or after a certain period, with a possible probability of occurrence. In terms of the scope of influence, they are assessed as local to regional, including transboundary impacts, with
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	<p>moderate magnitude and sensitivity, and moderate to high significance.</p>
<p>Inputs (e.g. raw material, power sources)</p>	<p>For the construction of the Virovi Wind Farm the following materials will be used:</p> <ul style="list-style-type: none"> • Heavy machinery, • Diesel fuel and oils, • Electricity, • Water (sanitary and technical purposes) • Concrete, • Gravel, • Asphalt and bitumen (if there is a need) • Steel rebar, • Wood, • Wind generators construction parts (towers, blades and generator itself), • Other construction materials. <p>Source of power during this stage would probably be generators powered by fuel and solar power where applicable.</p> <p>For the operation of the wind farm, the main power source will be wind energy which will be harvested to produce electricity.</p>
<p>Outputs (e.g. amounts and types of: emissions into the atmosphere, discharges into the water system, solid waste)</p>	<p>During construction the outputs would be:</p> <ul style="list-style-type: none"> • Emissions into the air: <ul style="list-style-type: none"> ○ VOC and exhaust gasses from the construction machinery ○ dust emissions from construction activities • Emissions of waste generated by construction activities and presence of the work force, • Sanitary and technical wastewater will be generated by construction activities and presence of the work force • Noise and vibration emissions. <p>There will be no discharges into the water during construction nor operation phases.</p> <p>During operation of the wind farm only output will be noise, electromagnetic radiation, shadow flicker, waste generated during regular maintenance.</p>
<p>Transboundary impacts (e.g. types, locations, magnitudes)</p>	<p>The project activities will be carried out near the border with the Republic of Serbia. As a result of the construction of the wind farm, cross-border impacts are possible, especially at the location where activities will be conducted within the Municipality of Staro Nagorichane. These sites are located close to the border and may affect air quality, soil, and water. The impact may be negative, with local-area effects, with low magnitude and sensitivity, and moderate significance. This will be analyzed in more detail in the EIA.</p> <p>Implementation of all protection measures listed in the chapters above is required. It is also recommended to carry</p>

	<p>out a transboundary impact assessment procedure, in accordance with the legal regulations.</p>
<p>Proposed mitigation measures (e.g. if known, mitigation measures to prevent, eliminate, minimize, compensate for environmental effects)</p>	<p>During the construction phase the following mitigation measures are proposed:</p> <p>Impact on air: Implementation of good construction practise.</p> <p>Climate change: During the preparation of the planning and project documentation, opinions should be obtained from the Ministry of Agriculture, Forestry and Water Management to ensure the protection of forests. The forest cover and other types of high vegetation should be considered and analysed, so that the wind turbines and associated infrastructure are placed in locations with little or no forest presence, to avoid significant cutting of high-quality forests and conversion of forest land into construction land.</p> <p>In the EIA study, based on climate change scenarios, an assessment of the wind farm's impact on climate change should be conducted, as well as an evaluation of the project's vulnerability to future climate changes. Appropriate adaptation measures should be proposed and implemented accordingly.</p> <p>Noise: During the design phase, a noise dispersion model should be developed for operational phase, to determine noise dispersion and assess its impact on the local population and biodiversity. Based on the dispersion model and impact assessment, measures should be proposed and incorporated into the design and construction of the wind farm. Additionally, it is recommended to apply good construction practices.</p> <p>Impact on water: During the preparation of the planning and project documentation, data on water resources in the project area (presence of surface waters such as rivers, intermittent streams, springs, irrigation canals, existing and planned hydraulic structures, etc.) should be obtained from relevant institutions. Also, it is recommended hydrological and hydrogeological investigations to be conducted, incorporate the measures and recommendations arising from these investigations into the project and implement them during the construction phase. Furthermore, during the design and implementation of the project, protection of water resources should be ensured, along with obtaining water management permits and applying the measures outlined in the Environmental Impact Assessment (EIA) study.</p> <p>Impact on soil: During the preparation of the planning and project documentation, an opinion should be obtained from the Ministry of Agriculture, Forestry, and Water Management. Rational land acquisition and use should be ensured to avoid any risks that could degrade the condition of the soil. It is also recommended that geomechanical investigations be conducted in the project area, and that the resulting recommendations be incorporated into the project</p>

