Construction and operation of a wind farm in Joniškis District Municipality

Environmental Impact Assessment Programme stage

INFORMATION ON THE PLANNED ECONOMIC ACTIVITY AND ITS POTENTIAL TRANSBOUNDARY IMPACT

Name of the proposed economic activity:	**Construction and operation of a wind farm in Joniškis District Municipality**
Location of the proposed economic activity:	Šiauliai County, Joniškis District Municipality: - Kriukai Parish: the territory of the villages of Stagariai, Jackonys, Bikaičiai and Mygūnai I; - Satkūnai Parish: the territory of the villages of Drąsutaičiai, Medikuičiai, Girdžiūnai, Mitkūnai, Gudaičiai, Butaučiai and Kulpiai; - Saugėlaukis Parish: the territory of the villages of Pūraičiai and Pavirčiuvė.
Stage:	Stage of the EIA programme
Year and month of preparation:	May 2026
Contact details of the organiser of the planned economic activity:	
Name of the legal entity	**JSC "Utilitas Wind"**
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Address:	Ukmergės g. 126, LT-08100 Vilnius
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Introduction

JSC "Utilitas Wind" plans to construct a wind farm within the territory of Joniškis District Municipality. The environmental impact assessment is being carried out in accordance with point 3.10.2 of Annex 1 to the Law on Environmental Impact Assessment of Planned Economic Activities of the Republic of Lithuania.

The United Nations Economic Commission for Europe's Convention on Environmental Impact Assessment in a Transboundary Context stipulates that transboundary environmental impact assessment procedures apply to planned economic activities that are likely to have a significant transboundary impact and are listed in Annex I to the Convention. Pursuant to the second amendment to the Espoo Convention, adopted by Decision III/7 of 4 June 2004, large-scale wind energy generation facilities are included in Annex I of the Convention.

Pursuant to paragraph 1 of Resolution No 900 of the Government of the Republic of Lithuania of 28 July 2000 'On the Granting of Powers to the Ministry of the Environment and its subordinate institutions', the transboundary environmental impact assessment process is coordinated by the Ministry of the Environment of the Republic of Lithuania.

In its letter No. D8(E)-1983 of 21 May 2026, the Ministry of the Environment of the Republic of Lithuania stated that, taking into account the type of planned economic activity, its nature, scale, local characteristics and the short distance to the territory of the Republic of Latvia – approximately 450 m from the boundary of the nearest plot of land under consideration – the transboundary environmental impact assessment procedures are applicable to this planned economic activity.

Information on the planned economic activity and its potential transboundary impact is being prepared in accordance with the provisions of paragraph 11 of the Procedure for Transboundary Environmental Impact Assessment of Planned Economic Activities (hereinafter referred to as Procedures Description), approved by Order No. D1-157 of the Minister of the Environment of the Republic of Lithuania on 23 May 2023. The content and scope of the information are set out in Annexes 1 and 2 to the Procedure Description.

1. Contact details of the organiser of the proposed economic activity

Name of the legal entity:	**UAB "Utilitas Wind"**
Registered office address:	Ukmergės g. 126, LT-08100 Vilnius, Republic of Lithuania
Telephone number:	+370 616 37387
Email address:	elejaLT@utilitas.lt
Website:	https://utilitas.ee/en/

2. Information on the proposed economic activity

2.1. Name of the proposed economic activity

Construction and operation of a wind farm in Joniškis District Municipality.

2.2. Type of proposed economic activity and its relationship to the Convention

The type of proposed economic activity (hereinafter referred to as PEA) is classified under Section D, Division 35, Group 35.1, Class 35.12, Subclass 35.12.00 of the Classification of Economic Activities (EVRK 2.1 ed.) – Electricity generation from renewable energy sources.

The activity is listed in Annex I to the 1991 Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention) as an energy sector project (large wind farms) capable of causing significant adverse transboundary impact on a neighbouring Member State.

2.3. Description of the proposed economic activity and directly related ancillary activities

- **Main activity:** Installation and long-term operation of a wind farm comprising up to 21 wind turbines (hereinafter 'WT').
- **Directly related ancillary activities and infrastructure:** Upon completion of the project, the land plots will feature the infrastructure required for the maintenance of the WPs: access roads (including the reinforcement of existing roads), maintenance (crane) yards and underground power cable lines.
- **Technology and transmission solutions:** It is planned to use advanced, certified technologies that comply with EU requirements. The electricity generated by the wind farms will be transmitted via underground cables laid within the boundaries of the land plots to the planned transformer substation (hereinafter – TS), which is to be constructed under a separate project on land in the Republic of Latvia (on a plot of land in the Ēleja parish, Jelgava municipality) and from there connected to the electricity transmission networks.
- **Changes in traffic flows:** Traffic flows will increase temporarily – during the construction and dismantling phases, when large-scale power plant structures are transported and foundations are cast. During the operational phase, traffic will be minimal and related only to the maintenance of remote control systems and technical maintenance of the power plants.

2.4. Scale of the proposed economic activity

- **Capacity:** It is planned to construct and operate up to 21 wind turbines, each with a capacity of up to 8 MW (total maximum capacity of the wind farm up to 168 MW).
- **Dimensions and footprint:** The total height of each wind turbine (including the tip of the raised rotor blade) will be up to 250 m. The physical land area will be altered only within the perimeter of the foundations, at the crane sites and on the newly formed access roads.
- **Raw material and energy consumption:** No raw materials are used during operation; electricity is generated using natural wind resources. Certified construction materials (concrete, metal for foundations, etc.) will be used during construction.
- **Waste volume:** During the construction and dismantling phases, standard construction and demolition waste will be generated, which will be managed in accordance with Lithuanian legislation. During the operational phase, virtually no waste will be generated (with the exception of lubricants or consumables arising during technical maintenance).

