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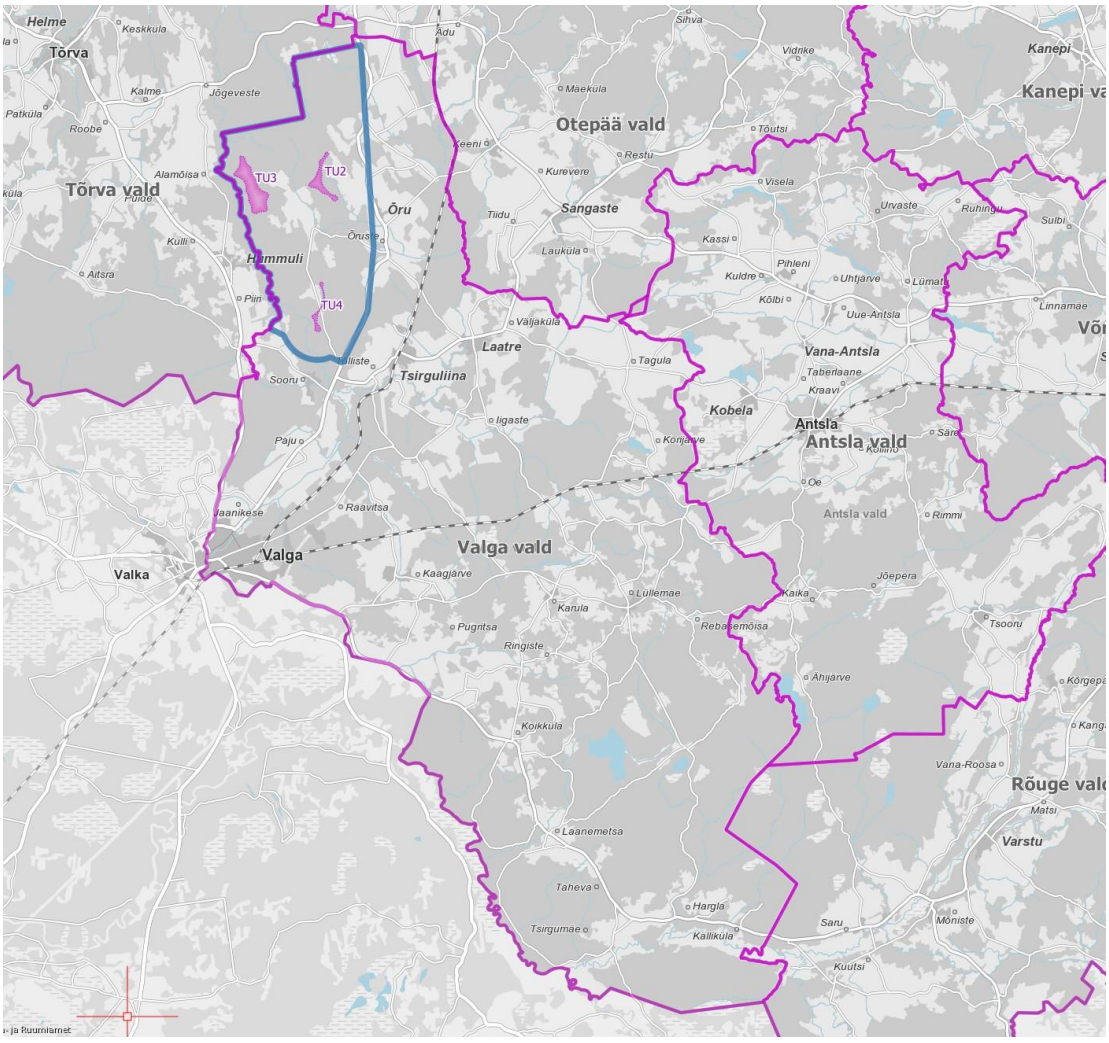
Valga Municipality Wind Farm Local Government Special Planning Location Pre-selection Decision, Draft



Valga Municipal Government Reg No. 77000507
Puiestee 8, Valga City, 68203
Job No.: 24031ÜP3
Date: 27.08.2025

Tartu 2025

Decision-maker on the preliminary selection of the planning location: Valga Municipality.

Consultant for the preparation of the preliminary selection of the planning location: AB Artes Terrae OÜ. Project manager and planner, spatial environment planner (level 7, no. 163359), authorised landscape architect-expert (level 8, no. 155390) Heiki Kalberg. Planning compiler, spatial environment planner (level 7, no. 202002) Jürgen Vahtra.

Compiler of the report on the relevant impacts of the plan, including the first stage of the strategic environmental assessment: LEMMA OÜ. Lead expert for the strategic environmental assessment (SEA licence KMH0153)

Piret Toonpere.

Interested party: Sunly Wind OÜ (registry code 14937897)

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1 The need for special planning and the objective of the

The need to establish a wind farm stems from Estonia's climate and energy policy. Estonia's long-term goal is to transition to a low-carbon economy, which means gradually transforming the economy and energy system to be more resource-efficient, productive and environmentally friendly.

The preparation of the Valga Municipality Local Government Special Plan (hereinafter referred to as *the EP*) and the Strategic Environmental Assessment
assessment (hereinafter *SEA*) of Valga Municipality was initiated by Valga Municipal Council Decision No. 81 of 25 October 2023 'Initiation of special local government planning and strategic environmental assessment'. The reason for initiating the special plan was the applications submitted by Sunly Wind OÜ (registry code 14937897) and Eurowind Energy OÜ (registry code 16584180) to initiate a special local government plan in Valga Municipality to find the most suitable location for the construction of a wind farm and the infrastructure necessary for its operation.

Sunly Wind OÜ submitted an application to initiate planning on 31 August 2023 for an area of 7,400 ha, and Eurowind Energy OÜ submitted a corresponding application on 9 October 2023 for an area of 2,800 ha. Based on Valga Municipal Council Decision No. 96 of 31 January 2024, Municipal Council Decision No. 81 of 25 October 2023 was amended. Pursuant to Decision No. 96, Eurowind Energy OÜ submitted an application to the Valga Municipal Government on 29 November 2023, withdrawing the local government's application for the initiation of an environmental impact assessment and strategic environmental assessment for the planning of a wind farm and proposing that the Valga Municipal Government conclude an agreement on 24 October2023 concluded with the Valga Municipal Government for the commissioning of a local government special plan and the conduct of an impact assessment, including the costs of a strategic environmental assessment (No. 8-1.10/136). Valga Municipal Government considered the agreement between the parties to be terminated on the basis of an agreement between the parties. By decision No. 96 of the Valga Municipal Council, the total planning area was reduced by 2,800 ha. The preparation of the local government's comprehensive plan and SEA continued in the planning area, which covers approximately 7,400 ha and in which Sunly Wind OÜ is interested in preparing a plan. During the preparation of the plan, it was decided to expand the planning area by approximately 100 ha in the direction of Sooru village to cover the area affected by modelled noise impacts. The final size of the planning area is approximately 7500 ha (see Figure 1).

The Valga Municipal Government initiated a special plan to find a location for wind farms, but during the preparation of the initial positions, it became clear that a location would be sought for a single wind farm, which may consist of several groups of wind turbines. The special plan is being prepared for the planning of a wind farm([1]) with a significant spatial impact and the infrastructure necessary for its operation.

The need to prepare a special plan arises from section 95(1) of the Planning Act, according to which *a local government special plan* shall be prepared *for the construction of a building with a significant spatial impact if the location of the building with a significant spatial impact is not specified in the comprehensive plan*. According to point 4 of *the list of buildings with a significant spatial impact* in Government Regulation No. 102 of 1 October 2015*, a wind farm consisting of wind turbines taller than 30 metres* is considered *a building with a significant spatial impact.* According to Regulation No. 184 of the Government of the Republic of 26 June 2003*, Network Rules,* a wind farm is *a power plant consisting of several wind turbines and equipment, buildings and structures connecting the wind turbines to each other and to the connection point.*

The purpose of the special plan is to select the most suitable locations and conditions for the construction of the wind farm and the infrastructure necessary for its operation in the planning area, assessing, among other things, the relevant impacts, including conducting a strategic environmental impact assessment. The objective of the plan is to establish

[1] According to Regulation No. 184 of the Government of the Republic of 26 June 2003, "Network Code", a wind farm is a power plant consisting of several wind turbines and equipment, buildings and structures connecting the wind turbines to each other and to the connection point. A wind farm with a significant spatial impact is a wind farm consisting of wind turbines with a tip height of over 30 m.

Based on the preliminary location selection decision pursuant to § 95[1]of the Planning Act, according to which *the local government planning a wind farm may, when preparing a special plan, waive the preparation of a detailed solution and establish the location of the plan based on the preliminary location selection decision, if there are no factors precluding the further planning of the wind farm with design conditions and the preliminary location selection decision sets out the conditions on which the design conditions are based.*

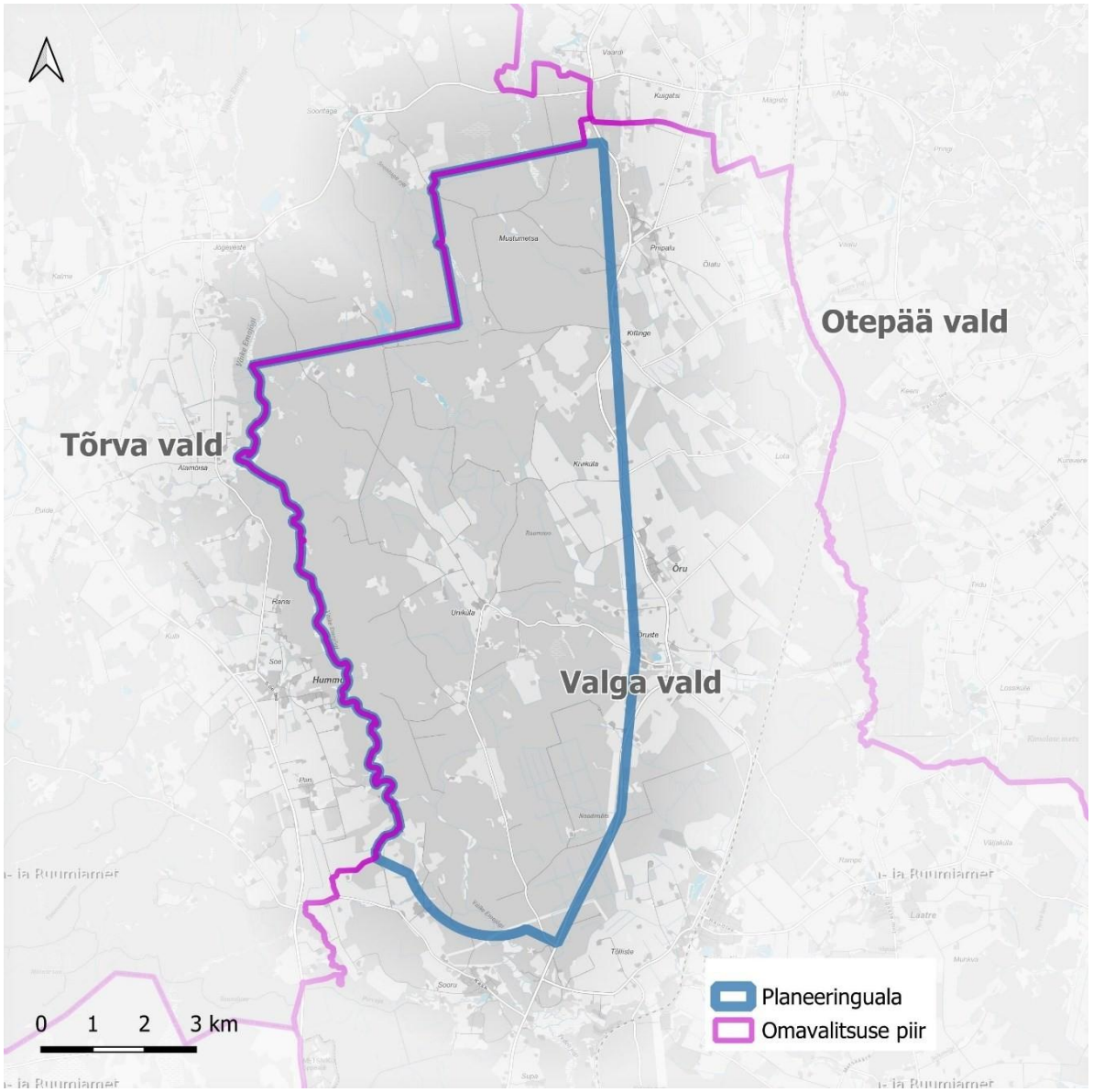


Figure 1. Valga municipality wind farm special planning area.

The wind farm will be connected to a new 110 kV or 330 kV line via a substation to be built or to the existing Tsirguliina substation, and the plan specifies three possible locations for the substation, one of which will be selected for further planning.

The preliminary selection of the location for the special plan includes *a report on the first stage of the strategic assessment of the relevant impacts of the Valga municipality wind farm special plan, including environmental impacts*. The report refers to in more detail the relevant impacts and, where necessary, presents mitigation and monitoring measures that have been taken as a basis for the planning solution. The explanatory memorandum to the plan does not repeat the circumstances presented in the impact assessment report attached to the plan, but the decision is based on the report – if necessary, the impact assessment report should be consulted when explaining the reasons for the decision in the relevant area.

2 Links relevant strategic development documents and additional Inclusion

2.1 Climate Policy Fundamentals until 2050[2]

The climate policy guidelines are a vision document setting out principles and policy directions that will be implemented in the future when updating sectoral development plans. The clear formulation and enforcement of policy directions also motivates the private sector and society at large to act in the same direction. 08.02.2023. The updated "Climate Policy Guidelines until 2050" adopted by the Riigikogu stipulate that Estonia's long-term goal is to balance greenhouse gas emissions and sequestration by 2050 at the latest, i.e. to reduce net greenhouse gas emissions to zero by that time.

Estonia's long-term goal, in accordance with the climate policy guidelines, is to transition to a low-carbon economy, which means gradually transforming the economy and energy system to be more resource-efficient, productive and environmentally friendly.

The activities planned in the special plan are in line with Estonia's climate policy principles.

2.2 Estonian Energy Sector Development Plan 2030+ (ENMAK)[3] , ENMAK 2035 and the Energy Sector Organisation Act

ENMAK describes Estonia's energy policy objectives until 2030, the vision for the energy sector until 2050, general and specific objectives, and measures for achieving them. One of the objectives of the development plan is to promote the share of energy produced and consumed from renewable energy sources in Estonia.

