



SWEDISH
ENVIRONMENTAL
PROTECTION
AGENCY

2022-11-28

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NV-08451-22

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The Swedish reply to the notification pursuant of the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention) regarding the planned offshore wind farm “Laine” in the exclusive economic zone of Finland

The Finish Ministry of Environment notified the Swedish Environmental Protection Agency [SEPA] on the 23rd of September about the planned offshore wind farm [OWF], “Laine” within the exclusive economic zone of Finland [EEZ] located approximately 40 kilometers from the Swedish coastline. The Finish Ministry of Environment states that the proposed OWF will include approx. 150 wind farms with a height of 270 – 370 meters and a total effect of 11 TWh, as well as a sea cable and potential hydrogen pipelines.

The Swedish Environmental Protection Agency is the responsible authority for submitting and receiving notifications and otherwise fulfilling obligations for the Espoo convention in Sweden, according to the Environmental Assessment Regulation (2017:966). The consultation documents have been referred by SEPA to 20 relevant central government agencies, the County Administrative Boards of Norrbotten and Västerbotten Counties, Kalix and Piteå municipalities, marine- and environmental organizations and Swedish research institutes. The consultation documents have also been available on the SEPA’s website. The consultation period lasted from September 26 to November 24, 2022.

SEPA hereby acknowledges having received the notification and would like to inform Finland that Sweden intends to participate in the upcoming Espoo process.

Remarks received during the consultation

A brief summary of the statements received is included below, please note that the summary is written on behalf of the SEPA and not for the body to which the proposal is referred for consideration.

All statements are enclosed in full to this letter.

The Swedish Geological Survey (SGU) highlights the need to analyze the sediment in the study area should with regard to environmental toxins that may spread during the turbidity in the construction phase. The results from these investigations and simulations should approximate, among other things, the spread of sediments into Sweden's economic zone which may possibly affect sensitive nearby areas. SGU also argues that the cumulative effects of other marine activities in the area are to be included in the EIA.

The **Swedish Geotechnical Institute (SGI)** wants to emphasize the importance of investigating, at an early stage, potential environmental geotechnical risks in the area of the wind farm. These include sediment transport (erosion and turbidity) and any contaminated sediments. An assessment of the OWF during the operational phase needs to be made, for example in the form of leakage of metals into surface water and sediment (based on environmental quality standards). Even if no potential environmental risks are deemed to exist, this should be clarified in the EIA.

The Swedish Maritime Administration assesses that the project area of the OWF will have an impact on maritime traffic in Swedish territory. The upcoming EIA should focus on the wind farm's effect on the ice formation in the area and on the operational ice breaking, the impact on shipping routes - both with regard to traffic during ice-free periods and to the variations in traffic patterns that occur during the ice winter where ship traffic moves in the areas where the ice conditions are most permissive, i.e., not in a straight line towards its goal. The wind farm's impact on radar systems, radio systems and maritime rescue, a maritime traffic and risk analysis should be prepared and the impact on the above-mentioned systems carefully investigated and described, also, any cumulative effects that may occur if there are several planned parks in the immediate area.

The **County Administrative Board of Västerbotten** believes that the assessment of the cross-border effects is not adequately described in the provided material. The County Administrative Board stresses the need to investigate environmental consequences that risk having an impact on Swedish fauna. Information about the impact on MSA surfaces for *Umeå* and *Skellefteå* airports, consequences for shipping in the area and the impact from ice loads must also be included in the documentation.

Nordmaling Municipality does not consider that the municipality as an individual municipality needs continued participation in the environmental impact assessment, however, if the wind farm will be visible from the mainland in the municipality of *Nordmaling*. Sweden should continue to participate in the further process due to potential effects on other aspects.

BirdLife Sverige mentions the sea corridor between *Jakobstad* and *Holmöarna* which forms the narrowest part of the *Gulf of Bothnia*, where large numbers of birds pass every spring and autumn. For birds that make extensive use of thermals during their migration, the passage means a clear "bottleneck" and concentration of birds, which must be considered when assessing the project's environmental impact. BirdLife list other aspects related to impact on birds that needs to be assessed in the EIA.

Sweden's Fishermen's Producer Organisation (SFPO) states that the planned wind farm is located in an area important for wild salmon migrations to Swedish rivers and the border river *Torne River*. These northern rivers are extremely important for the wild salmon in the *Baltic Sea*. Potential effects on salmon migrations must therefore be carefully investigated.

The Swedish University of Agricultural Sciences (SLU) assesses that the risk of cross-border effects is low, but that there may be reasons for Sweden to continue participating in the environmental impact assessment, considering the area's location in northern *Kvarken*, which is an ecologically uniform area shared by Sweden and Finland.

Swedish Agency for Marine and Water Management (SwAM) believes that the planned project may have a transboundary impact during the construction phase on seals and various fish populations in the area. An impact on fish spawning in Finland can potentially lead to cross-border impacts for Sweden because the fish stocks in the *Gulf of Bothnia* are shared between the countries. Protective measures with regard to spawning periods for fish may need to be taken. In cases where the area overlaps with important fish migration routes, a cross-border impact can also potentially arise as a result of the project.

The Swedish Transport Administration states that maritime traffic in the Baltic Sea is of great importance to our countries. The Swedish Transport Administration therefore wishes to state that sea traffic between Finland and Sweden will be considered in the following process. The development of wind power installations in the *Gulf of Bothnia* needs to consider the conditions for sea traffic.

The Swedish Transport Agency sees no need to participate in the following process. However, from a shipping point of view, the agency believes that it is of great importance that the impact of changing ice conditions is investigated and that both the Swedish and Finnish icebreaker services are involved in the work.

The Swedish Meteorological and Hydrological Institute (SMHI) emphasize that wind farms change the mixing in the surface layer, which can affect the biological production near the sea surface. According to SMHI, this consequence should also be included in the evaluation of the joint and cross-border environmental impact of wind farms in the area.

The Swedish Pelagic Federation (SPF) requests that the EIA includes a description of the expected consequences for fish stocks and fisheries during the phases for construction, operation, and decommissioning of *Laine* with a reference period of at least 10-15 years. Furthermore, the potential effects of the planned wind farm on fish stocks in the *Gulf of Bothnia* are to be carefully investigated and that the cumulative effects, in the short- and long term, of this and other planned wind farms in the *Gulf of Bothnia*, the *Bothnian Sea* and the *Baltic Sea* are taken into account in this analysis.

Umeå Municipality states that Potential transboundary effects that should be included in the EIA are impacts on migratory birds and bats. Offshore wind turbines can have major negative effects for both birds and bats that migrate across the Gulf of Bothnia, so this must be investigated in the EIA. In order to develop the knowledge base, the impact of wind power plants on birds and bats should be followed up, this can be advantageously done in cooperation between Sweden and Finland.

For full statements from above summaries, please see attached.

This decision has been made digitally and therefore lacks signatures

For the Swedish Environmental Protection Agency

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Convention

Cc
Swedish Ministry of Environment, Astrid Öfverholm

Enclosed, statements made in Swedish by:

The Swedish Geological Survey
The Swedish Geotechnical Institute
The Swedish Maritime Administration
The County Administrative Board of Västerbotten
Nordmaling Municipality
BirdLife Sverige
Sweden's Fishermen's Producer Organisation
The Swedish University of Agricultural Sciences
The Swedish Agency for Marine and Water Management
The Swedish Transport Administration
The Swedish Transport Agency
The Swedish Meteorological and Hydrological Institute
The Swedish Pelagic Federation
Umeå Municipality