REPUBLIC OF ESTONIA
MINISTRY OF CLIMATE

To the Points of Contact for the Espoo Convention in Finland, Latvia, Lithuania and Sweden

19.11.2025 21-6/25/56-3

Notification in accordance with Article 3 of the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention) regarding the offshore wind farm in Saare 1 area

As the Party of origin, Estonia is hereby sending a notification in accordance with Article 3 of the Environmental Impact Assessment in a Transboundary Context (Espoo Convention) regarding the project plan by the developer Oxan Energy (hereinafter *the Developer*) to construct an offshore wind farm in the Saare 1 area in the Baltic Sea.

Description of the project

The Developer intends to construct an offshore wind farm in the Baltic Sea.

The proposed Saare 1 offshore wind farm will consist of up to 60 wind turbines with a total capacity of up to 900 MW and up to 3 substations. The planned maximum power of one wind turbine is up to 30 MW and the maximum height above average sea level is up to 365 meters. Additionally, it is planned to construct up to 3 hydrogen production platforms, along with necessary production facilities, and up to 6 algae cultivation facilities in the Saare 1 area. The planned area of the Saare 1 site is 88 km^2.

A schematic map illustrating the location of the proposed project is enclosed in Annex 1. The proposed activity may have a transboundary impact on various aspects, including marine water quality, marine mammals, fish and bird populations, bats, and protected natural objects. Therefore, as the decision-maker responsible for development consent, the Consumer Protection and Technical Regulatory Authority has requested that the Ministry of Climate notifies potentially affected parties.

Please take also into consideration that according to the Estonian Transport Administration the proposed Saare 1 offshore wind farm is located in the flight information zone of Latvia.

Environmental impact assessment procedure

On 29 September 2024, the Developer submitted an application to the Consumer Protection and Technical Regulatory Authority for a superficies licence for the Saare 1 area. As per the Building

Address Suur-Ameerika 1/ Tallinn 10122, Estonia/ Phone +372 626 2802/ E-mail info@kliimaministeerium.ee/ Web Page www.kliimaministeerium.ee/ Registration No 70001231

Code, a superficies licence is the right to encumber a delimited part of a public water body with a construction work that is permanently connected to the bottom of the water body and is not permanently connected to the shore. The developer applied for a superficies licence valid for 50 years. The application is enclosed in Annex 2.

According to the Environmental Impact Assessment and Environmental Management System Act (hereinafter *the Act*), the decision-maker will determine whether to initiate an environmental impact assessment (*hereinafter EIA)* based on the application for the development consent. The Consumer Protection and Technical Regulatory Authority initiated the procedure for superficies licence in the Saare 1 area, along with an EIA, on 17 June 2025 (decision number 1-7/25/205; Annex 3).

As stipulated by the Act, following the initiation of the EIA, the leading expert or an expert group under the supervision of the leading expert will prepare an EIA programme (scoping document). The decision-maker will seek opinions from all relevant authorities regarding the content of the EIA programme and will organize its public display and public hearing. After considering the opinions received during this process, the developer will submit the EIA programme to the decision-maker for verification of compliance with the requirements.

Subsequently, based on the EIA programme declared compliant, the EIA report will be prepared. The EIA report stage involves procedures similar to those in the programme stage.

When making a decision to grant or refuse to grant development consent, the decision-maker will take the results of the EIA and the environmental measures outlined in the EIA report into account. This also includes, where relevant, the results of transboundary consultations.

If the affected party intends to participate in the EIA procedure, the drafts of the EIA programme and EIA report will be forwarded to the affected state. Consultations are commenced regarding the environmental impact resulting from the proposed activity and environmental measures to be taken.

Answer to the notification

Kindly send the answer to this notification to the Ministry of Climate (info@kliimaministeerium.ee) by 18 January 2026 and:

- acknowledge receipt of the notification;
- indicate whether your country intends to participate in the offshore wind farm project's EIA procedure;
- provide possible comments concerning the scope for the assessment of the environmental impacts of the project affecting your country.

Bilateral Agreement between Estonia and Finland

In relation to the Agreement between Estonia and Finland on environmental impact assessment in a Transboundary Context, we wish to bring to Finland's arrention the 13th meeting of the joint Commission on EIA. During this meeting, the Commission discussed the EIA notification practice between the countries and proposed to continue following the existing practice. However, in justified cases, Finland has the option to decide whether to participate in the specific EIA procedure at the EIA programme stage.

Contacts information

- Developer: Oxan Energy – Mr. Nicolas Paul-Dauphin, nicolas.paul-dauphin@oxan.energy
- Decision-maker: Consumer Protection and Technical Regulatory Authority – Ms. Carmen Tau, carmen.tau@ttja.ee
- Transboundary EIA procedure: Ministry of Climate – Ms. Lilli Tamm, lilli.tamm@kliimaministeerium.ee

Sincerely Yours,

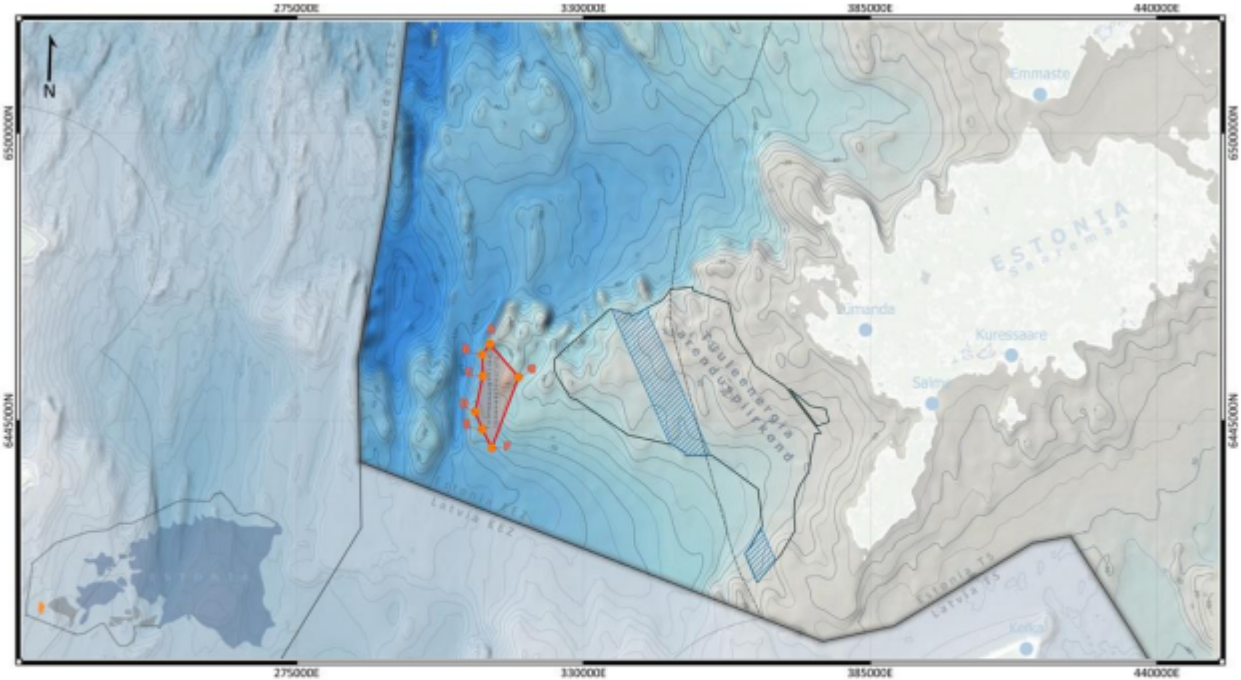
(signed electronically)
Birgit Parmas
Point of Contact for the Espoo Convention

Enclosures:
1. Annex 1 – map of the proposed activity
2. Annex 2 – superficies licence application
3. Annex 3 – EIA initiation decision

List of recipients (Points of Contact):
- Finland: Finnish Environment Institute, transboundaryEIA.SEA@syke.fi; kirjaamo@syke.fi
- Latvia: State Environmental Service of the Republic of Latvia, pasts@vvd.gov.lv
- Lithuania: Mr. Vitalijus Auglys (Ministry of Environment), vitalijus.auglys@am.lt; cc: Ms. Beata Vilimaite Silobritiene (Ministry of Environment), beata.vilimaite-silobritiene@am.lt
- Sweden: Mr. Richard Kristoffersson (Swedish Environmental Protection Agency), richard.kristoffersson@swedishepa.se

For information:
1. Oxan Energy, nicolas.paul-dauphin@oxan.energy
2. Consumer Protection and Technical Regulatory Authority, info@ttja.ee

Lilli Tamm, +372 6269133
lilli.tamm@kliimaministeerium.ee



0 5 10 15 NM

0 10 20 30 km

Mõõtkava 1: 800 000
Koordinaatsüsteem: Eesti 1997. aasta koordinaatsüsteem
Ellipsoid: GRS 80
Ühikud: [meetrit]

OWC
An ABL Group Company

Tuuleenergeetika innovatsiooniala – Saaremaa läänepoolne osa

Legend

- Territoriaalmere piir
- Majandusvööndi piir
- Tuuleenergeetika innovatsiooniala – koordinaatpunktid
- Tuuleenergeetika innovatsiooniala
- Tuuleenergia arenduspiirkond
- Laevanduse jaoks vajalik ala

Batümeetria [m]

- vahekaugusega 1 m
- vahekaugusega 5 m
- vahekaugusega 10 m

Punkt	X [m]	Y [m]
A	312033.00	6439593.00
B	310573.00	6437614.00
C	310661.00	6453493.00
D	309232.00	6446636.00
E	310580.00	6443302.00
F	312421.00	6439770.00
G	317559.00	6453318.00

Application for a superficies license to encumber a public water body with an offshore wind farm in the Saare 1 area

Update

Tallinn, 21 October 2024

Oxan Energy
7 rue Eugène Millon
75015 Paris
France

Date: 21.10.2024

Consumer Protection and Technical Regulatory Authority
Endla 10a, Tallinn 10142
info@ttja.ee

Application for a superficies license to encumber a public water body with an offshore wind farm in the Saare 1 area

This application responds to the notice of the intention to initiate the superficies licence procedure for the construction of an offshore wind farm in the Saare 1 area of CI Estonia Wind GmbH & Co. KG dated April 22, 2024, announced by the Consumer Protection and Technical Regulatory Authority (TTJA) on their web page (address: https://ttja.ee/).

Oxan Energy (hereinafter: **Oxan**, **Applicant or the Company),** hereby submits to TTJA a competitive application (hereinafter: **Application**) for a superficies license in accordance with § 113^3 of the Building Code and in line with the requirements of subsection (2) of § 113^9 of the Building Code, for encumbering a public water body with an offshore wind farm and associated facilities described further in this Application to be built in the Saare 1 area, covering ca 88 km^2, defined in the Estonian maritime spatial plan[1] (hereinafter: **MSP**) west of the coast of Saaremaa.

This Application is compliant with existing legal framework and offers an in-depth explanation regarding fulfilment of criteria presented in § 113^9 (2) of the Building Code. The Applicant plans to be the operator of the project during its development, construction and operation phases.

The Applicant is looking forward to positive decision regarding this Application. If required, the Company will be happy to provide further information related to the Applicant, the proposed solution or other elements of this Application.

Yours faithfully,

Nicolas Paul-Dauphin

President of the Management Board

[1] Available on the planning portal: http://mereala.hendrikson.ee/dokumendid/Planeeringulahendus/Kehtestamisele/1_MSP_Seletuskiri.pdf (last viewed 13.02.2023)

Table of Contents

Definitions and acronyms

The following definitions and acronyms have been used throughout this document.

Item	Explanation / Description
AIS	Automatic Identification System
AI	Artificial intelligence
Capex	Capital expenditure - Expenditure related to the construction phase of the Project
CfD	Contract for Difference
COD	Commercial Operation Date
CTV	Crew Transfer Vessel
Devex	Development Expenditure - expenditure related to the development stage of the Project to obtain a construction permit
DSCR	The debt-service coverage ratio is a measure of the cash flow available to pay current debt obligations
EBIDTA	Earnings before interest, taxes, depreciation and amortization
EIA	Environmental Impact Assessment
EEZ	Exclusive Economic Zone
EPCI	Engineering, Procurement, Construction and Installation
ESG	Environmental, Social, Governance
EYA	Energy Yield Assessment
FEED	Front End Engineering Design
FID	Final Investment Decision
FIDIC	Fédération Internationale Des Ingénieurs-Conseils, which means the international federation of consulting engineers
Ft	Foot, 1 ft = 0,3048 m
FTE	Full time equivalent
GDP	Gross Domestic Product
GIS	Geographic information system
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
HSE	Health Safety Environment
IRR	Internal Rate of Return
LC	Local content
LCOE	Levelized Cost of Energy
LCOH	Levelized Cost of Hydrogen
LH2	Liquid hydrogen
MSP	Maritime Spatial Plan

Item	Explanation / Description
OEM	Original Equipment Manufacturer
Opex	Operating Expenditure - Expenditure related to the operation stage of the Project until decommissioning begins
OSS	Offshore Substation
P2G	Power to Gas
P2G2P	Power to Gas to Power
R&D	Research and Development
Repowering	The process of replacing older power plants with new ones
ROV	Remotely Operated Vehicle
SEA	Strategic Environmental Assessment
SES	Surface Effect Ship
SPV	Special Purpose Vehicle
SOV	Service Operating Vessel
T&I	Transport and Installation
TRL	Technology Readiness Level
TTJA	Consumer Protection and Technical Regulatory Authority
UN	United Nations
UXO	Unexploded Ordnance
WTG	Wind Turbine Generator

1. Legal basis and method of submitting the Application

This application responds to the notice of the intention to initiate the superficies licence procedure for the construction of an offshore wind farm in the Saare 1 area CI Estonia Wind GmbH & Co. KG dated April 22, 2024 announced by the Consumer Protection and Technical Regulatory Authority (TTJA) on their web page (address: Riigimaale hoonestusõiguse seadmise teated | Tarbijakaitse ja Tehnilise Järelevalve Amet (ttja.ee)).

According to § 113^1 (1) of the Building Code (hereinafter: EhS), a superficies license is a fixed-term right to encumber the area of a public water body with a construction work permanently connected to its bottom which is not permanently connected to the shore. As the offshore wind farm is not permanently connected to the shore, a superficies license must be applied for in order to plan the encumbering of a public water body with a wind power plant. In accordance with EhS 113^3 (1) the application for a superficies license is submitted to the competent authority, which is the Consumer Protection and Technical Regulatory Authority (hereinafter: **TTJA**). This Application is submitted to TTJA via e-mail: info@ttja.ee.

The structure of this Application reflects in full the scope of the application presented in subsection 113^3 (2) and 113^9 (2) of the Building Code and "Instructions: Assessment of competing applications for a superficies licence" issued by TTJA in December 2023 (version 3).

This Application is based on the information known at the time of its submission, and the exact equipment, their dimensions, the mode of connection of the wind farm, etc. will be determined in the course of project development and will reflect the results of environmental and other studies and the EIA as well as the technology developed and available at the project design stage.

2. About the Applicant

2.1. General and statutory information

This Application is submitted by Oxan Energy, a company registered in France, organization number: 952 617 298 at 7 rue Eugène Millon 75015 Paris, with the statutory purpose of development, construction and operation of offshore wind projects and green hydrogen production units, including being as a service provider for third parties.

The contact details for this Application from the Applicant side is:

Name: Nicolas Paul-Dauphin

e-mail: Nicolas.paul-dauphin@oxan.energy

The Applicant confirms that the information filed with the Commercial Register, as well as those concerning the company's shareholders and its beneficial owners, is complete and accurate.

Commercial Register (language) has been appended to this Application as **Annex 1**.

The Entity's entries in the Register of Beneficial Owners (language) has been appended to this Application as **Annex 2**.

2.2. Business activity, capabilities and economic strength of the Applicant

Oxan Energy is a developer of renewable energy projects specialized in marine energies and particularly in floating offshore wind. Created in 2023 and based in France, the company is active internationally, mainly on European markets. With its team of recognised experts, Oxan Energy relies on more than 12 years of experience in floating offshore wind and thus gathers all the relevant skills and competences for the development of its projects. Oxan Energy is genuinely engaged in the energy transition, committed to figuring out solutions for a viable future for energy using offshore natural resources.

WHO WE ARE

OXAN ENERGY IS THE FLOATING OFFSHORE WIND PARTNER

- An offshore wind developer created in June 2023 by floating wind pioneers
- A business model: Equity partner in offshore wind projects/tenders with the intention to become an Independent Power Producer (IPP)
- Strong floating wind technical and bid management expertise
- Funded by a solid investor SWEN Capital Partners

OUR MISSION

IS TO BRING TOGETHER EXPERTISE AND MULTIPLYING ENERGIES TO DEVELOP PROJECTS TO MEET THE CHALLENGE OF ENERGY TRANSITION.

Please see more on Applicants' business activity, capabilities, ownership structure and economic strength in **Annex 3** to this Application.

2.3. Company ESG approach

2.3.1. Philosophy and values

Development of an effective ESG strategy requires a methodical and considered approach. Oxan Energy started by identifying and prioritizing their ESG challenges, establishing a dialogue with stakeholders to define company's ESG objectives, then choosing and collecting key ESG indicators and starting to develop required policies.

Oxan Energy begun the diagnostic phase based on ISO 26000 standards. In a second phase, the company will enrich their approach by using the Corporate Social Responsibility Directive (CSRD) method.

Diagnostic scope: to date, Oxan Energy have positioned themselves as a FOW developer. For certain items, the company assumes the role of making projections based on their knowledge and experience of past projects, in order to define more relevant objectives.

