Application for the proposed development of a wind farm "Lode " in the municipalities of Lode and Ipiķi, Valmiera municipality

In accordance with Section 4 (1.1) of the Law "On Environmental Impact Assessment" and Paragraph 2 of the Cabinet of Ministers Regulation No 18 of 13 January 2015 "Procedure for Environmental Impact Assessment and Approval of the Proposed Activity".

Name of the proponent: SIA "Utilitas Wind" Registration number: 40203411869 Legal address: 2 Malduguņu Street, Marupe, LV-2167 Phone number: +371 29211393 E-mail address: info@utilitas.lv

1. Title of the proposed activity (object): Construction of the Lode wind farm in Lode and Ipiki parishes of Valmiera municipality.

2. Information on the description of the physical characteristics of the proposed activity, including information on the extent, site preparation prior to the proposed activity, types of technology to be used, infrastructure required:

Utilitas Wind Ltd (hereinafter referred to as the Proponent) intends to establish a wind farm "Lode" in the territory of Lode parish, Valmiera municipality (see Figure 1). In order to ensure that the electricity produced is fed into the common grid, a new cable line will be constructed from the Lode wind farm, which will connect to the existing 330 kV line TEC-2 - EST (Estonia-Latvia third 330 kV interconnector) through Viljandi county, Mulgi municipality in Estonia, by constructing a new substation in Ipiķi municipality, Valmiera county, on a land parcel with cadastral designation 96560030158.

The Lode wind farm will also include wind power plants and associated infrastructure in the territory of Estonia, but their environmental impact will be assessed in the environmental impact procedure in Estonia, thus only the construction of wind power plants and associated infrastructure in the territory of Latvia will be assessed in both the application and the environmental impact assessment report, including the context of transboundary impacts as far as necessary.

The total number of wind power stations to be installed in the wind park "Lode", their location and the total capacity of the park are to be determined during the environmental impact assessment process, taking into account the regulatory requirements for the location of wind power stations, the available transmission system capacity, the results of the environmental impact assessment, economic and other related aspects that may affect the scope of the proposed activity.

Although the exact number and location of wind turbines to be constructed is currently undetermined, the Proponent has estimated through a siting options analysis that up to 20 newer generation large capacity wind turbines could be sited in the study area. During the

environmental impact assessment process, it is foreseen to analyse different alternatives for the implementation of the project, such as the installation of a larger number of smaller capacity plants or a smaller number of larger capacity plants. Whichever option is chosen during the environmental impact assessment process, the quantitative performance of the planned wind farm will be above the thresholds set out in Annex 1 of the Environmental Impact Assessment Act.

The location of the planned new cable line to be constructed in the territory of Ipiķi village will be determined during the environmental impact assessment process. The location of the cable line will take into account Article 21 of the Energy Law, which stipulates that the installation of new energy utility facilities shall be carried out as far as possible using road right-of-ways in accordance with the provisions of Article 18 of the Law on Roads.

The model and technical characteristics of the wind turbines to be installed are not yet determined, but are expected to be one of the latest models from *Enercon, Vestas, Siemens-Games, General Electric* or *Nordex*. A number of NPS models are to be assessed as part of the environmental impact assessment process.

It is expected that access to the planned wind farm during construction and operation will be provided by the national local roads V176 Sīļi - Estonian border and V177 Ķoņi - Lode - Arakste, the municipal road Arakste - Bērzi, the roads of SJSC "Latvijas valsts meži" (Ūskalna road, Akmengravas road and Ūskalna road), as well as newly constructed access roads. Prior to the planned installation of the wind power plants, the infrastructure necessary for the installation and operation of the plants - access roads, sites, power transmission lines - is to be re-built or improved in places. The exact location and technical characteristics of the planned access roads and other infrastructure will be determined during the environmental impact assessment process, by assessing the existing road network, the need for new roads and other infrastructure, the feasibility of their construction and their potential environmental impact, including on the natural values identified during the study and earlier.

3. Information on the possible locations of the proposed activity (addresses and, if possible, cadastral designations of land units) and their characteristics, taking into account the environmental status and sensitivity of the site and the area likely to be affected:

The Lode wind farm is planned to be built at in the northern part of Valmiera district. The Proponent has identified a study area for the wind farm (see Figure 1), analysing different possible locations of the plants, however the final location of the NPP will be refined during the environmental impact assessment process. The wind park study area includes land units where wind power plants could be located, as well as a land unit where a new substation is planned. The existing or planned roads to be reconstructed and the location of the planned cable line will be specified during the EIA. Part of the land included in the study area of the wind farm is currently used for forestry activities, and part of the area is agricultural land. The total area of the wind farm study area is 1150 ha.