2.5. Duration of the proposed economic activity

- **Construction works:** Work will begin once a building permit has been obtained, all engineering and geological surveys have been completed, and the technical work designs have been approved. The construction work and its estimated duration will be detailed in the EIA report.
- **Operational phase:** The wind farm is expected to have an operational life of between 25 and 35 years. Operations will be managed remotely.
- **Decommissioning phase:** At the end of the operational cycle, the wind turbines may be dismantled (disassembled, foundations removed, and the land recultivated to restore it to its previous condition) or the turbines may be renovated and operations extended for a further 10 years or so, subject to the legal regulations in force at that time.

3. Information on the location of the proposed economic activity

3.1. Location of the proposed economic activity and its description

Geographical and administrative location

The PEA is planned at the Šiauliai County, Joniškis District Municipality, within the territories of three elderships: Kriukai Eldership (the villages of Stagariai, Jackonys, Bikaičiai, and Mygūnai I), Satkūnai Eldership (the villages of Drąsutaičiai, Medikuičiai, Girdžiūnai, Mitkūnai, Gudaičiai, Butaučiai and Kulpiai) and Saugėlaukis Eldership (the

villages of Pūraičiai and Pavirčiuvė). Approximate coordinates of the centre of the total wind farm in the LKS-94 system: X 485406, Y 6242786.

The installation of the wind farm is planned within the boundaries of the land plots under analysis, in the development areas which will be identified as suitable for WT during the EIA process. Table 3.1.1 presents the approximate centre coordinates of each planned economic activity development area in the LKS-94 coordinate system.

Table 3.1.1. Approximate centre coordinates of each proposed economic activity site

PPA land plot Cad. No.	Approximate centre of the proposed economic activity site in LKS-94:	
	X	Y
4744/0002:45	480939	6247228
4744/0002:78	480806	6246680
4744/0002:9	481396	6247159
4744/0004:13	482494	6246845
4744/0004:7	483098	6246674
4744/0004:22	482073	6246067
4744/0002:25	480917	6245432
4744/0007:20	480784	6244798
4744/0007:32	480394	6244140
4744/0007:47	480631	6243175
4744/0006:8	482822	6244329
4744/0005:31	483922	6244729
4744/0006:17	483512	6243398
4767/0004:174	483767	6239751
4767/0003:84	486061	6241576
4754/0002:236	487043	6242567
4754/0002:210	488795	6243753
4754/0002:39	488686	6243179
4754/0007:10	490497	6242015
4754/0007:218	491789	6242399

The electricity generated by the planned wind farms will be transmitted via underground cables to the planned transformer substation (hereinafter – TS), which is planned to be installed on a plot of land in Eleja parish, Jelgava municipality, in Latvia. From this TS, the electricity will be connected to the electricity transmission network. The construction of this TS is planned as a separate project; therefore, the impact of the TS construction will not be assessed in this EIA process.

Distance to the affected country

The project area is located in the immediate border zone with the Republic of Latvia. The distance from the boundary of the nearest plot of land under analysis to the Lithuanian-Latvian state border is approximately 447 metres. The detailed geographical location of the PEA and the layout of the plots in relation to the border are shown in Figure 3.1.1.