According to ENMAK 2030, the task of the energy sector, like other economic sectors and the sector serving the Estonian population, is to ensure favourable prices for energy consumers and the availability of energy that meets environmental requirements. The electricity sector contributes to the competitiveness of the Estonian economy through guaranteed security of supply, market-based end-user electricity prices and the use of environmentally friendly solutions.

In shaping European energy policy, it is important to develop a market-based energy market based predominantly on local and renewable energy sources in the European Union. According to ENMAK 2030, renewable energy will account for 50% of Estonia's final energy consumption in 2030.

From the perspective of the European Union's energy security, it is important to move away from dependence on imported energy towards greater use of primary energy sources available in the European
primary energy sources available in the European Union.

The preparation of ENMAK 2035 was initiated on 18 November 2021 and it is due to be submitted to the Government of the Republic in 2025.

From 1 November 2022, Section 32[1]of the Energy Economy Organisation Act stipulates that *by 2030, renewable energy will account for at least 65% of total final energy consumption in the country. Renewable energy shall account for at least 100 per cent of total final consumption of electricity and at least 63 per cent of total final consumption of heat. Renewable energy used in road and rail transport shall account for at least 14 per cent of the energy consumed in the entire transport sector.*

The construction of the wind farm is in line with both the ENMAK 2030+ targets and the Energy Economy Organisation Act. The construction of the wind farm will create favourable conditions for increasing the share of electricity produced from renewable energy sources.

[2] https://ec.europa.eu/clima/sites/lts/lts_ee_en.pdf
[3] https://www.mkm.ee/sites/default/files/enmak_2030.pdf

2.3 Estonian Climate Change Adaptation Development Plan until 2030[4]

The strategic objective of the Climate Change Adaptation Development Plan is to increase the readiness and capacity of Estonia at the national, regional and local levels to adapt to the effects of climate change.

In setting energy and security of supply objectives, the development plan identifies one measure as the prevention of climate change risks in energy networks and in the use of renewable energy.

The activities in the area of energy independence, security of supply and energy security are closely linked to the Energy Sector Development Plan until 2030, increasing energy independence, security of supply and energy security both now and in the event of increasingly severe weather conditions and more frequent extreme weather events, at both national and regional level. The guiding principle of energy independence is independence from energy imports, reliance on domestic fuels and, above all, renewable fuels for energy production, and the use of renewable energy sources and diversification of the energy production portfolio.

The establishment of wind farms is in line with the objectives of the climate change adaptation development plan.

2.4 Valga County Plan 2030+[5]

The county plan established in 2017 stipulates that Valga County is not a nationally important region for the development of wind energy. However, the county plan does not prohibit the development of wind energy, but sets out the principles and conditions under which development is possible([6]) .It is noted that, depending on wind resources, small wind turbines may be developed for local small-scale consumption. This is not considered an exclusionary restriction on the planning of larger wind farms. This is one possible development direction, not the only option or a restrictive condition. The conditions of the county plan apply to all wind energy developments, regardless of the height or total number of wind turbines. Due to the increased demand for renewable energy, technological developments and expected changes in national defence restrictions, the planning of wind farms has become a topical issue in Valga County.

The county plan does not specify specific areas for renewable energy development in the county; development will take place based on development interest and the availability of resources, and subject to the following conditions. The special plan complies with the following conditions for the planning of wind farms set out in the county plan:

- The Ministry of Defence must be consulted on all plans and design conditions for wind turbines and wind farms of any height, or, in the absence of an obligation to do so, on draft building permits or construction notices. In order to ensure national defence interests, cooperation with the Ministry of Defence must begin at the initial stage of planning a wind generator or wind farm.
- When planning wind turbines, the minimum distance of the wind turbine from the state road must be equal to the total height of the wind turbine (mast and blade height), and the planning of wind turbines must be based on measures to mitigate the risk of accidents.
- When designing wind turbines, the minimum distance of the wind turbine from the boundary of the railway protection zone must be equal to the total height of the wind turbine (mast and blade height), and the design of wind turbines must be based on measures to mitigate the risk of accidents.
- When planning wind farms, attention must be paid to avoiding noise pollution and, if necessary, developing mitigation measures. When planning new wind farms, the objective must be

[4] https://envir.ee/kliimamuutustega-kohanemise-arengukava[5] https://maakonnaplaneering.ee/maakonna-planeeringud/valgamaa/valga-mp-2030/ [6] Letter from the Ministry of Economic Affairs and Communications dated 07.07.2025 No. 13-8/270-7

set the strictest equivalent industrial noise level standard in accordance with legislation, i.e. 50 dB during the day and 40 dB at night for Category II residential areas;

- When planning wind turbines and wind farms as dominant features in the landscape, take into account the preservation of landscape values.

Conditions for the preservation and functioning of the green network:

- in core areas and corridors, where forest category is commercial forest, may develop economic activity;
- For the network to function, it is necessary that the proportion of natural areas in the core area does not fall below 90%;
- When planning new buildings, green network corridors must not be cut through. If a corridor is cut through, an equivalent replacement corridor must be found.
-

(grazing and regular mowing);

- Landscape and biological diversity must be preserved – forest communities, semi-natural and natural meadows and the corridors connecting them. It is important to maintain field margins, ditches, road and forest edges and small-scale biotopes such as stone piles and copses, which increase landscape diversity;
- When developing/reconstructing infrastructure objects (especially roads) in areas of conflict within the green network, effective solutions for mitigating conflicts must be provided for at the planning (design, engineering) stage of these projects, using road construction, traffic management and other appropriate measures as necessary.

Conditions for preserving valuable landscapes and enhancing their value:

- the architectural and landscape environment of valuable landscapes must be preserved;
  - The main principle of construction in valuable landscapes must be to preserve the historical settlement structure, restore it where possible, and ensure that the historical building lines, landscape layout, village types and building layout patterns correspond to the historical overall appearance. Environmental values must be preserved in their proper environment, i.e. the relocation of farms, individual buildings or structures must not be envisaged;
  - preserve traditional land use and landscapes where the settlement structure, road network and architecture have been better preserved than usual;
- preserve and open up beautiful viewpoints;
- When planning new structures and linear constructions, the preservation of existing values and the suitability of the landscape architecture with the historical and cultural background of the valuable landscape must be ensured.
  - The planning of objects that dominate the landscape (e.g. wind turbines, mobile communication masts, hydraulic structures, high-voltage power lines, etc.) is generally prohibited. In exceptional cases, when planning construction in valuable landscapes, each specific case must be based on a landscape analysis and the obligation to prepare a detailed plan must be considered.
- Agricultural land must be kept open and, preferably, in use.
  - Maintain the openness of agricultural landscapes (close and distant views opening up in the landscape).
  - In cooperation with landowners, farmers' associations, village movement organisations and local authorities, opportunities must be found to keep valuable agricultural land in use.
  - Maintain land improvement systems.

The preparation of the special plan and SEA is based on the general conditions for the spatial development of wind energy set out in the county plan.

The preliminary selection areas for wind farms overlap with the green network areas specified in the county plan. The overlaps between the areas specified in the county plan and the preliminary selection areas for wind farms are shown in Figure 2.

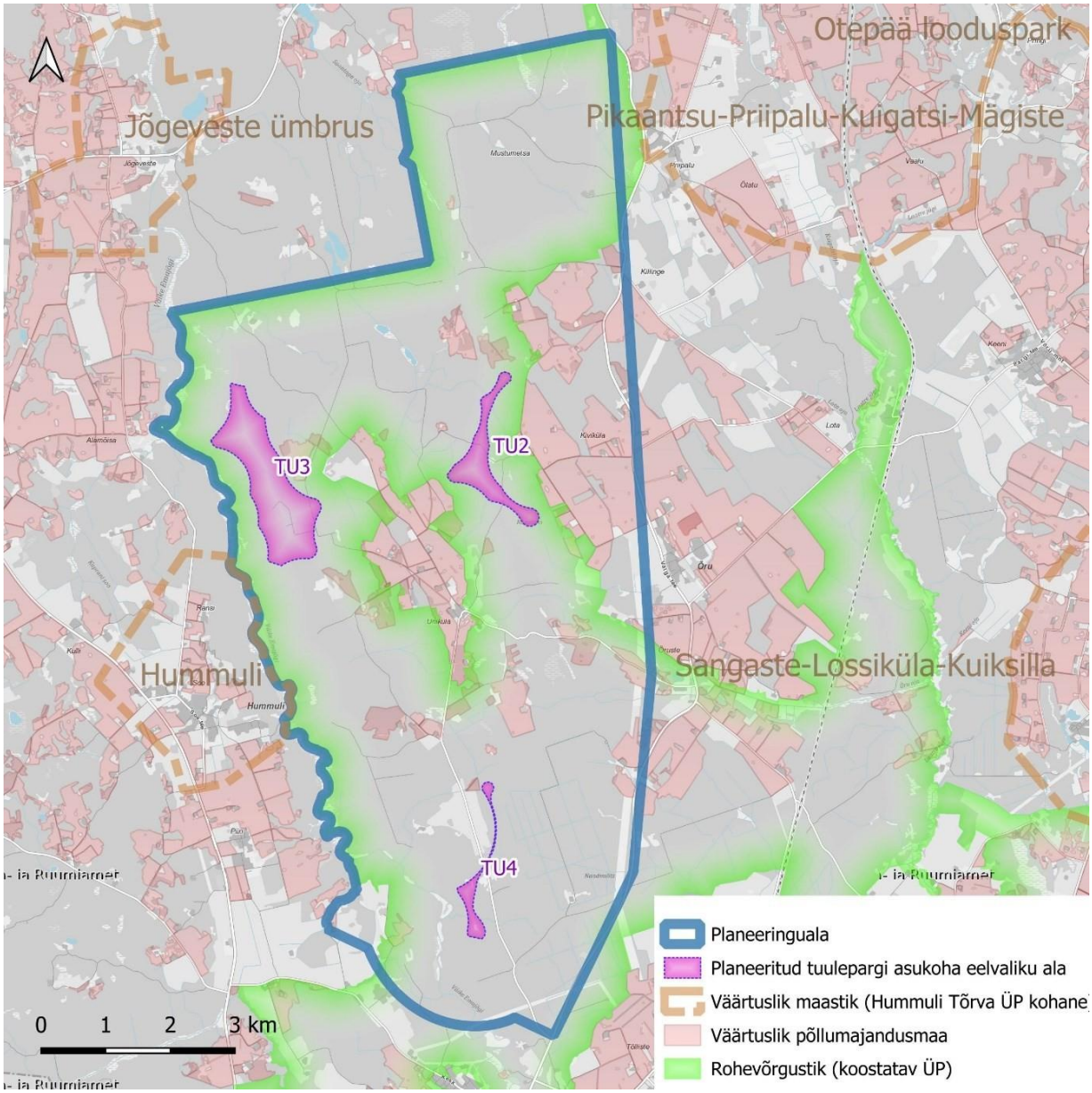


Figure 2. Location of green networks, valuable landscapes and valuable agricultural land in relation to the wind farm pre-selection areas.

The impact assessment also considers the green network component, and a planning solution has been developed based on the established conditions that does not require any changes to the county plan. The special planning solution takes into account the principles and conditions established in the Valga County Plan 2030+. In the case of the construction of a building with a significant spatial impact, the county plan remains feasible and the planned spatial solutions are appropriate.

2.5 Valga County Development Strategy 2035+[7]

The Valga County Development Strategy 2035+ and the Development Strategy Action Plan 2019-2023+ have been prepared in accordance with amendments to the Local Government Organisation Act (KOKS), which stipulate that after

7 https://www.valgamaa.ee/userfiles/valgamaa/Strateegia%202035+/VALGA%20MAAKONNA%20ARENGUSTRATEEGIA%202035+.pdf

the administrative reform and the abolition of county governments, it will be the task of local government units to jointly plan the development of the county and guide its implementation. The county development strategy is a document on the basis of which the joint tasks assigned to local governments are carried out, investments with an impact on local government units are planned, and applications for support from various programmes are submitted.

The development strategy does not directly address the construction of wind farms and wind turbines, but it does highlight the low security of supply of the electricity networks as a weakness of the region and sets the goal of ensuring that businesses and households have access to electricity connections with sufficient capacity to meet their needs.

The climate and energy plan for local governments in Valga County, which is currently being drafted, introduces the topics of reducing climate impacts, expanding the use of renewable energy in the municipal sector, increasing energy efficiency and adapting to climate change into the development strategy for Valga County. The goal at the county level is to reduce carbon dioxide emissions from end consumption in the energy and transport sectors by 12% by 2030. ([8])

2.6 , Õru Municipality

The comprehensive plan of Õru Municipality was established by Regulation No. 6 of the Õru Municipal Council on 14 July 2006. The comprehensive plan was reviewed by the Õru Municipal Council by Decision No. 5 of 19 February 2010 and Decision No. 10 of 14 March 2014.

According to the main drawing of the comprehensive plan of Õru Municipality, the special plan area overlaps with the green network corridor area and the green network support area. The green network areas specified in the comprehensive plan coincide with the county plan areas.

The comprehensive plan does not address the topics of renewable energy and wind turbines.

2.7 General Plan of Tõlliste Municipality

The comprehensive plan of Tõlliste Municipality was established by Regulation No. 9 of the Tõlliste Municipal Council on 17 June 2006. The comprehensive plan was reviewed by the Tõlliste Municipal Council by Decision No. 5 of 8 March 2010 and Decision No. 7 of 17 March 2014.

According to the main drawing of the comprehensive plan of Tõlliste Municipality, the special plan area overlaps with the green network corridor area, the area of county value, and the green network support area. The green network areas specified in the comprehensive plan coincide with the county plan areas.
are consistent with the areas specified in the county plan. The comprehensive plan

does not address the topics of renewable energy and wind turbines.

2.8 , Tõrva Municipality Comprehensive Plan

The planning area borders Tõrva Municipality. The preliminary selection area TU3 for the planned wind farm is located in an area adjacent to Tõrva Municipality. The modelled 40 dB line (target level for noise category II) from the wind farm extends slightly into the village of Ransi and very slightly into the village of Alamõisa, where the area in question is mainly forest and riverbank. The modelled 35 dB line (noise category I target level) for noise from the wind farm extends to the villages of Alamõisa, Kulli and Ransi, where there are residential buildings, forests, grasslands and farmland. The comprehensive plan of Tõrva Municipality does not include any noise-sensitive buildings (residential buildings, educational institutions, etc.) or recreational and leisure areas in the area of influence of the planned wind farm in Tõrva Municipality, therefore this special plan does not prevent the implementation of the comprehensive plan of Tõrva Municipality.