	<p>documentation. Additionally, the measures outlined in the Environmental Impact Assessment (EIA) study should be implemented.</p> <p>Impact in biodiversity, protected areas, landscape: It is recommended that during the preparation of the planning and project, opinions should be obtained from the Nature Sector at the Ministry of Environment and Physical Planning – Department for nature and the Ministry of Agriculture, Forestry, and Water Management. The measures and recommendations arising from the reports of conducted seasonal surveys of biodiversity (flora, fauna, habitats, birds, and bats) should be incorporated into the project documentation. This is to avoid locations where significant biodiversity and natural heritage have been recorded, as well as protected areas and areas proposed for protection at the national and international levels.</p> <p>Cultural heritage: During the preparation of the planning and project documentation, detailed field investigations should be conducted in the project area by the National Conservation Center in Skopje. The measures and recommendations arising from these detailed investigations should be taken into account during the preparation of the project documentation and the construction of the wind farm.</p> <p>Socio economic impacts (construction and operational phase): During the preparation of the project documentation, data on land ownership in the municipality of Staro Nagorichane (which has not been provided so far), as well as opinions and approvals from all relevant authorities/institutions regarding existing and planned infrastructure networks and facilities, urbanized locations, or plans for their urbanization, should be obtained and properly addressed.</p> <p>Active continuation of social research and surveys with all interested parties is recommended, with the feedback received being taken into account during the preparation of the project documentation. This includes timely information of the local population about the project’s purpose, the start of work, the type of construction, and potential impacts during both the construction and operational phases of the wind farm.</p> <p>Detailed analyses should also be conducted on possible impacts on the population based on the placement of turbines and their proximity to residential buildings in the project area. Additionally, it is recommended to provide fair compensation for any property that may be expropriated and financial compensation for any damages to material goods caused during the project. Risk management measures should be applied, along with measures to mitigate impacts during both construction and operation phases, among other actions.</p>
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	<p>Waste (construction and operational phase): It is recommended to apply good construction practices, <u>including</u> waste separation, placement of collection containers, keeping records of generated waste, handing it over to authorized waste management operators, etc.</p> <p>Risk of Accidents and Incidents (construction and operational phase): Preparation of Emergency management procedures for a wide range of scenarios is recommended. Additionally, it is recommended to develop an Emergency management plan that identifies situations which could lead to accidents and outlines emergency measures to prevent potential incidents.</p> <p>Operational phase:</p> <p>Impact on Air quality and Climate change: Implementation of good practices for reducing traffic-related emissions, waste management, particularly biodegradable waste, etc.</p> <p>Noise impact: It is recommended to install noise and vibration sensors to detect any potential deviations from the levels designed and established during the construction phase and to take additional measures, if necessary.</p> <p>Impact on water: It is recommended to conduct regular inspection and maintenance of the drainage systems along the internal access roads and around the turbine foundations in order to prevent sediment buildup, flooding, and similar issues. Turbine maintenance and oil replacement must be carried out exclusively by an authorized company with relevant experience in the field.</p> <p>Impact on soil: It is recommended to install sensors for detecting oil loss or leakage from the generator reservoir of each wind turbine. The oil reservoirs on the wind turbines should be equipped with containment trays to capture any accidental spills. Oil changes and servicing of the wind turbines should only be performed by an authorized company. Additionally, regular maintenance of erosion and sediment control structures and facilities is recommended.</p> <p>Impact on Biodiversity: To reduce impacts during the operational phase, it is recommended that during the design phase and detailed impact assessment on biodiversity, particularly on animal species, the recommendations from the conducted seasonal monitoring of biodiversity be taken into account. The suitability of the turbines, their number, placement, dimensions, and other factors should be analyzed. If necessary, additional measures to mitigate impacts should be recommended to minimize habitat and species fragmentation, ensuring the maintenance of populations. These measures should be implemented by the Investor. Additionally, if forest removal is necessary, compensation for the lost high-quality forest should be carried out in cooperation with the Ministry of Agriculture, Forestry, and Water Management, etc.</p>
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	Other mitigation measures will be prescribed in the EIA study where all impacts and outputs will be assessed.
Additional information/comments	/
(iv) Proponent/developer	
Name, address, telephone and fax numbers	Veteren Park Virovi d.o.o.e.l. Ul. Makedonija 25/1-6 1000 Skopje
(v) EIA documentation	
Is the EIA documentation (e.g. EIA report or EIS) included in the notification?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Partially <input type="checkbox"/>
If the answer to the above is no or partially, description of additional documentation to be forwarded and (approximate) date(s) when documentation will be available	
Additional information/comments	
2. POINTS OF CONTACT	
(i) Points of contact for the possible affected Party or Parties	
Authority responsible for coordinating activities relating to the EIA (refer to decision I/3, appendix) - Name, address, telephone and fax numbers	Mr. Zoran VELJKOVIC Head of Section for EIA of Projects and Activities Ministry of Environmental Protection 1 Omladinskih Brigada Str. 11070 BELGRADE Telephone: +381 11 3131 356 E-mail: zoran.veljkovic(at)eko.gov.rs
List of affected Parties to which notification is being sent	Republic of Serbia
(ii) Points of contact for the Party of origin	
Authority responsible for coordinating activities relating to the EIA (refer to decision I/3, appendix) - Name, address, telephone and fax numbers	Biljana PETKOSKA Head of Department for Environment Ministry of Environment and Physical Planning Presveta Bogorodica Square No.3, 1000 Skopje Republic of North Macedonia Email: B.petkoska(at)moepp.gov.mk
Decision-making authority if different than authority responsible for coordinating activities relating to the EIA - Name, address, telephone and fax numbers	N/A
3. INFORMATION ON THE EIA PROCESS IN THE COUNTRY WHERE THE PROPOSED ACTIVITY IS LOCATED	
(i) Information on the EIA process that will be applied to the proposed activity	
Time schedule	The expected duration of the national EIA procedure is about twelve months.