Providing a sustainability report will be a next medium-term project, aiming at demonstrating company's holistic approach, reinforcing company's transparency and legitimacy in terms of social responsibility, and meeting the growing expectations of the stakeholders.

Oxan Energy philosophy and values are presented in Figure 1 below.

Figure 1 – Oxan Energy philosophy and values

Source: Applicant

2.3.2. ESG strategy and actions

Actions to be taken as part of Oxans Energy ESG strategy are as follows:

Environmental protection

a. Mitigation and adaptation to climate change: Support a precautionary approach by communicating potential risks to our stakeholders and providing them with comprehensive risk information:

   i. A code of conduct or practice for our operations is currently being drawn up, which will confirm and frame our commitment to respecting the environment and contributing to sustainable development;

   ii. Company policy/agreements on well-being, Quality of life at work, remote working agreement, to raise employee awareness of ecological behaviors and actions;

   iii. Make an assessment of greenhouse gas emissions, by carrying out a carbon footprint assessment'

Social & Society responsibilities

a. Employees: Oxan Energy's most valuable resource is its team members wellbeing:

i. Setting up a training program to promote skills enhancement & continuous learning

ii. Awareness-raising sessions on occupational health and safety issues

b. Local commitment and concertation: Develop and operate projects that involve local communities, thereby helping to reduce the risks and costs of offshore wind energy and lowering electricity prices in countries that open up their territories to projects development.

i. Develop innovative technological solutions for:

- The various components of a wind farm (turbines, foundations, cables, etc.) and,
- Combine with storage solutions (hydrogen), to overcome the variability of renewable energies or facilitate their integration into electricity grids.

Governance challenges

a. Business relationships: Sustainable Procurement through our supply chain according to clearly defined principles in order to prevent breaches of fundamental rights:

i. Code of Conduct in progress, to work against corruption in all its forms;

ii. Internal protection system for warning and the protection for whistleblowers.

3. Annex 3 – Confidential information Project concept and main technical characteristics

3.1. Project concept

This Application relates to a project, to be established in the Saare 1 area (**Figure 2** below), covering ca 88 km^2, defined in the MSP as an area suitable for wind energy development, with total capacity of up to **900 MW** and up to **60 offshore wind turbines**, connected to the grid, generating green electricity, and/or potentially producing alternative fuels offshore (at the turbine or on separate platforms), together with associated infrastructure.

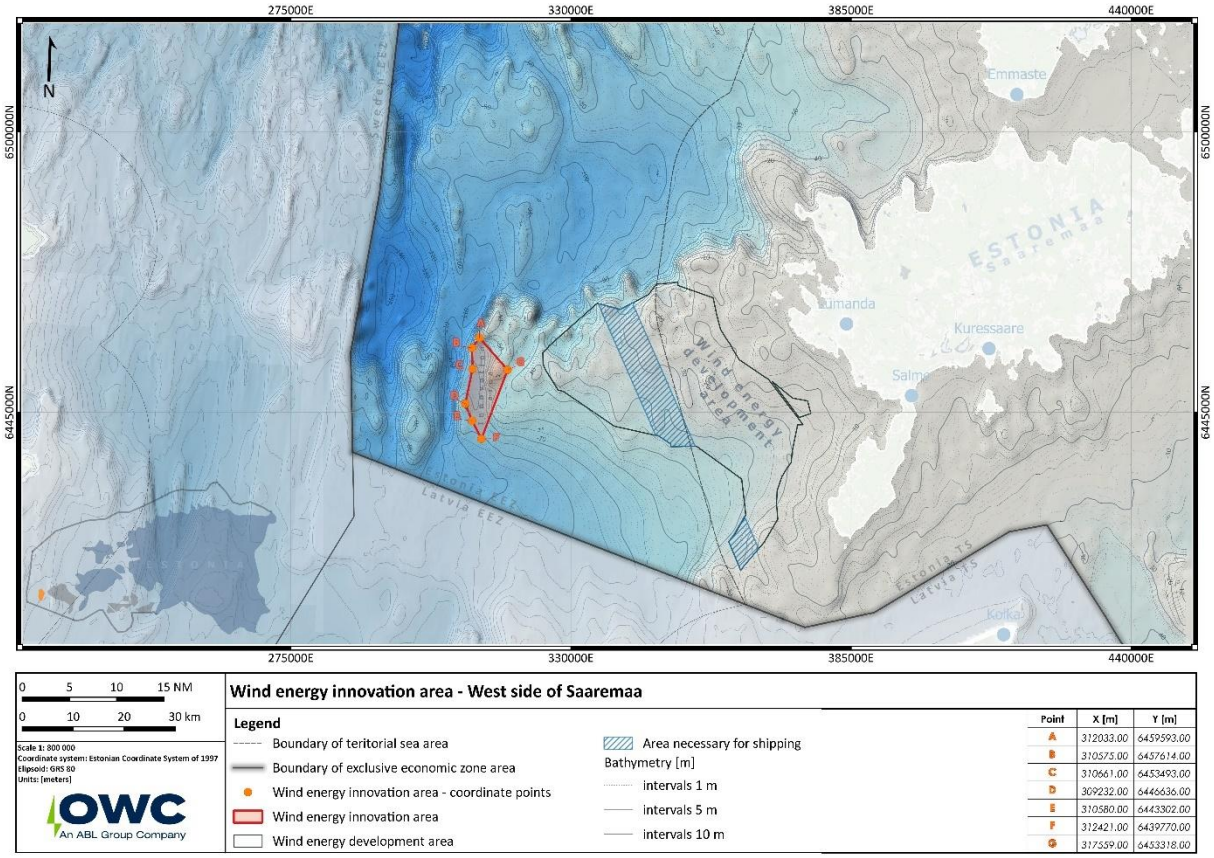
From the concept perspective the main objective of the Project is to develop an innovative offshore wind farm project and potentially deploy a number of other cutting-edge solutions in the Wind Energy Innovation Area.

From the commercial perspective, the main objectives of the Project are to:

a. Develop a cost-efficient floating wind solution for the Baltic Sea conditions, producing green electricity and / or hydrogen or other alternative fuels, with a Levelized Cost of Energy ("LCOE") compatible with the generation and delivery of commercially viable energy in the region;
b. Form a foundation to drive investment towards and ultimately create a reliable local supply chain capability at commercial scale, further supporting self-sufficiency regarding Estonian energy needs.

The Project will also be executed bearing in mind an efficient use of space with aquaculture or other solution deployment, all while ensuring occupational safety and environmental protection in accordance with the highest standards.

Figure 2 – Location of the Saare 1 area



Source: Applicant on the basis of publicly available information

From technical perspective, key elements of the Project are:

1. **Base case – A full scale offshore floating wind farm** (with fixed bottom option to ensure effective use of space), which will be connected to the grid, and will consist of:
   a. **A maximum of 60 offshore wind turbines with total capacity of up to 900 MW**, which depending on the final selected technology and Project configuration, may be equipped with hydrogen production, storage and transfer facilities;
   b. **A maximum of 3 offshore substations** (HVAC or HVDC depending on the finally selected solution of power export options), those main function will be to collect the electricity produced at the turbines, increase the voltage and enable power transfer to land, or to transfer electricity to (a) hydrogen station(s) for hydrogen production or transfer power directly for export. In addition, it is assumed that offshore substations can be equipped with research and measurement equipment that support R&D efforts in Estonia;
   c. **Internal power grid** (inter array cables), consisting of dynamic and static cables, connecting individual wind turbines to adjacent ones or with offshore substation(s);
   d. **A maximum of 3 power evacuation cables** going from the offshore substation(s) to a suitable connection point;
2. **An optional offshore hydrogen production with:**
   a. **Up to 3 offshore platforms for hydrogen / alternative fuel production** with capacity resulting from further investigations;
   b. An internal hydrogen / alternative fuel network;

c. Hydrogen / alternative fuel transport pipeline going from optional offshore platform(s) for hydrogen / alternative fuel production to a collector;

3. **An optional pilot aquaculture project,** consisting of:

   a. A maximum of 6 optional floating offshore seaweed structures (pilot).

   In addition, fish-farming may be investigated for deployment within the Project area.

In summary, at this stage the Applicant takes into account a number of **Project scenarios**, which include supplying electricity to the grid, producing hydrogen or other alternative fuels offshore or a combination of the two, with a possibility to include other beneficial uses of the sea space.

Considering a rapid technological advancement as well as the objective to reduce cost and environmental impact, the decision as to the final configuration of the Project and the selection of technologies used will be based, amongst others, on:

a. The selected route to market approach and Project / product market competitiveness, which at the moment remains an open issue, subject to further investigation, utilizing the Applicant's specific expertise;
b. The results of environmental surveys, which will be performed in the course of EIA, seabed geophysical and geotechnical investigations, metocean study, etc.;
c. Technologies available at the time of FEED of the Project;
d. Availability and readiness of the Estonian supply chain;
e. Overall system production and cost optimization, including wake effect and yield assessment as well as balancing of turbine output with the power export system and alternative fuel production opportunities.

The implementation of the Project will also take into account, among others, European and international standards and the requirements of local regulations regarding design, construction as well as safety and environmental protection.

A key Project element will also be its cost and scope-optimized development and construction schedule, which currently indicates that the first power from the Project could be produced around 2035.

The Project corresponds to development plans, foremost the MSP, main legal acts and supports the implementation of strategic documents and policies which aim to increase green energy production and energy market security of Estonia.

Both the Base case and the Option will bring the latest technologies to Estonia, being the result of the latest research and innovative achievements. All possible impacts on the environment will be assessed duly in the EIA which will follow the conditions set in the MSP.

The intended uses of the presented construction works according to the Regulation no 51[2] are presented in

[2] Majandus- ja Taristuministri 02.06.2015 määrus nr 51. Ehitise kasutamise otstarvete loetelu.

Table 1 below.

Table 1 – Planned construction works codes in line with Regulation 51

Construction work	Code provided in the Regulation no 51
Wind farm facility	23023
substations (110 kV and higher voltage transformer substation)	22145
66-275[3] kV offshore substation or distribution facility	-
Other energy industry facility (hydrogen)	23029
Other local electricity distribution or transmission facility	22249
Submarine electricity cable	22244
Seaweed cultivation structure (aquaculture facilities)	24232

Source: Applicant on the basis of publicly available information

The number and further description of these construction works are set out in **Chapters 3.5** and **3.6** and of this Application.

3.2. Coordinates of the area to be encumbered in the public water body and the area's size in square meters

This Application is submitted for area Saare 1, those coordinates have been presented in **Table 2** below and are the same as in the application of CI Estonia Wind GmbH & Co. KG dated April 22, 2024, which formed a basis for the notice published by TTJA. The Saare 1 area covers an area of ca. 88 km^2 and is an integral part of wind energy development areas presented in the MSP. Coordinates of the Saare 1 area are presented in presented in **Table 2** below.

Table 2 – Coordinates of the Saare 1 area for which this Application is being submitted.

Point	Length East	North Latitude
A	312033.00	6459593.00
B	310575.00	6457614.00
C	310661.00	6453493.00
D	309232.00	6446636.00
E	310580.00	6443302.00
F	312421.00	6439770.00
G	317559.00	6453318.00

Source: Applicant on the basis of publicly available information

[3] The actual voltage level of the inter array network and power evacuation cables will depend on selected technical solutions at the time of wind farm design. The 66-220 kV offshore substation is mentioned on the basis of currently prevailing solutions, which in the future may call for e.g. 66-275 kV or 132 – 275 kV or 132 kV - 420 kV substation.

3.3. Suitability of wind energy innovation area for floating wind technology

Floating wind foundations are commonly used in deep waters (usually defined as those deeper than 60 m), where a fixed, permanent foundation is no longer economically and technically viable. The depth range of Wind Energy Innovation Area is between 34 m and 85 m with mean depth of nearly 69 m (**Table 3** below).

Table 3 – Depth range for Wind Energy Innovation Area

Mean depth [m]	Max depth [m]	Min depth [m]
-68.91	**-85**	**-34**

Source: Applicant on the basis of publicly available information

As a result, as presented in **Figure 3** the area has water depths suitable for both floating offshore wind (usually water depth >60m) as well as bottom fixed offshore wind (usually water depth <60m).

As one can infer from

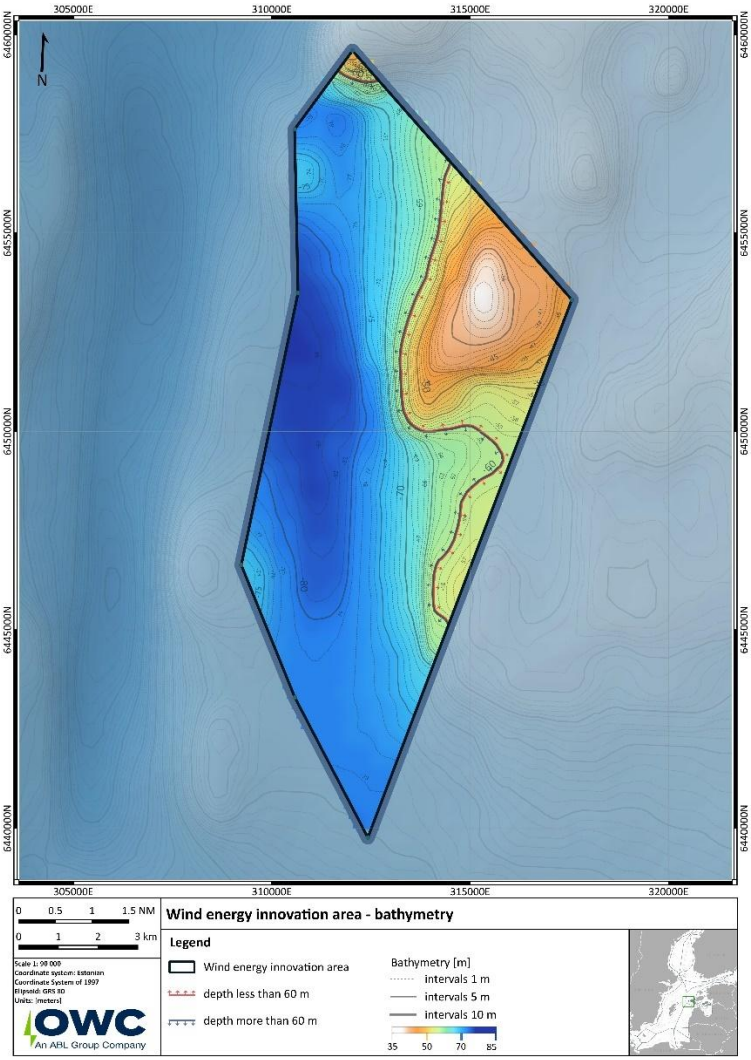
Table 4 below, approximately **75.22%** of the Wind Energy Innovation Area (**66.15 km²**) has a depth greater 60 m and hence may be more suitable for floating foundations. The remaining area (approximately 24.78%) has the depth below 60 m and hence may be more suitable for fixed bottom installations.

Table 4 – Depth classes and their areas in the Wind Energy Innovation Area.

Depth Class	Area (km²)	% of Total
85-86m	0.13	0.16
80-85m	15.59	17.73
75-80m	25.71	29.23
70-75m	10.32	11.73
65-70m	7.01	7.97
60-65m	7.39	8.4
55-60m	7.37	8.38
50-55m	3.16	3.59
45-50m	3.38	3.84
40-45m	5.18	5.89
35-40m	2.42	2.75
30-35m	0.29	0.33
Total	**87.95**	**100**

Source: Technical advisor of the Applicant on the basis of publicly available information

Figure 3 – Wind Energy Innovation Area - Bathymetry



Source: Technical advisor of Applicant on the basis of publicly available information

3.4. Potential capacity of the power plant

The Applicant strives to build the most viable Project from economic perspective, considering optimization of all Project parameters, including amongst others its layout (turbine number, position and spacing) and turbine size.

The Applicant proposes to build in the Saare 1 area a Project with a maximum total capacity of up to 900 MW, with up to 60 offshore wind turbines. The number of turbines, will depend on the selected turbine capacity, which, considering the current knowledge and technology development trajectory may range from approximately 15 MW to approximately 30 MW. Thus the maximum envisaged turbine capacity for the Project is 30 MW.

The system operator's (Elering) technical conditions for the connection of the power plant to the transmission network are attached to the Application as **Annex 4 – Technical conditions for the application for a building permit for the planned Saare 1 offshore wind farm of Oxan Energy.**

3.5. Number of construction works on the encumbered area and the ground projection area of the construction works

The number of construction works on the encumbered area and the ground projection area of the construction works for **Base case** – **A full scale offshore floating wind farm** (with fixed bottom option to ensure effective use of space) with capability of up to 900 MW have been presented in **Table 5** below.

Table 5 – The number of construction works and the ground projection area for Base case – A full scale offshore floating wind farm (with fixed bottom option to ensure effective use of space)

No.	Offshore Wind Farm Construction Work	Value / Description
1	**WTG – Wind Turbine Generators**	
1.1	Maximum number of offshore wind turbines	60
1.2	Ground project area of a single floating wind turbine (assuming a triangle shape floater, with maximum side length 110 m [m^2]	5 240
1.3	Ground project area of a single fixed bottom turbine (assuming a jacket foundation with no scour protection of square shape, with maximum side length 45 m [m^2]	2 025
1.4	Maximum ground project area (the case of all floating turbines) [m^2]	314 400
1.5	Mooring lines	The typical length of an anchor line for an 85 m water depth is ca. 600 – 700 m. The length and possible area of the anchor cables will depend on the site conditions and the location of the wind turbines, which is subject to further investigations during EIA.
2	**Offshore substation(s)**	
2.1	Maximum number of offshore substations	3
2.2	Ground project area of a single substation in case of 3 substation [m^2] (assumed 50 m x 60 m)	3 000
2.3	Ground project area of a single substation in case of 2 substation [m^2] (assumed 60 m x 70 m)	4 200
2.4	Ground project area of a single substation in case of 1 substation [m^2] (assumed 70 x 80 m)	5 600

Source: Applicant

The number of construction works on the encumbered area and the ground projection area of the construction works for an optional offshore station for hydrogen / alternative fuel production have been presented in **Table 6** below.

