Ympäristöministeriö
Miljöministeriet
Ministry of the Environment

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**Finland's comments on the site development plan for German offshore wind power and the related strategic environmental assessment**

The Ministry of the Environment received on 8 April 2022 notification from the Federal Maritime and Hydrographic Agency concerning the strategic environmental assessment (SEA) of the amendment of the site development plan of offshore wind energy installations and offshore grid connections in the German Exclusive Economic Zone (EEZ) of the North Sea and the Baltic Sea. The Ministry of the Environment replied on 10 May that Finland wishes to participate in the planning procedure of the amendment of the site development plan and the related SEA, in accordance with Article 10 of the Protocol on Strategic Environmental Assessment to the UN/ECE Convention on Environmental Impact Assessment in a Transboundary Context. On 8 August, the Ministry of the Environment received a further notification concerning the draft site development plan and the related environmental reports.

The Ministry of the Environment has, in accordance with the Protocol on Strategic Environmental Assessment, informed the public and the authorities and given them an opportunity to provide statements and opinions on the documents sent by Germany. The documents have been made available on the lausuntopalvelu.fi website. The Ministry of the Environment has also requested comments and opinions from 27 authorities and other bodies.

During the consultation period from 17 August to 23 September 2022, statements were received from the Finnish Meteorological Institute, The Finnish Wildlife Agency, The Federation of Finnish Fisheries Associations and The Finnish Association for Nature Conservation. The statements received are enclosed in their entirety and a summary of the statements is presented below in English.

**Finnish Meteorological Institute.** The Finnish Meteorological Institute notes that the environmental assessment does not take into account the changes that wind farms may cause in wave and flow conditions in the area of wind farms and their surroundings.

Changes to wave and current conditions are not only caused by wind turbine structures. When wind turbines take their energy from the wind, the wind speed decreases in the area of the wind farm and its surroundings, affecting the downwind. Compared to natural conditions, the flow of momentum to the surface of the sea, which generates waves and surface currents, will weaken.

[1] Floeter J., Pohlmann T., Harmer A., Möllmann C., 2022: Chasing the offshore wind farm wind-wakeinduced upwelling/downwelling dipole. Front. Mar. Sci., Doi:10.3389/fmars.2022.884943

Effects can also include the mixing and stratification of the water column. Under certain circumstances, changes in the wind field have been found to form upwelling/downwelling dipoles (Floeter et al. 2022[1]), the regional extent of which extends to a distance of several kilometers from the wind farm.

Changes in wave and current conditions and in stratification and mixing of the water column can affect e.g. sedimentation processes or nutrient dynamics in the wind farm area and in the surrounding environment and also be reflected in the marine ecosystem.

**The Finnish Wildlife Agency.** The Finnish Wildlife Agency highlights its concerns about the effects of the strong development of renewable energy on biodiversity and the fragmentation of wilderness sea and land areas due to power plant structures and power transmission lines causing obstacles for the movement of animals and birds.

For these reasons, taking ecological and economic factors into account, construction opportunities for wind power should be explored as closely as possible to energy users, so that energy production would take place in already built-up areas on the basis of existing roads, and there would be no need for large-scale transmission lines, which also cause voltage drops. Energy production must also be invested in without jeopardizing biodiversity and the EU's species protection goals and the possibilities of sustainable use.

As regards migratory waterbirds nesting in Finland, the Finnish Wildlife Agency sees the construction of wind farms in shallow marine areas, which serve as foraging areas for seabirds, and construction on key migration routes as risks.

The Finnish Wildlife Agency wants the impacts of wind power sites on migratory waterbirds to be investigated. Attention should be paid to the known migration routes of waterbirds and the flight altitude of birds should be determined. The flight height on the migration route may vary depending on the weather conditions, and the risk of collision with wind turbines to be built should be assessed and taken into account as applicable.

In order to minimise disturbance to sea birds, wind turbines should be set up in areas that are more than 35 metres deep. In this way, the shallow areas used by seabirds for foraging would remain available for avian fauna.

From the very beginning, the technology and colour of wind power turbines to be built must aim to minimise the collision mortality of birds. This includes at least making towers and blades easily visible to birds. The possibility of automated stop technology and its practical application during birds' migration should also be investigated.
It should also be investigated, whether wind turbines could be located in such a way that the air space they reserve in relation to the known migration routes of birds would be minimised. In practice, this would mean locating wind turbines in succession in relation to the flight direction of the migration routes for waterbirds, if this is technically and economically feasible. This could reduce the risk to migrating birds caused by wind turbines, especially in weather conditions where the visibility is poor and the birds fly low.