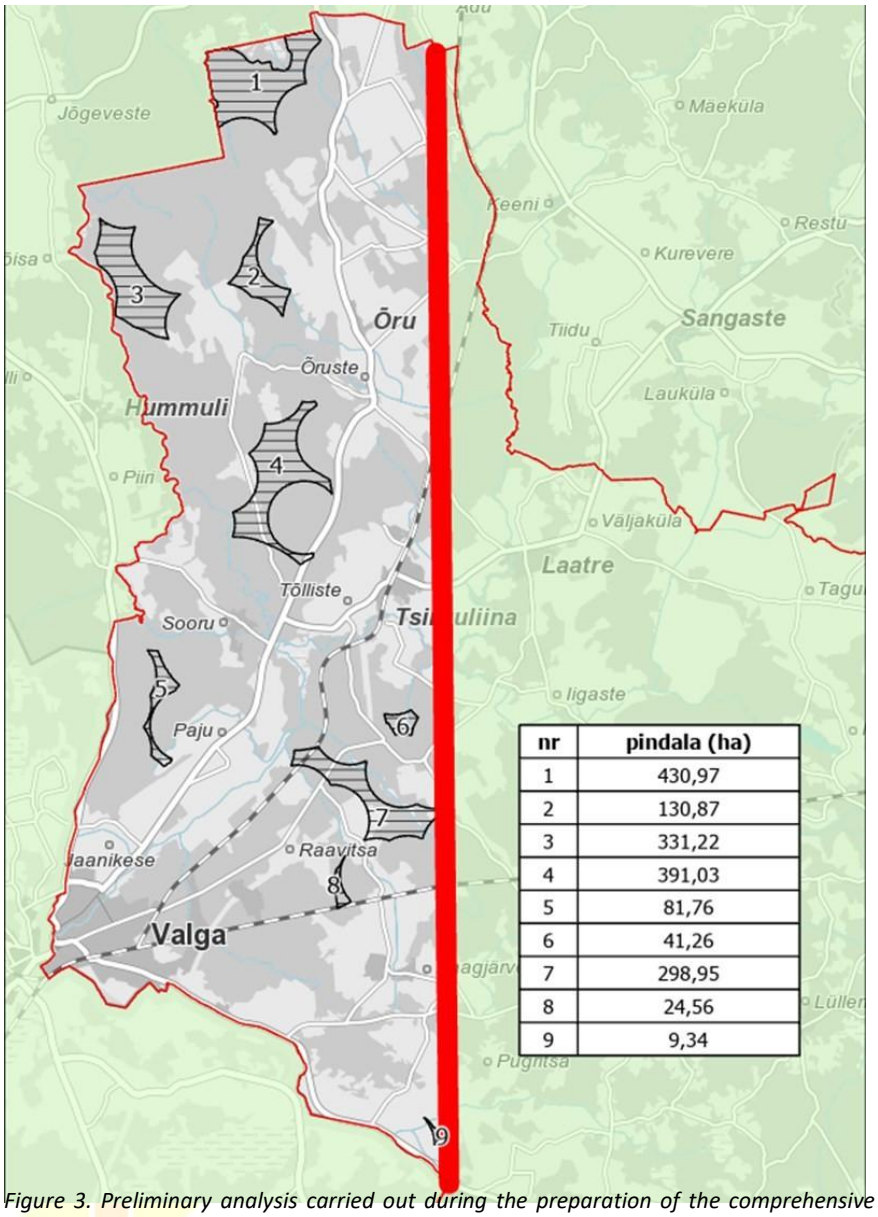
When issuing a building permit for the wind farm, it is important to additionally check the existence of noise-sensitive buildings in Tõrva municipality.

[8] https://www.arenguagentuur.ee/userfiles/Valga_valla_kliima-_ja_energiakava_2035_.pdf available 13.08.2025

2.9 general plan for Valga municipality currently being prepared

As of November 2024, the comprehensive plan for Valga Municipality is in the pre-coordination stage. The draft comprehensive plan sets out the general principles for the spatial development of Valga Municipality and the land use and construction conditions that guide the development of different areas. Among other topics, the draft comprehensive plan also includes a section on renewable energy, including wind energy. The purpose of the Valga Municipality Wind Farm Special Plan is to comply with the draft comprehensive plan and enable the implementation of the development planned in the comprehensive plan.

During the preparation of the comprehensive plan for Valga Municipality, a preliminary analysis was carried out to identify areas suitable for the construction of wind turbines (see Figure 3). This special plan covers four of the areas identified in the analysis. The remaining five areas are smaller and are located between the special plan area and the town of Valga. Considering the development of scattered settlements near Valga town and the need to preserve the quality of the natural environment (ecosystem services) in the area, and taking into account the possibility of significant cumulative impacts if wind farms are located closer than 15 km to each other, the Valga Municipality comprehensive plan excludes the possibility of constructing additional wind farms. The wind energy section of the comprehensive plan will be supplemented based on the Valga Municipality wind farm special plan solution and strategic environmental assessment.



nr	pindala (ha)
1	430,97
2	130,87
3	331,22
4	391,03
5	81,76
6	41,26
7	298,95
8	24,56
9	9,34

Figure 3. Preliminary analysis carried out during the preparation of the comprehensive plan of Valga Municipality to find suitable areas for the construction of wind turbines
to find suitable areas, excerpt from the areas.

Based on the objective of the special plan for the Valga municipality wind farm, the following topics have been taken into account in the comprehensive plan solution
takes into account the following issues:

- densely populated areas,
- land use purposes, including noise-sensitive areas,
- green network.

2.10 Detailed plans in force

There are no valid detailed plans in the planning area. Similarly, no detailed plans will be drawn up in the planning area as of the beginning of 2025

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2.11 Additional involvement of the local community in the detailed plan

In addition to the requirements of the Planning Act, additional introductory events have been held in cooperation between the developer and the municipality during the preparation of the special plan in order to ensure that people are better informed and have the opportunity to participate. The following additional events have taken place during the planning process:

- 16 August 2023 – Preliminary presentation of the Sunly wind farm at the Õru Cultural Centre and Hummuli Community Centre;
- 24 October 2023 – Sunly community evening at Õru Cultural Centre;
- 31 January 2024 – Energy cooperative workshop 'Will the wind farm bring us our own, cheaper electricity? at Tsirguliina Community Centre;
- 16 May 2024 – Valga Municipal Government wind farm special planning information day at Tsirguliina Community Centre;
- 28 June 2024 – Sunly study trip to Saarde wind farm and Pikkori battery and solar park;
- 24 July 2024 – Tetra Tech landscape architect Kerttu Otsa's fieldwork in Uniküla and introduction to the wind farm at the Väike-Make, Kalda, Jaanimäe and Une-Mati farms;
- 25 July 2024 – Workshop on assessing the visual impact of the wind farm at Tsirguliina Community Centre;
- 02.12.2024 - Information day on the special plan and SEA Phase I report at Tsirguliina community centre;
- 27 March 2025 – meeting with residents of Õruste village as part of the Valga municipality wind farm EP;
- 5, 7, 8 and 13.05.2025 – consultation days in Sooru, Tsirguliina, Õru and Hummuli.

The planning solution has been developed on the basis of the events that have taken place. As input for both the general impact assessment process and the events, the location and number of wind turbines have been adjusted, as well as the principles for establishing additional landscaping to limit the view.

3 Planning solution

The planning solution provides for the construction of up to 18 wind turbines in three separate pre-selected areas. Further design work will be based on the spatial forms presented in the pre-selection map and the conditions specified in this chapter.

3.1 History of the pre-selection area

When determining the preliminary selection of the wind farm location, the planning objectives set out in section 1 and the input from the development documents presented in section 2 were taken into account. In the initial stage of the work, potential suitable areas were identified on the basis of an initial map analysis.

The following exclusion criteria were used to identify potentially suitable areas:

- areas closer than 1000 m to residential buildings were excluded (a reduction in distance to 750 m may be considered during the planning process if the landowner gives their written consent during the EP procedure and compliance with noise limits is guaranteed). In addition, areas within 2000 m of densely populated areas were initially excluded. Based on the feedback received during the public consultation on the initial positions, it was decided to use a 2000 m buffer zone for noise-sensitive areas located in densely populated areas([9]) ·Such distances ensure compliance with noise standards in most cases and meet the distance criteria recommended by state authorities([10]) ·With regard to residential buildings, the initial analysis was based on the location of residential and public buildings in the ETAK([11]) and the boundaries of densely populated areas and noise-sensitive areas within densely populated areas in the working version of the Valga municipality comprehensive plan;
- protected areas, conservation areas, permanent habitats, including areas of planned protected objects, where construction is generally not possible under the current protection regime, were excluded;
- Permanent habitats established for the protection of plant growth sites were excluded with a 100 m buffer zone to prevent adverse effects on growth sites. The selection of criteria was based on the recommendation of the Environmental Board.
- Permanent habitats of capercaillies were excluded with a 1 km buffer zone to prevent significant direct adverse effects on permanent habitats of bird species in protection category II. The criterion was selected based on the recommendation of the Environmental Board.
- All permanent habitats of Category I protected bird species and protected areas

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The map analysis and preliminary opinions revealed that there are potentially four areas within the special plan territory (see Figure 4) that have no direct exclusionary factors for the further selection of the location of the object covered by the special plan and that have sufficient territory. The SEA report also presents relevant information on the current environmental status in the assessment of the impact of the relevant impact area. Areas 1 and 3 overlap with the Valga-Tõrva potential wind energy priority development area studied by the state.

[9] Valga Municipal Government Order No. 157 of 13 June 2024

[10] Letter No. 17-7/2019/2142 of the Ministry of Economic Affairs and Communications dated 13 March 2019 on the inclusion of renewable energy in the comprehensive plans of local governments (registered in the Valga Municipal Government document register on 13 March 2021 under No. 9-1.3/1124)

[11] The Estonian Topographic Database (ETAK) is a database and geoinformation system belonging to the state information system

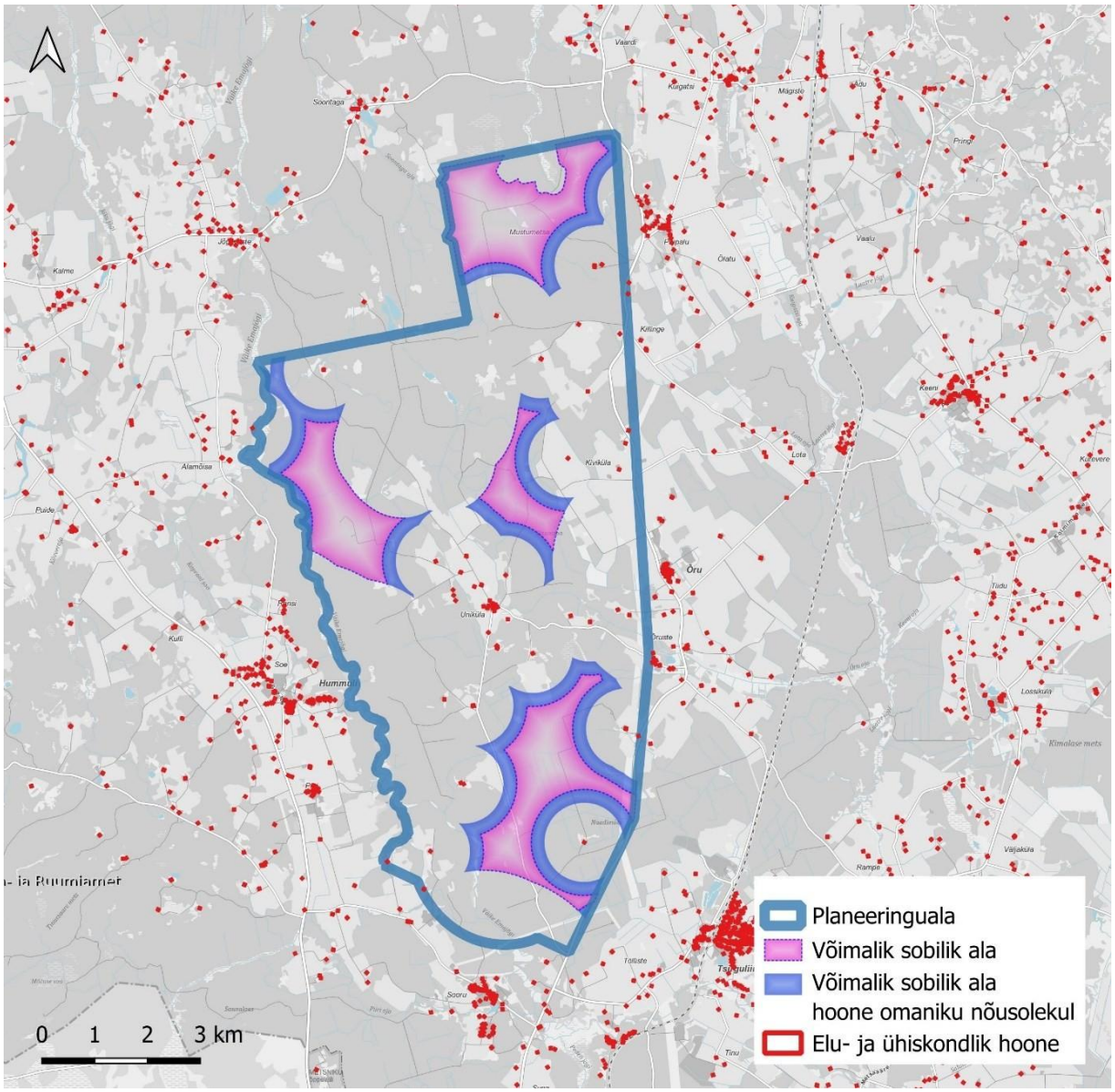

Figure 4. Area suitable for a wind farm, as identified by initial map analysis.

During the planning process, the local government has specified that the distance criterion of 1000 m also applies to known residential buildings under construction/legalisation and to land parcels designated for residential use. In the case of land parcels designated for residential use, it is possible to plan wind turbines within a range of 750-1000 m if the landowner gives their written consent.

When preparing the special plan and assessing its impact, the aim has been to ensure that the planning solution improves the living environment, balances and integrates interests, and ensures practical, reasonable and sustainable land use. Based on the impact assessment and cooperation with the community, the boundaries of the preliminary selection areas have been adjusted, including the exclusion of area TU1 from the preliminary selection for bird protection reasons.

