

# Tauragė wind farm I

Non-Technical Summary

## Document details

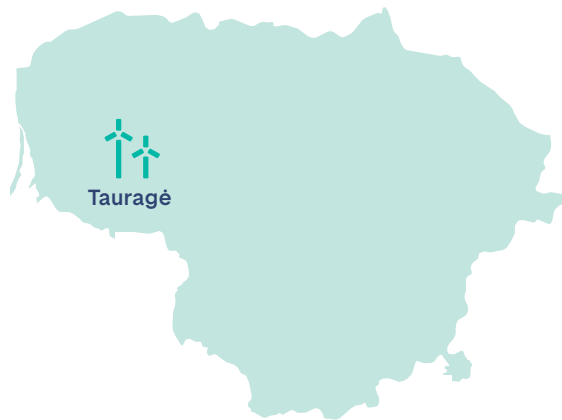
---

<b>Document title</b>	Non-Technical Summary
<b>The basis of this document</b>	Decision of the screening of Environmental Impact Assessment Report 2008-11-18 No. (9.14.5)-LV4-7027
<b>Document subtitle</b>	Tauragė wind farm I
<b>Client Name</b>	UAB „Vėjo gūsis“

---

## Contents

- 1. Short description of the project**
- 2. Legal basis and background**
- 3. Site location and description**
- 4. Description of the planned activity**
- 5. Summary of the impacts and mitigation measures**
  - 5.1 Water / Wastewater
  - 5.2 Waste
  - 5.3 Hazardous substances
  - 5.4 Radioactive substances
  - 5.5 Physical pollution
  - 5.6 Fire and extreme events
  - 5.7 Air pollution
  - 5.8 Soil pollution and erosion
  - 5.9 Cultural heritage and protected areas
  - 5.10 Traffic and Transport
  - 5.11 Labour market, demographics, living, social, recreational environments, human health
- 6. Glossary**
- 7. Contacts**



## 1. Short description of the project

UAB "Vėjo gūsis" plans to install a wind farm consisting of 5 wind turbines (WTGs) in the Kamščių and Griežpelkių II villages, Lauksargių commune, Tauragė district.

The total capacity of the planned wind farm will not exceed 10 MW. Maximum power of each turbine up to 2 MW, Maximum height of the tower - 108 m, maximum rotor diameter - 82 m, number of rotor blades – 3.

## 2. Legal basis and background

An Environmental Impact Assessment (EIA) is a process which ensures that projects that are likely to have a significant effect on the environment are adequately assessed before they are allowed to proceed and facilitates the participation of the relevant authorities and the public in environmental decision making. Annexes (I and II) to the Law on Environmental Impact Assessment of Proposed Economic Activity of the Republic of Lithuania list the types of proposed economic activities that fall under the scope of EIA legislation. The types of proposed economic activities listed in Annex II do not necessarily have significant effects on the environment in every case, and thus are not automatically subjected to an environmental impact

assessment. For these activities, the screening procedure is conducted by the competent authority, the regional environmental protection department, which determines on a case-by-case basis whether an EIA is required according to criteria, such as size, location, the potential impact of an activity, etc.

The development of a wind farm was listed in Annex II and the EIA screening procedures were done for wind farm in Tauragė district and in 2008 The environmental protection department of Klaipėda submitted the final conclusion that EIA is not mandatory. Lithuania has the ambitious goal that energy from renewable energy resources will become the main in all sectors (electricity, heat, cooling). The achievement of this goal can only be ensured by increasing renewable energy capacities throughout Lithuania by developing new projects. The wind farm contributes to the creation of a more sustainable and cleaner environment by producing green electricity.

The operation of the wind power plant will ensure the reduction of fossil fuel consumption, contribute to a cleaner environment, reduction of climate change and the goals of Lithuania's energy independence.

The overall environmental impact of a wind farm is undoubtedly minimal as wind energy is a renewable energy source. Wind is a natural and inexhaustible source of energy. The operation of the wind farm ensures the reduction of fossil fuel consumption, contributes to a cleaner environment, reduction of climate change and the goal of Lithuania's energy independence.