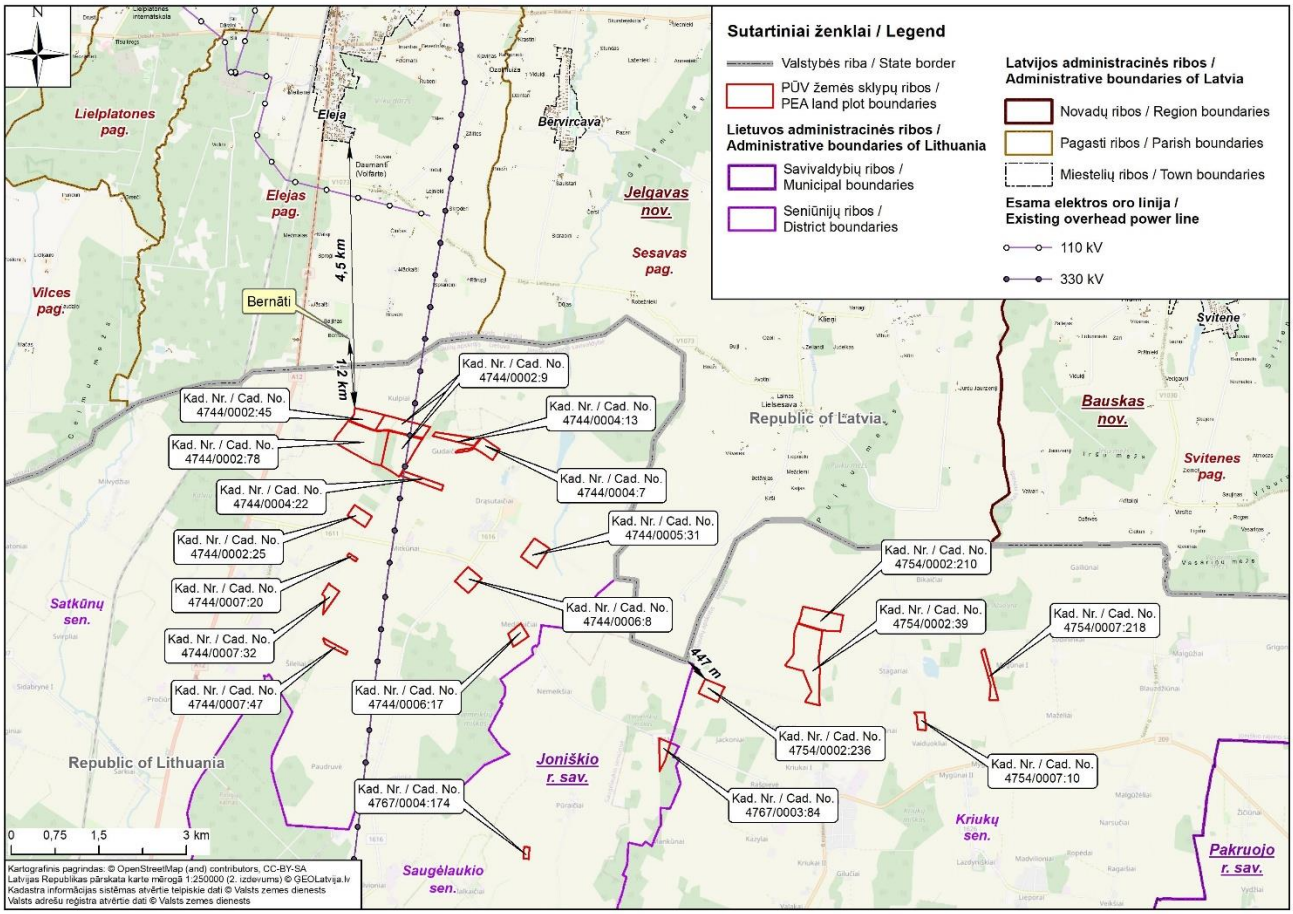

Fig. 3.1.1. Site plan of the PEA.

Sensitive areas, residential areas and heritage sites

The surrounding area is dominated by a developed agricultural landscape and rural settlements.

The nearest settlement on the Latvian side is Elēja, which is approximately 4.5 km from the boundary of the land plot under analysis for the installation of the wind farm on the Lithuanian side. The distance from the nearest land plot under analysis to the nearest farmstead on the Latvian side is approximately 1.2 km (Fig. 3.1.1).

The nearest state-protected area on the Lithuanian side is the Satkūnai Botanical Reserve, which is 3.2 km away. Information on protected areas is provided within a 10 km radius of the boundaries of the land plots under analysis, including the area on the Latvian side (Fig. 3.1.2 and Table 3.1.2). In Latvia, special protected areas known as micro-reserves (Latvian: mikroliegumi) are established to protect certain endangered plant and animal species or their habitats. These are small-scale targeted areas, often located in forests or other sensitive locations, where economic activity is restricted.

Table 3.1.2. Information on the nearest state-protected areas

No. (see Fig. 3.2.2)	Name	Area, ha	Purpose of establishment and protected values	Distance from the boundary of the nearest

					plot of land
Protected areas in Lithuania					
1	Laumekiai Botanical Reserve	State-owned, botanical	44.1036	To preserve the broad-leaved forest vegetation complex of the Mūša-Nemunėlis plains, including habitats of rare plant species.	8.6 km
2	Satkūnai Botanical Reserve	Municipality, botanical	106.7083	To preserve the aspen groves that dominate the fertile carbonate soils of the Satkūnai Forest, where twelve plant species listed in the Lithuanian Red Book have been found (Baltic lily-of-the-valley, spotted lily-of-the-valley, wood sorrel, broad-leaved marsh orchid, hairy St. John's wort, ash-leaved speedwell, curled hairgrass) as well as ten species of sedges (spike sedge, wood sedge, reed sedge, common bulrush, common cattail, common rush, broad-leaved rush, feather sedge, spiked sedge). Satkūnai Forest is the second site in Lithuania where the rare calcareous moss – the curled ctenidium – grows.	3.2 km
No. (see Fig. 3.2.2)	**Name**	**Area, ha**	**Purpose of establishment and protected values**		**Distance from the nearest plot boundary**
Protected areas on the Latvian side					
3	Blankenfeld Manor Avenue (Blankenfeldes muižas aleja) (LV0490170)	State	The avenue is mainly populated by old and middle-aged, relatively low-growing broad-leaved trees – lime trees, chestnut trees, ash trees, oaks and maples. One specially protected species of invertebrate has been found in the avenue – the Roman snail (*Helix pomatia*). Twenty-four hollow trees have been identified in the avenue, with hollows of various types, including large ones. Two specially protected species of lichen grow in the avenue – the pale sclerophora (*Schlerophora pallida*) and the cup-shaped pleurosticta (*Pleurosticta acetabulum*)[1] .		7.4 km
4	Elejas Avenue (Elejas alejas) (LV0490180)	State	The avenue is lined with middle-aged oak trees, interspersed with ash, lime and poplar trees. A protected species of invertebrate, the Roman snail (*Helix pomatia*), has been found in the avenue. One indicator species of invertebrates found in natural forest habitats has also been identified – the resinous flatworm (*Platyrhinus resinosus*). Three specially protected invertebrate species were found in the nearby Elėja linden avenue: the shiny ant (*Lasius fuliginosus*), the marbled rose chafer (*Liocola marmorata*) and the barn beetle (*Osmoderma barnabita*). A specially protected species of lichen – the cup-		6.5 km

[1] https://www.daba.gov.lv/lv/blankenfeldes-muizas-aleja

			shaped pleurosticta (*Pleurosticta acetabulum*) – was also found in the Elėja oak avenue, where its habitat is in good condition[2] .	
5	Elejas Manor Park (LV0470900)	National	Dendrological value. The park is home to 19 native and 14 non-native tree species. The most common native tree species in the park are small-leaved lime (*Tilia cordata*), English oak (*Quercus robur*) and Norway maple (*Acer platanoides*), whilst the most common non-native species are European lime (*Tilia x europaea*), horse chestnut (*Aesculus hippocastanum*), large-leaved lime (*Tilia platyphyllos var. grandiflora*), European larch (*Larix decidua*) and white pine (*Pinus strobus*). The park also features three tree species of dendrological value: Siberian fir (*Abies sibirica*), Japanese larch (*Larix caempferi*) and sycamore maple (*Acer pseudoplatanus*). Natural heritage. Elėja Manor Park qualifies as a protected habitat – the EU priority habitat 'mixed broad-leaved forests (9020*)' – which is home to three specially protected species: the Hermit beetle (*Osmoderma barnabita*), the small-spotted longhorn beetle (*Arthonia byssacea*) and the medium-sized longhorn beetle (*Dendrocopos medius*). Eleven large trees have been identified in the park, the largest of which is a white poplar (*Populus alba*) with a circumference of 5.59 m. Cultural and historical significance. Elėja Manor Park has been a national cultural monument since 1967. All the buildings, monuments and other memorial structures within Elėja Park contribute to its significant cultural and historical value.[3]	7.0 km
6	Nature Reserve (Skursteņu Broadleaf Forest) (LV0542800)	State	European Union protected habitats found here – old mixed broadleaf forests 9020*, oak forests (oak, lime and hornbeam forests) 9160. This area contains habitats suitable for owls, woodpeckers and other specially protected bird species. A vitally important habitat for the woolly buttercup (*Ranunculus lanuginosus*) has been identified in this area. Groups and large stands are found in fertile broadleaf and mixed forests, mainly in riverbank ditches or near river valleys. This species is rare in Latvia, so a micro-reserve may be established for its protection.[4]	9.8 km