During the work, it became clear that by implementing the mitigation measures presented in the plan, there will be no significant adverse environmental impact on the pre-selected areas presented in the planning area. The plan specifies the basic locations of the wind turbines and presents the possible locations of the service infrastructure. The following chapters set out the conditions which, if met (including the necessary studies), will ensure that there are no exclusionary factors and that the plan can be implemented and will comply with

nature conservation objectives, the fulfilment of renewable energy targets and the health protection requirements of the region's inhabitants.

When finalising the special planning solution, the scope of the pre-selected areas was clarified once again. As a result of the clarification, parts of the pre-selected areas were removed where, taking into account various restrictions, wind turbines could be erected, but where the planning solution does not specify the locations of wind turbines in principle. The clarification was based on the locations of wind turbines in principle, and the principle of a 50 m displacement range for wind turbines was also taken into account.

3.2 area for preliminary selection of wind farm

According to Regulation No. 184 of the Government of the Republic of 26 June 2003, a wind farm is a power plant consisting of several wind turbines and equipment, buildings and structures connecting the wind turbines to each other and to the connection point. As a separate structure on an underground cable, it has no significant spatial impact within the meaning of § 6(13) of the Planning Act. The wind farm is planned to be connected to the main grid by an underground cable, and when planning the underground cable, a solution can be provided in the local government's special plan with a more general degree of accuracy, and the connection does not have to remain entirely within the area covered by the special plan. All connections in the preliminary selection areas for the wind farm location are planned to be made with underground cables, and therefore it is not necessary to determine the cable corridor at the preliminary selection stage – the main drawing shows the basic (illustrative) locations of the cable lines connecting the wind farm to the main grid, to which alternatives may be added during the design phase. The exact connection point and the location of the line originating from it will be determined during the design phase after the connection conditions have been specified by the main grid operator.

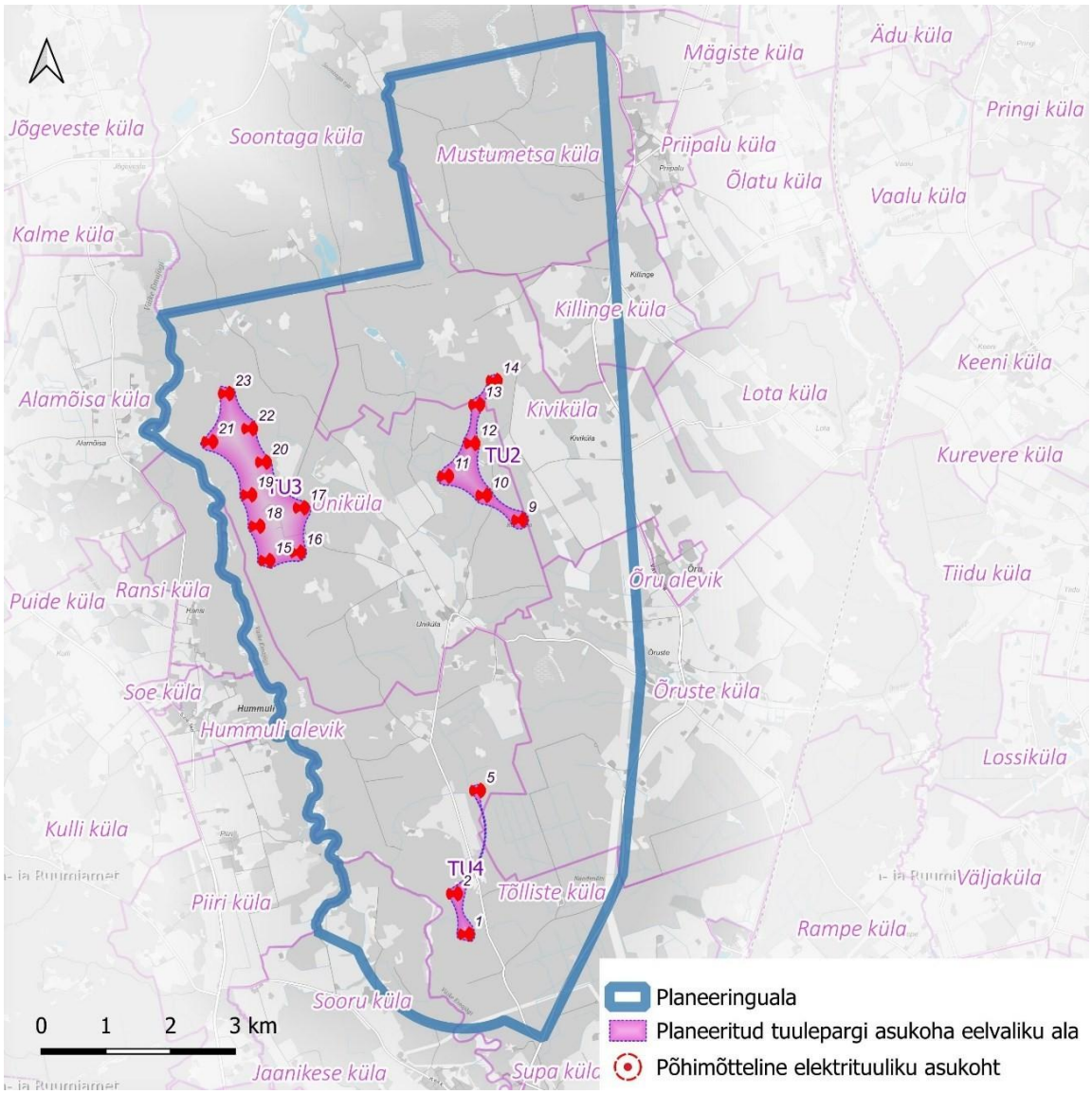

Figure 5. Pre-selected areas for wind turbines in the wind farm and the basic location of the wind turbines.

Taking into account the conditions set out in the following chapters, the following may be built in the pre-selection area (see Figure 5):

- wind turbines for the wind farm (including the blade of the wind turbine must remain within the building area in every possible position
  within the building area) with a maximum permitted height of 270 metres;
- roads and assembly sites necessary for the construction and maintenance of wind turbines in the wind farm;
- internal electrical and communication connections for the wind farm;
- a connection line connecting the wind farm substation to the main grid substation and the necessary structures for connecting to the main grid;
- other structures necessary for the operation of the wind farm and related to the wind farm.

The plan is feasible in the proposed locations, provided that the other conditions set out in the plan are met. During the design phase, the location of the wind turbine may be changed within the designated building area, provided that the other conditions set out in the plan (including those arising from the impact assessment) are met. The location of other infrastructure is presented in the plan approximately, and the location of buildings may be specified during the design process based on the conditions set out in the plan. Infrastructure serving the wind farm may also be built outside the pre-selection area and the planning area.

The special plan does not regulate the construction of infrastructure and buildings not related to wind farms, unless this is in direct conflict with this plan. This means that the construction of other buildings will take place in accordance with applicable law, but the construction of other buildings must not hinder the implementation of the wind farm as specified in the special plan

, including the construction of individual wind turbines within 700 m of the wind farm's preliminary selection area (not an independent wind farm or a structure with a significant spatial impact) that would limit the effective operation of the wind farm. Similarly, when planning new noise-sensitive structures in the vicinity of the planned wind farm, the noise levels caused by the wind farm must be taken into account (section 3.9). When designing new residential buildings, the visual impact and shadowing caused by the wind farm must be analysed.

3.3 's conditions as the basis for issuing design conditions

Design conditions may be issued for the entire wind farm or for each wind turbine separately. The design must ensure that the accompanying impacts do not exceed the impacts addressed in the plan. Together with the building permit application, the local government must be provided with the information necessary for preparing a preliminary EIA for the entire wind farm([12]), which will allow for an assessment of the overall impact of the wind farm and the resulting additional conditions for individual wind turbines.

The plan provides for the construction of a wind farm (electricity generation facility), which consists of the main structures of the wind farm – wind turbines (purpose of use of the structure: 23023, wind farm structure[13]) and the buildings necessary for their maintenance (see below).

The special plan specifies the basic locations for the construction of up to 18 wind turbines:

- up to six wind turbines may be constructed in area TU2;
- up to nine wind turbines may be constructed in area TU3;
- up to three wind turbines may be constructed in area TU4.

The projected footprint of each wind turbine must be located within the wind turbine building area specified in the plan. The placement of wind turbines shall comply with the principle set out in the plan that wind turbines may be placed closer than 1,000 metres to an existing residential building only with the consent of the building owner and if the noise requirements are met.

The maximum permitted building footprint for each wind turbine is 25,500 m^2. The footprint of a wind turbine is the horizontal projection of the structure, including any protruding parts – this means that the projection of the turbine blade on the ground in any possible position is included in the footprint.

The maximum permitted height of an electric wind turbine above the existing ground level is 270 m (see Figure 6). No underground floor is planned under the wind turbine, therefore the maximum permitted depth of the wind turbine is 0 m.[14]

[12] The requirement arises from § 6^1 (1) of the KeHJS. During the coordination of the plan, it was pointed out that the legislative amendments proposed for the transposition of Directive (EU) 2023/24131 may remove from the legislation the requirement to submit a preliminary EIA assessment with an application for a wind farm construction permit (if the wind farm is located in a priority development area). If, at the time of applying for design conditions or a construction permit, there is no requirement to provide a preliminary EIA assessment under the applicable law, the requirement to submit the information necessary for the preliminary assessment may be waived. In such a case, a description of the planned activities must be submitted to the decision-maker, on the basis of which the decision-maker can assess the overall impact of the wind farm and the need for additional conditions for individual wind turbines. The term 'preliminary EIA assessment' is used further in the text – if a preliminary EIA assessment is not required under applicable law, an expert assessment containing the information necessary for decision-making must be submitted in the relevant field (flora, fauna, ecosystems).

[13] Economic and and 02.06.2015 Regulation No 51 https://www.riigiteataja.ee/aktilisa/1260/2202/1006/MKM_m51_lisa_uus.pdf#

[14] Pursuant to § 31 of the Regulation of the Minister of Economic Affairs and Infrastructure on the List of Technical Data of Buildings and the Basis for Calculation, technical equipment and systems located under a building, including piping, cables and other similar items, foundations and parts thereof, and other similar items are not included in the depth of the building.

Figure 6. Maximum permitted height of an electric wind turbine.

As the planned wind farm is an industrial facility and there is no built environment in the area, no architectural or design conditions are set for the planning of electricity generation facilities.

Known buildings to be constructed for the maintenance of the wind farm and their possible locations:

- roads and squares necessary for servicing the wind farm (purpose of use of the building: 21100, roads)[5]. The construction project shall specify the location of roads and squares in the possible locations shown on the main drawing. In the event of a significant deviation from the basic solution presented in the plan, the project solution shall be accompanied by relevant justifications and agreements with landowners. The assembly sites for wind turbines may extend up to 100 m outside the wind turbine building area;
- electrical connections necessary for servicing the wind farm (purpose of use of the structure: 22143, underground cable line)[5]. The possible location and conditions of electrical connections are presented in section 3.4;
- communication connections necessary for servicing the wind farm (purpose of use of the building: 22245, communication overhead or cable line)[5]. With regard to communication connections, routes parallel to possible electrical connections are preferred. The exact communication solution shall be presented in the construction project;
- firefighting water supply points (22227, firefighting water supply point, including hydrant)[5] . When designing , comply with the conditions set out in section 3.6 when determining the location;
- other relevant structures not mentioned above (except for important structures). If necessary, determine the location based on the nature of the structure when issuing design conditions or preparing the project, taking into account the mitigation measures presented in the plan.

The local government may issue separate design conditions for the wind farm necessary building if necessary separate design conditions.

The special plan does not regulate the construction of infrastructure and buildings not related to wind farms, unless this is directly contrary to this plan. This means that the construction of other buildings shall be carried out in accordance with applicable law, but the construction of other buildings shall not hinder the implementation of the wind farm specified in the special plan, including the construction of wind turbines within 700 m of the wind farm, which would limit the efficient operation of the wind farm. When designing noise-sensitive buildings, the noise levels caused by the wind farm must also be taken into account (see section 3.9).

The design shall be based on a construction geological survey and geodetic survey that meet the relevant requirements. Where appropriate, the local government may require other construction surveys to be carried out if such a need has arisen.

If the construction of the wind farm requires logging and possibly also filling of the ground to create temporary storage or manoeuvring areas, conditions must be created after the work is completed to allow the area to return to its original natural state. No landscaping requirements are set in the plan. With regard to waste, the conditions set out in section 3.24 must be followed. With regard to traffic management, the provisions of sections 3.5 and 3.7 must be followed.

The service life of wind turbines is approximately 50 years. When a wind turbine is depreciated, it must be replaced with a new one or dismantled. The deadline for dismantling or reconstructing/renovating a wind turbine is two years from the date of its decommissioning.

3.4 Electricity and communications infrastructure serving the wind farm

The electricity and communication lines required for the wind farm must be constructed as underground cable lines, and their exact location will be determined during the design phase. The general principle is that the communication line is in the same corridor as the power line. Three basic solutions have been proposed for connecting the planned wind farms to the main electricity grid (see Figure 7):

- A new substation will be built on the 330 kV overhead line between Õru and Tsirguliina to connect to the grid (two possible locations),
- a new substation will be built on the 110 kV overhead line located in the southern corner of the planning area;
- a new substation will be built outside the planning area near the existing Tsirguliina substation (330 kV) for connection.

The exact electricity connection point (including technical parameters) will be determined and the location of the line will be selected during the design phase after the connection conditions have been determined by the main grid operator. The plan shows the approximate locations of the connection substations. The estimated size of the connection substation area is up to 200 x 200 metres.

The connection point of the communication line will be determined during the design phase based on the technical conditions of the network operator.

