

**Application of the proposed activity for the implementation of the Limbaži wind farm project and its corresponding infrastructure in the municipality of Limbaži**

*In accordance with Section 4 of the Law on Environmental Impact Assessment, Section 7 of the Law on Procedures for the Construction of Energy Supply Structures Necessary for the Promotion of Energy Security and Independence, and Paragraph 2 of Cabinet Regulation No. 18 of January 13, 2015, the procedures by which the impact of the proposed activity on the Environment shall be evaluated and the proposed activity shall be approved.*

26 July 2023

Rīga

**1. Given name, surname, personal identification number of the initiator (for a legal person - name and registration number, legal address, telephone number and e-mail address**

LLC "Latvijas vēja parki", registration No. : 40203415150, legal address: Pulkveza Brieza Street 12, Riga, LV-1001, Latvia, email: [info@vejaparki.lv](mailto:info@vejaparki.lv)

**2. Contact information (address and phone number) for the initiator, as well as the legal entity's properties:**

Pulkveza Brieza Street 12, Riga, LV-1001, Latvia. E-mail: [dainis.kanders@latvenergo.lv](mailto:dainis.kanders@latvenergo.lv); phone: +371 67 728 484, + 371 29131864.

**3. Anticipated Action (object) Name**

Implementation of the project of the wind farm "Limbaži" and related infrastructure in the Salacgrīva and Viļķenes civil parishes of Limbaži municipality.

**4. Information regarding the description of the physical characteristics of the intended activity, including information regarding the amount, the preparation for the activity prior to the commencement of the activity, demolition works and solutions thereof (if the intended activity includes such), types of technologies to be used, necessary infrastructure objects (e.g. access road, car park, fences, sewage treatment plants, water supply, artetic boreholes, auxiliary boreholes), and necessary infrastructure objects (e.g. access road, car park, fences, sewage treatment)**

The activity provided for by LLC "Latvijas vēja parki" (hereinafter - the initiator) is the implementation of the wind farm and related infrastructure project in the Salacgrīvas and Viļķenes parishes of Limbaži municipality. Annex 1 of the application must be accompanied by a map of the intended operating area that does not depict the planned locations of wind turbines. There are plans to construct up to 20 wind turbines at the wind park, where each wind station's nominal capacity could reach 8 MW. The initiator will conduct an environmental impact assessment (EIA) in accordance with the Environmental Impact Assessment Law and the Law on Procedures for the Construction of Energy Supply Buildings Necessary to Promote Energy Security and Independence. The total number of wind farms to be installed is intended to be evaluated during the EIA process, taking into account the requirements of regulatory enactments for the location of wind farms, the possibility of coordinating the determination of protection zones with legal possessors of adjacent immovable properties, the available transmission system capacity, the results of the EIA, economic and other related factors that may affect the amount of implementation of the in-stream wind energy project.

Wind turbines will be transported disassembled and will be composed of three modules, a rotor, and wings. Wind turbines are assembled at the installation site. After wind turbines are installed, wiring and cables are installed.

For the connection of the wind farm to the transformer substation (with medium voltage switchgear and oil transformer) and the high voltage substation, an electricity supply cable line (type – aluminium with XLPE insulation) is planned to be constructed.

Existing ground roads will be used as much as possible for access to the wind farm, and new roads are planned to be constructed in order to facilitate construction and operation of the wind farm. During construction and operation, the planned wind farm will be accessible via the State motorway A1 (Rīga – Igaunijas robeža), the regional highways P12 (Limbaži – Salacgrīva), the State local motorways, V138 (Lāņi – Ķirbiži – Jelgavkrasti) un V143 (Akmeņkalni – Lauvas – Ķekari), municipal roads, forest roads maintained by Latvia's state forests, as well as newly constructed or adapted access roads already in place. During the EIA procedure, the technical characteristics and required improvements of existing access roads will be evaluated, along with alternative access options and solutions.

Before the installation of the planned wind farms, it is planned to rebuild or improve the existing infrastructure, including access roads, areas, energy transmission lines, and telecommunication lines. During the EIA process, the precise layout and technical characteristics of the planned access roads will be determined by evaluating the need for the construction of existing road networks, new roads, the feasibility of their construction, and the potential impact on the environment, including the previously determined natural values within the scope of the research.

Using the existing high voltage power cable line, the generated electricity will be transmitted to the transmission network. For the safety of the connection, new substations will be built. The location of substations will be evaluated during the preparation of the EIA report.