The study area of the wind farm comprises 34 parcels or parts of parcels. Details of the land parcels included in the wind farm study area are summarised in Table 1. The land units or parts of land affected by the wind farm safety zones will be assessed during the environmental impact assessment process, taking into account the final location of the wind farms. Wind

farms and associated infrastructure will only be constructed on land parcels with which the owners have agreed on the siting and construction of the energy supply facilities.

No.	Name of property	Cadastral number	Cadastral designation of the land unit
1	Birches	96680010036	96680010118
2	Vevers	96680020011	96680010078
3	Hinges	96680040012	96680010012
4	Robežnieki	96680010007	96680010006
5	Fists	96680010085	96680010061
6	Slokas	96680010054	96680010055
7	Kaisers	96680010010	96680010011
8	Robežnieki	96680010007	96680010005
9	News	96680010002	96680010043
10	Rauķupes 2	96680010098	96680010098
11	Fists	96680010085	96680010085
12	RESEARCH	96680010003	96680010097
13	Fists	96680010085	96680010025
14	New Zealand	96680010045	96680010045
15	Pale forest	96680010074	96680010081
16	Aries forest	96680010124	96680010033
17	Urgas	96680010018	96680010018
18	New Zealand	96680010045	96680010044
19	Kaisers	96680010010	96680010010
20	Mežāres	96680040021	96680010002
21	Wild	96680010004	96680010004
22	RESEARCH	96680010003	96680010003
23	Mežāres	96680040021	96680010099
24	Puigas - 1	96680010034	96680010034
25	Stone Grove Forest	96680010075	96680010075
26	Rap	96680010001	96680010001
27	Arakste - Birches	96680010080	96680010106
28	Pale forest	96680010074	96680010074
29	Lucas	96680030035	96680010041
30	Miner	96680010035	96680010035
31	Beans	96680020077	96680010042
32	Lower Burg	96680010079	96680010079
33	Larch forest	96680010071	96680010071
34	Berzini	96680010120	96680010119

Table 1. Land units in the wind farm study area

The planned wind park "Lode" will be located in compliance with the minimum distances for the construction of a wind park set out in the Cabinet of Ministers Regulation No 240 of 30 April 2013 "General Regulations on Spatial Planning, Use and Construction".

The nearest densely populated place (village) to the study area of the proposed wind farm is Arakste (approximately 2 km) (see Figure 1), while the planned new cable line will pass through or close to the village of Ipiķi. There are no farmsteads in the study area of the wind farm. Several farmsteads are located in the immediate vicinity of the proposed wind farm. In accordance with the requirements of the regulatory enactments, the wind turbines will be located at least 800 m away from any residential or public building.

The study area of the Lode Wind Farm is adjacent to the State Protected Cultural Monument No 2458 *Urgu Swedish Stone with inscriptions and signs,* which is a cultural monument of regional importance in archaeology (see Figure 1). There are 2 state protected cultural monuments in the territory of Araste village - Araste Manor Stables (No 6905) and Araste Manor Barn (No 6904). The nearest cultural monument of national importance to the planned 330 kV line is the medieval cemetery of Kirbeliai (No 2436), while the substation to be built will be located 3.5 km away from the medieval cemetery of Veckabeliai (No 2437). The siting of the wind turbines will take into account the protection zone of the national cultural monument No 2458. The impact of the proposed activity on the cultural heritage sites both in the area of the planned wind farm and in its surroundings will be assessed in the preparation of the Environmental Impact Assessment Report.

According to the information included in the Register of Contaminated and Potentially Contaminated Sites maintained by the Latvian Environmental, Geological and Meteorological Centre, the study area of the wind farm "Lode" does not include any contaminated or potentially contaminated sites, however, it is adjacent to a potentially contaminated site - the former municipal waste dump (registration number 96688/2143).

The area of the proposed action is located in the Salaca catchment area. The largest watercourses crossing the construction area of the wind farm are the Krūmiņupīte (drainage cadastre number 5452982:01) and Veserupīte (drainage cadastre number 5452984:01), which are mostly regulated in the area of the proposed activity. The area of the proposed operation includes both reclaimed agricultural land and reclaimed forest land. The planned 330 kV cable line will cross the national watercourse Pestava (drainage cadastre number 54526:01)

The area of the proposed activity is located in a specially protected area - the North Vidzeme Biosphere Reserve (for details see section 6 of the application for the proposed activity).