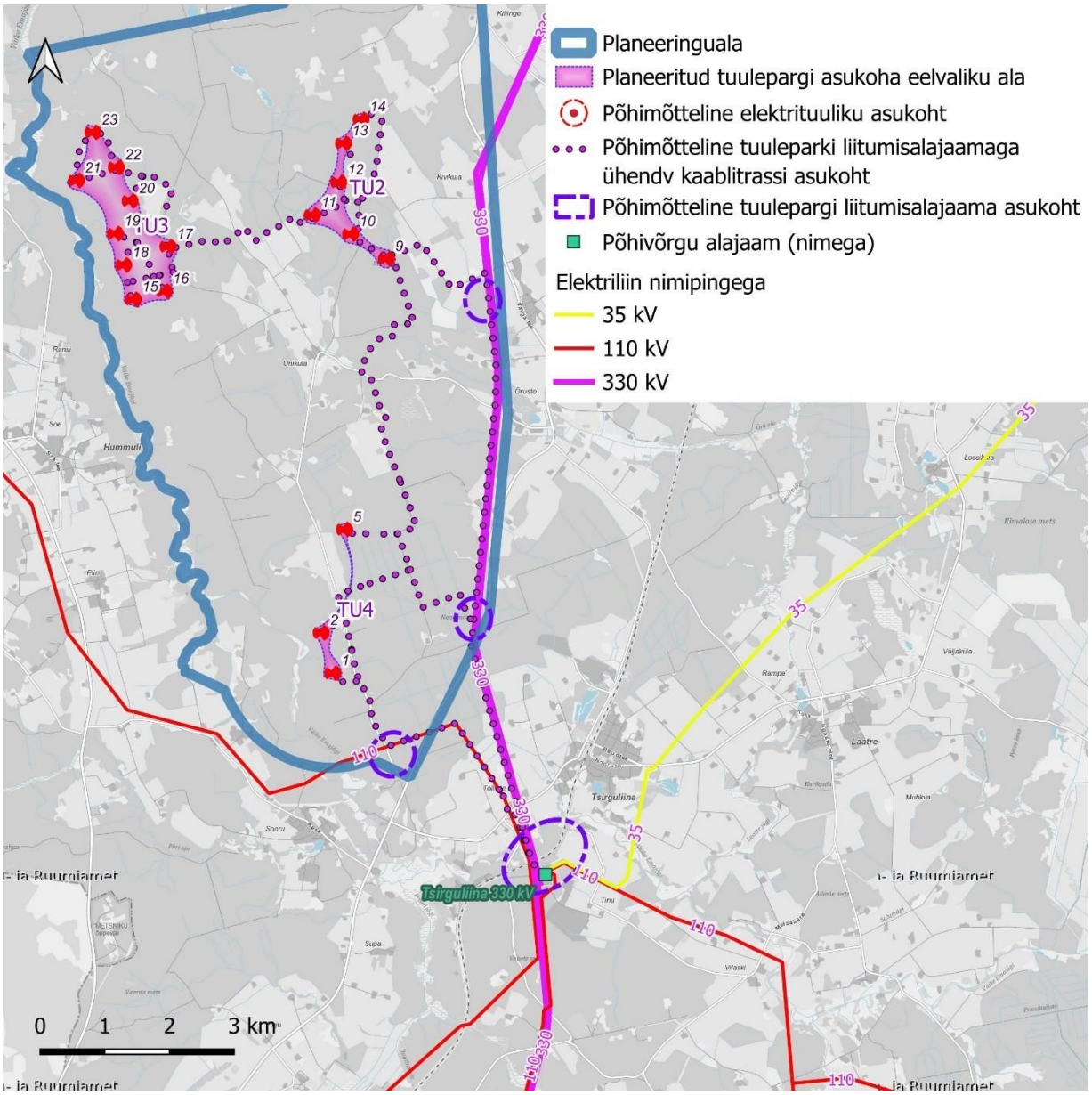

Figure 7. Schematic connection of the planned wind farm to the main grid.

The preliminary selection of the location of the wind farm in the special plan determines the following conditions for the design of electricity and communication cable lines

the following conditions apply:

- Cable lines must be designed in accordance with design standards and best knowledge. The exact distance of the cable from the road and the method of resolving the intersection with the road shall be agreed with the road owner during the design process. The project shall be coordinated with the land owner within the area required for the construction of cable lines. When designing cables belonging to different owners in the area to be cleared, the protection zones must be harmonised as far as possible so that the area to be cleared is as small as possible.
- When designing cable lines and substations in mining areas, it must be taken into account that if the planned facilities are not located in the protection zone of existing facilities or in an area with permanent buildings or on a cadastral unit intended for residential use, it is necessary to obtain permission from the authority that issues approvals for mineral deposit areas under the Subsoil Act;
- when designing and constructing a cable line in a railway protection zone, pursuant to § 73 of the Building Code, a permit must be obtained from the railway operator and the Consumer Protection and Technical Regulatory Authority to work in the railway protection zone. During work carried out in the railway protection zone, the requirements of the railway construction gauge referred to in Regulation No. 71 of the Minister of Economic Affairs and Infrastructure of 09.11.2020 "Railway Technical Regulations"

. The construction gauge is a boundary line depicted on a plane perpendicular to the axis of the track, inside which no part of a structure or equipment may extend (with the exception of equipment intended for direct interaction with rolling stock). When constructing a building in the railway protection zone, the effects of railway rolling stock, including possible vibration, must be taken into account. In the railway protection zone, it is prohibited to endanger traffic and obstruct visibility on the railway;

- In further design work (when specifying route corridors), avoid known locations of valuable forest habitats, habitats in good condition (representative of category A or B) under the Habitats Directive, and protected plant, fungus and lichen species in protection categories I and II. The route should also avoid areas of permanent habitats and protected areas; the solution presented in the main drawing does not pass through the described locations, permanent habitats and protected areas.
- When crossing watercourses, electrical cables must generally be installed using a closed method/drilling in the construction restriction zones of watercourses in order to avoid damage to the banks and soil and pollution entering the watercourse. This measure may be deviated from with the permission of the Environmental Board if it is certain that the construction solution will not deteriorate the condition of the water body. Construction machinery and vehicles are not permitted to drive in water bodies;
- Technical networks intersecting with public roads must be constructed using a closed method.
- When burying cable routes, it is recommended to remove the excavated material in layers – grass separately, soil separately and bedrock separately. After installing the cables, fill the channels as naturally as possible, first with technically necessary fill material in the immediate vicinity of the cable, then with bedrock, then a layer of soil, and finally with sod taken from the same route area earlier. This measure is particularly necessary if the cable route passes through semi-natural communities or sites where protected plant, fungus and lichen species are found; the solution presented in the main drawing does not pass through the sites described.

3.5 's roads serving the wind farm

For the construction and subsequent maintenance of wind turbines, access roads with high load-bearing capacity and constant accessibility to the wind turbines are necessary. The master plan for the wind farm shows the locations of the main access roads, starting from existing public roads. Access roads to the TU2 Kiviküla wind farm area from road 9430105 begin in the first section (as shown on the master plan) and continue to the planned water intake point as a planned public road. Existing roads and forest roads are preferred when selecting the location of access roads. Based on the technical requirements of the selected wind turbine, a more detailed analysis of possible access roads must be prepared during the further design of the wind farm. This requires cooperation with the road owners. If necessary, the necessary intersection reconstructions and road widenings must be carried out and traffic management measures must be implemented to ensure the safe delivery of the wind turbines.

In the further planning of the wind farm, the following must be done:

- determine the location of roads necessary for construction and future maintenance (including possible rescue operations), including any necessary reconstruction and their intersections with public roads, as well as any possible reconstruction of public roads;
- take into account that, in general, it is not possible to direct rainwater from development areas into public road ditches. This is only possible in justified cases in cooperation with the Transport Authority;
- avoid the principle that utility networks are installed on land under public roads. The land under public roads is for the maintenance of public road infrastructure, and the Transport Administration may grant permission to use this land if there is free space available. The installation of technical networks must be assessed on a case-by-case basis with a high degree of accuracy using a geodetic base plan and processed in the next stage;
- assess the accessibility of locations for oversized loads;

- Establish the necessary easements.
- When designing areas of mineral deposits, take into account that if the planned facilities are not located in the protection zone of existing facilities or in an area with permanent buildings or on a cadastral unit intended for residential use, it is necessary to obtain permission from the authority that issues approvals for mineral deposit areas on the basis of the Land Use and Building Act.

The Transport Administration and local government shall not assume the obligation to construct and reconstruct new road sections due to development needs if there is no need for this from the point of view of the development of the state road or local road network.

Pursuant to § 63 of the Regulation[15], in the case of a publicly accessible road outside a settlement, the minimum distance of an electricity pylon from the edge of the road surface is equal to the sum of the height of the electricity pylon and the radius of the blade. All planned wind turbine positions, except for electricity pylon no. 14, comply with this requirement. When constructing wind turbine no. 14 at the maximum permitted height on the eastern edge of the building area, a situation may arise that does not comply with the regulation, depending on the width of the foundation. The plan is feasible if, in the given area:

- the height of the wind turbine is reduced, or
- the wind turbine is constructed in the centre of the building area or to the west of the centre, or
- the relevant section of the road is removed from the list of public roads. The section of road referred to is the end section of a public road.

Under certain weather conditions, there is a risk of ice forming on the wind turbine and falling on persons or vehicles travelling on the road. In order to avoid potential danger, wind turbines whose safety zone([16]) includes a publicly accessible road must be equipped with an anti-icing system or a risk analysis must be prepared during the design phase, which determines the safety zone in the vicinity of the wind turbine and provides instructions for operating in that area. When a safety zone is established, the following must be done:

- mark the safety zone of a specific wind turbine or several wind turbines located close to each other
  mark the safety zone on the road with an explanation of the danger;
- mark the safety zone ahead at the intersection preceding the turn into the safety zone so that persons wishing to use the road can decide whether or not to do so.

The components of the wind turbines to be constructed are expected to be transported from Paldiski Port through mainland Estonia. The length of the route will be approximately 250 km. Alternatively, the wind turbines may be transported from Latvia.

[15] Regulation No. 71 of the Minister of Climate of 17 November 2023 Road Design Standards

[16] In this plan, the safety zone is defined as a distance of 1.5×(tower height + rotor diameter) from the wind turbine, which is the maximum extent of the danger zone. As the safety zone has been determined in general terms, the owner of the wind farm may reduce the extent of the safety zone on the basis of a more precise risk assessment.

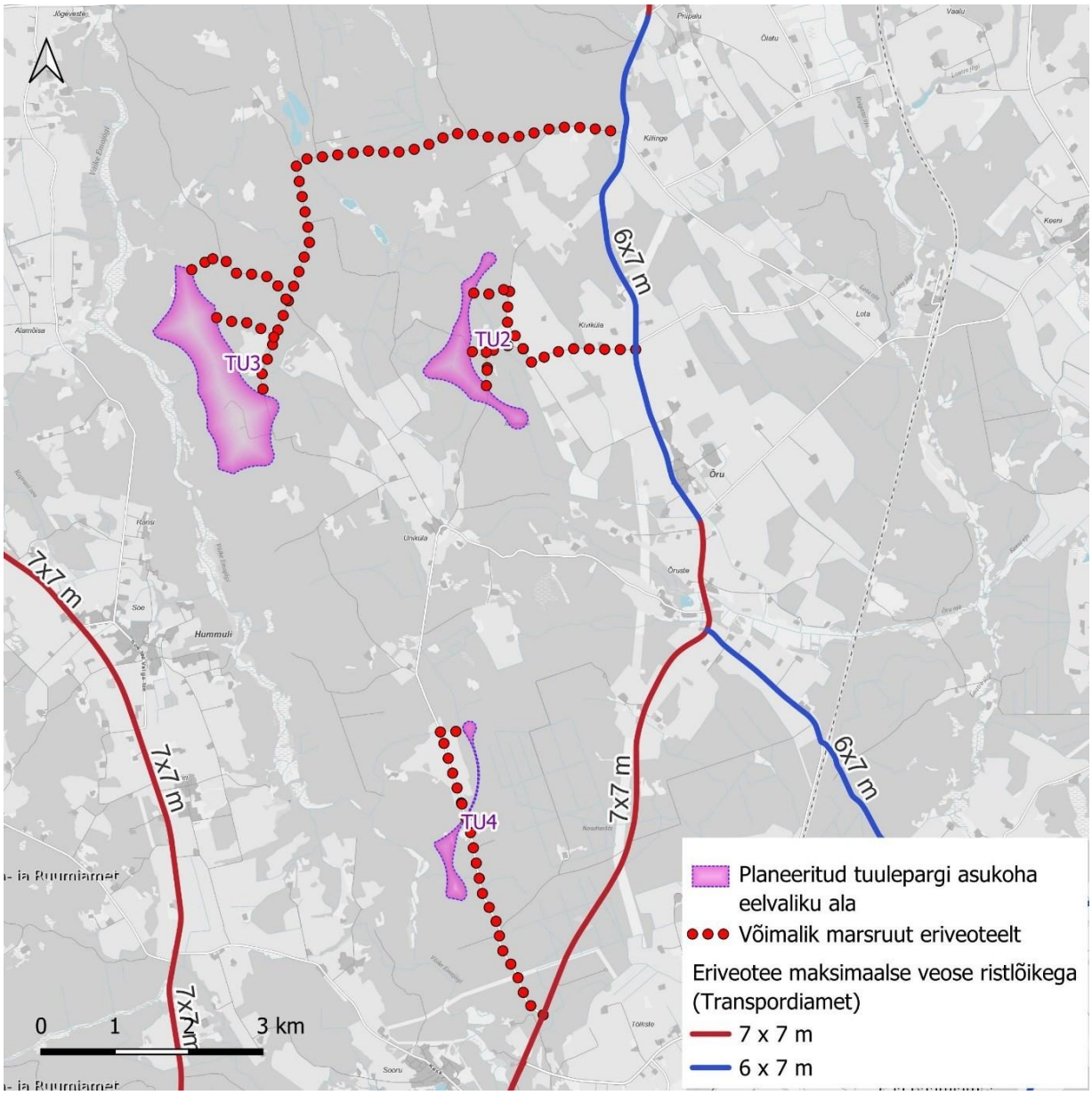

Figure 8. Possible routes for transporting wind turbines from the Transport Agency's special transport routes.

According to the information published by the Transport Agency, the existing special transport corridors do not lead to the planned pre-selection area, and the most suitable route from those presented in Figure 8 must be selected based on the more precise technical parameters of the cargo and adapted for the transport of large cargo. The Õruste-Uniküla section of the Tõlliste-Uniküla-Õruste road will not be used as a special transport route. The special plan presents possible road corridors; the exact access road solution from the special transport route must be presented during the design phase. During the construction period of wind farms and, if necessary, during the maintenance period, use existing transport routes suitable for special transport and apply for a special transport permit from the Transport Agency.

3.6 Firefighting water

Fires in wind turbines are relatively rare, but various sources suggest that 1 wind turbine catches fire each year for every 2,000 to 15,000 wind turbines. Technological developments have certainly improved the fire safety of wind turbines, but fires cannot be ruled out entirely. The greatest fire hazard in wind turbines is in the nacelle, which houses a large number of mechanical and electrical systems. As the nacelle is located at a height of approximately 200 m above the ground, it is not possible to carry out work at this height using conventional rescue and firefighting equipment. In the event of a fire in an electric wind turbine, the aim is to ensure a safety perimeter in view of the collapse of the electric wind turbine and to prevent the fire from spreading further into the landscape. The availability of firefighting water is primarily necessary to extinguish falling

and prevent the spread of fire to the surrounding area. The following conditions must be taken into account when ensuring the fire safety of wind turbines:

- wind turbines must be equipped with fire extinguishing equipment, alarm devices and an automatic fire extinguishing system;
- In the event of an emergency, the rescue services must be guaranteed access to buildings and important equipment;
- When constructing a wind farm, cooperate with the Rescue Board and draw up plans for dealing with various hazards and/or emergency situations.