## 3. Site location and description

The planned economic activity will be carried out on land plots 23.07 (cad. No. 7730/0006:216), 15.1 ha (cad. No. 7730/0006:164), 6.4 ha (cad. No. 7300/0006:23), 5.83 ha (cad. No. 7730/0006:217) in Griežpelkiai II village, and 5.88 ha (cad. No. 7730/0006:61), 21.0 ha (cad. No. 7730/0006:215), in Kamščiai village, Lauksargiai eldership, Tauragė district, Tauragė county. Total area of the territory - 77.28 ha.

The purpose of the planned land plots is agricultural. The planned territory borders other agricultural plots, and there are plots nearby intended for the construction of wind farms. The infrastructure of the area - the existing road network and the location of the planned economic activity site in relation to the



110kV overhead power line meet the needs of the planned economic activity. The planned plot does not fall into the protected areas and the European ecological network "Natura 2000". The closest areas classified as part of the European ecological network "Natura 2000" - the Jūra River below Tauragė and the Šešuvie and Jūra River valleys are 5,5 km away from the planned wind power towers. There are no historical significance and immovable cultural values in the planned area. The area is sparsely populated. The distance from the planned wind power towers to the nearest residential building is 280 m. The nearest village – Kamščiai are 280 m away. The more densely populated settlement of Lauksargiai is located 6 km from the planned area.

## 4. Description of the planned activity

Planned economic activity - electricity generation using alternative renewable wind energy resources. It is planned to build 5 wind power plants of 2 MW each. The height of the planned power towers is – 108 m, rotor diameter - 82 m.

The generated 20 kV voltage energy will be transmitted via underground cable lines to the 20/110 kV transformer substation owned by UAB "Energogrupė", located in Kreivėnai village, Tauragė district. The generated electricity will be transmitted via this transformer substation to 110 kV electricity transmission lines. Transport connections will be ensured via existing regional roads and access roads designed in land redevelopment projects.

## 5. Summary of the impacts and mitigation measures

### 5.1 Water / Wastewater

No water will be used in wind farm during operation, so this activity will not affect the generation of industrial wastewater. The surface wastewater will be generated from the formed surfaces in the area, wastewater volumes will be insignificant, sources of pollution are not expected during the operation of WTGs - surface water from roads will be discharged through surface water outlets to the reconstructed drainage collectors. The drainage system facilities are planned to be reconstructed or rebuilt if damaged during construction.

### 5.2 Waste

During the operation of the wind farm, the generation of waste is not expected. Permanent jobs will not be created, so domestic waste will not be generated.

### 5.3 Hazardous substances

Hazardous substances will not be used during the operation of the wind farm.

### 5.4 Radioactive substances

Radioactive substances will not be used during the operation of the wind farm.

### 5.5 Physical pollution

The main physical pollution caused by the wind farm is noise and shading. In residential area permitted noise level in nighttime is 55 or less dBA, the nearest household is about 0.28 km away from the wind farm. For the planned wind farm the sanitary protection zone will be calculated during the preparation of the public health impact assessment and the permitted noise levels in the residential environment near the wind farm will not be exceeded.

There will be no light, heat or ionizing radiation generating devices. Electromagnetic radiation sources (generators, transformers) are electrical equipment with an industrial frequency of 50 Hz that generate electricity. The electric and magnetic field strengths generated by the electrical installations are below the maximum permissible numerical values (up to 1 kV/m) established for the residential area.

#### Mitigation measures

- To avoid the noise impact of the wind farm on the environment, the WTGs will be sited so that their noise emissions do not exceed the maximum permissible noise levels.
- An appropriate Sanitary Protection Zone (SPZ) will be formed for the planned WTG park, outside of which the noise generated by the WTGs will not exceed the permitted noise limits.

- Shading reduction mechanism will be installed, which will stop the blades from rotating when the shadow of the wind turbine falls on the farmstead.