In the process of drafting the EIA report, solutions planned for the wind farm to store the generated electricity and the construction of facilities related to this process will be evaluated.

**5. Information regarding possible locations of the proposed activity (indicate addresses and, if possible, cadastral designations of land units) and characterization thereof, considering the state and sensitivity of the venue's environment and the potentially affected territory:**

The wind farm is due to be built in the northern part of the Limbaži Municipality, about 5-13 km from the Salacgrīva. The total area of the wind farm construction area is 1894 ha.

The land units included in the territory of the intended activity are currently used for carrying out forestry activities. The area of the intended activity shall comprise the following units of land (see Table 1):

table 1: Land units and cadastral designations included in the construction of Wind Park Limbaži

Nr.p. k.	Real estate name	Kadastral number	Land parcel number
1.	Salacgrīvas valsts mežs Nr.6672	66720010129	66720080069

2.	Salacgrīvas valsts mežs Nr.6672	66720010129	66720080070
3.	Salacgrīvas valsts mežs Nr.6672	66720010129	66720050195
4.	Salacgrīvas valsts mežs Nr.6672	66720010129	66720040295
5.	Ķirbižu mežs	66880010040	66880010034

In accordance with Cabinet Regulation No. 303 of 19 April 2011, personal Protection and use Regulations of the Ziemeļvidzemes biosfēras rezervāts (North Vidzeme biosphere Reserve) - it is prohibited to install wind turbines in the North Vidzeme biosphere Reserve, except in the territories specified in Annex 2 to these Regulations, under the following conditions:

- Wind turbines shall be located after obtaining a written permit from the Dabas aizsardzības pārvalde (Nature Conservation Agency);
- Wind turbines shall be located in gable-roofed structures;
- Wind The minimum distance between groups shall be two kilometres.

The planned wind turbines will be located in compliance with the minimum distances specified in Cabinet Regulation No. 240 of 30 April 2013, General Regulations for planning, use and Building of the territory (hereinafter Cabinet Regulation No. 240) for the construction of wind turbines.

**6. Where the intended activity is a change in an existing activity, a description of the existing activity, including information on its volumes, technological solutions, key raw materials and their storage, use of natural resources, emissions, waste water and the generation of waste.**

Not applicable

#### **7. Distance to nearest populated area**

Salacgrīva, which is roughly 5 kilometres away, is the largest settlement closest to the proposed activity site. Korģene, Vesalaca, Svētciems, Lāņi, Vitrupe, Ķibirži, Viļķene and Plāņi are the nearest villages (see Annex 1). Several farmsteads are located in the territory of the intended activity, which are not closer than the distance from wind turbines specified in regulatory enactments in the Republics of Latvia.

#### **8. Details about the planned activity, including the scope of the activity**

The proposed action is described in detail in the fourth section of the application. In the EIA report, the duration of the proposed activity will be described.

#### **9. Technical description of the equipment**

The model and technical specifications of the wind turbines to be installed have not yet been determined, but it will likely be one of the newest models from Enercon, Vestas, Siemens-Gamesa, General Electric, or Nordex. Several wind turbine models and technical parameters will be evaluated as part of the environmental impact assessment procedure. The expected maximum height of wind turbines is 300 metres, with rotor diameters of up to 200 metres. In the EIA report, the planned capacity up to 8 MW (per wind turbine) and the maximum total capacity based on the capacity and number of wind turbines constructed will be specified.

#### **10. A brief description of the technology**

As the wind turns the rotor wings, the wind generator generates electricity through underground cables to the transformer station. Wind generators turn against the wind automatically, so their position changes. In the absence of wind, the generator remains stationary, but its speed increases proportionally with the wind speed. This technology has been thoroughly tested and is fundamentally secure.

Annex 2 of the application includes typical wind turbine operating strategies.

#### **11. Chemicals, chemical products, and other materials used as raw materials or consumables in the manufacturing process that are not classified as hazardous**

In the construction and infrastructure process, building materials such as sand, gravel and chippings for road and site construction, concrete and steel for building the foundations of wind turbines, etc., will be utilized. In the EIA report, the estimated amount of material will be detailed.

#### **12. Hazardous chemicals and chemical products used in the manufacturing process as raw materials, consumables, intermediate or final products**

During construction and operation of the wind farm, the use of hazardous chemicals or chemical mixtures in excess of 100 kg per year is not anticipated. Wind energy production does not necessitate the use of hazardous chemicals and mixtures. Depending on the wind turbine model selected, the generator's lubrication system may contain up to 400-450 liters of oil.