In the statement of the Finnish Wildlife Agency, the effects of the placement of wind turbines on migratory birds are presented with observational images.

**The Federation of Finnish Fisheries Associations.** The Finnish Fisheries Association notes that the potential impacts of the regional planning of offshore wind power in Germany on the Finnish fisheries are linked to the impacts on the Baltic Sea's eastern cod stock and the salmon stocks in the Baltic Sea's main basin and Gulf of Bothnia.

The eastern cod population of the Baltic Sea is alarmingly poor and therefore all construction projects targeted at breeding areas of cod should be avoided in the southern Baltic Sea. The placement of wind farms and related cable connections, should be developed in cooperation together with local fish research and fishing organisations to minimise impacts to fishing and fish stocks. The practical effects of wind power projects on Baltic Sea salmon populations should also be evaluated and minimized in cooperation with the salmon research conducted by the countries surrounding the Baltic Sea.

**The Finnish Association for Nature Conservation.** The Finnish Association for Nature Conservation considers it good that a location control plan for offshore wind is prepared in Germany. The association also notes that the impacts of wind power projects on bird migration routes, the harbour porpoise in the Baltic Sea and the salmon and cod populations should be investigated further.

Areas where offshore wind power cannot be installed could also be more clearly highlighted in the plans. The Finnish Nature Conservation Association sees as such areas at least nature reserves, Natura 2000 areas, important bird areas
(IBA) and UNESCO World Heritage Sites.

The Association considers it particularly problematic that no decision has been made to present a comparison of the options for example, a more extensive and narrower regional option because of the sensitivity of nature values. This creates the impression that strategic environmental assessment does not lead to any real changes in practice and for better planning, such as location changes and restrictions.

The documents also refer to other previous reports, but state that they have many flaws. In this respect, the strategic environmental assessment does not bring much of its own or a new knowledge base or analysis. As regards the machine translation, translations of the names of many birds have gone wrong, at least from a Finnish translation programme. Fortunately, the scientific names are also included.

The following bodies specifically notified that they have no comments: The Finnish Ministry of Agriculture and Forestry, The Finnish Ministry of Defence, Finnish Shipowners Association, Metsähallitus, Fingrid Oyj and Finnish Heritage Agency.

**The Finnish Ministry of the Environment** echoes many of the concerns raised by our national stakeholders with regard to the possible local and regional effects of the project on the environment, which are not very clearly outlined in the new SEA. As stressed by several stakeholders, the placement of the windfarms must take into account both possible lethal (collisions) and non-lethal effects on wildlife, the latter of which includes disturbance, destruction of foraging habitat, avoidance etc. As highlighted by the Meteorological Institute, possible

changes to wave and flow conditions have not been assessed although such changes may have profound effects, for example on the availability of food resources for cetaceans, fish and waterbirds. Also, no mention is made in the SEA of the possible cumulative impacts caused by wider windfarm construction.

The Ministry reiterates the importance of safeguarding the adequate conservation and biological intactness of protected areas as well as establishing sufficient corridors for the movement of wildlife. Both foreseen project sites are situated in areas either overlapping with or adjacent to critical wintering and staging sites for migratory waterbirds. The planned site in the Baltic Sea is also situated within a major corridor for bird migration. In this respect, the Ministry reiterates the need to take into account relevant international legal obligations, decisions and guidances adopted under AEWA, ASCOBANS, HELCOM, the Convention on Migratory Species (CMS), EUROBATS, the Bern Convention etc. with respect to windfarm development and the need to restore and maintain key habitats and species in a favourable conservation status. It is particularly important to assess potential adverse impacts on globally threatened species, some of which belong to populations shared with Finland such as the Velvet Scoter and Long-tailed Duck. The Ministry wishes to stress in particular the importance of continued assessment of impacts on the Baltic Harbour Porpoise population, which is Critically Endangered (CR).

Under the EU Biodiversity Strategy, the forthcoming EU Restoration Regulation as well as the future Global Biodiversity Framework to be adopted under the Convention on Biological Diversity (CBD) in December 2022, the EU and its Member States have committed to ambitious targets in terms of halting biodiversity loss. Whilst more detailed national commitments related to restoration and the recovery of key species populations (such as those mentioned above) are still in preparation, the mainstreaming of biodiversity concerns into all sectors including wind energy production is critical in order to ensure that Member States are able to meet these biodiversity commitments.

Yours sincerely,

Permanent Secretary Juhani Damski

Ministerial Adviser Lasse Tallskog

Enclosures
Statements received

For information (without enclosures)
The Ministry for Foreign Affairs of Finland

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This document has been signed electronically by the following persons:

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