Micro-reserves on the Latvian side

No. (see Fig. 3.2.2.)	Type	ML code	Area, ha	Type	Buffer zone area, ha	Distance
7	Micro-reserve	2903	7.6	Birds / Lesser Spotted Eagle *Clanga pomarina*	58.86	7.0 km

[2] https://www.daba.gov.lv/lv/elejas-alejas
[3] https://www.daba.gov.lv/lv/elejas-muizas-parks
[4] https://www.daba.gov.lv/lv/skurstenu-platlapju-mezi

8	Micro-reserve	2327	12.30	Birds / Lesser Spotted Eagle *Clanga pomarina*	46.20	5.7 km
9	Micro-reserve	1704	15.20	Birds / Lesser Spotted Eagle *Clanga pomarina*	None	4.1 km
10	Micro-reserve	2351	6.30	Birds / Lesser Spotted Eagle *Clanga pomarina*	41.90	4.5 km
11	Micro-reserve	1702	7.10	Birds / Stock dove *Columba oenas*	None	4.7 km
12	Micro-reserve	729	12.40	Birds / White-backed woodpecker *Dendrocopos leucotos*	None	4.0 km
13	Micro-reserve	1767	10.70	Birds / White-backed woodpecker *Dendrocopos leucotos*	None	8.3 km
14	Micro-reserve	731	13.40	Birds / Black stork *Ciconia nigra*	1.80	7.8 km
15	Micro-reserve	1703	9.90	Birds / Middle Spotted Woodpecker *Dendrocoptes medius*	None	6.5 km
16	Micro-reserve	2289	6.20	Habitat / 9010*	None	6.2 km
17	Micro-reserve	2290	13.30	Habitat / 9010*	None	6.9 km
18	Micro-reserve	45	21.65	Birds / Lesser spotted eagle *Clanga pomarina*	10.73	4.6 km
19	Micro-reserve	728	29.20	Birds / Lesser Spotted Eagle *Clanga pomarina*	None	1.2 km
20	Micro-reserve	3095	9.38	Birds / Lesser spotted eagle *Clanga pomarina*	5.85	1.7 km
21	Micro-reserve	1950	17.70	Birds / Lesser spotted eagle *Clanga pomarina*	11.60	4.5 km