Table 6 – The number of construction works and the ground projection area an optional offshore station for hydrogen / alternative fuel production

No.	Construction object	Value / Description
1	Maximum number of production platforms	3
2	Ground project area of a single production platform [m^2] (assumed 150 m x 150 m)	22 500
3	Maximum ground projection area for 3 platforms	67 500

Source: Applicant

The number of construction works on the encumbered area and the ground projection area of the construction works for an optional innovative pilot aquaculture project with full scale commercial potential has been presented in **Table 7** below.

Table 7 – The number of construction works and the ground projection area for an optional innovative pilot aquaculture project.

No.	Construction object	Value / Description
1	Number of objects	6
2	Maximum total projection area per object [m^2]	54,000
3	Maximum total projection area for maximum number of objectives [m^2]	324,000

Source: Applicant

3.6. Maximum height and depth of the construction work

A range, presenting a maximum and a minimum height and depth of wind turbine sizes envisaged for the Base case of Project (from 15 MW to 30 MW) have been presented in the **Table 8** below. **The currently available 15 MW wind turbine has been presented as a reference as it has been used for layout and the business case purposes presented in this Application**.

The indicated technical parameters present approximate boundary of potential solutions, which may be employed, considering both future technological advancement as well as development and operational risks. The exact dimensions of the wind turbines and other objects will be specified at the design stage of the Project.

Table 8 – Wind turbines specification range for the Project.

Wind Turbine Capacity [MW]	Number of offshore wind turbines	Assumed rotor diameter [m]	Total maximum height above mean sea level [m]	Minimum distance between the blade of an offshore wind turbine at its lowest position and the average high sea level (the average sea level plus the average wave height of the corresponding sea area) [m]	Maximum depth of foundation in sea floor sediments [m]
15	60	250	285	25	80
20	45	275	310	25	80
30	30	330	365	25	80

Source: Applicant

The maximum height and depth of other construction works of the Base case of the Project have been presented in **Table 9** below.

Table 9 – Maximum height and depth and other technical parameters for other construction works of the Base case of the Project.

No.	Offshore Wind Farm Construction Work	Value / Description
1	**Offshore substation(s)**	
1.1	Maximum number of offshore substations	3
1.2	Maximum capacity of a substation [MW]	900

No.	Offshore Wind Farm Construction Work	Value / Description
1.3	Maximum height of offshore substation above mean sea level [m] (without a mast)	110
1.4	Foundation type	Bottom fixed
1.5	Maximum depth of foundation in sea floor sediments [m]	80
2	**Internal power grid (inter array cables)**	
1.1	Maximum burial depth (below seabed) [m]	3
3	**Power evacuation cables**	
3.1	Maximum number of power evacuation cables	3
3.2	Maximum burial depth (below seabed) [m]	3

Source: Applicant

The maximum height and depth of the construction work and other technical specifications of the Project related to an optional offshore station for hydrogen / alternative fuel production has been presented in **Table 10** below.

Table 10 – Maximum height and depth and other technical parameters for an optional offshore station for hydrogen / alternative fuel production

No.	Construction Work	Value / Description
1	**Optional offshore station for hydrogen / alternative fuel production**	
1.1	Maximum number of production platforms	3
1.2	Maximum height of alternative fuel production platform above mean sea level [m]	150
1.3	Foundation type	Bottom fixed
1.4	Maximum depth of soil penetration of the foundation [m]	80
2	**Optional internal hydrogen / alternative fuel network**	
2.1	Pipeline	Technology under development
3	**An optional hydrogen / alternative fuel transport pipeline**	
3.1	Maximum number of hydrogen / alternative fuel pipelines	1
3.2	Maximum burial depth (below seabed) [m]	3 (the pipeline will mostly be positioned on seabed, burial will take place only in sensitive areas

Source: Applicant

The maximum height and depth of the construction work and other technical specifications related to an optional innovative pilot aquaculture project with full scale commercial potential has been presented in **Table 11** below.

Table 11 – Technical parameters for an optional innovative pilot aquaculture project

No.	Construction Work	Value / Description
1	Maximum number of Seaweed lines proposed (pilot)	6
2	Maximum length of Seaweed structure [m]	120
3	Maximum length of Seaweed lines including moorings [m]	350

No.	Construction Work	Value / Description
4	Maximum width of Seaweed structure [m]	15
5	Maximum height of structure above sea level [m]	2.5
6	Foundation type	Fixed bottom or anchored
7	Maximum depth of soil penetration of the foundation [m]	10

Source: Applicant

3.7. A map of the layout of the envisaged construction work and of any civil engineering works required for servicing the construction work

Maps of the layout of the envisaged construction work and of any civil engineering works required for servicing the construction work are presented in **Figure 4** and **Figure 5**, **which are for illustration purposes only**.

Figure 4 presents an illustrative Project layout in the Saare 1 area **considering the Base case** with 15 MW wind turbines and wind farm capacity of 900 MW. The figure presents:

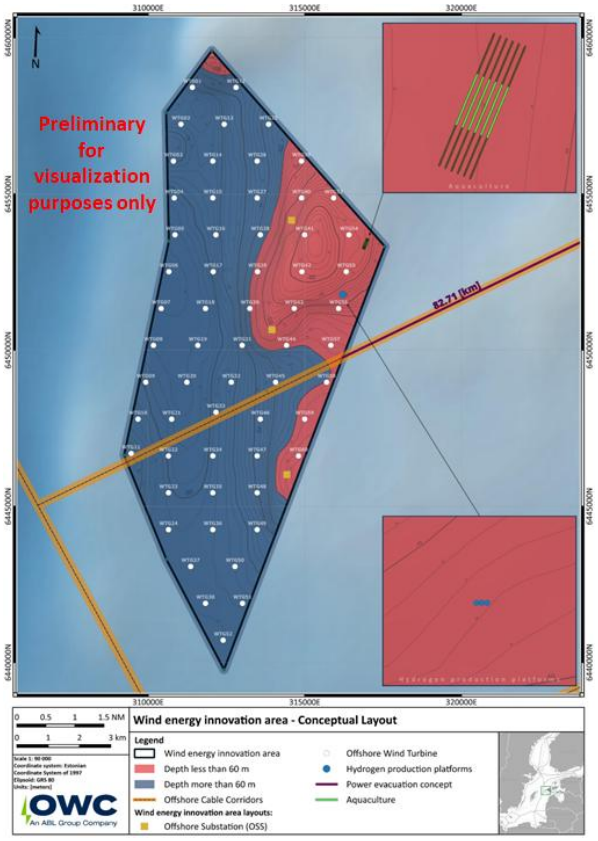
i. 60 turbines;

ii. 3 offshore substation;

iii. 3 hydrogen production platforms (optional);

iv. Aquaculture pilot infrastructure.

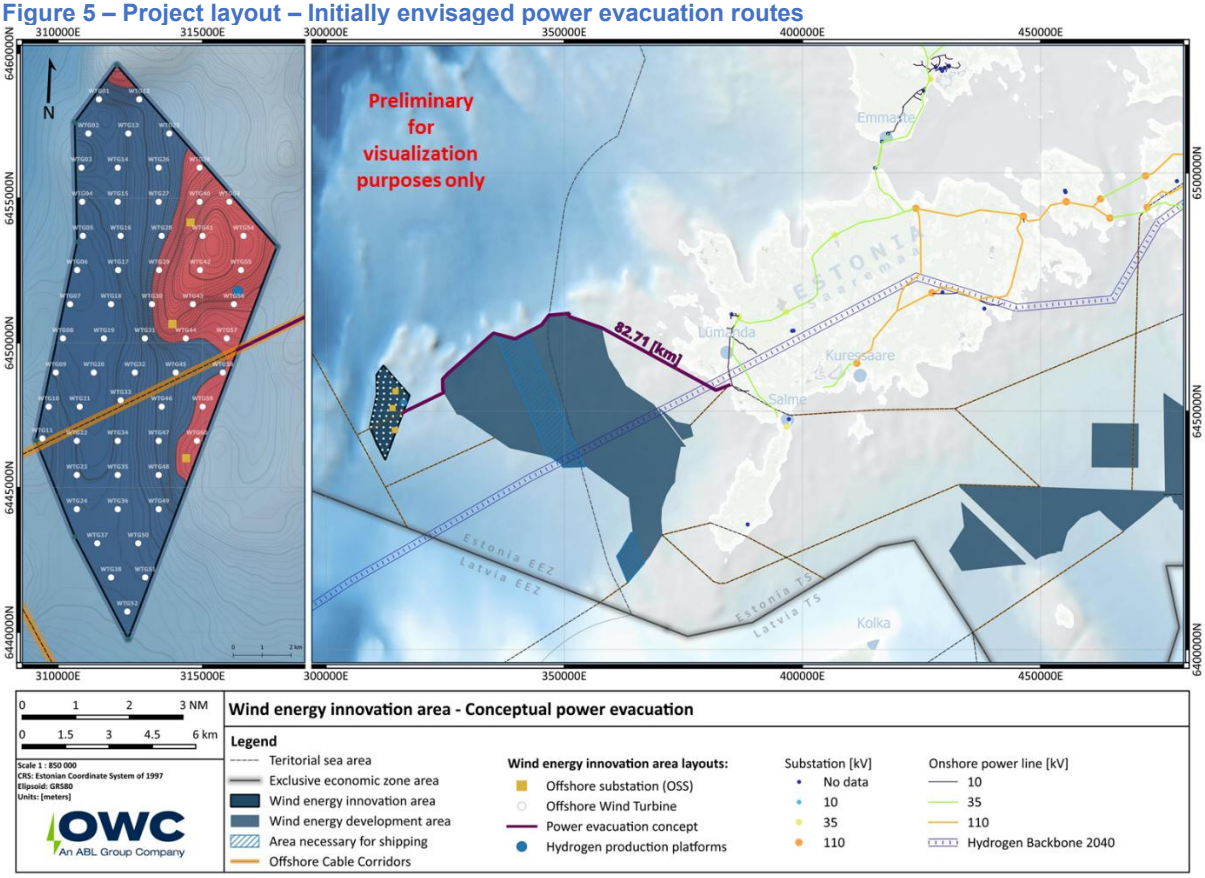
Figure 4 – Project layout – A map of the layout of the envisaged construction works and of any civil engineering works required for servicing the construction work for the Project



Source: Technical advisor of the Applicant on the basis of publicly available information

Figure 5 below presents illustrative options for power evacuation routes (as well as a hydrogen pipeline – optional), which converge to the same point on the Saaremaa Island and have been proposed in line with **the spatial layout 5.6.6.1 from the MSP**, which presents conceptual locations of electricity transmission systems from wind energy development areas and connection to the onshore energy network. The final power evacuation route will be selected based on survey data and grid connection conditions at the development stage of the project.

Figure 5 – Project layout – Initially envisaged power evacuation routes



Source: Technical advisor of the Applicant on the basis of publicly available information

4. Other technical particulars that are material to the Project

4.1. Considered foundation substructures

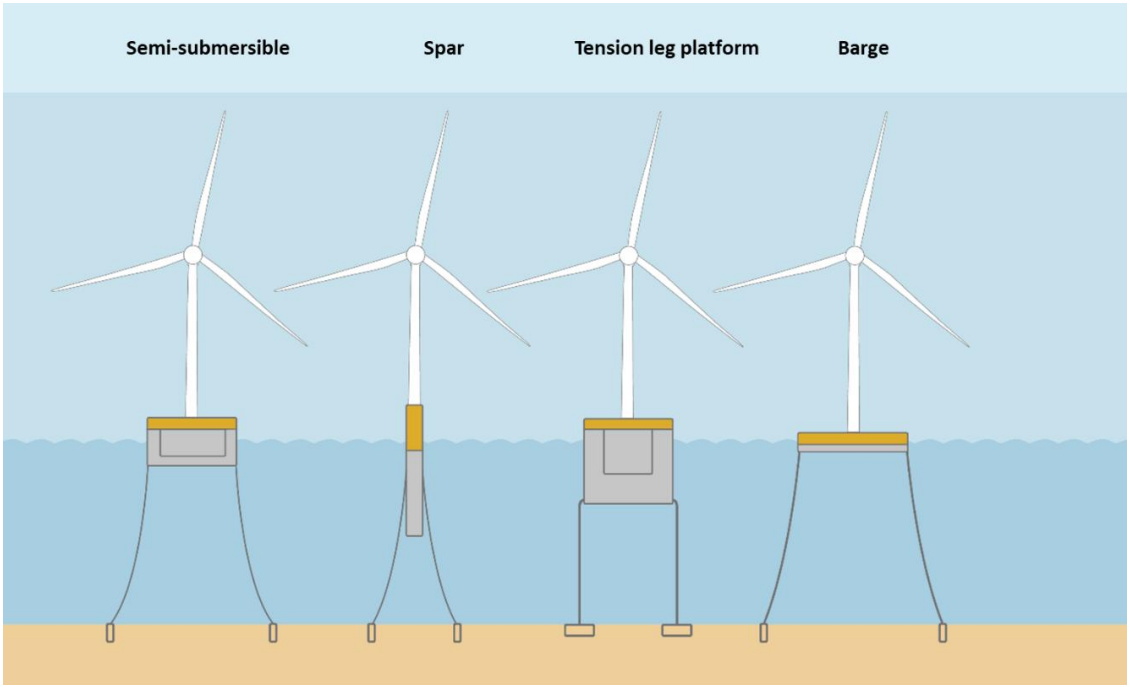
As indicated above and in line with the MSP's preferred solution for the Wind Energy Innovation Area, the Applicant considers firstly floating foundations, especially at the depths below 60 m. As per section 5.6.5 "Wind energy development guidelines and conditions" of the MSP "The environmental impact of floating foundations is equivalent to or smaller than that of the gravity-based foundation technology underlying this planning solution".

A floating foundation is essentially a platform on which a wind turbine attaches and which is attached to the seabed by anchors. In terms of floating foundations, tied to the seabed through anchoring systems, there are 4 basic structures, illustrated in **Figure 6** below, of which the following three are considered for the full scale commercial floating offshore wind farm[4]:

[4] The spar has been discounted because its dimensions require deeper water than is prevalent in the innovation zone.

1. **Barge** – the simplest class of structure with low construction complexity, however due to large waterplane areas and relatively small drafts, monohull structures are susceptible to large movements with onerous extreme weather conditions (though may work well in relatively mild conditions of the Baltic). There may be significant acceleration in sway for longitudinal structures and this may affect the type of wind turbine used and the design of cables and mooring system;
2. **Semi-submersible -** it achieves stability through wide distribution of buoyancy on the waterline. Major challenges include greater wave exposure and higher structure above the waterline. The diameter of the platform, to which the windmill attaches can be as much as ca. 150 m;
3. **Tension leg platform** - it achieves stability thanks to tension of the mooring line with the submerged buoyancy tank. The main challenges are instability during installation and high vertical loads on moorings and anchors.

Figure 6 – Floating foundations considered for a floating part of the full scale offshore wind farm



Source: Applicant on the basis of DNV-SE-0422 Certification of floating wind turbines

A specific type of floating foundation technology has not yet been selected. The final decision regarding the concept will be made considering results of studies at the time of FEED.

To ensure an effective use of space the Applicant may also decide to use fixed bottom foundations. At this stage the Applicant considers 3 types of fixed bottom foundations, which are presented below. As in case of the floating foundations the final decision regarding the concept will be made considering results of studies at the time of FEED.

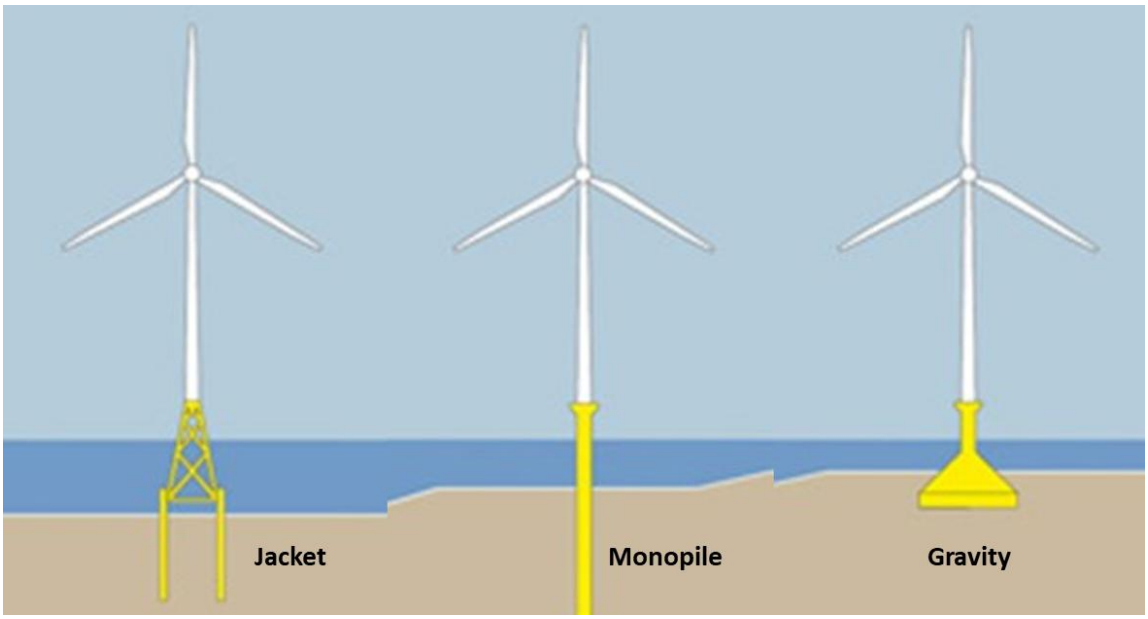
a. **Monopile foundations –** consist of three basic parts: (1) a pile, (2) a tapered transition to a tower that supports a transition piece, and (3) a boat landing. By changing the transition piece, the foundation can be easily adapted to towers of different diameters. A monopile foundation can be driven into the bottom by piling or drilling, or a combination of the above techniques. The diameter and anchorage depth of the foundation are sized according to the load from the offshore wind turbine, geotechnical conditions, water depth as well as wind

and met-ocean conditions. This type of foundations is typically used at depths of about 20 to about 50 meters. below this depth, the dimensions of the foundation increase to a size that causes, at present, technological difficulties in fabrication or cannot complete on costs with jacket foundations;

b. **Jacket foundations –** are used at greater depths than monopiles, and their structural efficiency may make them preferable for very large turbines and their associated loads. They consist of a jacket structure made of steel bars as the main load-bearing element. The structure is characterized by three or four legs. This structure is mounted to the ground with piles driven or drilled into the seabed. Due to the smaller cross-sections of the tubes, compared to other types of foundations, jacket foundations show greater resistance to wave action.

c. **Gravity based foundations –** are concrete structures that stand on the seabed and hold the wind turbine upright due to their size and weight. A gravity foundation is usually made of a concrete or steel shell that is filled with ballast (rock material or sand) weighing up to several thousand tons. The use of this type of foundation requires smooth ground and soils with good bearing capacity, with limited water depth (usually up to about 30-35 m). As the water depth increases, the size and weight of the structure increase significantly, especially for the increasing capacity of offshore wind turbines. In addition, the use of gravity foundations requires adequate ground preparation.