During the design phase, it must be ensured that there is a firefighting water supply point within three kilometres of each wind turbine. The main plan shows the possible locations for firefighting water supply points and the current location of the pond.

In further planning, ensure that the minimum permitted capacity of the water intake point is 500 m³. The firefighting water intake point must be located next to the service road and must have a turning circle with a radius of at least 15 m. The firefighting water intake point must be equipped with a dry hydrant. If the firefighting water intake point is closer to the wind turbine than the total height of the wind turbine, the nearest water intake point (up to three km away by road) must be used for rescue operations at the nearest wind turbine.

During the design phase, the location of the planned water intake point may be changed in cooperation with the Rescue Board and the landowner, based on the conditions described above.

3.7 Ensuring flight safety

Due to their height, the planned wind turbines are obstacles. In accordance with the requirements of Annex 14 to the Convention on International Civil Aviation (ICAO Annex 14), wind turbines must be illuminated with either low-intensity type B lights or medium-intensity type B lights. As a wind farm is a group of obstacles, medium-intensity lights do not need to be installed on every wind turbine. Medium-intensity lights must illuminate the perimeter of the wind farm, and the distance between lights must not exceed 900 metres. When installing medium-intensity lights, it must be ensured that the lights flash simultaneously. To reduce the visual impact on the ground, it is advisable to use lights with limited visibility from the ground and, if technically feasible, to prefer steady lights to flashing lights.

3.8 National defence restrictions

The planned construction of wind turbines is permitted after the full implementation of compensation measures for mainland Estonia
. Wind farm construction projects must be coordinated with the Ministry of Defence.

3.9 Noise

Wind turbines in wind farms generate noise that prevents the construction of new residential buildings or other noise-sensitive structures in the immediate vicinity of the wind turbines. The level and spread of noise depends on the model of wind turbine, the height of the wind turbine, the number of wind turbines, their location and the landscape.

The regulation[17] specifies standard levels for different noise categories. During the SEA, the areas of night-time noise propagation corresponding to the target values for industrial noise in the noise category areas corresponding to the location of the wind turbines were modelled and are shown in Figure 9. Depending on the noise level caused by the wind farm, restrictions (noise category) apply in the Valga municipality area near the wind farm, which, depending on the extent of noise propagation, preclude the construction of certain noise-sensitive buildings (see Figure 9). The noise impact area extending to the territory of Tõrva Municipality is not covered by the regulation

[17] Regulation No. 71 of the Minister of the Environment of 16 December 2016 *on standard levels of noise in the outdoor environment and methods for measuring, determining and assessing noise levels*

there are no noise-sensitive buildings (residential buildings, educational institutions, etc.) or areas (recreational and leisure areas) within the territory of Tõrva Municipality, and

(including Tõrva valla üldplaneeringuga) planned.

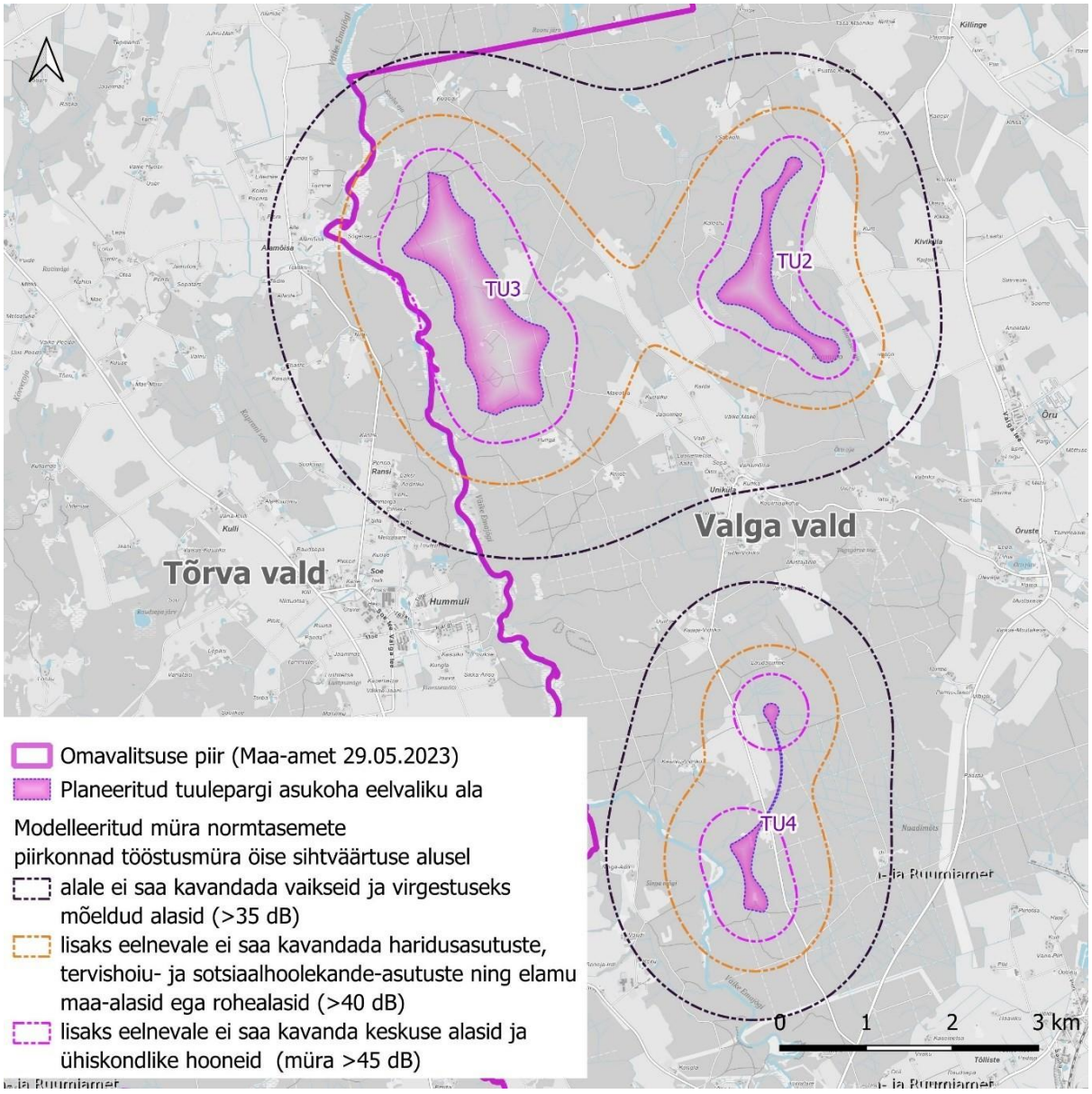

Figure 9. Areas with noise levels caused by the wind farm based on the target value for industrial noise at night.

In the further planning of the wind farm, the following should be taken into account:

- prefer lower-noise wind turbine models that use technical noise reduction measures (e.g. serrated blade edges, etc.);
- use new, fully functional wind turbines;
- the wind farm owner must ensure that the noise level of the wind turbines does not exceed the night-time target value for industrial noise in the courtyards of residential buildings. Exceeding the target value is only permitted with a notarised agreement (easement). Exceeding the limit value for industrial noise is not permitted. In order to ensure that the night-time noise target value is met in all residential areas, wind turbines with a sound power level of Lw<107.8 dB must be used in area TU4, a maximum noise level of Lw=105 dB must be applied to wind turbines located in area TU3, and Lw=104 dB must be applied in area TU2. It is also possible to find alternative combinations of wind turbine operating modes during the design phase that ensure compliance with the target value for industrial noise at night in residential areas.
- Follow the technical requirements of the wind turbine manufacturer. Wind turbine manufacturers guarantee the noise emissions specified in the technical documentation of the wind turbine
  documentation if the wind turbines are installed and maintained

properly. If wind turbines are placed closer to each other than is technically recommended, noise emissions may exceed the guaranteed noise level;

- When applying for a building permit, submit the guaranteed noise level data for the recommended wind turbine model and the corresponding noise level modelling, on the basis of which the local government can verify that the use of the wind turbine model complies with the noise standards in noise-sensitive areas. The noise assessment shall take into account the combined impact with other wind farms being developed in the area, based on the best available knowledge at the time. It must be ensured that the combined impact of wind farms does not exceed the night-time noise target value in existing noise-sensitive areas, including areas with building permits and noise-sensitive areas in Tõrva municipality (40 dB in Category II areas and 35 dB in Category I areas, according to the regulation in force at the time of planning in spring 2025). Exceeding the target value is only permitted with the consent of the owner of the noise-sensitive area, but it must be taken into account that even with the owner's consent, it is not permitted to exceed the night-time limit value for industrial noise in a noise-sensitive area;
- it must be taken into account that construction noise must not exceed the limits set out in the Atmospheric Air Protection Act and Regulation No. 71 of the Minister of the Environment of 16 December 2016, issued on the basis thereof, 'Standard levels of noise propagating in the outdoor air and methods for measuring, determining and assessing noise levels' and Regulation No. 42 of the Minister of Social Affairs of 4 March 2002 "Noise standards in residential and recreational areas, residential buildings and public buildings and methods for measuring noise levels". Avoid noisy construction work during the night.

The application for a use permit must include a final comprehensive noise model for the entire area, which specifies the lines shown in the previous drawing and will serve as the basis for determining the boundaries for the construction of noise-sensitive buildings. During the further operation of the wind farm, compliance with the applicable standards must be ensured. At the time of planning, the relevant standards are specified in the following regulations:

- Regulation No. 42 of the Minister of Social Affairs of 4 March 2002 "Noise standards in living and recreational areas, residential buildings and public buildings, and methods for measuring noise levels";
- Regulation No. 75 of the Minister of Social Affairs of 6 May 2002 "Limit values for ultra- and infrasound sound pressure levels
  and measurement of ultra- and infrasound sound pressure levels";
- Regulation No. 78 of the Minister of Social Affairs of 17 May 2002 "Limit values for vibration in residential buildings and public buildings and methods for measuring vibration".

The following follow-up monitoring must be carried out with regard to noise:

- According to the noise assessment, the highest noise levels caused by the wind farm are expected in the residential areas of the following land parcels: Kure, Eeriku-Peetri, Nilbi, Une-Mati, Jõemetsa, Kuusiku. After the completion of the wind farm (within 6 months), control measurements of noise levels must be carried out in the courtyards of these residential buildings and assessed for compliance with the industrial noise limit value or the value specified in the noise tolerance easement. The measurements must be carried out in accordance with the relevant EVS-EN ISO standard and by an accredited measurer. The measurement results must be submitted to the local government. If it turns out that the target noise levels are exceeded in residential areas due to the wind farm, the wind farm owner must develop measures to reduce the noise from the wind farm (e.g. limiting the operation of wind turbines to a quieter mode during the night).
- According to the noise assessment, the values closest to the standard levels of low-frequency noise may occur indoors at frequencies of 50 and 63 Hz in the residential buildings of Kure, Eeriku-Peetri, Nilbi, Une-Mati, Jõemetsa and Kuusiku. After the completion of the wind farm (within 6 months), low-frequency noise measurements must be carried out in the indoor spaces of the residential buildings on the aforementioned land parcels. Low-frequency noise measurements shall be carried out in accordance with standard EVS-EN ISO 16032:202453 or an equivalent document. If it turns out that the sound insulation of the residential building is not sufficient to ensure compliance with low-frequency noise standards in the interior, the sound insulation must be improved (this is the responsibility of the wind farm owner, who must cooperate with

the owner of the residential building). Low-frequency noise levels in indoor spaces must be ensured across the entire low-frequency noise frequency curve.

3.10 al effects related to shadowing

Disturbing shadow flicker (i.e. more than 8 hours of shadow flicker per year or more than 30 minutes per day, depending on climatic conditions) must be avoided in residential areas. Disturbing shadow flicker may only be caused in residential areas with the consent of the owner of the shadow-sensitive area. There are two ways to avoid/reduce shading:

- to reduce disturbance in areas sensitive to shading, a shading barrier should be created from vegetation – to ensure year-round effectiveness, evergreen species such as spruce and pine should be used in mixed plantings. The barrier (a dense row of trees) should be established to protect the courtyard area on the wind farm side of the residential area affected by the shadow. As the measure should be implemented outside the location selection area on registered immovable property not belonging to the interested party, its implementation may be complex and require cooperation with the owner of the affected residential area.
- Use an automatic shadow monitoring system on wind turbines, which allows light intensity sensors and the automatic control system of the wind turbine to work together to stop the wind turbine during periods of disruptive shadowing. When developing a restriction plan, the location of the impact points can be specified as follows:
  - The exact point of impact indoors is the centre of the largest window in the most affected façade of the building. the centre of the actual size of the window of the relevant room.
  - The exact point of impact in the outdoor space is selected as the point that reflects regular use of the outdoor space (e.g. the centre of a terrace or seating area) and is no more than 15 m from the building.