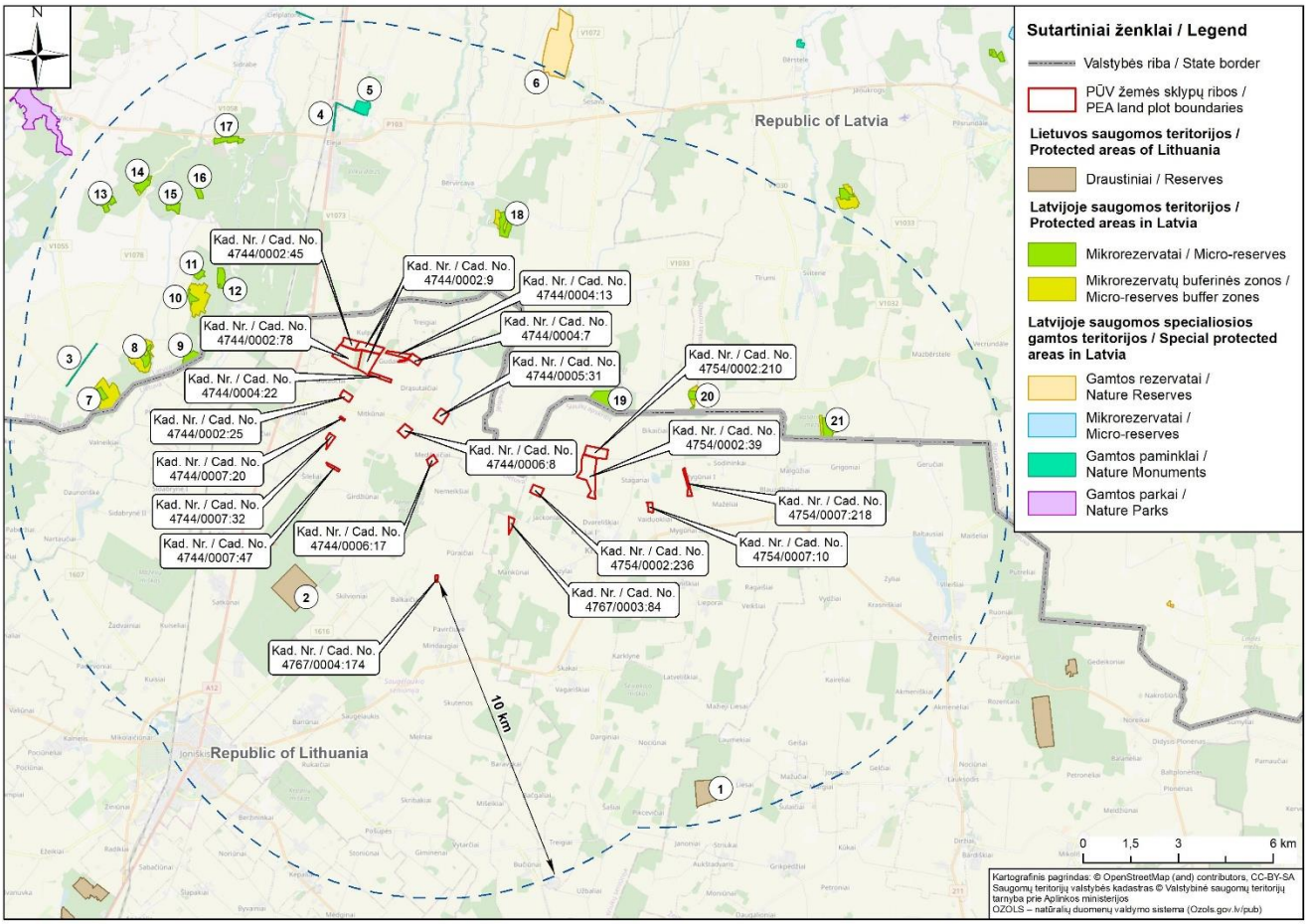

Fig. 3.1.2 State-protected areas in the study area.

Natura 2000 sites. On the Lithuanian side, within a 10 km radius of the boundaries of the land plots under analysis, there are two 'Natura 2000' sites: the Satkūnai Forest and the Laumekiai Forest, which are important for habitat protection (special area for conservation – SAC) (see Fig. 3.1.3 and Table 3.1.3). There are no 'Natura 2000' sites designated for bird protection (special protection areas – SPA) within a 10 km radius.

In Latvia, Natura 2000 sites are integrated into the national system of protected areas. The categories of protected areas (e.g. nature reserves, national parks, nature parks, nature reserves, etc.) are defined in the Law of the Republic of Latvia 'On Specially Protected Nature Areas'[5] , whilst specific 'Natura 2000' sites and their types (B – habitat, C – bird) are listed in the annex to this law.

On the Latvian side, the nearest 'Natura 2000' site is more than 10 km from the boundary: the Type B 'Natura 2000' site in Vilce. The nearest Type C site designated for bird protection is 19.3 km from the boundary of the nearest plot of land under analysis.

Table 3.1.3. Information on the nearest Natura 2000 sites

No.	Name	Area, ha	Purpose of establishment and protected values	Distance from the boundary of the nearest plot of land
1.	Natura 2000 SAC Satkūnai Forest	106.70827027	9020 Broad-leaved and mixed forests 9080 Deciduous swamp forests 91E0 Alluvial forests Stačioji dirvuolė	3.2 km

[5] Law of the Republic of Latvia "On Specially Protected Nature Areas", 2 March 1993 (current version 29 June 2023).

No.	Name	Area, ha	Purpose of establishment and protected values	Distance from the boundary of the nearest plot of land
2	Natura 2000 SAC Laumekiai Forest	204.5695478	9020 Broadleaf and mixed forests 9080 Deciduous swamp forests 91E0 Alluvial forests	7.2 km