#### **13. Production and quantity (annually)**

The annual duration of the wind farm and the amount of electricity generated will depend on the number of final wind turbines, the model of wind turbines selected, the height of wind turbines, and the meteorological conditions of the given year.

#### **14. Extraction and use of natural resources (specify type and quantity per day, season, and year)**

Not applicable

#### **15. Water supply solution**

The connections to the district water supply are not intended to be made during the preparation and construction of the intended activity's territory. During construction, temporary residence carriages will be deployed. The delivery of potable water will be made in barrels.

As there is no need for permanent personnel to operate the wind farm, temporary carriages will be removed following the completion of construction, but alternative water solutions will not be implemented. Neither the construction nor the operation of the wind farm necessitates additional activities or enhancements pertaining to the inhabitants of the wind farm's vicinity.

#### **16. Estimated quantity of wastewater (domestic, industrial, precipitation) (m<sup>3</sup> per day, month, or year)**

During site preparation and construction, centralized sewerage connections are not planned. During construction, temporary residence carriages will be deployed. Several exportable bio toilets are also slated for deployment.

As the operation of the wind farm does not require permanent staff, temporary carriages and restrooms will be removed after construction is complete, but no alternative sewer solutions will be implemented. Neither the construction nor operation of the wind farm necessitates additional activities or enhancements pertaining to the inhabitants of the park's vicinity.

## **17. Heat supply solution**

Not applicable

## **18. Emissions of air pollutants**

Wind is a renewable and clean natural resource. It is not anticipated that the operation of the wind farm will result in air pollution emissions.

Emissions from the construction of wind farms (including during transport) will be assessed in the EIA report.

## **19. Odors**

It is not expected that odors will develop during the construction and operation of the wind farm.

## **20. Emissions of pollutants into soil**

There is no contamination of soil or water during operation of the wind farm.

In the EIA report, emissions from the soil during the construction of the wind farm will be evaluated.

## **21. Garbage. Expected waste disposal.**

The waste generated during the construction and operation of the wind farm will be managed in accordance with the requirements of the Waste Management Law and the Cabinet of Ministers (hereinafter Cabinet) Regulations. A small amount of waste is anticipated.

The management of hazardous waste will adhere to the requirements of Cabinet Regulation No. 302 of 19 April 2011, Regulations regarding waste Classification and Hazardous Properties. The hazardous waste generated during construction will be managed in accordance with the requirements outlined in Chapters II and III of Cabinet Regulation No. 494 of 7 August 2018, which governs the procedures for recording waste shipments. The hazardous waste will then be transferred to a hazardous waste manager who has obtained a permit for the management of hazardous waste from the State environmental Service in accordance with the prescribed procedures.

Construction waste will be managed in accordance with the requirements outlined in Cabinet Regulation No. 199 of 15 April 2014, Procedures for the Recording of Construction Waste and its Transport.

During the preparation of the EIA report, solutions for waste management following the cessation of operations will be evaluated.

## **22. Physical effects (such as electromagnetic radiation, vibration, and noise)**

### *Noise*

Construction work, where noise emission is anticipated, will be performed in accordance with the noise emission limit values specified in Cabinet of Ministers regulations, and outdoor equipment will be used in accordance with Cabinet Regulation No. 163 of 23 April 2002, Regulations regarding noise emission from outdoor equipment. Taking into account the nature of the work to be performed and the organizational procedures, it is anticipated that noise emissions from the machinery will be temporary and that the anticipated impact of changes in noise limit values will not be substantial. Therefore, the environmental noise limit values specified in Cabinet Regulation No. 16 of 7 January 2014, Noise Evaluation and Management

Procedures, will not be exceeded. Mechanical noise (operation of the generator and gearbox selector) and aerodynamic noise characterize the operation of wind turbines. Aerodynamic or turbulent flow noise is deemed the most important and dominant. As the rotor blades sneeze through the air, an abrupt, whistling sound is produced that is easily audible against the background noise and can have a significant impact in the vicinity of wind turbines.

During the preparation of the EIA report, the proximity of proposed wind turbines to residential structures and their noise impact will be evaluated. Therefore, the location and technical features of wind turbines will be evaluated.