Figure 7 – Bottom fixed foundations considered for a floating part of the full scale offshore wind farm



Source: Applicant on the basis of DNVGL-SE-0190 Project certification of wind power plants

4.2. Hydrogen production and transport options

The Applicant, depending on market maturity and business considerations, does not exclude the possibility of hydrogen (or other alternative fuel) production in electrolysers mounted at the turbines or on a separate offshore hydrogen platform(s), located within the Project area. In this regard the Applicant will analyze a number of solutions, which may include, but are not limited to:

a. Transfer of hydrogen ashore in gaseous form via pipeline (to connect to e.g. European Hydrogen Backbone);

b. Transfer of hydrogen ashore in liquid form via dedicated LH2 units;

c. Other e-fuel option, which may become available during the course of Project development.

From a technological point of view, there are three basic types of electrolyser, differing primarily in the type of electrolyte, the use of which, in addition to other solutions, may be considered in the implementation of the Project:

a) **Alkaline electrolysers** - operate on the principle of transporting hydroxide ions (OH-) through an electrolyte from the cathode to the anode, where hydrogen is formed on the cathode side. The role of the electrolyte is played by a liquid alkaline solution of sodium or potassium hydroxide. This technology has been in use for many years, and can operate over a temperature range of 25ºC to 100ºC, at pressures of 1-30 bar and efficiencies of 50-80%;

b) **PEM** (Proton Exchange Membrane) electrolysers - in this case, the electrolyte is a special plastic - perfluorosulphonic acid polymer - PFSA. Water reacts at the anode, producing oxygen and positively charged hydrogen ions (protons). The electrons flow through the outer circuit and the hydrogen ions move through the PEM membrane to the cathode. At the cathode, these ions combine with the outer circuit electrons to form hydrogen gas. These devices can operate over a temperature range of 20ºC to 80 ºC at pressures of 1-80 bar and efficiencies of 60-80%;

c) **Solid oxide** electrolysers - use a solid ceramic material as an electrolyte that selectively conducts negatively charged oxygen ions at elevated temperatures, generating hydrogen in a slightly different way. Water on the cathode combines with the outer circuit electrons to form hydrogen gas and negatively charged oxygen ions. The oxygen ions pass through a solid ceramic membrane and react at the anode to form gaseous oxygen and electrons. This type of electrolyser must operate at sufficiently high temperatures to ensure that the membranes function properly (700-900ºC).

The production of hydrogen requires electricity and high-purity water. In view of the above and the possible applications of hydrogen, in addition to the electrolyser, the hydrogen production system will consist of the following components, among others:

a) A saltwater desalination and demineralisation system (heat generated from power generation equipment and heat generated from electrolysis can be used in this process);

b) Oxygen separation task;

c) Hydrogen purification unit

d) Compressor system - compression of hydrogen to achieve the appropriate pressure, depending on the purpose of the hydrogen use (e.g. storage, transfer to land, refuelling of vessels, etc.) and / or a system to produce liquid hydrogen for transfer to specialised transport units;

e) Hydrogen storage facility(ies), for example in the form of compressed gas at a pressure of e.g. 300 bar or 700 bar and/or a hydrogen liquefaction system and cryogenic tank(s).

f) Hydrogen transfer system, which may include one or more of the following options:

   i) A system for rigging ships with hydrogen;

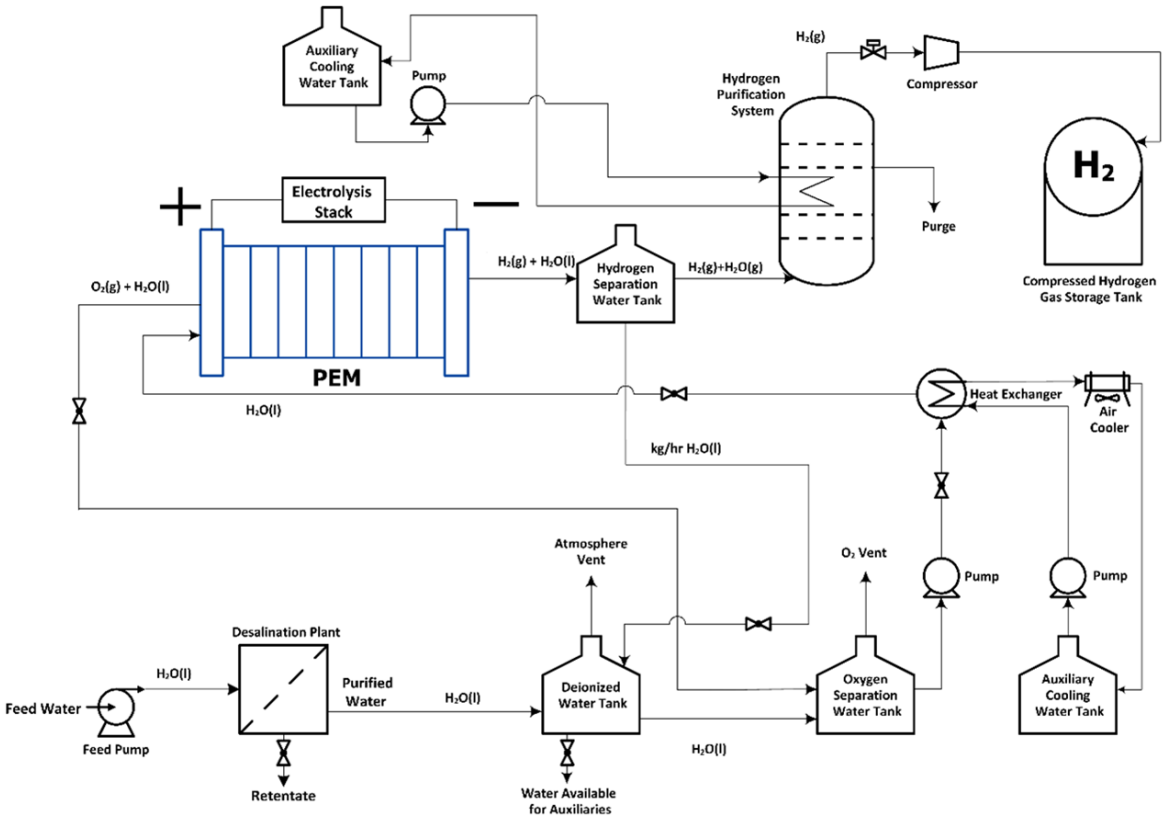
   ii) A system for transferring hydrogen gas into a transmission pipeline;

iii) Liquid hydrogen transfer system;

iv) The automation system responsible for 'energy balancing' and its use for hydrogen production.

Accordingly, as an option, the Project is considering placing the hydrogen production, storage and transfer system on an offshore hydrogen station. The preferred technology for this is currently PEM electrolysers (see figure below for an example schematic), due to their smaller footprint and easier maintenance, which in an offshore scenario means, reduced platform size and longer maintenance intervals.In line with the above, as part of the development process, the Applicant will carry out detailed analyses of the cost-effectiveness of energy transfer solution (power, hydrogen, other) to different markets in order to select the most cost-optimal option, taking into account, amongst others, demand in various countries and other conditions, technical limitations as well as transport options. The analysis will include an in-depth understanding of opportunities, which may present themselves in association with the development of European Hydrogen Backbone, and especially its Corridor D: Nordic and Baltic regions, which by 2040 is to have two planned lines[5].

Figure 8 – Example hydrogen system schematic



Source: Technical advisor of the Applicant

The second innovative hydrogen related technology under consideration will be storing and transporting of hydrogen after it has been liquefied by cooling to a very low temperature. The main advantage of the above technology is the significant reduction in the volume of stored and transported hydrogen, while the disadvantage is the need to use a large amount of energy

[5] ehb-report-220428-17h00-interactive-1.pdf

to cool it, which generates additional operating costs, especially compared to transporting hydrogen via a pipeline.

4.3. Optional aquaculture pilot

Considering the optional pilot aquaculture project, the Applicant will understand the possibility to deploy seaweed cultivation structures in the form of fixed bottom rigs or floating structures, with exact technology to be understood at the time of Project development.

For illustration purposes, the Applicant envisages for example a fixed bottom structure with up to 6 x 100-120-meter nets in depths of say 35-45 meters to fully gauge and evaluate the seaweed potential of the site. Each seaweed line would occupy a length of 330-350 meters and width of 10-15 meters, with maximum height of the structure (poles) of 2.5 meters above sea level.

As the research on the subject is still very much ongoing, the Applicant does not exclude a possibility using any other viable aquaculture approach to best prove economic viability of aquaculture. This may include using for example some sort of floating structure or other leading solution at the time of Project development, or partnering with a known seaweed developer to benefit from already conducted research and proven methods.

5. Project timeline

5.1. Applied-for duration of the license

Pursuant to § 113[14] (1) of the Building Code the Applicant applies for a building permit for the period of 50 years. The Applicant does not exclude the possibility of extending the superficies license by up to 50 years pursuant to § 113[14] (2) of the Building Code.

5.2. Project stages and key assumptions

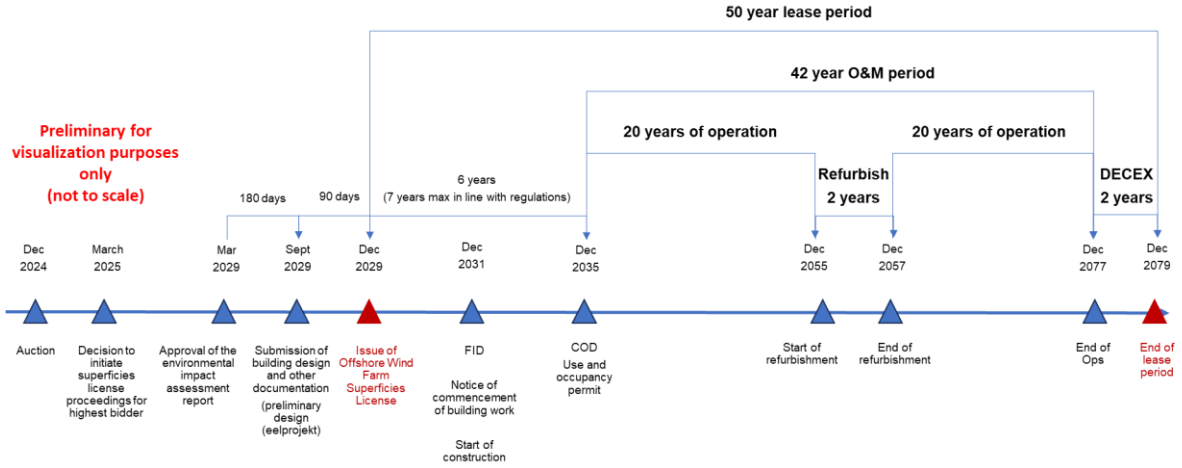
The Applicant expects that the Project, in line with its concept, will be executed in the stages presented below and in **Figure 9** below:

1. **Stage 1** (**Base case**) – From schedule perspective, this stage will be further divided into:
   a. Development with the objective to: (i) perform EIA and other development and design activities to obtain superficies license, (ii) select the most advantageous technical and route to market solution for the COD date, (iii) plan and execute purchases of wind farm packages, (iv) identify and ensure timely readiness of suitable fabrication and assembly facilities;
   b. Construction with the objective to: (i) fabricate and install all wind farm elements in line with the established route to market;
   c. O&M – operation and maintenance of Project with potential for repowering / refurbishment of the equipment, in line with prevailing technical solutions and market conditions;
   d. Decommissioning – with the objective to: (i) decommission and recycle components in line with the environmental considerations and technology available at the time of decommissioning.
2. **Stage 2** – If a positive decision is made for the optional hydrogen production and / or an innovative pilot aquaculture project, it will be built in parallel or upon completion of Stage 1. This stage is not shown in **Figure 9** below.

Assuming that the offshore superficies license will be awarded to the Applicant after approval of Environmental Impact Assessment Report and submission of building design and other documentation in line with the Building Code in December 2029 for a period of 50 years, it will expire in December of 2079. This implies that the Project could be in operation for ca. 42 years, when also considering a 2 year repowering / refurbishment and 2 year decommissioning periods (please see Figure 9 for details). As a result, as an initial consideration, the operation time of the Project has been divided into two equal 20 year periods, with 2 year refurbishment window in between. The decision regarding the above arrangements will depend amongst others on prevailing market conditions and their forecast at the time of making investment decisions, wind farm technical and legal considerations, and available technology at the time of decision making. As a result, the Applicant remains open to technical solutions for life extension / repowering / refurbishment available in ca 30 years time.

A graphical visualization of the overall project schedule has been presented in the figure below.

Figure 9 – Visualization of a preliminary Project schedule



Source: Applicant

6. Consistency of the project with MSP and Estonian legal acts and strategic documents

6.1. Consistency of the Project with MSP

6.1.1. Consistency of the Project with objectives of the MSP

The Estonian government adopted MSP on 12 May, 2022. MSP is a strategic spatial development document on the national level, which plans the basic developments in marine space.

The Project is fully consistent with objectives and relevant guidelines presented in the MSP related to renewable energy production[6] and long-term vision of the Estonian marine area. In addition, throughout the lifetime of the Project, the Applicant will promote good environmental status, diverse and balanced use, and the sustainable growth of blue economy

[6] As presented in Chapter 5.6 Renewable energy production of the MSP

as presented in Chapter 3 – "Marine area trends, vision and principles for spatial development" of the MSP.

6.1.2. Compliance of the Project with environmental and social conditions set in the MSP

The Project is designed to fully observe the identified constraints, including those of social, environmental and technical character. From social and environmental perspective, the Saare 1 area has already been placed far away from the coast[7] with no overlap with water traffic areas and areas of high importance for bird migration[8].

The Saare 1 area does not overlap with existing and planned protected areas and has been designated far away from movement areas of the Baltic ringed seal. In addition, there are also no significant socio-economic adverse effects on coastal and recreational fishing: wind turbines are planned to be much more than 6 nautical miles from the coast, thus preserving fisheries.

All these elements will be taken into account during the EIA process. The Applicant, however, does not foresee that they will have any significant impact.

Considering the above, the Saare 1 area has been positioned for an offshore wind energy project to meet social and environmental conditions set in the MSP. **Chapter 7 Environmental impact** and **Chapter 8 Social aspects of the Project** of this Applications presents a closer review of potential considerations in this respect with a conclusion that a proper project development should allow implementation of an offshore wind farm with no or minimal negative environmental and social impacts.

6.1.3. Compliance of the Project with other guidelines and conditions set out in the MSP

Project concept as well as its future development and design will be compliant with all applicable guidelines and all applicable conditions detailed in the MSP, including, but not limited to Section 5.6.2 "Starting points for wind energy development", Section 5.6.5 "Wind energy development guidelines and conditions" as well as Section 5.6.6 "Cable corridors from wind energy development areas to land".

