

Action and responses regarding the ESPOO-convention notification for the Kriegers Flak project

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ANI/PSY

1. Introduction

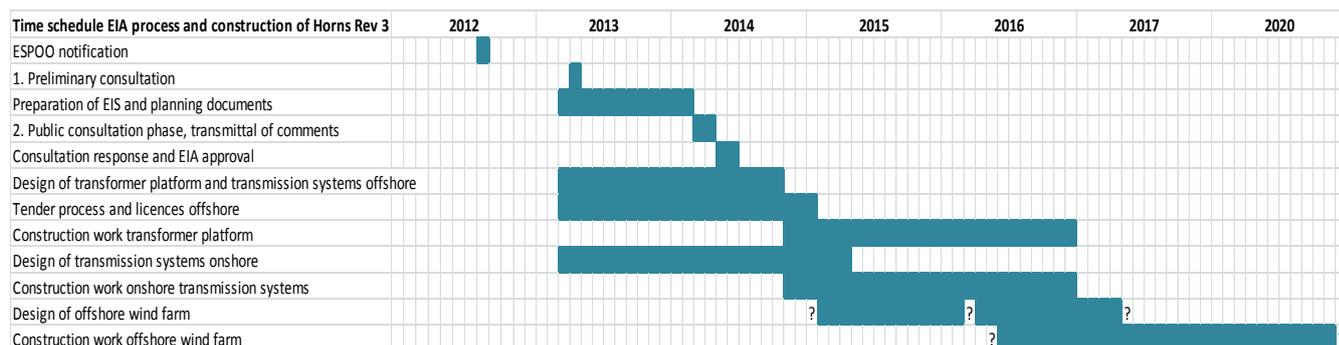
In accordance with Article 3 of the Convention on Environmental Impact Assessment (EIA) in a Transboundary Context and Article 7 of the EU Directive 85/337 the Danish Nature Agency initialized an ESPOO-convention notification of the planned construction of offshore wind turbines at Kriegers Flak with an initial EIA and related environmental surveys.

The EIA assessment will be compiled upon a comprehensive description of the technical project encompassing wind turbines specifications, foundation strategy and installation methods for inter-array and export cables, respectively. However, the description will not be constrained to one exact definition of the project, but instead describe the boundaries and span of a project that incorporate the "most-likely" with a "worst-case" in mind. The reason for this approach is that the Danish Energy Agency has not yet assigned concession of construction and operation of the offshore wind farm at Kriegers Flak and therefore preserves degrees of freedom in the technical aspects of the project. Concession is processed subsequently to finalization of the EIA.

The ESPOO-convention notification was distributed to Sweden, Poland and Germany in July 2012 with deadline of response the September 2nd 2012. Hereafter, responses from the notified countries was distributed by the Danish Energy Agency to Energinet.dk (the Transmission System Operator, TSO in Denmark), who is responsible for compiling the EIA-report and thereby supporting Danish authorities in answering responses from the ESPOO-convention notification. The Danish Nature Agency has received responses from the Swedish Naturvårdsverket, the German BSH (Bundesamt für Seeschifffahrt und Hydrographie) as well as the Polish Environmental Protection Agency (General Directorate for Environmental Protection) and passed on to Energinet.dk

Received responses from the notified countries have been examined thoroughly with respect to the planned scoping of the EIA as well as related Danish legislations. In the following section 1.1 each received response is addressed individually to clarify how responses are encompassed in the EIA or dealt with in any other relevant context.

The provisional time schedule for the EIA procedure and the OWF project is shown below and includes the key milestones for communication of comments.



As the project at Kriegers Flak develops, the Danish Nature Agency will notify Sweden, Germany and Poland according to the committed obligations and intentions of the ESPOO-clarification.