### ***Vibration***

During the operation of the wind turbine, some ground vibration may also occur. Moving objects generate vibrations that propagate through physical space by transferring to other physical objects. Depending on the vibration's characteristics, it can have an effect on both the individual and the equipment, buildings, and structures. Considering the operating principles of the wind turbine, the technical provision of the wind turbine plant, and the ground solutions, it is not foreseen that the wind turbine would generate a transfer of vibrations through the tower and foundations to the ground that could cause significant mechanical fluctuations in the soil and ground around the plant, or negatively impact human health and the safety of their buildings.

### ***Flickering***

The flickering is caused by the rotation of the rotor blades, which intermittently obscure the sun and cast moving shadows on the ground and the surfaces of various objects. The effect of shadows cast by rotor blades near wind farms is relatively low-frequency flickering.

During the preparation of the EIA report, the location of proposed wind turbines in relation to residential structures will be evaluated, as will the impact of flickering. Therefore, the location and technical features of wind turbines will be evaluated.

### **Electromagnetic radiation**

The electromagnetic field produced by wind turbines is comparable in intensity to that produced by domestic electrical appliances and is already insignificant within a radius of 10 m from the wind turbine.

### **23. Surrounding bodies of water (watercourses (indicate their distance), impact on fish resources, impact and groundwater level, possibility of flooding (if necessary, include a statement from Latvian Environment, Geology and Meteorology Center):**

The area of the proposed activity is located in the catchment area of the Piejūra. The nearest bodies of water are the Vitrupe, Svētupe, Vedamurgas river, Korģe rivers. Kliku and Primmas lakes are the largest bodies of water. Part of the territory of the intended activity shall be crossed by the amelioration systems of State significance.

When a wind farm is constructed, all existing amelioration systems will be maintained and, if necessary (if any branch of the system is impacted), restored. As these activities will be performed in accordance with the design, taking into account the location and functionality of the enhancement systems, the overall quality of the enhancement systems will not decline.

An expert in the relevant field will assess the potential impacts of the planned construction and operation of the wind farm (including the impact of the amelioration systems and amelioration systems on the wind farm), as well as determine the best solutions/precautions, taking into

account the applicability and balance of the proportionality and precautionary principles, when preparing the EIA report for the proposed activity.

#### **24. Impacts anticipated on specially protected natural areas, species, habitats, and micro reserves.**

Several specially protected nature territories and micro-reserves, species deposits and areas thereof, habitats of significance to the European Union, and specially protected trees are located on the territory of the proposed activity, according to information published in the nature data Management system "OZOLS" of the nature Conservation Agency.

The intended activity is located on the territory of the North Vidzeme Biosphere Reserve (neutral zone) (a portion of the intended activity area is also located in the landscape protection zone, but no wind turbines are proposed) (see map in Annex 3).

Table 2 summarises the closest special protection areas - micro reserves and N2000 sites (up to a distance of 3 kilometres from the boundary of the proposed activity's land units).

table 2: Conservation areas adjacent to the "Limbaži" wind farm (based on data from the nature data Management system "OZOLS" as of 23 July 2023).

<b>Name</b>	<b>Conservation status</b>	<b>Minimal distance from closest wind turbine</b>	<b>Purpose for Conservation area</b>
Nr.1407	Micro-reserve	0,3 km	Protection of specially protected species and habitats
Nr.385	Micro-reserve	0,5 km	Protection of specially protected species and habitats
Nr.1406	Micro-reserve	0,6 km	Protection of specially protected species and habitats
Nr.1377	Micro-reserve	0,8 km	Bird protection
Nr.3118	Micro-reserve	1,1 km	Protection of specially protected species and habitats
Nr.3119	Micro-reserve	1,1 km	Protection of specially protected species and habitats
Nr.3120	Micro-reserve	1,1 km	Protection of specially protected species and habitats

Vitrupes ieleja	NATURA 2000	1,8 km	Protection of specially protected species and habitats
Salacas ieleja	NATURA 2000	2,1 km	Protection of specially protected species other than birds and specially protected habitats
Niedrāju – Pilkas purvs	NATURA 2000	2,7 km	Protection of specially protected species other than birds and specially protected habitats
Nr.1405	Micro-reserve	3,0 km	Protection of specially protected species and habitats
Nr.1754	Micro-reserve	3,4 km	Bird protection
Nr.2510	Micro-reserve	4,9 km	Bird protection
Nr.2300	Micro-reserve	4,1 km	Bird protection

Annex 4 includes a map of conservation areas.