As the guidelines and conditions have been considered in various, relevant parts of this Application, the following present only selected examples of compliance:

a. **Turbine size and site layout** – the turbine dimensions as well as wind farm layout will consider technical indicators presented in Section 5.6.2 of the MSP, however, taking into account technical advancement in the area of Wind Turbine Generator ("WTG"), results of wake effect simulations and environmental constraints. As a result, if not prohibited by environmental or other constraints the Applicant will use the latest technology available at the time of Project design to ensure its optimum economic outcome;

[7] The Saare 1 area is located ca. 60 km west of the coast of Saaremaa, behind other wind farm areas being closer to the coast

[8] An analysis of bird staging areas and migration routes was carried out during the maritime spatial planning process, the results of which indicate that the planned wind energy development areas 1 and 2, as well as the innovation area, are located outside the sensitive marine areas for birds.

b. **Positive synergy and effective use of space** – to ensure the most effective use of space, the Project also considers an option of aquaculture. The potential development of aquaculture, which currently considers seaweed, in the future may also take into account (depending on actual conditions) the innovative sectors of algae and shellfish farming, the development of which will be executed according to the guidelines presented in the MSP EIA Report. In addition, the Project may benefit from current and future R&D efforts and deploy other hybrid solutions;

c. **Buffer zone between two different offshore wind farms** – in the case of Wind Energy Innovation Area, which does not border with any other wind energy areas, the buffer zone is not applicable. As a result no buffer zone has currently been considered;

d. Conceptual locations of electricity transmission systems – the presented concept of the Project takes into account the conceptual locations of electricity transmission systems from Saare 1 area and connections to the onshore energy network as presented in the spatial layout 5.6.6.1 of the MSP and indicated in **Figure 4** and **Figure 5** above. Further to considerations of cable corridors presented in the MSP, which does not provide full routing guidelines from the Saare 1 area to a connection point onshore, a power evacuation alternative routes have been proposed in line with point 5.6.6. “Cable corridors from wind energy development areas” of the MSP (see **Figure 5** for details). The routes should not have a significant adverse impact on wildlife and adverse impacts on Natura 2000 sites, which will be investigated in detail as part of EIA during Project development stage.

6.2. Compatibility of the Project with main legal acts and strategic documents

The Project is in line with both international and national laws. The Saare 1 area is located within the Estonian EEZ. Construction in the Estonian EEZ is regulated by the Exclusive Economic Zone Act (RT I, 19.03.2019, 101). Estonia has the right to explore, exploit, manage living and non-living natural resources located in the water covering the seabed, on the seabed and in the land below it in the EEZ, and to carry out other activities in the exploration and use of the EEZ. Estonia has the exclusive right for all economic activities in the zone.

The regime of coastal areas is most directly affected by the Convention on the Protection of the Marine Environment of the Baltic Sea Region (RT II 1995, 11, 57), which obliges the parties to the convention to ensure the protection of nature and biological diversity. The parties to the Convention apply all necessary measures to the Baltic Sea and the coastal ecosystems affected by it, both individually and jointly, in order to preserve the habitats and biological diversity of plant and animal communities and to protect ecological processes. The Convention is implemented by the Commission (HELCOM) formed on its basis, which has issued several recommendations for the protection of coastal and marine areas. The Project takes them into account (see **Chapter 7 Environmental impact**).

The Marine Strategy Framework Directive 2008/56/EC provides the framework within which the Member States shall take the necessary measures to achieve or maintain good environmental status in their marine waters by 2020 at the latest. The Directive does not limit the development of wind turbine areas. The aim is to contribute to the coherence of the various policies, agreements, and legislative measures affecting the marine environment and aims at ensuring the integration of environmental concerns into such policies, agreements, and measures.

The following presents compatibility of the Project with the legal acts and strategic documents below:

1. Long-term development strategy of the Estonian state “Estonia 2035”;
2. National Spatial Plan „Estonia 2030+;
3. The Climate Policy Principles until 2050;
4. The Development plan for adaptation to climate change until 2030;
5. Estonian National Energy and Climate Plan 2030;
6. Estonian Energy Development Plan until 2030 (ENMAK);
7. European Union Strategy for the Baltic Sea Region;
8. Estonian Marine Strategy;
9. RDI Strategy and Entrepreneurship Strategy;
10. National Strategy on Sustainable Development “Sustainable Estonia 21”;
11. The Environmental Strategy 2030.

Long-term development strategy of the Estonian state “Estonia 2035” - Based on the analysis of the situation in Estonia and developments in the world, there is a need for important steps to be taken in almost all areas of life to improve the current situation or to take advantage of available opportunities. The goal in the economy and climate area is to introduce new solutions to encourage research and development and innovation in business sector being open and support new solutions, such as offshore wind energy. **The Project directly helps to implement the plan by promoting offshore wind energy and associated innovative solutions, such as hydrogen production and aquaculture, for the use of renewable resources.**

National Spatial Plan „Estonia 2030+ – National planning provides a general basis in the form of spatial trends. National planning emphasizes the efficient and sustainable use of the marine area and Estonia’s openness to the sea and sets out general directions for achieving this as a principal theme development. In the field of energy production, national planning foresees strong development in wind energy, including the offshore area. This is also important for increasing energy security. Most suitable areas for the development of wind farms are located in maritime area of West Estonia. In order to increase the security of supply on the islands and the introduction of local renewable energy sources, the aim has been to establish a high-voltage loop connecting West-Estonian islands and the mainland, which will allow better connection of offshore wind farms to the grid. Taken the previous into consideration, **the Project responds to the National spatial plan Estonia 2030+**.

The Climate Policy Principles until 2050 – According to the vision of climate policy, by 2050, Estonia will be a competitive, low-carbon emission economy. The country’s readiness and capacity to minimize the negative impacts of climate change and to make the most of the positive impacts are assured. Estonia’s long-term target is to reduce its greenhouse gas emissions by almost 80 percent by 2050 compared to 1990 levels. Moving towards this target Estonia will reduce greenhouse gas emissions by approximately 70 percent by 2030 and 72 percent by 2040 compared to 1990 levels. **The Project directly helps to implement the policy.**

The Development plan for adaptation to climate change until 2030 – The main objective of the development plan is to increase the preparedness and capacity of the national, regional, and local levels to adapt to the impacts of climate change. Estonia is moving towards achieving

a climate-neutral economic model by applying, among other things, the latest scientific development and innovation achievements. It has also been considered one of the main goals of the energy and climate plan. In addition, the use of research and development and innovation in measures to maintain the competitiveness of the economy has been identified as one of the main goals, adding that the implementation of the energy economy research and development program enables the implementation of measures using research and innovation achievements. **The Project directly helps to implement the plan**.

Estonian National Energy and Climate Plan 2030 (NECP) –The main targets being reduction of Estonian greenhouse gas emissions by 80% by 2050, securing the 42% share of renewable energy in the total final energy consumption by 2030 and ensuring energy security. As the main objective of the Project is developing renewable energy source – offshore wind farm, it contributes to the aforementioned targets. **Thus the Project directly helps to implement the plan**.

Estonian Energy Development Plan until 2030 (ENMAK) – The main objective is to ensure the availability of energy supplies to consumers at an acceptable price. The plan set a target that electricity generation from renewable energy sources should account for 50% of final domestic electricity consumption and 80% of the heat produced in Estonia shall be based on renewable energy sources. **The Project directly helps to implement the plan**.

European Union Strategy for the Baltic Sea Region (EUSBSR) – The strategy unites eight EU Member States around the Baltic Sea – Estonia, Lithuania, Latvia, Poland, Sweden, Germany, Finland, and Denmark. The strategy includes saving the sea, connecting the region and increasing well-being and a wide range of policy and cross-cutting issues stemming from different objectives including climate change and spatial planning. Still it emphasizes the good environmental status of the sea and the importance of the conservation of fish stocks. The plan designates waterways and reflects fairways. Erection of potentially obstructing structures (e.g., wind turbines) on fairways under the conditions of the plan is excluded. Important areas affecting maritime safety (e.g., wind energy, aquaculture) are subject to conditions to specify the synergy during the licensing process. **The Project is not in conflict with the strategy**.

Estonian Marine Strategy – The main objective of the Directive 2008/56/EC is to maintain or achieve, by 2020, at the latest, good environmental status in its marine environment, which can be achieved through taking national measures. Each country needs to develop and implement a Marine Strategy for its maritime domain to promote the sustainable use of the seas and preserve marine ecosystems. Based on the directive the renewal of the state action plan for the marine areas is currently in proceeding. According to the draft plan measures are also planned to establish underwater noise regulation and to establishment of a network of marine protected areas in the Estonian EEZ. **The Project is not in conflict with the strategy.**

RDI Strategy and Entrepreneurship Strategy – From the policy fulfillment perspective, the RDI Strategy and Entrepreneurship Strategy compiled by the Ministry of Education and Research and Ministry of Economic Affairs and Communications lists Estonia's development on knowledge-based and innovative solutions as one of its goals. In order to reach that, the state must develop activities that encourage innovation and create a support system for enterprises. As a part of the strategy, the Estonian state specifically mentions that energy efficiency measures and renewable energy should be promoted in Estonia as a means of promoting innovation capacity. **The Project directly helps to implement the strategies.**

National Strategy on Sustainable Development "Sustainable Estonia 21" - The aim of the strategy is to combine the requirements for success arising from global competition with the preservation of the sustainable development principles and Estonia's traditional values. The strategy is implemented through various sectorial strategies and development plans to

contribute the sustainable development of Estonia. Objectives of Estonia's sustainable development are the viability of the Estonian cultural space, the growth of welfare, a socially coherent society and ecological balance which can be associated with the benefits of using more renewable energy. **The Project directly helps to implement the strategy.**

The Environmental Strategy 2030 – The Environmental Strategy 2030 aims at defining long-term development trends for maintaining a good status of the natural environment, while keeping in mind the links between the sphere of the environment and economic and social spheres and their impact on the natural environment and people. The areas of the strategy are "The environment, health and quality of life", "Sustainable use of natural resources and reduction of waste generation", "Climate change mitigation and quality of ambient air" and "Environmental management". **The Project is not in conflict with the strategy, helps to use the natural resources sustainably and combat climate change.**

7. Environmental impact

7.1. Introduction

The intention of the Applicant is to develop the Project following the applicable Estonian (and international) regulations and the good practices and experiences taken from the other markets. As part of superficies license proceedings an EIA will be carried out, in order to identify and evaluate potential impacts, while also recommend the appropriate measures to limit the impacts whenever required. This process will be preceded by the environmental surveys and monitoring program allowing recognition of the environmental conditions in the Saare 1 area and its surroundings. **All this, together with the proper development of the Project, should allow implementation of an offshore wind farm having no or minimal negative environmental impacts.**

It should be noted that since SEA was carried out during the preparation of the MSP and before designating the Saare 1 area explicitly for the renewable energy purposes, one may assume that implementation of the proposed Project is aligned with earlier studies and generally feasible.

Given the early stage of the development, the topic of environmental impact could only be addressed at a general level, so the key environmental considerations are described below for reference.

This section provides a brief overview of potential environmental impacts of the Project during the various stages of its life-cycle. Appropriate mitigation measures will be developed and implemented to eliminate these impacts or minimize them to an acceptable level.

7.2. Construction phase

Construction phase is the shortest but likely most intensive period of the project's life cycle. Activities carried out at this stage may cause disturbance to the seabed because of survey and preparatory works and construction, removal of boulders if necessary and stones as well as layers of bottom sediments during clearing of the site, while the seabed fragments will be seized by the foundations. Water quality could be affected by the movement of the sea bottom sediments or an increase in water turbidity. Depending on the applicable regulations, area could partially or completely be closed for fisheries or obstructed by the construction works. Accidental emission of petroleum substances is possible in the emergency situations. Air may

be affected by the emissions from the combustion engines (if such engines are still in usage at the point of construction), in conjunction with an increased movement of the vessels. This might also lead to increase emissions of noise that might affects sea mammals if not mitigated accordingly (i.e. by using bubble curtains during the especially noisy pilling works). Due to position of the Saare 1 area, the Project will not affect the landscape overview seen from land, but such an obstruction may be important in terms of the bird migration, what should be assessed accordingly during the pre-construction birds monitoring.

It should be noted that environmental impacts during construction phase will be temporary in nature and mostly reversible, and their short-term character will support implementation of appropriate mitigation measures.

In general, the environmental impacts at the construction stage will be temporary and transient in nature, and will mainly concern the part of the construction stage that is related to foundation and cable connections. It should be emphasized that for almost the entire area of the planned Project (except for the area of foundations, erosion protection and locations of cable protection systems), the anticipated destruction of the seabed and its habitat, and other related effects, will be very short and will have reversible impacts. After the construction phase, the transformed strip of bottom habitats will be subject to natural recolonization processes, and the pre-Project conditions will be restored.

7.3. Operation phase

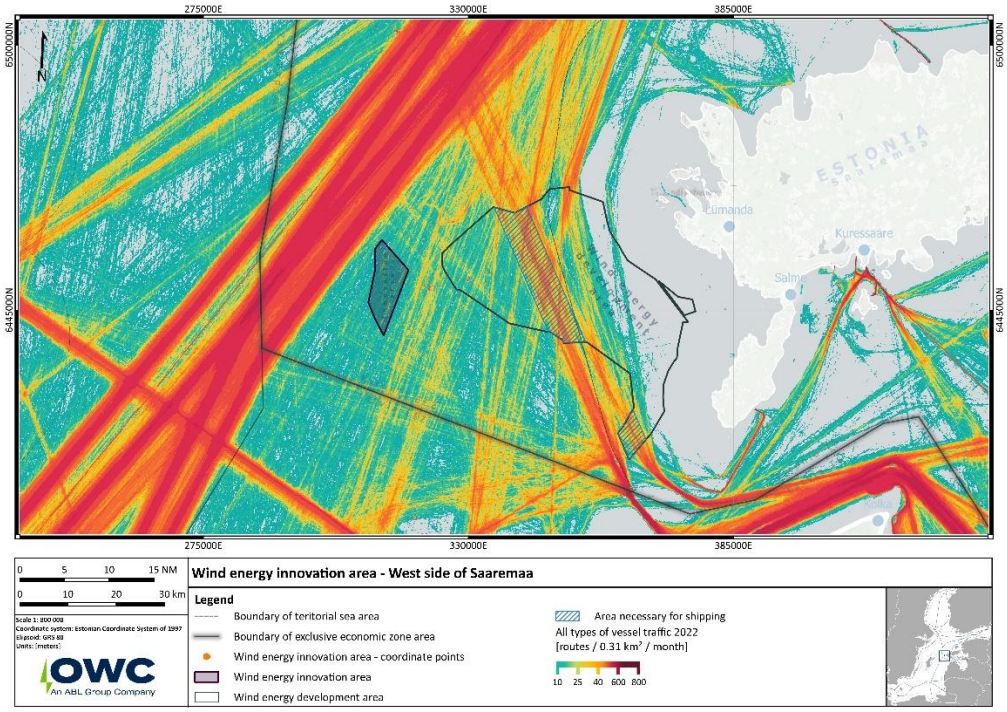
During the operational stage the main impacts will come from the movement of the maintenance vessels and carrying out service works. This might result in emissions of pollutants from fuel combustion.

Depending on the applicable regulations and further arrangements, area could by partially or completely closed for fisheries, which might result in increased fishing activities in the surrounding areas, while the occurrence of various fish species might be also affected by the constructed infrastructure. Accidental emission of petroleum substances is possible in the emergency situations. Landscape might be affected by the movement of the services vessels and by the turbines itself, which will be visible from nearby shipping routes (

Figure 11**)**.

Operating wind farm should not significantly affect the sea mammals. Structures might however affect birds' movement, thus actual impact should also be monitored, in order to validate the pre-construction assessment of the impacts on birds.

Figure 10 – Saare 1 area in the context of vessel movement intensity (shipping routes, fishing, etc.)



Source: Applicant on the basis of publicly available information

7.4. Decommissioning phase

During the decommissioning phase, which may require the removal of the infrastructure and restoration to the area to the pre-development stage, impact similar to the construction stage may occur. This means impact on the sea bottom and its sediments, emission of noise, temporary emission of pollutants to air from the vessels and machinery used and increased vessel movement.

7.5. List of envisaged investigations that the Applicant intends to undertake in order for a decision to be made concerning the application

According to §6 (1) 5) of the Environmental Impact Assessment and Environmental Management System Act, the erection of a wind power plant in a water body is an activity with an environmental impact which requires carrying out an EIA. During the EIA, the direct and indirect main environmental impacts of the planned activities and their realistic alternatives will be identified, and appropriate environmental measures will be developed that can prevent or reduce adverse environmental impacts. The EIA shall assess all major impacts, including those on protected natural objects, birds, etc., and also the cumulative impacts of the activities (including neighboring areas prescribed for the development of offshore wind farms in the Estonian Maritime Spatial Plan).

The EIA proceedings will be carried out in line with § 3^2 of the above act, which visually has been depicted in

Figure 11 below. All necessary impact assessment areas will be reflected in the EIA program and will be carried out according to § 13 of the above act.

Figure 11 – Illustration of EIA Proceeding in line with § 3[2] of the Environmental Impact Assessment and Environmental Management System Act

Source: Applicant on the basis of publicly available information

An initial analysis of the available literature data showed that the environment of the proposed area is explored in rather limited way. Therefore, it is planned to perform detailed and comprehensive inventory studies before starting the construction phase of the Project. Their purpose will be to characterize the biotic and abiotic conditions of the environment, with the obtained results used for the preparation of the EIA report. Areas and species having a value from the nature perspective will be indicated, which will be taken into account with particular care in the consideration of minimizing the negative impact of the planned investment on the environment.

According to the MSP, when deciding on the locations and technological solution of wind turbines at the level of the permitting procedure/EIA level, the EIA will assess the potential impacts of the future offshore wind farm based on literature, available data and site surveys.

Key elements of the future surveys will be:

a. Bathymetry;

b. Meteorological studies of the marine area, including monitoring of wind, wave, current and ice conditions;

c. Various elements of the abiotic environment:

   i. Sea bottom sediments and geophysics of the bottom;

   ii. Hydrological and hydro chemical conditions;

   iii. Verification of the mineral resources deposits;

As part of these studies it will necessary to determine the chemical (hazardous substances, nutrients) and physical properties of the sediments. The studies will include modelling of the formation and spreading of chelated sediment in order to assess the impact of the wind farm on fish spawning grounds, spawning and migration, and a study of seawater quality.

d. Various elements of the biotic environment:

   i. Ichthyofauna (fish);

   ii. Avifauna (birds);

   iii. Sea mammals;

   iv. Chiropter fauna (bats);

   v. Zoobenthos (plankton like organisms);

   vi. Flora upon certain extent;

The surveys of benthic fauna (plankton like organisms) will also provide an overview of seabed habitat types, while surveys of fish will include spawning areas and fish migration.

e. Underwater archaeological investigations, including investigation of the presence of wrecks, historical explosives and other dangerous objects in the investigated / construction area;

f. Noise studies (during construction, operation and dismantling, with a particular focus on underwater noise and vibration);

g. Impact of the released heat energy and possible vibrations related to the magnetic field and facilities assessment;

h. Socio-economic analyses;

i. Visual impact assessment;

j. Impact to the maritime traffic assessment.