The building permit application must include the model data of the wind turbine to be constructed and the corresponding shadow level modelling, together with a description of the measures to be taken to avoid disturbing shadows, on the basis of which the local government can verify that the use of the corresponding wind turbine model will prevent the shadow disturbance level from being exceeded in sensitive areas. The following residential buildings (with their addresses and building register codes) are located in sensitive areas at the time of planning, where wind turbines with the maximum permitted height may be used:

1. Kastre, 111020673
2. Kure, 111027338
3. Mõisa, 120727598
4. Laksi, 121271916
5. Kuusiku, 111027396
6. Penno, 111003319
7. Nilbi, 111002504
8. Võndi, 111036915
9. Jõemetsa, 121287118
10. Kääriku-Vidriku, 120860240
11. Uue-Vidriku, 121281375

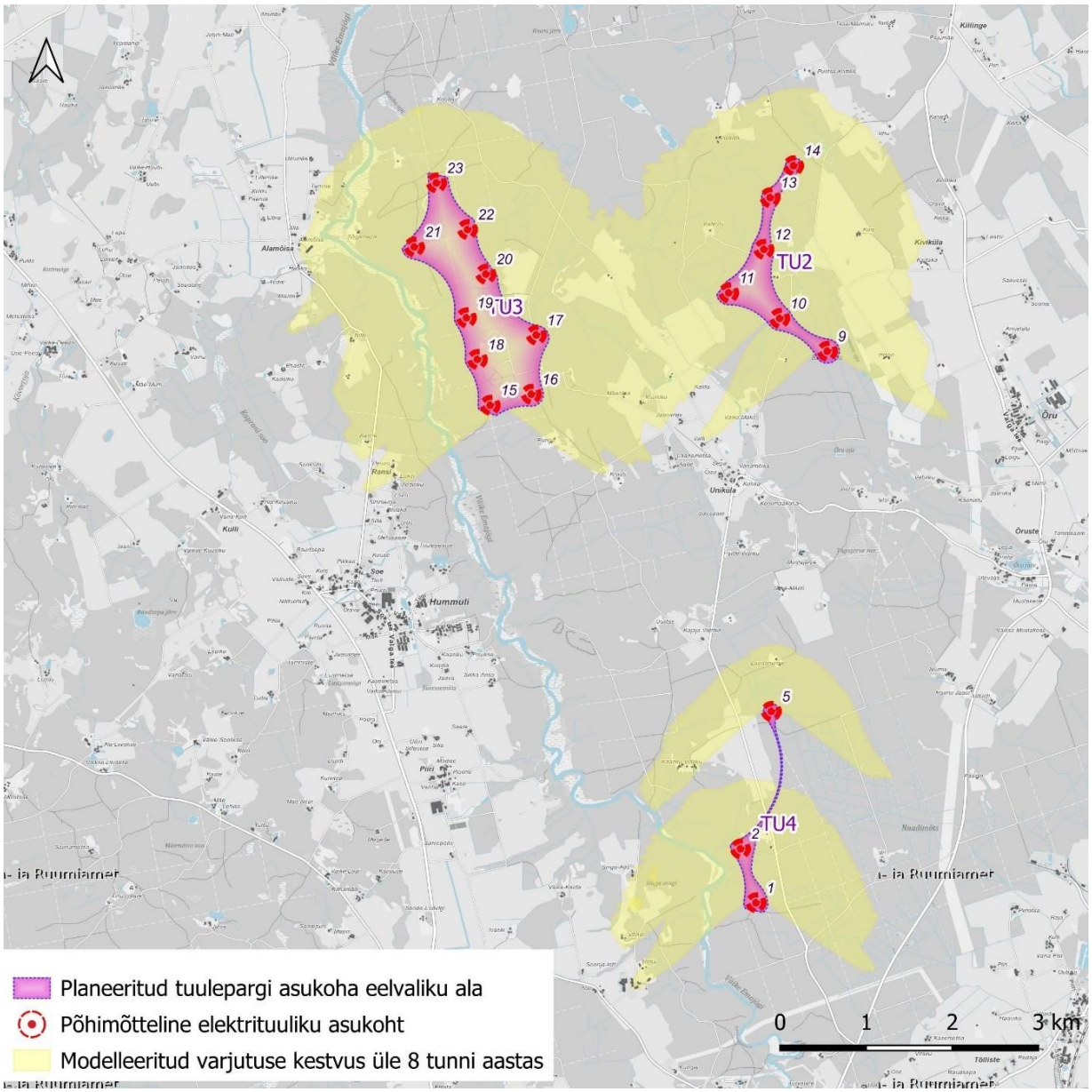

Figure 10. Modelled illustrative shadowing of the wind farm. Eight-hour boundary line, taking weather conditions into account.

The following follow-up monitoring must be carried out with regard to shadowing:

- The shadow assessment carried out during the SEA revealed that several residential areas may experience disturbing levels of shadowing and that measures need to be taken to address this. Shadow flicker at a disturbing level is usually prevented by means of the wind turbine control system, following the necessary wind turbine operation plan (*curtailment plan)*. The wind farm owner is obliged to keep data on the wind turbine control system, which allows for monitoring compliance with the plan for avoiding disturbing levels of shadow flicker. In the event of a complaint, the wind farm owner is obliged to submit the data to the local government and the complainant.

3.11 Visual impact of the wind farm

When constructing a wind farm, the visibility of wind turbines varies depending on their location, with visibility being affected by both the relief and the openness or closedness of the landscape (forests or open areas). Depending on the location of the dwelling and its yard area and the location of the wind turbines, the wind turbines may be highly visible, less visible or not visible at all. Depending on the vertical and horizontal viewing angles of the wind turbines in the wind farm, the change in the landscape view is assessed on a scale *of very low-low-moderate-high-very high (*see KSH section 4.7.3). In the case of the developed planning solution, there will be no residential areas where the change in the landscape view would be very

, but there are 28 residential areas where the wind farm will cause a significant change in the landscape view. The residential areas most affected by the construction of the wind farm are Uniküla, Tõlliste village, Kiviküla and Õruste village, which are located in more open areas. The residential areas with a significant change in the landscape are as follows (street address and building register code provided):

1. Kure, 111027338
2. Õisu, 120780443
3. Metsniku, 111027398
4. Perve, 111026806
5. Väike-Make, 120781817
6. Soosaare, 120312356
7. Kalda, 111026760
8. Kuusiku, 111027396
9. Nilbi, 111002504
10. Sepa, 111026793
11. Kirpu, 111026798
12. Uniküla recreation area, 120588837
13. Pärtle-Vidriku, 111009473
14. Mustajärve, 111009553
15. Pärdiku
16. Kajaja-Vidriku, 120838340
17. Jaanimäe, 111026816
18. Sakala, 120780389
19. Kääriku-Vidriku, 120860240
20. Kooba, 111026780
21. Künka, 111031841
22. Uue-Vidriku, 121281375
23. Õhtupäikese, 120768737
24. Vanamõisa, 120297155
25. Valli, 120780602

Due to the significant change in the landscape, at the request of the landowner, the developer is obliged to:

- create a photomontage of the residential yard to clarify the exact visual impact and the location of the affected viewing sectors;
- based on the photomontage, provide for additional landscaping in the yard area to reduce the visual impact in the viewing directions where the view of the wind turbines is to be avoided. When landscaping, use native species that are suitable for the area, preferably fast-growing species.

3.12 Reducing the impact on vegetation at

When determining the location of wind turbines, the following must be taken into account:

- preserve valuable forest habitats (VEP). In the immediate vicinity of valuable habitats, the construction of drainage ditches and other structures that alter the water regime and significantly change the light regime should be avoided. In the case of VEP areas, a 50 m buffer zone between the actual construction area and the VEP should be taken into account, or construction measures should be provided for to avoid changes in the water regime. A smaller buffer zone is permissible in situations where there is already, for example, a functioning drainage ditch, an existing road or a clear-cut area between the valuable habitat and the planned construction area, which precludes any additional impact of the construction activity on the valuable habitat.
- Preserve areas where habitat types with values A and B of the Habitats Directive (HD) are present. In the immediate vicinity of HD habitat types, the construction of drainage ditches and other structures that alter the water regime and significant changes in the light regime must be avoided. In the case of excessively wet communities, a 50 m buffer zone between the actual construction area and the LD habitat type must be taken into account, or construction measures must be provided for to prevent changes in the water regime. A smaller buffer zone is permissible in situations where there is already, for example, a functioning drainage ditch, road or other structure between the LD habitat type in good condition and the planned construction area, which prevents the construction activity from affecting the valuable community;
- The habitats of known protected plant and fungus species in protection categories I and II shall generally be preserved. With the consent of the Environmental Board, damage to the habitats of plant and fungus species in protection category II is permitted in their less representative populations. In the case of habitats in protection category III, the preservation of the species' habitat must be ensured.

When designing, constructing and/or maintaining a wind farm, the following must be taken into account:

- the location of the infrastructure must take into account the location of high-value plant communities (LD A and B representative areas, forest VEP, habitats of protected plant species). This means that the foundation of the wind turbine, the assembly site, the cable line or other service facilities must not overlap with nature conservation areas or areas with a good ecosystem status; the blades of the wind turbine may extend over the aforementioned areas. When further specifying the locations of wind turbines and infrastructure, it must be ensured that the specification of locations does not cause a greater adverse impact on vegetation than the solution assessed in the SEA. An exception may be permissible if construction measures are implemented to reduce the impact. A corresponding assessment must be submitted in the information required for the preparation of the preliminary EIA assessment to be attached to the building permit application or in an expert assessment;
- When constructing cable lines in semi-natural communities or areas where habitat types listed in the Habitats Directive are present, the excavated material must be removed in layers – grass separately, soil separately and bedrock separately. After installing the cables, fill the channels as naturally as possible, first with bedrock, then soil, and finally with sod taken from the same route area and levelled with the ground surface;
- If possible, mow the edges of wind farm buildings, structures and service roads no more than once a year. Relatively infrequent mowing helps to promote species diversity.
- When restoring greenery, avoid using alien species and establishing monocultural grass cover. Give preference to native plant species and seed mixtures.

In the case of wind turbine no. 7, the construction area of the wind turbine falls within the impact area of VEP127151. This is a pine forest located in a wetland, i.e. the community is sensitive to changes in light and water regime. When establishing the position of the wind turbine, the following should be done:

- use as much of the existing forest road area in the area of position 7 as possible for the construction area in order to minimise the size of the area to be cleared. Maintain a forest strip of at least 10 m adjacent to the VEP area to avoid changes in light conditions and the risk of windbreak in the VEP area.
- When constructing any new drainage systems related to the area of the wind turbine in pos 7, it must be ensured in the construction projects that the draining effect of the drainage system does not extend to the valuable forest habitat. The construction-time water drainage and area drainage project, together with mitigation measures, must be prepared by a designer with the relevant competence and experience;
- The construction period of the foundation pit for the wind turbine to be built must be kept to a minimum in order to avoid a long-term lowering of the water level in the valuable forest habitat VEP127151. When preparing the foundation construction project, the extent of the lowering of the water level must be assessed. If the water level in the VEP area may be lowered by more than
  0.5 m, construction measures must be taken to prevent significant water level reduction in the VEP area. The designer shall select a suitable construction measure. A construction measure to prevent water level reduction in the surrounding areas may be, for example, the use of slurry walls in the foundation pit.

3.13

3.13.1

During the construction and operation of the wind farm:

- timbering and major soil works to be scheduled for the period 21 July to 28 February in order to protect forest breeding birds. Avoid changes to the water regime and other impacts that are not essential for the development. When further specifying the locations of wind turbines and routes during the design phase, it must be ensured that changing the locations does not cause a greater adverse impact on birdlife than the assessed solution. The relevant assessment must be submitted in the information required for the preparation of the preliminary EIA assessment to be attached to the building permit application or in an expert assessment;

- construction work on wind turbines 1 and 15 must be carried out outside the nesting period from 31 July to 1 March, as these wind turbine locations are within a 1 km buffer zone of the corncrake's habitat;
- it is recommended to increase the visibility of the wind turbine for birds when constructing it (use a colour combination that reduces the risk of collisions or other technology that improves the visibility of the wind turbine for birds);
- During the migration period, wind turbines should be shut down during periods of high bird activity or by means of a corresponding control system in all location selection areas. Based on spot observations, migration is most active in this region in autumn from 1 to 20 October and in spring from 15 March to 15 May. Scientific studies have shown the effectiveness of such measures in preventing collisions and thus also in preventing bird deaths. The length of the period and the need for implementation can be specified on the basis of follow-up monitoring.
- In the TU3 location selection area, to reduce the risk of collision with birds, wind turbines should be switched off when birds of prey approach, using machine learning programmes such as http://nvisionist.com/nvbird-wtg/ or similar. The implementation of this measure can be recommended in all location selection areas, as birds of prey in protection categories I and II (lesser spotted eagle, white-tailed eagle, osprey, etc.) use the airspace in all study areas to reach their feeding grounds, e.g. (farmland, Väike-Emajõgi River);
- if possible, equip birds of prey nesting in the vicinity with GPS devices to assess their risk of death and/or flight trajectory due to the construction of wind turbines.

3.13.2 Follow-up

Follow-up monitoring should include:

- conduct a bird inventory using a counting method comparable to the methodology used in the study (conduct a point count of birds, woodpeckers, hazel grouse and capercaillie) at least twice in a five-year period after the final or substantial completion and commissioning of wind turbines in the relevant development area (the first time after the wind turbines have been commissioned and the second time five years after the first inventory). Follow the guidelines prepared by the Environmental Board([18]) with regard to counting methods;
- search for dead birds, including tests of searcher performance and predation load, for two years after the final or substantial completion and commissioning of the wind turbines in accordance with the methodology. The methodology is described in section 5.3 of the analysis of the terrestrial bird fauna. Searches for dead birds shall be carried out twice a month during snow-free periods. Monitoring is carried out under all wind turbines in the wind farm (in the case of wind farms with more than ten wind turbines, the number of wind turbines to be monitored may be specified in cooperation with the Environmental Board) within a radius at least equal to the length of the wind turbine blade, measured from the tower of the wind turbine (the search area may be reduced depending on the search conditions). The monitoring scheme may be specified based on the analysis of the monitoring results. If the monitoring reveals an undesirable environmental impact on birdlife, the experts conducting the monitoring must propose a suitable set of measures to prevent, minimise or compensate for the environmental impact.
- In order to prevent, minimise or compensate for any undesirable effects revealed by the monitoring, it may be justified to amend or adjust the operating permits issued to the facility.

[18] Mägi, M., Saad, P. 2024. Methodology for biodiversity studies in wind farms and minimum requirements for follow-up monitoring

3.14

3.14.1

When constructing a wind farm, avoid logging and clearing of forest stands over 60 years old during the period 15.04-15.09 to avoid the death of bats in their summer roosts.

3.14.2 Impact during operation reduction

All study areas are forest landscapes where there is an increased risk of bat mortality. The optimal mitigation measure to reduce bat mortality is to shut down wind turbines during the dark hours when bats are active (generally from early May to late September). Taking into account the seasonality of bat migration (if migration is seasonal), precipitation and wind speed at which bats fly, it is possible to minimise the loss of wind farm productivity. In order to avoid significant bat mortality, wind turbines should be stopped at night during the bats' active period in weather conditions that favour bat activity, i.e. in situations where the wind speed is below 5 m/s, there is no precipitation and the air temperature is above +5 °C. The effectiveness of mitigation measures based on limiting the operating hours of wind turbines has been repeatedly proven in studies, and location-based mitigation measures have succeeded in reducing the number of bat deaths by 78%.