2. Replies to responses on the ESPOO notification

2.1 ESPOO-convention notification, response from Swedish stakeholders

Stakeholders	Response to notification	Reply to response
Boverket	A joint-nation (Denmark, Germany and Sweden) coordination of the surveys of impacts related to utilization of Kriegers Flak site with the intention of collecting knowledge for similar projects in the future with reference to offshore planning.	The Danish Energy Agency and Danish Nature Agency has strong intentions of expanding the knowledge of environmental impacts in relation to offshore wind farm development. Hence, exchange of data and relevant information across nations will be strongly facilitated.
Forsvarets Radi- oanstalt (FRA)	Construction of Wind farms at both German, Danish and Swedish parts of the Kriegers Flak interfere and obstruct the technical systems operated by FRA for communication.	Assessing impacts from construction of wind turbines on radar and telecommunication is encompassed by the EIA scoping and FRA will be contacted explicit as a part of the mapping of existing communication systems adjacent to Kriegers Flak.
Göteborgs Stad - miljø	No responses	Not relevant
Havs og Vatten myndigheten	The EIA should include impact assessment of noise, vibrations and electromagnetic fields on: (1) Flora and fauna and other environmental	These emphasized impact assessments are all a part of the EIA scoping and planned environmental surveys.

	aspects (2) recruitment of fish and fish migration.	
	Increase in turbidity related to construction disturbances of the sea bed both inside the proposed offshore wind farm area as well as the export cable corridor, should be examined and appropriate measures to minimize impacts should further be proposed. Moreover, activities that causes increase in turbidity should be scheduled in order to minimize impacts on fish.	Advanced modelling of potential changes in turbidity caused by construction disturbances of the sea bed is a part of the EIA scoping and impacts from potential changes in turbidity are assessed with respect to fish communities. Moreover, the EIA will state that best practice should be used to minimize turbidity during construction work of any kind.
	The EIA should describe measures that decrease impacts from electromagnetic fields on migration and behaviour of various fish species	Influences from electromagnetic fields on fish communities are a part of the EIA scope. Relevance of explicit description of measures to reduce impacts in the EIA will depend on the outcome of the impact assessment.
	Description of technical measures to reduce noise in the water column should be included in the EIA. Moreover, the artificial "reef-effects" and changes of environmental habitats should be quantified and described	As a part of the EIA it will be stated, that noise pollution in the water column, both during construction and operation, should be minimized by best practice approach in terms of technical solutions. Assessment of reef-effects and changes in environmental habitats are a part of the EIA scope.
	According to the marine Directive countries of the European Union is obligated to ensure good ecological condition in 2020, which may potentially be hampered by construction of an offshore wind farm at Kriegers Flak.	The ecological parameters that define the legislated requirements in the Marine Directive for the condition in 2020 are a part of the EIA scope.
	The EIA should describe the area at Kriegers Flak in terms of importance for spawning and nursery for fish as well as importance for commercial fishery and game fishing and the derived possible impacts on these issues if an offshore wind farm is constructed and operated.	Impacts on fish (both spawning and nursery) as well as fishery are a part of the EIA scope.
	Definition of terms and conditions with respect to construction is important because of the difficulties in predicting actual impacts on environmental habitats and fish (e.g. migration routes), the latter with special attention drawn to protected	Terms and condition are only relevant if impacts on environmental habitats and fish are assessed to be critical by executive experts. But, if critical impacts are identified and adequate terms and conditions may provide the precautions needed to avoid impact they will be incorpo-