In addition to the offshore wind farm, this Application also includes a possibility (options) of hydrogen production and aquaculture. In case any of these options are selected, the Applicant understands that an EIA may also be needed to analyse their impact. The Applicant notes that if hydrogen production also involves water abstraction and discharge of used water back into the sea, depending on the exact scale of the activity, an EIA may also be required for this activity without justification (KeHJS § 6(1)(19) and § 11(3)).

It should be noted that modelling of the formation and spreading of silt, studies of the sea-bed sediments, seabed biota and habitat types (as well as fisheries) will also be planned for the export cable routes, which would allow the selection and assessment of the most optimal routes for the marine environment. If an option of a pipeline for hydrogen/alternative fuels is selected, studies will also be carried out in the area where the pipeline will be located.

The Applicant will perform all needed studies, which will be reflected in the future EIA program. At this point the Applicant does not see significant environmental constraints, which could affect the Project.

8. Social aspects of the Project

8.1. Introduction

Social aspects are of important nature during the development of every offshore wind project. They concern issues related very closely to the particular project, but also have much broader meaning in the context of the overall sector at large.

The following sections discuss the impact of investments on society, both in general terms and in the context of the identified issues that were considered significant.

8.2. Energy security

The Project with its innovative solutions related to fixed bottom offshore wind fulfills the most important social function – it will allow for an increase in the share of renewable energy in the energy mix, which will allow Estonia to improve its "energy trilemma" score[9], which assesses countries along three dimensions: (1) energy security, (2) energy equity and (3) environmental sustainability.

According to the data presented by the World Energy Council for 2022, the Estonian trilemma score was ABA[10], which allowed the country to be ranked in a very high 9th position (out of 91 listed regions), with a significant improvement in the recent period. It should be noted however,

[9] WEC Trilemma: Country profile (worldenergy.org)
[10] A score for Energy Security, B score for Energy Equity and A score for Environmental Sustainability

that the components of the indicators of "energy security" are generally growing but “import independence” factor is decreasing. Concerning "energy equity" most of the factors remained unchanged in the last few years, but the factor “electricity prices” is one of the concerns in the current conditions. Ultimately, the "environmental sustainability" has slowly increased in the last years, but one of its components, “the low carbon electricity generation factor” may require enhancement.

A large-scale offshore wind installation, such as e.g. the Project, characterized by relatively high efficiency, likely higher than that of other renewable sources in Estonia, will provide enhancement to the aforementioned factors, ensuring Estonian energy security and its significant energy export potential.

8.3. Social acceptance

Social perception of offshore wind energy can be considered on two levels. On one hand, it is the technology of energy production very positively perceived by the society. On the other hand, societies simultaneously perceive offshore wind energy as a promising solution in the context of changes in the country's energy system to fight climate change, confirmed by research and analysis. Thus, one may infer that offshore energy sector in general and the Project in particular, fit well with social expectations related to the inevitable transformation of the energy system.

It should be noted however that social acceptance is not given once and for all, and that it is also an issue that is important also at the level of specific projects, not just the entire industry. As part of shaping the relationship between the offshore energy sector and the society, the Applicant intends to act in two ways: firstly joining national campaigns of industry associations (if such will be in place at the time of project development), and secondly conduct own information campaigns and communicate directly with local communities. As indicated by the analysis carried out for the needs of the currently implemented offshore wind farms, the empowerment of local communities is also a necessary condition to avoid social conflicts, which is discussed later.

8.4. Engagement with local communities

Taking into account the industry experience to date, local communities - understood both as local governments, but also residents of particular regions, are recognized by offshore wind investors as important stakeholders in the discussion about offshore wind energy in general, and specific projects in particular. Considering the Project, the key stakeholders will be the communities of the Saaremaa island, and especially its west coast, but likely also the other regions. Community involvement, be it in the form of consultations or parties in proceedings regarding environmental decisions or building permits, is considered a necessary minimum. As a result, the Applicant intends to follow best practices regarding cooperation with local communities.

Referring to the results of research concerning the activities expected by local governments related to the potential construction of offshore wind farms, the Applicant will take actions considering expectations and needs of local communities, especially those related to the Project. This will include provision of information regarding the investment itself and its impact on people and the environment (distribution of materials, website, information point during the implementation of the investment, organization of a study visit to an operating wind farm and exchange of experiences with communities where such projects already operate, educational activities at different levels). All of these topics will be covered in a stakeholder management

plan and associated communication plan, both of which are standard studies in the development of offshore wind energy projects.

The impact of the Project on local communities will also have an economic character. The intention of the Applicant is to base the Project on the Estonian supply chain whenever possible, at the development, construction and operation stage. This means encouraging and supporting the development of the production industry, usually located in coastal areas, as well as the location of the service base within the existing port infrastructure. Especially the latter point seems to be important from the point of view of local communities, as it will enable the development of new activities in the region (for example, the stationing of a fleet of ships for the transfer of crews or the construction and operation of the OWF service and operational base). All these activities involve an economic impulse, tax revenues and the creation of employment opportunities, which from a social point of view is clearly positive.

8.5. Summary of the social aspects

Various interactions between the Project and various social issues have been considered. Some of these were described above, although there is a number of others to be addressed at a later stage. The Applicant remains open, should there be a need to clarify or extend individual elements.

Offshore wind energy can have a variety of social impacts, both positive and negative. Analyzing all these issues, it can be concluded, that from a social point of view, the development of offshore wind energy has a positive connotation in a broad sense, as it may contribute to the management of a number of current world's issues. Such issues of key importance include the fight against climate change, energy transformation and increasing energy security. Local communities can also benefit to some extent from investment, and the economic impulse and development of the local supply chain, whether in terms of production or service, is an undeniably positive element that can benefit society as a whole, with particular emphasis on coastal areas. Adverse effects, as well as possible social conflicts, seem to be well recognized now, and there are already ways to deal with them, largely based on experiences from other markets and related industries.

In summary, **the proposed Project will be a socially beneficial undertaking, and any possible negative effects can be minimized to an acceptable level**.

9. Sources of funding

The information regarding the particulars concerning the sources of funding intended to finance the Project has been presented in Annex **1** – Commercial Register

1. **Annex 2** – Register of Beneficial Owners

Annex 3 – Confidential informationAnnex 3 – Confidential information**.**

Relevant financial statements of the Applicant has been appended to the Application as **Annex 5 – Applicant financial** statements.

10. Appendices

The following documents are attached to this Application:

2. **Annex 1** – Commercial Register
3. **Annex 2** – Register of Beneficial Owners
4. **Annex 3** – Confidential information
5. **Annex 4** – Technical conditions for the application for a building permit for the planned Saare 1 offshore wind farm of Oxan Energy
6. **Annex 5** – Applicant financial statements

TARBIJAKAITSE JA
TEHNILISE JÄRELEVALVE
AMET

O T S U S

Tallinn 17.06.2025 nr 1-7/25-205

Saare 1 alal hoonestusloa menetluse ja keskkonnamõju hindamise algatamine

Tarbijakaitse ja Tehnilise Järelevalve Amet (edaspidi TTJA) on vastavalt ehitusseadustiku (EhS) § 113^{1}-113^{20} pädev asutus, kes menetleb hoonestusloa taotluseid ning otsustab hoonestusloa menetluse algatamise ja hoonestusloa andmise üle.

Asjaolud ja menetluskäik

1. CI Estonia Wind GmbH & Co. KG esitas 22.04.2024 TTJA-le hoonestusloa taotluse Saare 1 alale avaliku veekogu koormamiseks meretuulepargiga (TTJA dokumendiregistris nr 16-7/24-05751-001).

2. TTJA avaldas 30.07.2024 Ametlikes Teadaannetes, ajalehes Õhtuleht ja oma veebilehel teate Saare 1 alale hoonestusloa menetluse algatamise kavatsusest CI Estonia Wind GmbH & Co. KG 22.04.2022 taotluse alusel.

3. Saare 1 alale esitasid omapoolsed konkureerivad taotlused kaks ettevõtet: 24.09.2024 OÜ Utilitas Wind (TTJA dokumendiregistris nr 16-7/24-12625-001) ja 29.09.2024 Oxan Energy (TTJA dokumendiregistris nr 16-7/24-12864-001).

4. TTJA viis läbi konkureerivate taotluste hindamise, mille tulemusena leidis, et kõik Saare 1 alale konkureerivad 3 hoonestusloa taotlust vastavad EhS § 113^{9} lõikes 2 toodud aspektidele. TTJA kinnitas Saare 1 ala konkureerivate taotluste hindamise tulemused 04.12.2024 käskkirjaga nr 1-7/24-006, millele on lisatud hindamiskoosoleku protokoll.

5. TTJA kuulutas 04.12.2024 kirjaga nr 16-7/24-00073-017 konkureerivate taotluste esitajate vahel välja konkursi enampakkumise alusel. Enampakkumisel osalemiseks tuli soovijatel TTJA-le hiljemalt 09.01.2025 esitada enampakkumisel osalemise avaldus. Enampakkumisel osalemiseks esitasid avalduse: 17.12.2024 Oxan Energy (TTJA dokumendiregistris nr 16-7/24-00073-019), 30.12.2024 CI Estonia Wind GmbH & Co. KG (TTJA dokumendiregistris nr 16-7/24-00073-020) ja 09.01.2025 OÜ Utilitas Wind (TTJA dokumendiregistris nr 16-7/24-00073-024).

6. TTJA kinnitas 10.01.2025 enampakkumisel osalejaks ja edastas enampakkumise tagatisraha tasumiseks makseteatise: Oxan Energy (TTJA dokumendiregistris nr

16-7/24-00073-026), CI Estonia Wind GmbH & Co. KG (TTJA dokumendiregistris nr 16-7/24-00073-028) ja OÜ-le Utilitas Wind (TTJA dokumendiregistris nr 16-7/24-00073-027). Oxan Energy ja OÜ Utilitas Wind tasusid määratud tähtajaks 17.01.2025 tagatisraha ja kvalifitseerusid osalema Saare 1 mereala enampakkumisel. CI Estonia Wind GmbH & Co. KG andis 17.01.2025 e-kirja teel teada, et loobub oksjonil osalemisest, mistõttu jättis ka tagatisraha tasumata.

7. TTJA korraldas Saare 1 mereala elektroonilise enampakkumise, mis toimus Eesti aja järgi (UTC+2) ajavahemikul 21.01.2025 kell 12.00 kuni 23.01.2025 kell 12.00.

8. TTJA kinnitas 23.01.2025 otsusega nr 1-7/25-019 enampakkumise võitjaks kõrgeima pakkumise summas 1 320 000 eurot teinud Oxan Energy. TTJA edastas 23.01.2025 kirjaga nr 16-7/24-00073-032 ettevõttele Oxan Energy makseteatise võidusumma ja tagatisraha summa vahe tasumiseks hiljemalt 25.02.2025.

9. Oxan Energy tasus 17.02.2025 makseteatise alusel võidusumma ja tagatisraha summa vahe 1 293 600 eurot.

10. Oxan Energy (Prantsusmaa registrikood 952 617 298; edaspidi ka taotleja) poolt esitatud hoonestusloa taotluse alusel on meretuulepark planeeritud rajada Vabariigi Valitsuse 12.05.2022 korraldusega nr 146 kehtestatud Eesti mereala planeeringu (edaspidi Eesti mereala planeering) tuuleenergeetika arendamiseks sobivale innovatsioonialale, mis jääb Saaremaast läände. Taotluse kohaselt kavandatakse alale püstitada kuni 60 elektrituulikut koguvõimsusega kuni 900 MW ja kuni 3 merealajaama. Ühe tuuliku maksimaalne võimsus on kuni 30 MW ja maksimaalne tipukõrgus keskmisest merepinnast on kuni 365 m. Lisaks on alale planeeritud rajada kuni 3 vesiniku tootmisplatvormi koos tootmiseks vajalike rajatistega ning kuni 6 vetikakasvatuse rajatist. Koormatava ala kogupindala on 88 km^2.Hoonestusluba taotletakse 50 aastaks. Taotlus ja sellega seotud dokumendid on registreeritud TTJA dokumendiregistris (https://jvis.ttja.ee/modules/dokumendiregister/) asja nr 16-7/24-12864 all.

Asjaomaste asutuste seisukohad

11. TTJA edastas kõik eespool punktides 1 ja 3 nimetatud taotlused asjaomastele asutustele arvamuse avaldamiseks. Tulenevalt asjaolust, et enampakkumise võitjaks osutus Oxan Energy on asjakohane käsitleda üksnes Oxan Energy poolt esitatud hoonestusloa taotlusele laekunud asjaomaste asutuste arvamusi.

12. TTJA saatis 22.10.2024 kirjadega nr 16-7/24-12864-006 ja nr 16-7/24-12864-007 Oxan Energy hoonestusloa taotluse dokumendid asjaomastele asutustele arvamuse avaldamiseks ning palus seisukohta hoonestusloa menetluse algatamise või algatamata jätmise osas. Seisukohta küsiti Siseministeeriumilt, Kaitsepolitseiametilt, Kaitseministeeriumilt, Kaitseväelt Keskkonnaametilt, Kliimaministeeriumilt, Muinsuskaitseametilt, Regionaal- ja Põllumajandusministeeriumilt, Terviseametilt, Transpordiametilt, Politsei- ja Piirivalveametilt, Päästeametilt, Saaremaa Vallavalitsuselt, Saare Rannarahva Seltsilt ja Mittetulundusühingult EESTI KALURITE LIIT.

12.1. Terviseamet vastas 28.10.2024 kirjaga nr 9.3-1/24/10681-2, et vastuväited ja ettepanekud hoonestusloa taotluse menetluse algatamisele puuduvad.

12.2. Päästeamet märkis 31.10.2024 kirjas nr 7.2-3.4/6689-1, et edasises projekteerimises

tuleb lähtuda Eesti mereala planeeringu peatükis 5 sätestatust. Analüüsida tuleb reostuse tekke võimaluste riske, välja töötada riskianalüüs ning selle alusel tagada merereostuse tagajärgede leevendamise meetmed ja tingimused.

12.3. Kaitseministeerium vastas 31.10.2024 kirjaga nr 12-1/24/385-3, milles märkis, et Kaitseministeerium ei sea kõrguspiiranguid kõnealuse Saare 1 alal meretuulepargi rajamisele pärast Liivi lahe ja suursaarte tuuleenergiale avavate kompensatsioonimeetmete täielikku rakendamist eeldatavalt 2027. aastal, mis kõrvaldab tuuleparkide negatiivse mõju õhuseirele. Kaitseministeerium on käivitanud uuringu, milles hinnatakse Saaremaast läänes asuvatele tuuleenergeetika aladele, seal hulgas Eesti mereala planeeringuga kehtestatud innovatsioonialale, püstitatud meretuuleparkide mõju mereseiresüsteemile ning vajaduse korral pakutakse välja meetmed antud meretuuleparkide negatiivsete mõjude leevendamiseks. Mõjude uuringu esmased tulemused selguvad 2025. aasta esimeses kvartalis. Kaitseministeeriumil ei ole vastuväiteid hoonestusloa andmisele, kuid rõhutas, et hoonestusloa taotlejad peavad olema valmis nimetatud uuringute käigus tuvastatud negatiivseid mõjusid leevendama.

12.4. Kliimaministeerium märkis 04.11.2024 kirjas nr 21-6/24/63-2, et vastuväited ja ettepanekud hoonestusloa taotluse menetluse algatamisele puuduvad, kuid märkis, et veeseaduse kohaselt ei tohi kavandatud tegevusega kahjustada või muuta halvemaks Eesti mereala merekeskkonna seisundit. Seisundi hindamisel tuleb lähtuda Eesti merestrateegia erinevates aruannetes toodud mereala seisundit puudutavatest andmestikest.

12.5.Saare Rannarahva Selts vastas 06.11.2024 kirjaga nr 24/Ox, milles märkis, et Saare 1 ala on rannikust piisavas kauguses, mistõttu sealne arendus tõenäoliselt ei halvendaks Saaremaa lääneranniku elanike sotsiaalmajanduslikku olukorda, ei tekitaks liigset visuaalset reostust ega ohustaks liigse madalsagedusliku- ja infrahelimüraga kohalike elanike tervist. Kokkuvõttes peab Saare Rannarahva Selts mõistlikuks meretuulepargi arendamist Saare 1 alal. Seda lähtuvalt kõigi võimalike kaasnevate keskkonnamõjude põhjalikust hindamisest.

12.6. Keskkonnaamet märkis 11.11.2024 kirjas nr 6-2/24/21742-2, et lähtuvalt pädevusvaldkonnast neil vastuväited hoonestusloa menetluse algatamisele puuduvad. Keskkonnaamet rõhutas, et keskkonnamõju hindamise (edaspidi ka KMH) käigus tuleb hinnata kogu kavandatava tegevuse ja selle alternatiivide eeldatavat olulist keskkonnamõju, sh kumulatiivset mõju teiste piirkonda kavandatavate arendusprojektidega (tuulepargid, kaablid, vesinikutorustik, eriti nende rajamisel Eesti mereala planeeringus kuvatud Saaremaa lääneranniku randumispunktis jm).