### 5.6 Fire and extreme events

The wind farm is not dangerous from the point of view of fire risk. During preparation of a technical project fire-fighting measures and techniques to help prevent fires from starting will be foreseen.

Extreme event that may occur during the operation of wind farm is collapse of the WTG, but there are no buildings in the collapse zone.

During the operating phase, the WTGs will have automatic braking and starting system.

#### Mitigation measures

- Lightning protection and earthing systems will be installed.

### 5.7 Air pollution

During the operation of the wind farm, no air pollutants will be generated.

### 5.8 Soil pollution and erosion

During the operation of the wind farm, no soil pollution and erosion will be generated. Fertile topsoil will be spread around the built WTGs and grass sown.

### 5.9 Cultural heritage and protected areas

The planned wind farm territory is not covered by any registered cultural heritage values in the territory.

The planned wind farm territory is not covered by any national or European protected areas (Natura 2000, etc.). The nearest Natura 2000 site is Jūra River below Tauragė and the Šešuvies and Jūra River valleys, which are 5.5 km away from the planned wind power towers.

## 5.10 Traffic and Transport

It is planned to use existing local roads for access to the wind farm.

## 5.11 Labour market, demographics, living, social, recreational environments, human health

Planned activity will not affect the labour market, demographics in the area and will not impact living, social, recreational environments. Also, the planned activity will comply with the requirements of standards that are compatible with a healthy environment.

The main risk to human health is physical pollution - noise and shading - caused by the wind farm.

### Mitigation measures

- The physical pollution impact will be examined during the preparation of the public health impact assessment and the formation of sanitary protection zones.

If it becomes clear during the performed activity that the impact on the environment is greater than it was assessed during the EIA screening, the developer of the solar park will be obliged to immediately apply additional measures to reduce the environmental impact or reduce the scope of the activity/terminate the activity.



## 6. Glossary

<b>EIA</b>	Environmental Impact Assessment.
<b>EPA</b>	Environmental Protection Agency under the Ministry of Environment of the Republic of Lithuania.
<b>Genetic site</b>	The protected areas intended for the preservation of seed forest stands and natural genetic resources of other species.
<b>Natura 2000</b>	A coherent network of special areas of conservation of habitats which is composed of sites hosting the natural habitat types of Community interest and habitats of the species of Community interest and which enables the natural habitat types and the species' habitats to be maintained and, where appropriate, restored to a favourable conservation status in their natural range. The Natura 2000 network includes special areas of conservation of birds.
<b>Protected area</b>	The land and/or water areas which have clearly defined boundaries, an acknowledged scientific, ecological, cultural and other value and for which a special protection and use regime/procedure has been established by legal acts.
<b>Reserve</b>	The protected area established for the preservation of the natural and/or cultural sites valuable from a scientific or cognitive point of view, the territorial complexes and objects/properties of natural and cultural heritage located therein, landscape and biological diversity as well as gene pool. Preservation of the properties located in these areas shall be ensured without terminating economic activities therein.
<b>Restoration site</b>	The protected area intended for the protection, restoration, enhancement and limited use of natural resources or its complex impoverished by human activities.
<b>Sanctuary</b>	The protected area set up in order to preserve and conduct research of the natural or cultural territorial complexes of particular scientific value, ensure the unaffected course of natural processes or maintenance of authenticity of cultural properties, promote protection of the territorial complexes of natural and cultural heritage. The conservational principal designation of land use shall be established in these areas with termination of economic activities therein.
<b>State (national and regional) park</b>	The large protected area established in the areas which are complex from the natural, cultural and recreational points of view and are particularly valuable and whose protection and management is related to designation of an area's functional and landscape management zones.
<b>WTG</b>	Wind turbine generator.

## 7. Contacts



### Ignitis Renewables

-  Laisvės Ave. 10, LT-04215 Vilnius, Lithuania
-  Phone +370 652 69737
-  Email: [renewables@ignitis.lt](mailto:renewables@ignitis.lt)
-  [www.ignitisrenewables.com](http://www.ignitisrenewables.com)