Figure 1. Location of the planned Lode wind farm

4. Compliance with the municipality's spatial development planning documents:

According to Section 17 of the Law on Administrative Territories and Settlements, the municipal council elected in the 2021 municipal elections shall evaluate the binding regulations adopted by the former municipalities forming the municipality and adopt new municipal binding regulations. Until the date of entry into force of the county's binding regulations, but no later than 1 June 2022, the binding regulations of the former municipalities forming the county shall remain in force, with the exception of the binding regulations on spatial planning, which shall be drawn up by 31 December 2025. Thus, the permitted (planned) use of the territory in the study area of the wind farm is determined by the Rūjiena Municipality Spatial Plan 2012-2024 (approved by Binding Regulation No 9 of the Rūjiena Municipality Council of 19 July 2012 "On the Spatial Plan 2012-2024 of the Rūjiena Municipality")¹.

According to the Rūjiena municipality spatial plan 2012-2024, the study area of the wind farm includes land units or their parts, the planned (permitted) use of which is basically defined as forest territory and agricultural (including reclaimed agricultural) territory.

According to Paragraph 25.1.3 of the Regulations on Territorial Use and Construction of Rūjiena Municipality 2012-2024, free-standing equipment, for example, a wind generator, shall be located on a land plot in such a way that the distance to the land plot boundary is not less than the maximum height of the equipment, but according to Paragraph 25.1.4 wind power plants with a capacity exceeding 20 kW are allowed to be located in the Industrial and

¹ Spatial plan of Rūjiena municipality 2012-2024. Available at:

<u>https:/</u>/www.valmierasnovads.lv/attistiba/teritorijas-planosanas-dokumenti/rujienas-novada-teritorijas-planojums/

Technical Facilities Construction Areas (R), and in the Agricultural Areas in case of local planning.

Annex 5 of the Regulations on the Use of Territory and Development of the Territory of Rūjiena Municipality for 2012-2024 indicates the zones where the construction of wind power plants is allowed without height restrictions. In the rest of the territory of Rūjiena Municipality, according to the requirements of the Cabinet of Ministers Regulation No 303 of 19 April 2011 "Individual Rules for the Protection and Use of the North Vidzeme Biosphere Reserve", wind power plants with a maximum height of 30 m are allowed to be built. The study area of the Lode wind farm falls within the area where the construction of wind farms without height restrictions is allowed (see Figure 2).

The location of the wind power plants will be specified during the environmental impact assessment, and if necessary, before the construction process starts, it is necessary to amend the Rūjiena municipality spatial plan by changing the permitted land use type to one that allows the construction of the plants (in compliance with the requirements of the Cabinet of Ministers Regulation No 240 of 30 April 2013 "General Regulations on Spatial Planning, Use and Construction").

- 5. Information on, description and assessment of the significant environmental aspects from which the environmental effects of the proposed activity arise
 - 5.1. Extraction and use of natural resources (specify type and amount, e.g. planned water consumption in cubic metres per day, per month, per year) and their transformation, including land areas to be transformed:

No extraction of natural resources is foreseen in the study area during the construction and operation of the wind farm.

It is expected that deforestation will be required for the construction of infrastructure related to wind farms, if located in forests. The area to be deforested depends on the number and location of the wind farms to be built, as well as the possibility of using areas that have already been deforested, such as existing forest roads. During the environmental impact assessment process, solutions will be sought to ensure that areas requiring deforestation do not contain specially protected habitats and plant species. As part of the environmental impact assessment process, the potential area to be deforested will be estimated and refined during the preparation of the construction project.

5.2. Main raw materials and their annual quantities or planned construction materials and their quantities for the construction of the site (indicate all hazardous chemicals and mixtures and other raw materials with an annual consumption of more than 100 kg):

Traditional construction materials such as sand, gravel and crushed stone for roads and squares, concrete and steel for plant foundations will be used to build the wind farms and associated infrastructure. The foreseeable quantities of construction materials and raw materials will be determined in the course of the environmental impact assessment, taking into account the updated location and technical design of the power plants and infrastructure. Based on the experience with the construction and planning of similar parks in Latvia, it is expected that no hazardous chemicals or mixtures will be used in the construction process in quantities exceeding 100 kg per year.

5.3. Brief description of the technology and annual production

The proposed activity is planned to accommodate a maximum of 20 wind turbines. In order to ensure that the electricity generated is fed into the common grid, a new 330 kV cable line will be constructed from the Lode wind farm, which will connect to the existing 330 kV line TEC-2 - EST through Viljandi county, Mulgi municipality, Estonia, by constructing a new substation in Ipiķi municipality, Valmiera county. The exact technical solution for the 330 kV line will be finalised during the environmental impact assessment process.

The amount of electricity generated per year will depend on the number of stations, the VPP model chosen, the height of the station and the meteorological conditions in the year.