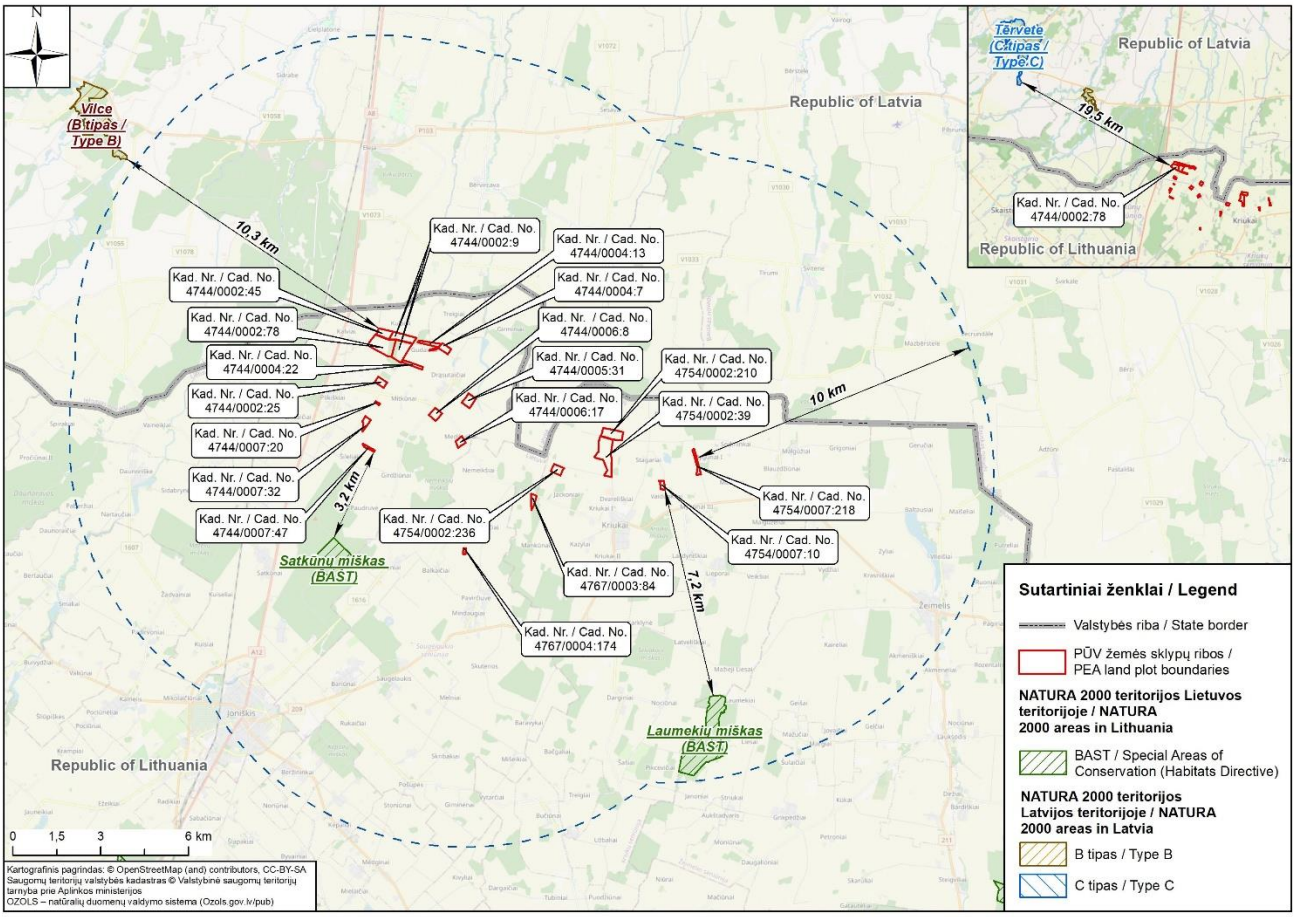

Fig. 3.1.3. 'Natura 2000' protected areas in the analysed region.

Cultural heritage

The land plots under analysis do not fall within the boundaries of registered cultural heritage sites or their protection zones. The detailed geographical location of the development project and the layout of the plots in relation to cultural heritage are presented in Fig. 3.1.4.

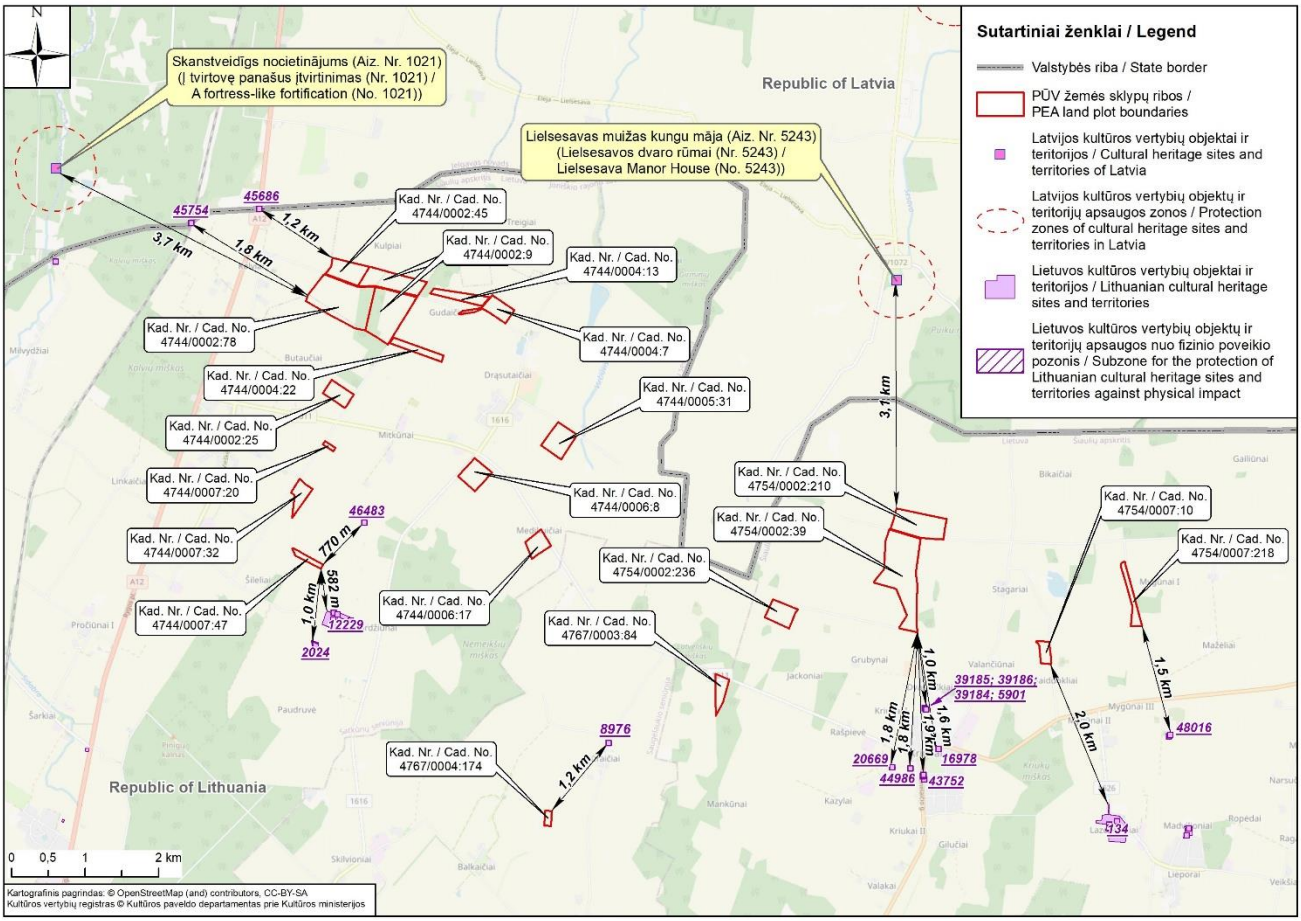

Fig. 3.1.4. Nearest registered immovable cultural heritage sites.

National safety areas

The land plots under analysis are located within the border zone, which, according to the Law on the State Border and Its Protection of the Republic of Lithuania[6] is defined as a marked strip of land or inland waters extending from the state border of the Republic of Lithuania into the territory of the Republic of Lithuania, within which the border legal regime applies. The border zone is established up to 5 km in width into the territory of the Republic of Lithuania from the state border, extending over land and border waters.

Pursuant to Article 13(4) of the Aviation Law and in accordance with the Description of the Procedure for Coordinating the Construction, Reconstruction, installation of equipment, and planting (establishment) of vegetation that may interfere with aviation, approved by Resolution No. 625 of the Government of the Republic of Lithuania on May 29, 2012, the construction, reconstruction, or installation of structures and facilities located within the border zone with a height of 30 meters or more above ground level must be coordinated with the State Border Guard Service under the Ministry of the Interior of the Republic of Lithuania (hereinafter referred to as the Service).