Opportunities for the affected Party or Parties to be involved in the EIA process	Yes
Opportunities for the affected Party or Parties to review and comment on the notification and the EIA documentation	Yes
Nature and timing of the possible decision	At this stage, it is not possible to predict the nature of the EIA decision, as it fully depends on the EIA documentation to be elaborated and on public participation in the procedure. Expected timing – within twelve months.
Process for approval of the proposed activity	In compliance with environmental legislation in Republic of North Macedonia (Law of Environment), the Ministry of Environment and physical planning is the competent authority for issuing the EIA decision. The following steps shall be followed: - Decision to determine the need for an environmental impact assessment and determine the scope of the environmental impact assessment study; - Submission of the study on the project environmental impact assessment; - Report on the adequacy of the study - Public consultations in the affected municipalities; - Issuance of final decision by the Ministry.
Additional information/comments	None
4. INFORMATION ON THE PUBLIC PARTICIPATION PROCESS IN THE COUNTRY OF ORIGIN	
Public participation procedures	In accordance with the Macedonian legislation, the public is entitled to access to the EIA documentation for a period of 30 days. The public hearing is holding before issuing the report of adequacy. The public is entitled to prepare written comments or to discussion during the public hearing or to submit them in writing. Minutes shall be prepared during the public discussions.
Expected start and duration of public consultation	At this stage, it is not possible to make a forecast for the possible dates for the public consultations and hearings.
Additional information/comments	If the affected party express a will to participate in the EIA procedure, a public hearing may be organized at its territory. A translation from and to English will be needed.
5. DEADLINE FOR RESPONSE	
Date	Four weeks from the date of receiving the notification.

Annexes to the Notification:

- **Annex I** Schemes/ maps/ of the planned infrastructure – locations and routes with parameters.