5.4. Water supply solution, source of water (existing or planned), water resources (surface water or groundwater) supply of the source of water to be used. Planned waste water quantity (cubic metres per day, per month, per year), waste water management solution. For the incineration plant, the planned fuel, quantity and capacity of the plant:

The operation of the wind farm does not consume water, heat or generate waste water.

6. Special areas of conservation, specially protected species, specially protected biotopes and micro-reserves:

The territory of the proposed activity is located in a specially protected area - the North Vidzeme Biosphere Reserve. The aim of the Biosphere Reserve, in national and international terms, is to achieve a balance between the protection of natural diversity, the promotion of economic development and the preservation of cultural values. The Biosphere Reserve represents internationally recognised temperate forest ecosystems on land and along the Baltic Sea coast. The Northern Vidzeme Biosphere Reserve is not a *Natura 2000* site.

In order to ensure the conservation of the landscape, ecosystems, species and genetic diversity of the territory and to promote sustainable economic development, the territory of the North Vidzeme Biosphere Reserve is divided into 2 functional zones - the landscape protection zone and the neutral zone. The Lode Wind Farm will be located in the Neutral Zone of the North Vidzeme Biosphere Reserve, which, as stated in the North Vidzeme Biosphere Reserve Act (adopted on 11 December 1997 and amended until 6 March 2019), is established to promote the balanced and sustainable development of settlements within the biosphere reserve.

On 19 April 2011, the Cabinet of Ministers approved Regulation No 303 "Individual Rules for the Protection and Use of the North Vidzeme Biosphere Reserve", Annex 2 of which defines the areas where the construction of wind power plants is allowed without height restrictions, subject to the following conditions:

- wind power plants must be sited after obtaining written permission from the Nature Conservation Agency;
- wind farms should be located in groups of no more than 20 wind farms, minimising the distance between adjacent wind farms. The distance between groups shall not be less than two kilometres.

The area of the Lode wind farm is included in the area where the construction of wind farms without height restrictions is allowed (see Figure 2).

The location of the cable line in the territory of Ipiķi parish will take into account micro-reserve No 3099 and its buffer zone.

According to the information published by the Nature Conservation Agency in the nature data management system "Ozols", there are no other specially protected nature territories, microreserves and their buffer zones, as well as specially protected trees in the study area of the wind farm.

Specially Protected Nature Areas in Latvia in the vicinity of the Lode wind farm are shown on the map in Figure 2.



Figure 2. Specially protected areas in Latvia in the vicinity of the Lode wind farm

7. A description of the environmental effects of the proposed activity, including a description of any likely significant effects, to the extent that information is available on the effects caused:

7.1. emissions, waste:

No air, soil or water pollution during operation. During the construction of the park, pollution may occur as a result of the use of construction machinery, however, if appropriate precautions are taken, the environmental impact of the construction process will not be significant. It is expected that relatively small quantities of waste, including hazardous waste, will be generated during both the construction and operation of the stations, which are intended to be transferred to companies that have obtained permits for the management of appropriate types of waste.

7.2. physical effects (e.g. electromagnetic radiation, vibration, noise)

The most significant physical impacts during operation are noise, flicker and environmental risk, which can cause impacts in the vicinity of the station site, including in residential areas. The noise and flicker effects and environmental risks of the proposed power plant park will be assessed during the preparation of the Environmental Impact Assessment Report, where necessary refining the siting and technical characteristics of the plants. Experience from similar projects has shown that physical impacts can be mitigated or avoided to a level that does not endanger public health and safety by implementing appropriate measures.

7.3. impact on natural assets:

During the preparation of the environmental impact assessment, certified experts on habitats, birds and bats will be engaged to carry out a field survey of the planned wind farm site and associated infrastructure, providing an opinion on the feasibility of the proposed activity.

The most significant impacts potentially arising from the construction and operation of wind farms are on bird and bat populations. The impacts of the proposed activity on natural values will be assessed in detail during the environmental impact assessment process, with measures to avoid or mitigate impacts being planned where necessary.

7.4. Impact on landscape quality and cultural and historical monuments:

Wind farms have a clear impact on the quality of the landscape, as they are dominant structures that can be seen from long distances. The impact of the proposed activity on the quality of the landscape as well as on the cultural and historical sites in and around the proposed wind farm will be assessed in the Environmental Impact Assessment Report.

8. A description of the measures planned to avoid or remedy conditions likely to cause significant adverse effects on the environment

Given the amount of information available on potential impacts, no mitigation measures are currently planned. The site investigation and comparison of alternatives as part of the environmental impact assessment process will provide a detailed analysis of potential impacts, quantify them and, if necessary, plan mitigation measures.

The information provided in the application is true and complies with the requirements laid down in the regulatory enactments.

Yours sincerely, Member of the Board of Utilitas Wind Ltd

Renārs Urbanovičs

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