In order to ensure both the safety of state aircraft performing functions at the state border as prescribed by laws and other legal acts, as well as the safe operation of the wind turbines themselves, wind farms shall not be installed at a distance of less than 500 m from the state border.

[6] Law on the State Border of the Republic of Lithuania and Its Protection. May 9, 2000. No. VIII-1666. https://www.e-tar.lt/portal/it/legalAct/TAR.0F8C601D8592/asr?csrt=15650115504652553607

Wind farms must be marked and comply with the requirements set forth in the "Procedure for Marking Obstacles," approved by Order No. 2BE-109 of the Director of the Lithuanian Transport Safety Administration on March 26, 2020 "On the Approval of the Procedure for Marking Obstacles." On January 1, 2026, new requirements for wind turbine marking came into effect, stipulating that wind turbine blades must be marked with contrasting stripes, as well as requirements for the use of lights. All obstacle lights must be compatible with night vision devices in accordance with the procedure established in these Regulations.

The land plots under analysis fall within the territories of the Republic of Lithuania where the design and construction of wind turbines (tall structures) may be restricted, as shown on the map approved by Order No. V-217 of the Commander of the Lithuanian Armed Forces on February 15, 2016 "On the approval of the map of territories of the Republic of Lithuania where the design and construction of wind power plants (tall structures) may be restricted," "On the Approval of the Map of the Territories of the Republic of Lithuania Where the Design and Construction of Wind Farms May Be Restricted," and fall within territories where, in accordance with national security requirements, construction restrictions apply (fig. 3.1.5).

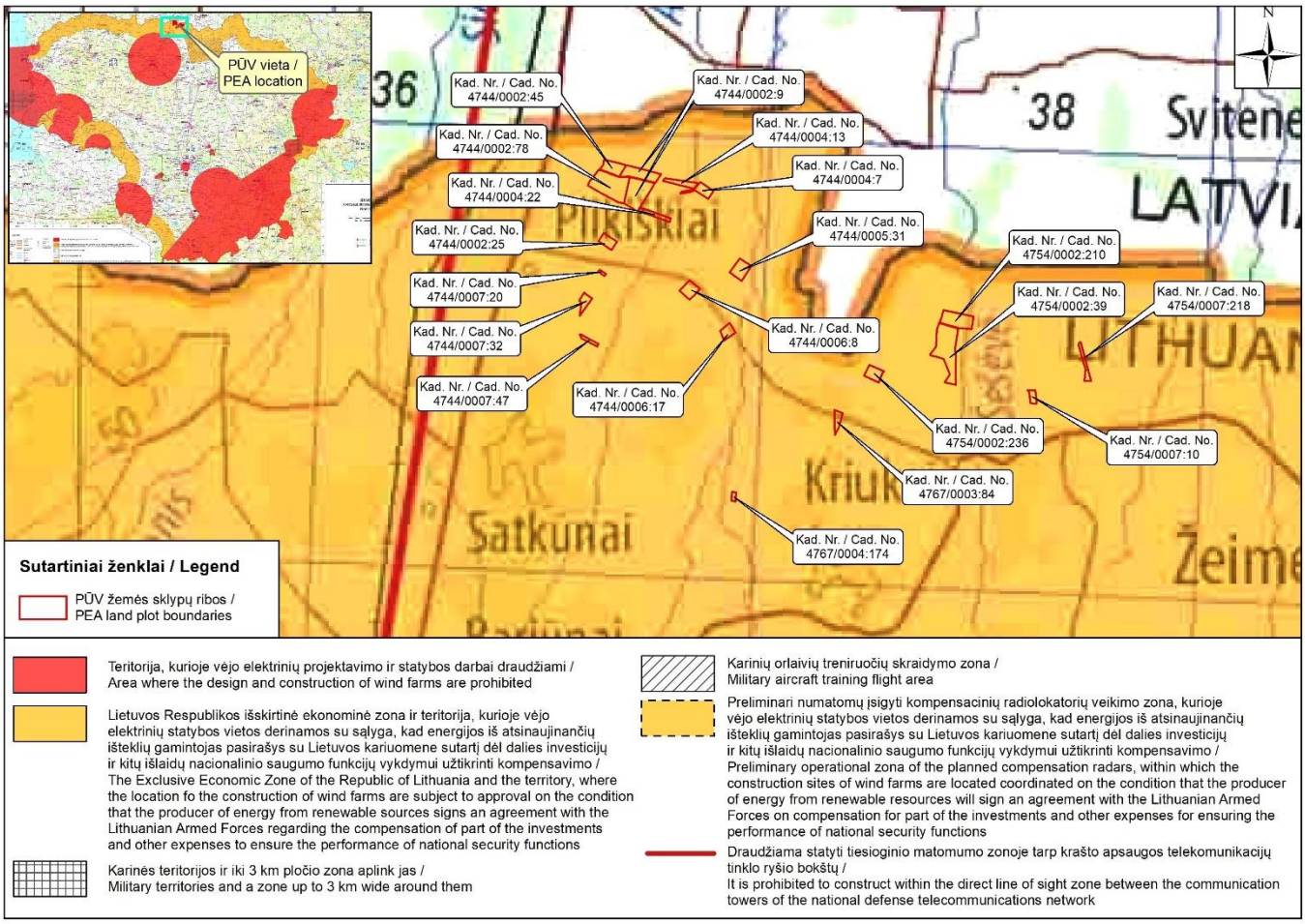

Fig. 3.1.5. Location of the analysed land plots in relation to areas within the territory of the Republic of Lithuania where the design and construction of wind farms (tall structures) may be restricted.

In accordance with the provisions of Article 49(24) of the Law on Renewable Energy, the locations for the construction of wind farms in territories where, due to national security considerations, special land use conditions established by the National Security and Defence Council (NSDC) apply, are coordinated in advance, during the spatial planning process, with the Commander of the Lithuanian Armed Forces.