An expert in the applicable field will be involved in the development of the EIA for the proposed activity. This expert will conduct site monitoring in nature, assess the potential impacts of the proposed activity during construction and operation, and identify the best solutions/precautions, taking into account the applicability and balance of the proportionality and precautionary principles.

#### **25. Conformity with territorial planning (purpose of land use):**

In accordance with Cabinet Regulation No. 240, it is allowed to install wind turbines with a capacity greater than 20 kW on industrial building territories (R), technical building territories (TA), agricultural territories (L), and forest territories (M), so long as they comply with the spatial plan.

According to the spatial plan for municipality of Limbaži, the construction territory of the wind farm comprises land units or portions thereof whose planned (permitted) use is primarily as a forest area. The construction area of the wind farm covers relatively small areas of water or other land applications.

If necessary, modifications or additions to the spatial planning documents will be made.

#### **26. Amount of land to be modified and previous land use**

Currently, the planned activity area is forest land. Given that the wind farm is slated to be built in a forested area, sufficient deforestation and land conversion will occur in order to construct the wind farm's infrastructure. If required, the land area needed for access roads will also be cleared of trees. During the EIA process, the projected forest area where deforestation will be planned will be determined. In the EIA report, the precise extent and boundaries of deforestation and land to be transformed will be specified.



**27. A description of the environmental impact of the proposed action, including a description of all potential significant impacts, to the extent that information is available on these impacts as a result of:**

***Producing emissions, waste, and by-products***

It is not expected that the operation of the wind farm will result in a substantial amount of waste. If such waste does occur (equipment maintenance, personnel municipal waste, etc.), it will not be stored on-site, but rather collected and transferred to commercial companies that have permits for waste management in accordance with the State environmental Service's procedures.

Typical impacts of construction work are typical during the construction period: noise, air emissions (from the technology used for construction works), construction and maintenance of machinery, assembly sites and other temporary objects, transport of building materials and construction structures, formation of waste, and possibly (only in the event of possible unfavourable events) local and minor soil contamination with technical fluids of construction technology.

The waste generated during construction will be collected, sorted, and temporarily stored before being transferred to commercial companies that have received permits for waste management in accordance with the State environmental Service's procedures.

There is no contamination of soil or water during operation of the wind farm. It is not anticipated that the operation of the wind farm will result in air pollution emissions. It is not anticipated that odours will develop during the installation and operation of turbines.

***Physical effects***

Regarding the intended activity, noise and flashing are likely to have the greatest impact. During the preparation of the EIA report, the impact of noise and flashing from the wind farm will be evaluated, with the location and technical parameters of wind turbines being specified as necessary.

***Landscape impact***

Plains landscapes with wide-ranging and distant views are suitable for the installation of large wind turbines because large-scale wind turbines are relatively well-suited to vast, flat, and slow-moving regions. Their presence in the landscape will establish new dominance, which can also be interpreted as environmental landmarks, thereby making the landscape more interesting and alluring.

In the EIA report, the impact of the proposed action on the quality of the environment will be evaluated.

***Impact on biodiversity***

In the earliest phases of the proposed operation, special protection areas and micro-reserves, as well as their distances, were identified. Involved in the preparation of the environmental impact assessment of the proposed activity will be experts in the relevant field, who will conduct site surveys in nature, assess the potential impacts of the construction and operation of the proposed wind farm, and identify the best solutions/precautions, taking into account the applicability and balance of the proportionality and precautionary principles.

**28. A description of the planned measures to prevent or eliminate situations likely to have significant adverse environmental effects:**

Wind turbine installations are equipped with sensitive sensors and electronic control systems that automatically unlock wind turbines in response to unforeseen weather conditions (storm, icing) and equipment defects. The equipment must be equipped with a lightning protection system and multiple fuses that disconnect the generator and stop the rotor in the event of electronic errors. Wind turbines are technologically designed to mitigate various dangers. The EIA report will evaluate facilities and equipment for protecting biodiversity (including ornithofauna).

During the preparation of the environmental impact assessment report, the developed solutions will be evaluated and, if necessary, solutions will be created to mitigate significant adverse effects.

**29. If the activity is intended in the internal waters, territorial sea or exclusive economic zone of the Republic of Latvia:**

Not applicable

**Following attachments are included with the application:**

1. The intended activity's territory;
2. Technological circuits for the operation of wind turbines;
3. The intended activities of the nearby special conservation area.

Five pages of information are attached to the application.

The information provided in the submission, the documents attached to the submission, and any other information must be accurate and in accordance with the requirements specified in regulatory statutes.