12.6.1. Keskkonnaamet on seisukohal, et nii tuulepargi alal kui kaablikoridoris tuleb läbi viia järgmised uuringud:

1) geoloogiline uuring ja mõjud merepõhjale;
2) mereprotsessid ja hüdrodünaamika (sh vee vertikaalne liikumine);
3) tuuletingimuste, lainetuse ja jääolude täpsustav uuring;
4) heljumi tekke ja leviku modelleerimine;
5) merevee kvaliteedi uuring, sh mudeldada tegevusega (rajamine, käitamine, vesiniku tootmine, vesiviljelus) kaasnevat vee kvaliteedi muutust ja hinnata tegevuse mõju vee kvaliteedile ja veekogumi seisundile. Veeseaduse kohaselt ei tohi kavandatud tegevusega kahjustada või muuta halvemaks Eesti mereala merekeskkonna seisundit. Seisundi hindamisel (vee kvaliteedile ja mereelupaikadele) tuleb arvestada Eesti merestrateegia erinevates teemavaldkondade aruannetes toodud mereala seisundit puudutava andmestikuga;

6) mere põhjasetete uuring. Setete uuring peaks hõlmama nii setete füüsikalisi omadusi kui ka setete keemiat (ohtlikud ained, toitained, et hinnata, kas ja kui palju võib alal ehitustööde käigus vabaneda ohtlikke saasteaineid või eutrofeerumist põhjustavad aineid);
7) orienteeruvad süvendamise, kaadamise ja tahkete ainete paigutamise mahud ning tegevustega kaasnevad mõjud. Tegevuse mõjude hindamisel peab lähtuma suurimast tõenäolisest mahust;
8) merepõhja elustiku ja elupaikade uuring, sh elupaigatüübid ja kunstsubstraadi koloniseerimise hinnang;
9) kalastiku uuring, sh kalakoelmud ja rändeteed;
10) mereimetajate uuring;
11) linnustiku uuring;
12) käsitiivaliste uuring;
13) müraga seonduvad mõjud (nii ehitus-, toimimis- kui ka demonteerimise aegne, keskendudes eelkõige veealusele mürale, kuid käsitledes ka atmosfääriõhus levivat müra). Läbi viia müra modelleerimised ja arvestada modelleerimisel ka teiste piirkonna tuuleparkidega;
14) eralduva soojusenergia ning võimaliku magnetvälja ja rajatistega seotud vibratsiooni võimaliku ebasoodsa mõju hinnang;
15) maastiku ja visuaalse mõju hinnang;
16) mõjud kaitstavatele loodusobjektidele ja Natura 2000 võrgustiku aladele;
17) tuulikute lammutamise mõju, sh mõju põhjaelustiku biotoopidele.

12.6.2. Keskkonnaamet juhtis tähelepanu, et uuringud (sh mereelustik) tuleb kavandada ka eksportkaablite ja torustike trassidel. Uuringud tuleb kavandada nii, et uuringute tulemusi saaks kasutada ka kumulatiivse mõju hindamisel. Lisaks tuleb arvestada, et vesiviljeluse arendamine meretuulepargi alal võib meelitada sukelparte ja seega suurendada lindude hukkumisriski tuulepargis, mistõttu on vaja sellele linnustiku uuringus eraldi tähelepanu pöörata.

12.7. Transpordiamet märkis 13.11.2024 kirjas nr 7.2-4/24/18254-2, et Transpordiametil ei ole vastuväiteid Oxan Energy hoonestusloa menetluse algatamisele Saare 1 alale. Transpordiamet lisas, et kuna ala asub Läti lennuinfotsoonis, tuleb taotlus kooskõlastada ka Läti vastava ametkonnaga.

12.8. Regionaal- ja Põllumajandusministeerium (ruumilise planeerimise valdkond on alates 01.01.2025 Majandus- ja Kommunikatsiooniministeeriumi vastutusalas) vastas 15.11.2024 kirjas nr 6.2-15/4508-1, et Oxan Energy poolt esitatud hoonestusloa taotluses kirjeldatud tegevus ei ole vastuolus Eesti mereala planeeringuga. Hoonestusloa taotluse menetlemisel ja KMH raames tuleb arvestada Eesti mereala planeeringuga ning mh järgida tingimusi ja suuniseid Eesti mereala planeeringu seletuskirja punktist 5.6.5. „Tuuleenergeetika suunised ja tingimused“ ja teostada kõik vajalikud uuringud.

12.9. Muinsuskaitseamet vastas 18.11.2024 kirjas nr 1.1-7/2112-1, et Muinsuskaitseametil ei ole vastuväiteid hoonestusloa menetluse algatamisele. Hoonestusloa menetluse algatamisel tuleb määrata allveearheoloogilise uuringu kohustus koormataval alal ja selle mõjualal.

12.10. Politsei- ja Piirivalveamet märkis 22.11.2024 kirjas nr 2.1-3/40519-2, et läbiviidavate uuringute kirjelduses puuduvad Politsei- ja Piirivalveameti põhitöid mõjutavad uuringud ehk mõju mereseire- ja ESTER sidesüsteemidele. Lisaks tuleb otsingu- ja päästetööde osas hinnata mõju nende läbiviimisele, sh kuidas see mõjutab otsingu- ja päästetöödele kaasatavat ressurssi (kas ressurss saab reageerida alas sees, peab liikuma ümber ala vm mõjurid).

12.11. Saaremaa Vallavalitsus vastas 20.11.2024 kirjas nr 5-4/5560-2, et ei näe käesoleval hetkel alust hoonestusloa menetluse algatamata jätmiseks. Saaremaa Vallavalitsus märkis, et tuuleparkide planeerimisel tuleb hinnata objektiivseid muutusi mere- ja maastikupildile, kuna see mõju on inimesele kõige olulisemalt tajutavam. Saaremaa Vallavalitsus tegi ettepaneku koostada visuaalne ja müra modelleering hindamaks mõju rannikualadele.

12.12. Kaitsevägi märkis 22.11.2024 kirjas nr KV-4.1-3.1/24/20114-2, et Kaitseväe poolne sisend Saare 1 alale on edastatud Kaitseministeeriumile. Kaitseministeerium edastas koondvastuse valitsemisala üleselt.

12.13. Siseministeerium, Kaitsepolitseiamet ja Mittetulundusühing EESTI KALURITE LIIT oma seisukohta ei esitanud, millest TTJA järeldab, et neil puuduvad vastuväited hoonestusloa taotlusele ja hoonestusloa menetluse algatamisele.

Õiguslikud alused ja põhjendused

Hoonestusloa menetluse algatamine konkursi võitja taotluse alusel

13. EhS § 113^{1} lõikest 1 tulenevalt on hoonestusluba tähtajaline õigus koormata avaliku veekogu ja majandusvööndi piiritletud ala selle põhjaga püsivalt ühendatud ehitisega. Sama paragrahvi lõike 3 kohaselt ei asenda hoonestusluba teisi seaduses ettenähtud lube, mis on vajalikud hoonestusloa oluliseks osaks oleva ehitise ehitamiseks ja kasutamiseks.

14. Lähtuvalt eelnevast tuleb taotlejal arvestada, et hoonestusloa menetlus ei hõlma vee erikasutuse ega ehitusloa menetlusi.

15. EhS § 113^{10} lõike 10 kohaselt algatatakse hoonestusloa menetlus konkursil osaleja suhtes, kes pakub konkursil kõrgeimat hinda ja tasub pakutud summa konkursi teates määratud tähtaja jooksul.

16. EhS § 113^{10} lõike 12 lausest 1 tulenevalt on pädeval asutusel kohustus EhS § 113^{10} lõike 10 alusel välja selgitada taotleja, kelle suhtes algatatakse hoonestusloa menetlus, ja teha hoonestusloa menetluse algatamise otsus 90 päeva jooksul nimetatud taotleja väljaselgitamisest arvates.

17. EhS § 113^{11} lõigete 1 ja 2 kohaselt tuleb pädeval asutusel hoonestusloa menetluse algatamisest keelduda, kui: 1) hoonestusloa andmine on ilmselgelt võimatu (lg 1); 2) taotletav alal on algatatud mõni teine hoonestusloa menetlus (lg 2 p 1); 3) taotlus on vastuolus kehtiva planeeringuga (lg 2 p 2); 4) taotletaval alal on algatatud planeering ja planeerimismenetlus ei ole lõppenud (lg 2 p 3); 5) kavandatava ehitise ehitamiseks on vaja koostada eriplaneering (lg 2 p 4); 6) esineb oluline negatiivne mõju inimese elule, tervisele, keskkonnale või varale, mida ei ole võimalik piisavalt vältida ega leevendada (lg 2 p 5); 7) hoonestusloa taotleja või temaga seotud isiku või kavandatava ehitisega kaasneb oht riigi julgeolekule, elutähtsa teenuse toimepidevusele, riigiside toimimisele, riigikaitse objektile või majandusele ning seda ei ole võimalik kõrvaldada (lg 2 p 6); 8) hoonestusloa taotleja suhtes esinevad EhS § 113^{5} lõike 4 punktides 3 ja 4 või § 113^{9} lõike 1 kolmandas lauses või § 113^{10} lõikes 9 ja lõike 12 teises lauses või § 113^{13} lõike 1 punktis 2, 4 ja 6 või lõikes 3 sätestatud asjaolu (lg 2 p 7).

18. Käesoleval juhul puuduvad hoonestusloa menetluse algatamisest keeldumise alused. Oxan Energy on TTJA 23.01.2025 otsusega nr 1-7/25-019 kinnitatud Saare 1 ala konkureerivate taotluste seas läbiviidud konkursi raames toimunud elektroonilise enampakkumise võitjaks ja

ta on tähtaegselt tasunud enampakkumise võidusumma.

19. Lähtudes eelnevast ning taotleja esitatud taotlusest, asjaomaste asutuste arvamusest ja enampakkumise tulemusest on TTJA seisukohal, et Oxan Energy 29.09.2024 taotluse alusel tuleb Saare 1 alal algatada hoonestusloa menetlus kuni 900 MW meretuulepargi, vesiniku tootmise rajatiste ja vetikakasvatuse rajamiseks.

Hoonestusloa menetluse algatamisest keeldumine teiste konkureerivate taotluste alusel

20. EhS § 113^{10} lõike 12 esimese lause kohaselt algatatakse hoonestusloa menetlus taotleja suhtes, kes on konkursi korras välja selgitatud kui konkursil kõrgeima hinna pakkuja ja kes on pakutud summa tähtaegselt tasunud. EhS § 113^{10} lõike 12 teisest lausest lähtuvalt tuleb teiste konkureerivate taotluste kohta teha hoonestusloa menetluse algatamisest keeldumise otsus 90 päeva jooksul konkursi võitja välja selgitamisest arvates. Põhjendatud juhul on pädeval asutusel õigus tähtaega pikendada.

21. Kuivõrd Saare 1 alal algatab TTJA hoonestusloa menetluse Oxan Energy taotluse alusel, keeldub TTJA CI Estonia Wind GmbH & Co. KG ja OÜ Utilitas Wind taotluste alusel hoonestusloa menetluse algatamisest EhS § 113^{10} lõike 12 teise lause alusel.

22. Lähtuvalt eelnevast ja eelkõige Saare 1 mereala enampakkumise tulemusest, keeldub TTJA hoonestusloa menetluse algatamisest CI Estonia Wind GmbH & Co. KG ja OÜ Utilitas Wind taotluste alusel.

Keskkonnamõju hindamise algatamine ja uuringute määramine

23. Tulenevalt asjaolust, et hoonestusloa menetlus algatatakse meretuulepargi rajamise eesmärgil, on KMH kohustuslik keskkonnamõju hindamise ja keskkonnajuhtimissüsteemi seaduse (KeHJS) § 3 lõike 1 punkti 1 alusel, kuna tuulepargi veekogusse rajamise puhul on tegemist KeHJS § 6 lõike 1 punktis 5 nimetatud olulise keskkonnamõjuga tegevusega. KeHJS § 11 lõike 3 kohaselt ei pea keskkonnamõju hindamise algatamist põhjendama, kui kavandatakse olulise keskkonnamõjuga tegevust. Juhul kui taotleja otsustab rajada vesiniku tootmiseks ja vetikate kasvatamiseks vajalikud rajatised, tuleb lisaks hinnata nende tegevuste keskkonnamõju ja koosmõju.

24. Arvestades Saare 1 alale planeeritava meretuulepargi asukohta ja suurust võib kavandatava tegevusega kaasneda piiriülene keskkonnamõju, mistõttu tuleb läbi viia piiriülene keskkonnamõju hindamine.

25. EhS § 113^{4} lõike 3 punkt 3 kohustab hoonestusloa menetluse algatamisel vajaduse korral määrama uuringud, mis tuleb taotlejal hoonestusloa andmise otsustamiseks teha, ja nende tegemise tähtajad.

26. Võttes aluseks asjaomaste asutuste (Keskkonnaamet, Politsei- ja Piirivalveamet, Muinsuskaitseamet, Saaremaa Vallavalitsus ning Päästeamet) seisukohad, Oxan Energy hoonestusloa taotluse ja Eesti mereala planeeringu seletuskirja peatükis 5.6.5 toodud tingimused loamenetluse/KMH tasandil tuulikute asukohtade ja tehnoloogilise lahenduse otsustamise kohta, tuleb KMH käigus läbi viia järgmised uuringud:

1) merepõhja geoloogiline uuring;
2) mereprotsessid ja hüdrodünaamika;

3) tuuletingimuste, lainetuse ja jääolude täpsustav uuring (sh jäämurdmistööde mõju jääkatte muutustele ja merejää liikuvusele, samuti arvestades jääoludest tuleneva riskiga rajatise vastupidavusele);
4) heljumi tekke ja leviku uuring;
5) merevee kvaliteedi uuring, sh mudeldada tegevusega (rajamine, käitamine, vesiniku tootmine, vesiviljelus) kaasnevat vee kvaliteedi muutust ja hinnata tegevuse mõju vee kvaliteedile ja veekogumi seisundile. Vesiniku tootmise rajatiste rajamisel tuleb hinnata ka vesiniku tootmisel lisanduva soolase vee mõju segunemisele ja soolsuse jaotusele;
6) mere põhjasetete keemia uuring (ohtlikud ained, toitained) ja füüsikalised omadused;
7) orienteeruvad süvendamise, kaadamise ja tahkete ainete paigutamise mahud ning tegevustega kaasnevad mõjud. Tegevuse mõjude hindamisel peab lähtuma suurimast tõenäolisest mahust;
8) merepõhja elustiku ja elupaikade uuring, sh elupaigatüübid ja kunstsubstraadi koloniseerimise hinnang;
9) kalastiku uuring, kalade koelmualade ja rändeteede kaardistamine;
10) mereimetajate uuring;
11) linnustiku uuring;
12) käsitiivaliste uuring;
13) müra uuring (ehitus-, toimimis- kui ka demonteerimise aegsed mõjud keskendudes nii veealusele kui ka atmosfääriõhus levivale mürale);
14) mõjud kaitstavatele loodusobjektidele ja Natura 2000 võrgustiku aladele;
15) lennuohutuse ekspertiis-riskianalüüs;
16) allveearheoloogiline uuring;
17) mereturvalisuse analüüs ning mõju otsingu- ja päästetööde tegemisele, mh hinnata kas ja millisel määral mõjutab meretuulepark kopterite liiklemist (SAR, kiirabilennud jne). Lisaks tuleb hinnata tuulepargi mõju raadiosidele, mereseire- ja ESTER sidesüsteemidele ning AIS seadmetele ja laevaradaritele;
18) mõju laevaliiklusele;
19) maastiku ja visuaalsete mõjude uuring;
20) hinnata eralduva soojusenergia ning võimaliku magnetvälja ja rajatistega seotud vibratsiooni võimalikku olulist ebasoodsat mõju;
21) tuulikute lammutamise mõju, sealhulgas mõju põhjaelustiku biotoopidele;
22) uuring ajalooliste lõhkekehade ja muude ohtlike objektide leidumise tõenäosuse osas koostöös Kaitseministeeriumiga;
23) reostuse tekke võimaluste riskide analüüs, riskianalüüsi väljatöötamine ning selle alusel merereostuse tagajärgede leevendamise meetmete ja tingimuste tagamine;
24) tuulikute ja kaablite (nii tuulepargi siseste kui ka väliste kaablite) koosmõju merealal. Vesiviljelusrajatise ja vesiniku tootmise rajatiste rajamisel tuleb hinnata ka nende koosmõju;
25) sotsiaal-majanduslik mõju, sealhulgas mõju inimese tervisele, heaolule ja varale ning kohalikule kogukonnale, tööhõivele, turismile, elektrivarustusele ja kalandusele;
26) kumulatiivse mõju uuring (mõjualale jäävate planeeritud meretuuleparkide ja merekaablite mõju kumuleerumist tuleb hinnata linnustikule, Natura 2000 võrgustiku alade kaitse-eesmärkidele, laevakoridoride, vaadete, tuule varjutuse jms osas);
27) muud keskkonnamõju hindamise programmis määratavad uuringud.

27. Arvestades asjaolu, et KMH täpne ulatus ja sisu, sealhulgas hindamismetoodika, ei ole hoonestusloa menetluse algatamisel veel teada ja need määratakse KeHJS § 13 lõike 1 punktidest 5 ja 6 tulenevalt KMH programmis, siis ei ole käesolevas otsuses võimalik määrata lõplikku uuringute loetelu, mis tuleb KMH läbiviimise käigus teostada.