	species.	rated in the EIA.
Jordbruksverket	Nations has the right to conduct fishery until 4 nautical miles to the shoreline of another nation and construction of an offshore wind farm may potentially impact Swedish fishery.	Mapping of fishery and spawning and nursery sites within the designated area for offshore wind farm construction at the Danish site of Kriegers Flak and along the export cable corridor is a part of the EIA scope. However, for fishery on Danish territory the EIA will primarily assess impacts for Danish fishermen and not Swedish fishermen explicit.
Vattenfall	The EIA should encompass the planned offshore wind farm at the Swedish part of Kriegers Flak when assessing cumulative effects on: fish, birds, marine mammals and offshore traffic. Moreover, consequences on power production at the Swedish offshore wind farm should be computed with respect to impacts from the planned offshore wind farm at Danish territory. Calculations should be included in the EIA and potential production losses are expected to be compensated by Energinet.dk	In the scope of the EIA the planned Swedish offshore wind farm is included when assessing cumulative effects. The EIA will also include average production calculations for the planned offshore wind farm at Danish territory, but no analysis of shade effects and consequently production changes of the planned offshore wind farm at Swedish territory will be included in the EIA.
Kustbevakningen	The EIA should include an emergency action plans in the case of accidents that may potentially lead to spills of oil or other hazardous compounds. Moreover, the EIA should assess aerial safety.	Risk assessments of potential environmental accidents recommendations to minimize and avoid accidents are included in the EIA scope, whereas emergency action plans are compiled by the constructors on a later stage. Assessment of aerial safety is a part of the EIA scope.
Sveriges Geologiska Undersökning (SGU)	Analysis of the impact on natural current and sediment transport regimes from the offshore wind farms at German, Swedish and Danish territory should be included in the EIA.	Advanced modelling and cumulative impacts on current and sediment transport regimes at Kriegers Flak is included in the EIA. The cumulative assessment encompasses offshore wind farms at German, Swedish and Danish territory.
Sjöfartsverket	Consequences for offshore vessel traffic should be assessed for the entire Kriegers Flak (Danish, German and Swedish territory) and should be coordinated between the nations.	A cumulative assessment for the vessel traffic for the entire Kriegers Flak is a part of the EIA. And follows the principles of United Nations Convention of the Law of the Sea (UNCLOS) and IMO guidelines. The Danish Maritime Authority is consulted throughout the process.
Sveriges meteorologiska och hydrologiska	Cumulative assessments in the EIA should include planned offshore wind farms at German, Swedish and Dan-	Cumulative assessments in the EIA will include planned offshore wind farms at German, Swedish and Danish territory

institut (SMHI)	ish territory. The EIA should include an assessment of the impact from wind turbines on the mixing regimes in the water column.	and the EIA will include analysis of the impact on mixing regimes in the water column from wind turbines.
Svenska Kraftnät	No response	Not relevant
Trafikverket	The consequences for vessel traffic routes, bunkering consumption and emissions should be coordinated between all countries (Germany, Sweden and Denmark) and assessed for the entire Krieger Flak.	The analysis of consequences is assessed for the entire Kriegers Flak. It follows the principles of United Nations Convention of the Law of the Sea (UNCLOS) and IMO guidelines. The Danish Maritime Authority is consulted throughout the process.
Transportstyrelsen	The planned offshore wind farms at Kriegers Flak at German, Swedish and Danish territory will impact the vessel traffic across Kriegers Flak negatively. Hence, the EIA should include assessment of the impact on vessel traffic.	Please see the reply the Trafikverket.
LÄNSSTYRELSENS	Cumulative effects regarding fish and the fishery sector should be included in the EIA. Moreover, the EIA should include visualization of the wind farm from Swedish territory, e.g. Falsterbo.	Cumulative effects on fish and fishery are included in the EIA, but assessment of fishery interests will focus on Danish interests primarily. Visualisations from the south coast of Sweden will be included in the EIA.
Sveriges Ornitologiska Förening (SOF)	<ol style="list-style-type: none"> 1. The EIA should include an impact assessment with respect to long-tailed ducks as wells and migration of water birds and their transit-migration from Sweden to Rügen across the designated project area at Kriegers Flak. 2. Across Kriegers Flak transit-migration of Bean geese, blaze geese, barnacle and brent geese), ducks (mostly Wigeon), Eider, gulls and common tern and arctic tern, the possible impact on these birds should be assessed in the EIA. 3. For the crane a significant part of the transit-migration may cross the Kriegers Flak from Sweden to Rügen, which should be included in the EIA. 4. The cumulative assessment should encompass planed and 	The EIA will assess potential impacts on, but not limited to: long-tailed ducks as well as the listed birds (geese, Wigeon, Eider, gulls and tern) and crane. Moreover, the cumulative impacts will be encompassing both planed and operating offshore wind farms at both Swedish and German territory.