3.2. Justification for the selection of the proposed economic activity site

The site was selected due to its exceptionally favourable geographical and meteorological conditions for wind energy development (the open, flat terrain of Northern Lithuania) and strategic economic logistics – the possibility of directly

integrating the generated power into the transformer substation planned in the nearby Latvian municipality of Eleja, thereby optimising infrastructure construction costs and contributing to the achievement of both countries' renewable energy targets.

4. Information on potential significant adverse cross-border environmental impacts

Given that the wind farm is planned to be located right next to the border (at a distance of approximately 447 m) and that the electricity generated will be transmitted to the power grid via the Elėja substation, the EIA will assess the potential transboundary impact of the construction and operation of the wind farm on the designated land plots.

The main aspects of cross-border impact to be assessed are presented in Table 4.1.1.

Table 4.1.1. Key aspects of the potential cross-border impact of the proposed project

Aspect / environmental component	**Description of potential impact**
Natura 2000 sites	The Natura 2000 sites designated within Latvian territory are located more than 10 km away from the boundaries of the land plots under analysis. The nearest Natura 2000 site on the Latvian side is the Type B site Vilce (habitat protection), which is approximately 10.3 km away (see Figure 3.1.3). At this distance, the planned wind farms on the Lithuanian side will have no impact on the protected values in the area important for habitat protection. There are no designated Natura 2000 Type C sites (for bird protection) within a 10 km radius of the land plots under analysis on the Latvian side. The PEA activities will not have a significant adverse impact on the 'Natura 2000' sites on the Latvian side due to the considerable distance to the nearest such sites.
State-protected areas	In Latvia, special protected areas known as micro-reserves (Latvian: *mikroliegumi*) are established to protect specific endangered species or their habitats. These are small, targeted areas, often located in forests or other sensitive locations, where economic activity is restricted. Within a 10 km radius of the land plots under analysis, on the Latvian side, there are designated state reserves and micro-reserves (Fig. 3.1.2). Although the construction of the wind farm will not affect the protected areas and micro-reserves on the Latvian side, as it will not alter their boundaries, no forest clearing will be carried out for the construction of the wind farm or related engineering infrastructure, and the terrain or the area's hydrological regime will not be altered, the wind farm may have some impact on protected areas designated for the conservation of fauna, particularly birds and bats.
Impact on birds and bats	The wind farm may have a negative impact not only on birds and bats living in Lithuania but also on those in Latvia. The wind farm may also become a potential obstacle for migratory birds. During the studies carried out as part of the EIA, nesting sites of breeding birds are being identified, areas of bird concentration within the planned wind farm site are being analysed, and bird abundance, flight altitude and direction are being assessed during the autumn and spring migration periods. Negative impacts of the wind farm on bats are possible if the wind farm were to be constructed within a distance of 200–600 m plus the length of the wind turbine blades from landscape features important to bats located in both Lithuanian and Latvian territories. In view of this, bat surveys will be conducted to identify such landscape features within a 2 km radius of each planned wind farm site, to assess their importance to bats and to determine an appropriate level of protection. In the EIA report, the transboundary impact on birds and bats will be assessed taking into account the biotopes, landscape features, and bird and bat observations located within relevant distances on both sides of the border – in Lithuania and Latvia. The most important aspect for assessing the impact on birds is the presence of sensitive breeding birds in the area, from whose nests impact zones are identified and mitigation measures are planned accordingly. When analysing nests on the Latvian side, the zones specified in the EIA report for Eleja Park in Latvia will be used.

Aspect / environmental component	**Description of potential impact**
Impact on public health	Noise generated during the operation of the wind farm generally decreases to below the limit values set in hygiene standards (45 dBA at night) at a distance of 300–400 m from the wind farm, depending on the wind turbine model, tower height and the arrangement of the wind turbines. It is unlikely that the planned wind turbines on the land plots under analysis will have a significant adverse impact on the residential environment within Latvian territory. The distance from the boundary of the land plot under analysis, intended for the installation of the nearest wind turbine, to Latvian territory is 447 m. Furthermore, wind turbines will not be constructed at this distance due to state border security requirements: a distance of at least 500 m must be maintained from the border. The nearest settlement on the Latvian side is Elēja, which is approximately 4.5 km from the boundary of the land plot under analysis for the installation of the wind farm on the Lithuanian side. The distance from the nearest land plot under analysis to the nearest farmstead on the Latvian side is approximately 1.2 km (Fig. 3.1.1). Shadowing caused during the operation of the wind farm may generally have a negative impact on areas up to 1.5–2 km from the wind farm. The EIA report plans to assess the impact on the residential environment on the Latvian side up to 2 km from the border. It is also planned to assess the cumulative impact with the wind farms planned on the Latvian side.
Impact on the landscape / visual impact	The EIA report will analyse the possibility of installing wind turbine models with a total height of up to 250 m. These are tall structures that can be seen from a distance, so wind turbines installed in Lithuania may be visible from Latvian territory. The impact of the planned economic activity on the landscape is considered significant if wind turbines taller than 30 metres are constructed in the most valuable landscape areas or at a distance from them calculated by equating one metre of the wind turbine's height (measured from the height of the wind turbine tower) to a distance of 10 metres to the nearest panoramic viewpoint in the most valuable landscape areas[7] . The EIA report is expected to assess the area of significant impact on the Latvian landscape (visual dominance zone).
Risk	Wind farms are not classified as hazardous facilities whose risks must be assessed. However, given the height of the structures and the natural and anthropogenic factors affecting them, the risk of collapse is assessed. It is estimated that the distance at which a hazard may arise from a wind turbine in the event of its collapse is 1.2 x the total height of the wind turbine. In the case under analysis, 250 m × 1.2 equals 300 m. This distance does not reach the state border with Latvia; therefore, the risk of collapse is not relevant at the cross-border level.

[7] Article 49(23) of the Renewable Energy Sources Act