28. KMH programmi ja KMH aruande esitamise tähtajad on sätestatud vastavalt KeHJS § 18

lõigetes 7 ja 8. KeHJS § 18 lõike 7 kohaselt, kui arendaja ei ole 18 kuu jooksul KMH algatamisest arvates esitanud TTJA-le KMH programmi nõuetele vastavuse kontrollimiseks, jätab TTJA KMH algatamise aluseks olnud tegevusloa taotluse läbi vaatamata ja tagastab selle arendajale. KeHJS § 18 lõige 8 sätestab, et kui arendaja ei ole kahe aasta jooksul alates KMH programmi nõuetele vastavaks tunnistamise otsuse tegemisest arvates esitanud KeHJS §-s 20 nimetatud KMH aruannet avalikuks väljapanekuks, kaotab KMH programm kehtivuse ning keskkonnamõju hindamiseks peab koostama uue programmi.

29. KMH raames tehtud uuringud ja nende alusel koostatud KMH aruanne on hoonestusloa andmise otsuse tegemise üheks aluseks.

Riigilõivu tasumise kohustus

30. Vastavalt EhS § 113^4 lõikele 5 tuleb 30 päeva jooksul pärast hoonestusloa menetluse algatamise otsust tasuda hoonestusloa riigilõiv. Riigilõivuseaduse § 215^{13} lõikest 1 tulenevalt tasutakse hoonestusloa taotluse läbivaatamise eest riigilõiv 2800 eurot.

Ärakuulamine

31. TTJA saatis 19.03.2025 kirjaga nr 16-7/24-12864-021 käesoleva otsuse eelnõu Oxan Energy-le, OÜ-le Utilitas Wind ja CI Estonia Wind GmbH & Co. KG tutvumiseks ning arvamuse andmiseks.

32. Oxan Energy vastas 28.03.2025 e-kirjaga, milles täpsustas, et tema taotlus hoonestusloa menetluse algatamiseks on esitatud tavapärase hoonestusloa mitte meretuulepargi hoonestusloa menetluse läbi viimiseks.

33. TTJA pikendas 22.04.2025 kirjaga nr 16-7/24-12864-025 Saare 1 ala hoonestusloa menetluse algatamise otsuse tegemise tähtaega kuni 17.06.2025.

34. Oxan Energy saatis 15.05.2025 e-kirjaga arvamuse Saare 1 ala hoonestusloa menetluse algatamise otsuse eelnõus toodud uuringu nimekirja osas. Oxan Energy hinnangul ei ole vaja kogu taotletaval alal merepõhja ehitusgeoloogilist uuringut läbi viia. Taotleja märkis, et KMH raames on vaja taotletaval alal läbi viia üldine geoloogiline uuring ja palus nimetada uuring merepõhja geoloogiliseks uuringuks. Täiendavalt märkis Oxan Energy, et kunstsubstraadi koloniseerimise hinnangu andmine ei ole Eesti mereala planeeringu kohaselt kohustuslik, mistõttu tuleks see uuringute nimekirjast eemaldada. Lisaks oli Oxan Energy ekslikult tõlkinud käsitiivaliste uuringu ning nimetanud seda vaalaliste uuringuks, mistõttu pidas Oxan Energy uuringu läbiviimist ebavajalikuks.

34.1. TTJA vastas 30.05.2025 e-kirjaga Oxan Energy seisukohale seoses uuringutega.

34.1.1. TTJA nõustub, et merepõhja ehitusgeoloogilist uuringut ei ole vaja KMH raames läbi viia ning taotletaval alal tuleb läbi viia merepõhja geoloogiline uuring. Sellest lähtuvalt korrigeeris TTJA uuringu nimetust.

34.1.2. TTJA märgib, et kunstsubstraadi koloniseerimise hinnangu andmise vajaduse nimetas Keskkonnaamet oma arvamuses. TTJA selgitab, et kunstsubstraadi koloniseerimise hinnangu andmisel ei ole vaja läbi viia füüsilist uuringut, kuid KMH raames tuleb anda üldine hinnang kunstsubstraadi koloniseerimise osas.

34.1.3. TTJA selgitab, et vaatamata taotleja tõlkeveast tekkinud arusaamatusele on KMH raames kohustuslik läbi viia käsitiivaliste uuring mitte vaalaliste uuring, kuna Eesti mereala planeeringu kohaselt on uuringu läbiviimine kohustuslik. Vaalalised ei ole Eesti vetes levinud ning seega on uuringu läbiviimine ebavajalik.

35. Tulenevalt Oxan Energy taotlusest ja märkustest korrigeeris TTJA käesoleva otsuse eelnõud.

36. TTJA saatis 13.06.2025 kirjaga nr 16-7/24-12864-031 korrigeeritud otsuse eelnõu Oxan Energy-le tutvumiseks ning arvamuse andmiseks.

37. Oxan Energy vastas 16.06.2025 e-kirjaga, milles märkis, et on tutvunud otsuse eelnõuga ning märkuseid sellele ei esita.

OTSUS

Lähtudes eeltoodust ning ehitusseadustiku § 113[1] lõikest 1, § 113[4] lõigetest 1, 3 ja 5, § 113[10] lõigetest 10 ja 12, § 113[11] lõike 2 punktist 7; riigilõivuseaduse § 215[13] lõikest 1; keskkonnamõju hindamise ja keskkonnajuhtimissüsteemi seaduse § 3 lõike 1 punktist 1, § 6 lõike 1 punktist 5, § 7 punktist 2, § 9 lõikest 1, § 11 lõigetest 3, 8 ja 11, § 12 lõikest 1, § 18 lõikest 7 ning Tarbijakaitse ja Tehnilise Järelevalve Ameti 23.01.2025 otsusest nr 1-7/25-019 „Saare 1 mereala elektroonilise enampakkumise võitja kinnitamine“, otsustan:

1. Algatada hoonestusloa menetlus Oxan Energy (Prantsusmaa registrikood 952 617 298) poolt 29.09.2024 esitatud hoonestusloa taotluse alusel Saare 1 alale kavandatava kuni 900 MW meretuulepargi, vesiniku tootmise rajatiste ja vetikakasvatuse rajamiseks.

2. Hoonestusloa menetlusega hõlmatud Saare 1 alale punktis 1 nimetatud ehitiste rajamiseks vajaliku avaliku veekogu koormatava ala pindala on 88 km^2 ja L-EST koordinaadid on järgmised:

1) X_1 6459593.00; Y_1 312033.00
2) X_2 6457614.00; Y_2 310575.00
3) X_3 6453493.00; Y_3 310661.00
4) X_4 6446636.00; Y_4 309232.00
5) X_5 6443302.00; Y_5 310580.00
6) X_6 6439770.00; Y_6 312421.00
7) X_7 6453318.00; Y_7 317559.00
8) X_8 6459593.00; Y_8 312033.00

3. Algatada Saare 1 alal kuni 900 MW meretuulepargi rajamiseks avalikku veekogusse keskkonnamõju hindamine, sh piiriülene keskkonnamõju hindamine, võimalike lühi- ja pikaajaliste, kaudsete ja otseste mõjude hindamiseks. Eeldatavalt võib kavandataval tegevusel olla piiriülene mõju, seega tuleb mõjude hindamisel välja selgitada võimalikud piiriülesed mõjud tuulepargi ehitamise ja käitamise ajal.

3.1. Keskkonnamõju hindamise menetluses on otsustajaks Tarbijakaitse ja Tehnilise Järelevalve Amet (aadress: Endla tn 10a, Tallinn 10122; e-post: info@ttja.ee).

3.2. Teha Saare 1 alal ja selle mõjualas ning põhivõrguga ühendamiseks paigaldatavate

veekaabelliinide asukohal ja nende mõjualas järgmised uuringud:

1) merepõhja geoloogiline uuring;
2) mereprotsessid ja hüdrodünaamika;
3) tuuletingimuste, lainetuse ja jääolude täpsustav uuring (sh jäämurdmistööde mõju jääkatte muutustele ja merejää liikuvusele, samuti arvestades jääoludest tuleneva riskiga rajatise vastupidavusele);
4) heljumi tekke ja leviku uuring;
5) merevee kvaliteedi uuring, sh mudeldada tegevusega (rajamine, käitamine, vesiniku tootmine, vesiviljelus) kaasnevat vee kvaliteedi muutust ja hinnata tegevuse mõju vee kvaliteedile ja veekogumi seisundile. Vesiniku tootmise rajatiste rajamisel tuleb hinnata ka vesiniku tootmisel lisanduva soolase vee mõju segunemisele ja soolsuse jaotusele;
6) mere põhjasetete keemia uuring (ohtlikud ained, toitained) ja füüsikalised omadused;
7) orienteeruvad süvendamise, kaadamise ja tahkete ainete paigutamise mahud ning tegevustega kaasnevad mõjud. Tegevuse mõjude hindamisel peab lähtuma suurimast tõenäolisest mahust;
8) merepõhja elustiku ja elupaikade uuring, sh elupaigatüübid ja kunstsubstraadi koloniseerimise hinnang;
9) kalastiku uuring, kalade koelmualade ja rändeteede kaardistamine;
10) mereimetajate uuring;
11) linnustiku uuring;
12) käsitiivaliste uuring;
13) müra uuring (ehitus-, toimimis- kui ka demonteerimise aegsed mõjud keskendudes nii veealusele kui ka atmosfääriõhus levivale mürale);
14) mõjud kaitstavatele loodusobjektidele ja Natura 2000 võrgustiku aladele;
15) lennuohutuse ekspertiis-riskianalüüs;
16) allveearheoloogiline uuring;
17) mereturvalisuse analüüs ning mõju otsingu- ja päästetööde tegemisele, mh hinnata kas ja millisel määral mõjutab meretuulepark kopterite liiklemist (SAR, kiirabilennud jne). Lisaks tuleb hinnata tuulepargi mõju raadiosidele, mereseire- ja ESTER sidesüsteemidele ning AIS seadmetele ja laevaradaritele;
18) mõju laevaliiklusele;
19) maastiku ja visuaalsete mõjude uuring;
20) hinnata eralduva soojusenergia ning võimaliku magnetvälja ja rajatistega seotud vibratsiooni võimalikku olulist ebasoodsat mõju;
21) tuulikute lammutamise mõju, sealhulgas mõju põhjaelustiku biotoopidele;
22) uuring ajalooliste lõhkekehade ja muude ohtlike objektide leidumise tõenäosuse osas koostöös Kaitseministeeriumiga;
23) reostuse tekke võimaluste riskide analüüs, riskianalüüsi väljatöötamine ning selle alusel merereostuse tagajärgede leevendamise meetmete ja tingimuste tagamine;
24) tuulikute ja kaablite (nii tuulepargi siseste kui ka väliste kaablite) koosmõju merealal. Vesiviljelusrajatise ja vesiniku tootmise rajatiste rajamisel tuleb hinnata ka nende koosmõju;
25) sotsiaal-majanduslik mõju, sealhulgas mõju inimese tervisele, heaolule ja varale ning kohalikule kogukonnale, tööhõivele, turismile, elektrivarustusele ja kalandusele;
26) kumulatiivse mõju uuring (mõjualale jäävate planeeritud meretuuleparkide ja merekaablite mõju kumuleerumist tuleb hinnata linnustikule, Natura 2000 võrgustiku alade kaitse-eesmärkidele, laevakoridoride, vaadete, tuule varjutuse jms osas);
27) muud keskkonnamõju hindamise programmis määratavad uuringud.

3.3. Keskkonnamõju hindamisel, uuringute tegemisel ning merekaabelliini trasside valikul tuleb teha koostööd teiste samas piirkonnas planeeritavate meretuuleparkide arendajatega.

3.4. Keskkonnamõju hindamisel tuleb hinnata koosmõju teiste piirkonnas planeeritud meretuuleparkidega.

3.5. Keskkonnamõju hindamisel tuleb arvestada Vabariigi Valitsuse 12.05.2022 korraldusega nr 146 kehtestatud Eesti mereala planeeringus toodud suuniste ja tingimustega.

3.6. Oxan Energy-l tuleb esitada keskkonnamõju hindamise programm Tarbijakaitse ja Tehnilise Järelevalve Ametile nõuetele vastavuse kontrollimiseks 18 kuu jooksul käesoleva otsuse jõustumisest arvates.

3.7. Keskkonnamõju hindamisega ning muude uuringutega seotud kulud kannab Oxan Energy.

4. Oxan Energy hoonestusloa taotluse menetlus peatub kuni keskkonnamõju hindamise aruande nõuetele vastavaks tunnistamisest teavitamiseni.

5. Tasuda hoonestusloa taotluse läbivaatamise eest riigilõiv 2800 eurot käesoleva otsuse jõustumisest 30 päeva jooksul.

5.1. Riigilõiv tuleb tasuda ühele järgmistest Rahandusministeeriumi kontodest:

1) SEB Pank EE891010220034796011 (SWIFT: EEUHEE2X);
2) Swedbank EE932200221023778606 (SWIFT: HABAEE2X);
3) Luminor Bank EE701700017001577198 (BIC/SWIFT: RIKOEE22);
4) LHV Pank EE777700771003813400 (BIC/SWIFT: LHVBEE22).

Maksekorraldusele tuleb märkida viitenumber 2900082346.

Maksekorralduse selgituseks tuleb märkida „Oxan Energy meretuulepargi hoonestusloa taotluse läbivaatamine“.

Tasudes ülekandega välisriigi pangast tuleb märkida arveldusarve IBAN kood, konto omaniku nimi ja panga SWIFT/BIC kood.

5.2. Peale riigilõivu tasumist esitada Tarbijakaitse ja Tehnilise Järelevalve Ametile makse teostamist tõendav dokument.

6. Keelduda hoonestusloa menetluse algatamisest OÜ Utilitas Wind (registrikood 16171123) 24.09.2024 hoonestusloa taotluse alusel.

7. Keelduda hoonestusloa menetluse algatamisest CI Estonia Wind GmbH & Co. KG (Saksamaa registrikood HRA 131122) 22.04.2024 hoonestusloa taotluse alusel.

Isikul, kes leiab, et käesoleva otsusega või haldusmenetluse käigus on rikutud tema õigusi või piiratud tema vabadusi, on õigus esitada vaie Tarbijakaitse ja Tehnilise Järelevalve Ametile (Endla tn 10a, 10122 Tallinn, e-post info@ttja.ee) haldusmenetluse seaduses sätestatud korras 30 päeva jooksul arvates otsusest teada saamisest või kaebus Tallinna Halduskohtule (Tallinna Kohtumaja, Pärnu mnt 7, 15082 Tallinn, e-post tlnhktallinn.menetlus@kohus.ee) halduskohtumenetluse seadustikus sätestatud korras 30 päeva jooksul otsuse teatavaks tegemisest arvates.

(allkirjastatud digitaalselt)
Kristi Talving
peadirektor

Koostaja: Carmen Tau

DETALŪS METADUOMENYS	
Dokumento sudarytojas (-ai)	klim@kirke.envir.ee
Dokumento pavadinimas (antraštė)	Notification in accordance with Article 3 of the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention) regarding the offshore wind farm in Saare 1 area.asice
Dokumento registracijos data ir numeris	–
Dokumento gavimo data ir dokumento gavimo registracijos numeris	2025-11-19 Nr. D13-752
Dokumento specifikacijos identifikavimo žymuo	ASiC-E
Parašo paskirtis	–
Parašą sukūrusio asmens vardas, pavardė ir pareigos	BIRGIT PARMAS
Sertifikatas išduotas	BIRGIT PARMAS EE
Parašo sukūrimo data ir laikas	2025-11-19 08:58:07 (GMT+02:00)
Parašo formatas	–
Laiko žymoje nurodytas laikas	2025-11-19 08:58:22 (GMT+02:00)
Informacija apie sertifikavimo paslaugų teikėją	ESTEID-SK 2015, AS Sertifitseerimiskeskus EE
Sertifikato galiojimo laikas	2021-09-21 11:38:00 – 2026-09-21 23:59:59
Informacija apie būdus, naudotus metaduomenų vientisumui užtikrinti	"" paskirties metaduomenų vientisumas užtikrintas naudojant "RCSC IssuingCA-2, VI Registru Centras - i.k. 124110246 LT" išduotą sertifikatą "DBSIS, Informatikos ir ryšių departamentas prie Lietuvos Respublikos vidaus reikalų ministerijos, į.k.188774822 LT", sertifikatas galioja nuo 2025-05-16 11:31:08 iki 2028-05-15 11:31:08
Pagrindinio dokumento priedų skaičius	–
Pagrindinio dokumento pridedamų dokumentų skaičius	3
Pridedamo dokumento sudarytojas (-ai)	–
Pridedamo dokumento pavadinimas (antraštė)	Wniosek o wydanie pozwolenia na wznoszenie i wykorzystanie sztucznych wysp, konstrukcji i urządzeń w polskich obszarach morskich dla przedsięwzięcia polegającego na przygotowaniu, budowie, eksploatacji i likwidacji morskiej farmy wiatrowej w obszarze 43.E.1
Pridedamo dokumento registracijos data ir numeris	–
Pridedamo dokumento sudarytojas (-ai)	–
Pridedamo dokumento pavadinimas (antraštė)	otsus 1-7/25-205
Pridedamo dokumento registracijos data ir numeris	–
Programinės įrangos, kuria naudojantis sudarytas elektroninis dokumentas, pavadinimas	–
Informacija apie elektroninio dokumento ir elektroninio (-ių) parašo (-ų) tikrinimą (tikrinimo data)	Atitinka specifikacijos keliamus reikalavimus. Elektroninis parašas (ar spaudas) nėra kvalifikuotas, nes pasirašyta su nekvalifikuotu sertifikatu (subjektas: DBSIS, galioja nuo: 2025-05-16 11:31:08). (DBSIS 2025-11-19 11:26:57)
Paieškos nuoroda	–
Papildomi metaduomenys	Nuorašą suformavo 2025-12-02 15:41:02 DBSIS