	operating offshore wind farms at both German and Swedish territory.	
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2.2 ESPOO-convention notification, response from German stakeholders

Stakeholders	Responses	Reply
Bundesamt für Naturschutz	Possible impacts on migrating birds should be encompassed in the EIA.	Migration of birds is a part of the EIA scope.
	The potential habitat losses for birds, especially black-throated and red-throated diver should be included in the EIA as well as the cumulative impacts from multiple offshore wind farms.	Methodology for survey on resting birds and habitat displacement is included in the scoping and will include studies on resting birds and habitat suitability assessment. The aspects of interest emphasized by Bundesamt für Naturschutz are included in the EIA scope and black-throated and red-throated diver will be assessed explicit.
	Quantification of noise pollution, derived from possible mono-pile construction at the site, should be assessed with respect to cumulative impacts on harbour porpoise.	Quantification of noise pollution from mono-pile construction and the derived impacts on harbour porpoise in a cumulative perspective is included in the EIA scope. The technical description will be part of the EIA including proposals of mitigation. It should be noted that the EIA is not based on a specific design for the offshore wind farm (OWF). The final design will be defined by the license holder subsequently the EIA process. Impact from noise on marine mammals and fish will be modelled and recommendations for minimising impact will be included in the EIA.
Bundesforschungsinstitut für Ländliche Räume, Wald und Fischerei	A cumulative assessment of the impacts on water exchange regimes in the Baltic sea as well as the stability of stratification should be included in the EIA.	Advanced modeling of hydrodynamic regimes including water exchange and stratification and possible cumulative impacts are included in the EIA scope.
Leibniz-Institut für Ostseeforschung Warnemünde	Analysis of the potential biomasses attached at foundations and the impact on oxygen conditions regionally	Impacts on oxygen conditions from "reef-effects" introduced by construction of foundations are included in the EIA scope.

	should be included in the EIA.	
Landesamt für Landwirtschaft	Impacts on mackerel, cod and flatfish with respect to reproduction at the site as well as impacts on migration of fish from electromagnetic fields along the export cable corridor should be included in the EIA supported by usage of VMS and ERS data to analyze consequences for beam trawling and possibilities for fishery at the site after construction of wind turbines.	All aspects of interest emphasized by Landesamt für Landwirtschaft are included in the EIA scope.
Deutsche Telekom	Submarine cables should be protected and Deutsche Telekom should be contacted directly.	Energinet.dk will contact the former National IT and Telecom Agency to ensure, that submarine cables is processed adequately. Communication between Deutsche Telekom and Energinet.dk will be coordinated by the former National IT and Telecom Agency.
Hansestadt Stralsund	Analysis of possible impacts on the coastal areas at Stralsund should be included in the EIA as well as a risk assessment.	The coastal areas near Stralsund will be encompassed in the EIA, but only explicitly if changes in wave energy and current regimes are of a magnitude that strikes the German coastline. Risk assessment are included in the vessel-traffic-assessment
NABU	Assessment of impacts on bats should be included in the EIA.	Bats are included in the EIA scope.
BSH	Cumulative impact assessment should include both Baltic 1 & 2. German authorities have indicated interest and intend to participate in the EIA procedure.	Both Baltic 1 & 2 OWFs are included in the EIA scope when assessing cumulative impacts. German authorities have indicated interest and intend to participate in the EIA procedure.

2.3 ESPOO-convention notification, response from Polish stakeholders

Stakeholders	Responses	Reply
General Directorate for Environmental Protection	The EIA should focus explicitly on harbour porpoise and sea birds including their wintering sites in a cumulative perspective.	All aspects of interest emphasized by General Directorate for Environmental Protection are included in the EIA scope.

	tive. Poland wishes to participate in transboundary EIA as an Affected Party	
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