Considering the results of the study, it is appropriate to stop wind turbines at night in the following periods when weather conditions favour bat activity:

- in the northern part of location 2, it is important to stop wind turbines during the breeding season (1 June to 15 July) and autumn migration (15 August to 15 September);
- In location 3, bat activity was consistently high across the entire area, which means that wind turbines must be be stopped for the entire bat activity period from 1 May to 15 September;
- In location selection area 4, wind turbines must be stopped for the entire bat activity period from 1 May to 15 September in areas located up to 500 m from the Väike Emajõgi River. Restrictions apply to the rest of the area during the breeding season (1 June to 14 July).

The previously recommended time restrictions may be replaced by operating restrictions based on a corresponding monitoring system, if this is technically and economically feasible. In the case of time restrictions, the restriction period and weather conditions may also be specified on the basis of follow-up monitoring.

For forest communities that serve as bat roosting sites located between wind turbines 13 and 14
the following logging restrictions shall apply:

- logging in the breeding forest area is prohibited from 1 May to 15 August. Clear-cutting is prohibited in the area. Regeneration felling may be carried out by selective felling and selective cutting. During felling, retention trees with a total stem volume of at least 15 cubic metres per hectare or at least 20 trees per hectare must be left standing. When leaving retention trees, follow the RMK retention tree guidelines or other relevant and up-to-date guidelines. If available, preserve hollow trees, dead standing trees and stumps during logging. Preferably, leave linden, ash, oak, alder, aspen and old birch trees as retention trees, as they most often develop hollows suitable for bats. Compliance with these logging conditions throughout the lifetime of the wind farm will help preserve the forest community necessary for bat habitats.

3.14.3 Follow-up monitoring

Follow-up monitoring should:

- clarify the risk of bat mortality and the avoidance rate of wind turbines (during spring migration 01.05–31.05; during the breeding season 01.06–14.07; during autumn migration 01.08–15.09);

- record bats at the working radius of the wind turbine rotors using automatic bat recorders. Based on the data, it is possible to optimise the operating time restrictions of wind turbines and, if possible, reduce the time when wind turbines are not allowed to start up or, if necessary, increase the restriction to avoid significant adverse environmental impacts;
- in addition, measure bat activity near tree crowns and the ground, as well as at various distances from wind turbines (e.g. up to 100 m, 500 m, 1000 m), taking into account weather conditions (wind direction, temperature, precipitation), which will allow for further analysis of the possible effects of wind turbines on bats;
- if possible, (recommended measure) use trained dogs dead bats under wind turbines;
- In order to prevent, minimise or compensate for any undesirable effects identified as a result of monitoring, it may be justified to amend or adjust the operating permits issued to the facility.

3.15 Natura 2000 network

When making the preliminary selection of the location for the special plan, the location of areas belonging to the Natura 2000 network was taken into account in order to ensure the favourable status of the areas and their conservation objectives. Natura 2000 areas were excluded as potentially suitable areas in the initial map analysis. Due to the possible adverse impact on the Sauniku nature reserve, the planning of a wind farm in the potentially suitable area TU1 was abandoned. A bird survey has identified relatively active migration of geese in all potentially suitable areas. A direct connection with the Võrtsjärve bird area has not been confirmed, but it is likely to exist.

Based on the precautionary principle, wind turbines should be shut down during the high activity period of bird migration or by means of a corresponding control system in all location selection areas. Based on spot observations, migration is most active in this area in autumn from 1 to 20 October and in spring from 15 March to 15 May. Scientific studies have shown the effectiveness of such measures in preventing collisions and thus also in preventing bird deaths. The length of the period and the need for implementation can be specified on the basis of follow-up monitoring.

3.16 Ecosystems

Based on the ELME project's ecosystem status assessments, ecosystems in good condition must be preserved. In the immediate vicinity of ecosystems in good condition, the construction of drainage ditches and other structures that alter the water regime and significant changes to the light regime must be avoided. At the same time, there are situations where a logical road or cable corridor that is appropriate for orthophotos and/or actually exists in nature passes through an ecosystem in good condition. During the design phase, the current status of the ecosystem must be specified and a final solution must be decided based on the nature of the planned facility.

When further specifying the locations of wind turbines and routes, ensure that changing the locations does not cause a greater adverse impact on the condition of ecosystems than the assessed solution. The relevant assessment must be submitted in the information required for the preparation of the preliminary EIA assessment to be attached to the building permit application or in an expert assessment.

3.17 Connectivity of the green network, including animal habitats

When planning wind farm construction areas, the proportion of natural areas in any element of the green network must not fall below 90%; this requirement is met in the proposed solution. In addition, when placing wind turbines and related infrastructure in the green network, minimal fragmentation of the green network must be ensured. In the case of corridors, the edges of the corridor should be preferred as locations for wind turbines and fragmentation of the corridors by new roads should be minimised.

In the further planning of the wind farm, the following should be taken into account:

- minimise the extent of forest area to be cleared. Make maximum use of existing roads as access roads. When designing wind turbine assembly sites, give preference to solutions that minimise the area to be cleared (e.g. use access roads as part of the sites).
- avoid the destruction or significant impact on amphibian breeding sites when designing the wind farm. If this is unavoidable, it is necessary to create suitable replacement water bodies for amphibian breeding. If water bodies (e.g. ditches or fire water reservoirs) are planned as part of the wind farm, they should be designed in such a way that they can also function as amphibian breeding sites. At the same time, such water bodies suitable for amphibians must not be established closer than 200 m from wind turbines in order to avoid attracting bats to the wind turbines.
- In green network support areas, avoid further drainage of forest areas that have not yet been drained or have been drained to a lesser extent, as this would reduce the biodiversity of the area and the ecological and climate change mitigation value of the support area.

3.18 Water bodies

In the further planning of the wind farm:

- the hydrological regime and quality status of water bodies must not be affected;
- during construction work, especially when crossing water bodies and carrying out work in the construction restriction zone, damage to the banks of water bodies, the risk of erosion and the entry of soil and pollution into water bodies must be avoided. Construction machinery and vehicles are not permitted to drive in water bodies;
- if additional drainage ditches or significant reconstruction of existing drainage ditches and water diversion during construction are planned in wind farm areas, flow stabilisers must be provided for the ditches before they flow into receiving waters or natural water bodies (settling ponds or purification beds) must be provided to reduce sedimentation;
- Construction activities must not impair the functioning of existing land improvement systems (drainage). If it is unavoidable to affect drainage, the drainage system must be reconstructed as necessary to ensure the continued functioning of the land improvement system. When designing, it is necessary to take into account existing land improvement structures, including, if necessary, planning their reconstruction or supplementation, and the activity must not change the water regime in the areas surrounding the system. Construction projects must be coordinated with the Land and Spatial Planning Agency;
- where possible, preference should be given to locating wind turbines in areas with more suitable geological conditions, which reduce the need for drainage and soil works. For the design of a wind farm, a construction geological survey must be prepared by a competent company, on the basis of which a suitable foundation solution must be determined and the possible impact of the wind farm on surfaceand groundwater, and, if necessary, measures must be planned to prevent significant adverse effects on surface water and groundwater.

For wind turbines 1 and 2, the following additional measures must be taken:

- based on the engineering geological survey, a suitable technical solution for the foundation, assembly site and access road must be found, paying attention to ensuring the stability of the slope;
- solutions with minimal space requirements should be preferred, as they allow for maximum preservation of the existing vegetation cover on the slope. The vegetation cover acts as a buffer system on the slopes of water bodies, reducing the amount of sediment, nutrients and pollution entering the water body;

- The construction project should include both construction and work organisation measures to prevent slope failures and, in the event of heavy rainfall, the transfer of sediment, construction materials, etc. into the water body.

3.19 Impact on soil and the humus layer of

In the further planning of the wind farm:

- if possible, avoid constructing buildings necessary for servicing the wind farm on valuable agricultural land. In the case of valuable agricultural land, locate buildings on the edge of the massif to ensure efficient use of the massif. The wind farm and its service infrastructure must not significantly impair the intended use of valuable agricultural land (the planned basic solution does not overlap with valuable agricultural land);
- Use functional and well-maintained transport and construction machinery for construction work. Prevent the leakage of hazardous substances from vehicles and machinery into the environment.
- Reuse the topsoil on site as much as possible. Spread high-quality soil on the surrounding preserved agricultural land to ensure its continued agricultural use.
- Once the soil work is complete, the area should be cleaned up and landscaped.

3.20 Climate and climate resilience of

In the further design of the wind farm, attention should be paid to ensuring that the construction of the wind farm does not result in significant drainage of wetlands in the surrounding areas. The impact of forest clearing is subject to compensation in accordance with the Forest Act and the Environmental Charges Act. In the further design of wind farms in potentially suitable areas 3 and 4, the risk of flooding must be taken into account and appropriate measures must be implemented in the design of the wind farm infrastructure to ensure access to the wind turbines even in flood conditions and the stability of the roads. It is recommended not to plan wind turbines and infrastructure in areas at risk of flooding.

3.21 water body construction restriction zone

The planned wind farm is located in areas that are subject to construction restrictions .
According to the Nature Conservation Act, the construction restriction zone does not extend to:

- land improvement systems, except for polders;
- underground cables;
- planned by a local government special plan for a wind farm:
  - technical networks and facilities;
  - publicly accessible roads;
  - land improvement system headwater, which does not cover natural water body, shore construction restriction zone on the surface of the rotor blade base.

The design must be based on applicable law and, on this basis, the locations of wind turbines and the infrastructure serving them must be planned.

3.22 Cultural values

The planning solution does not affect cultural values under state protection.

Well-preserved and very well-preserved heritage sites (Sõgelsepa forest road, Sõgelsepa border post) must be preserved in the further planning of wind farms. In the further planning of the wind farm, it is recommended that information material about the wind farm include information about all of the following cultural objects and, mandatorily, the first three (a brief summary of what they are and where they are located):

- Sõgelsepa forest road, 943:MET:001;

- Sõgelsepa border post, 943:MEK:001;
- Uniküla rocket base, 943:OKU:002;
- Turbaaugud, 608:TVK:001;
- Mustumetsa forest guard station, 943:VKK:004;
- Metsaveo railway, 943:RTR:001;
- Tõlliste parish hall, 820:VAL:002;
- Magasiait, 820:MAG:001;
- Old Tartu-Valga road, 820:MNT:002.

It is recommended that heritage sites be restored, marked and made accessible to the public.

3.23 Impact on communication services

In the further planning of the wind farm, cooperation is required with the Ministry of Defence, the Transport Administration, the Information Technology and Development Centre of the Ministry of the Interior, the Consumer Protection and Technical Regulatory Authority, and communications network operators to clarify the possible impact of the wind farm on radars and communications services (especially radio communications).

3.24 Waste generation

During the construction and operation of the wind farm, the following must be done:

- appropriate waste prevention measures must be implemented and care must be taken to ensure that the waste generated does not pose an excessive risk to health, property or the environment. The waste generated must be collected separately in containers that are suitable for the type of waste and resistant to its physical and chemical properties. When collecting waste in piles, preference should be given to hard surfaces or, if necessary, the ground and/or waste should be covered with a weatherproof and leak-proof cover to prevent pollutants from entering the environment and spreading with the wind as a result of waste or leaching from waste;
- Avoid long-term storage of waste at the place of generation and transfer the waste generated to an authorised waste handler for treatment at the earliest opportunity. When selecting a waste handler, it is advisable to apply the principle of proximity in order to reduce the negative impact of waste transport on the environment.
- be guided by the waste hierarchy in order of priority. Waste that can be recycled or reused must be sent for treatment accordingly. When sending waste for reuse, recycling must be given priority;
- Waste that is suitable and permitted for reuse at the place of generation should be reused on site to the greatest extent possible. The reuse of waste at the place of generation must be guided by the requirements set out in the relevant legislation.
- In order to reduce the likelihood of emergency situations, continuous monitoring of waste management must be implemented and, in the event of pollution, its appropriate and rapid elimination must be ensured.

At the end of the wind farm's life, the owner of the wind farm is obliged to reconstruct or dismantle the wind farm. In the event of dismantling, this must be carried out in accordance with the dismantling project, including the proper handling of all waste generated during dismantling.

3.25 Emergency situations

The design must be carried out in cooperation with the Rescue Board. Possible emergency situations and risks (including the risk of ice falling
) must be addressed in the next stage.

4 Implementation of the plan

Further planning of the wind farm must be carried out in cooperation with Tõrva Municipality and the relevant state authorities. After the establishment of the special plan, the following stages are possible for the construction of the wind farm:

1. issuing of design conditions;
2. application for connection conditions from the main network operator;
3. concluding agreements on rights in rem with landowners. No construction may be carried out on any landowner's land without the landowner's consent. All construction projects must be coordinated with the landowner. State land is made available for use in accordance with the procedure laid down in the State Property Act and the Forest Act;
4. establishing easements and other real right agreements (e.g. agreeing on the reinforcement of roads or ensuring turning radii for their reconstruction) for roads, power transmission lines (underground cables) and, if necessary, other technical networks;
5. implementation of measures necessary to reduce the impact of shadowing or conclusion of relevant agreements on the tolerance of shadowing in areas where shadowing occurs at a disturbing level;
6. design, including necessary surveys (geodetic measurements, geological surveys, etc.) and analyses. Preparation of a preliminary EIA assessment or corresponding expert assessments. Noise modelling based on the project solution and verification of compliance with the standards set out in noise legislation;
7. Conclusion of additional agreements arising from the design;
8. Applying for and issuing building permits;
9. Project-specific implementation, i.e. construction and other activities in accordance with all conditions specified in the planning and construction project;
10. applying for operating permits. As an annex to the operating permit application, the applicant must submit the results of a noise assessment, on the basis of which the local government can assess the permissibility of new noise-sensitive buildings in the vicinity of the wind farm;
11. issuing operating permits;
12. monitoring and necessary adjustments to activities based on the monitoring results in the future.

If the plan is to be implemented in stages, i.e. not all of the planned wind turbines will be built at once, then all of the buildings necessary for the implementation of the relevant stage must be designed and building permits applied for at the same time.

5 Summary

The initial objective of the plan is to establish a wind farm. Through the assessment of the relevant economic, cultural, social and environmental impacts and the public participation process, a planning solution has been developed through the balancing and integration of interests, which, with the conditions set out in its explanatory memorandum and drawings, ensures the rational use of land and the fulfilment of renewable energy objectives. The planning solution provides confidence that, by fulfilling the conditions of the plan, including mitigation and monitoring measures, the planning solution can be implemented in the territory of Valga Municipality. With regard to the noise impact extending to the territory of Tõrva Municipality, it must be ensured when issuing permits that the situation there corresponds to the situation at the time of planning.

6 Drawings

Main drawing

7 Appendices

Valga Municipality special plan relevant impacts, including the first stage of the strategic environmental assessment stage