# ESPOO-CONVENTION NOTIFICATION, RESPONSE FROM GERMAN,SWEDISH AND POLISH STAKEHOLDERS

## 1 INTRODUCTION

The Danish Energy Agency commenced the ESPOO consultation on the EIAs for Vesterhav Syd, Sæby and Bornholm Offshore Wind Farms on the 26 June 2015.

This memo reports the responses received in the ESPOO consultation for the wind farms Vesterhav Syd, Bornholm and Sæby.

The incoming responses consist of the following documents:

*German Stakeholders:*

- Bundesamt für Seeschifffahrt und hydrographie (BSH). Letter dated 26.08.15.
- Ministerieum Für Landswirtschaft, Umwelt und Verbraucherchutz Mecklenburg-Vorpommern. Letter dated 17.08.15.
- Appendix 1: Review of new threats to small cetaceans
- Bundesamt für Naturschaft (BfN). Letter dated 20.08.15.

*Swedish Stakeholders:*

- Naturvårdsverket. Letter dated 31.08.15.
- Havs och Vattenmyndigheden. Letter dated 18.08.15.
- Sveriges Ornitologiska Förening. Letter dated 20.08.15.
- Forsvarsmakten. Letter dated 24.08.15.
- Kustbevakningen. Letter dated 24.08.15.
- Sjöfartsverket. Letter dated 21.08.15.
- Sveriges geologiska undersökning. Letter dated 25.08.15.

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- Transportstyrelsen. Letter dated 25.08.15.

*Polish Stakeholders:*

- Departament Ocen Oddziaływania na Środowisko Letter dated 30.09.15.

## 2 RESPONSE FROM THE GERMAN STAKEHOLDERS

| Stakeholder | Response to notification | Reply to response |
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| Ministry for Agriculture, Environment and Consumer Protection Mecklenburg-Vorpommern | *Marine mammals*<br>Harbour porpoise is part of the protection program in Natura 2000 sites 'Greifswalder Boddenrandschwelle' and parts of 'Pommersche Bucht' (DE1749-302) and 'Darsser Schwelle' (DE1540-302). Thus the environmental impacts on the population and the effect on the conservation of Harbour porpoise not only in Danish waters, but also in the central Baltic Sea should be included in the EIA. It should also be ensured, if it is necessary to conduct the construction period outside of the breeding season. | **Information about marine mammals is found in the background report "BORNHOLM OFFSHORE WIND FARM EIA – background report Marine mammals" (in English).**<br><br>The background report on marine mammals includes a baseline review and an assessment of the potential impacts on marine mammals as a result of the establishing of Bornholm Offshore Wind Farm. The background report also includes a preliminary assessment of Natura 2000 sites. The report concludes no likely significant effect on marine mammals after mitigation measures are applied.<br><br>The impact assessment of the worst case situation (10 m diameter monopile foundation) indicates that underwater noise mitigation measures are required to ensure no marine mammals will experience permanent hearing damage (PTS).<br><br>The final construction permission will include conditions to ensure the required mitigation measures are applied during construction.<br><br>The report states that the Harbour porpoises in the area will primarily be part of a subpopulation in the Kattegat, the Belt Sea, Oresund and the western Baltic Sea. In 2013, the population consisting of approximately 40,475 animals. Data shows that Harbour porpoise is a rare visitor in the area, primarily during summer and autumn. Only very few porpoise individuals are likely to be affected by the project. |

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| | | The impact assessment on cumulative impacts concludes that underwater noise may result in transboundary impacts if more than one wind farm is constructed at the same time. The assessment assumes wind farms with monopile foundations.<br><br>If construction will be undertaken at several wind farms at the same time it is expected that an additional impact assessment shall be undertaken to assess what mitigation measures will be required to ensure no significant cumulative and transboundary impacts on marine mammals will occur.<br><br>The impact assessment does not conclude that a timing restriction with regards to construction of foundations are necessary, considering that the proposed mitigation measures are applied. |
| Ministry for Agriculture, Environment and Consumer Protection Mecklenburg-Vorpommern | *Migrating birds*<br>It is suggested that already existing as well as planned offshore wind farms in the coastal waters of Mecklenburg Vorpommern (Baltic I and Arcadis Ost I) to be included in the cumulative impacts.<br><br>In case of higher abundance of migratory birds it would require to test if automatic bird density controlled shut | **Information on migrating birds is found in the report "BORNHOLM OFFSHORE WIND FARM EIA – background report FINAL Migrating birds" (in English).**<br><br>The background report on migrating birds includes an assessment on cumulative impacts which is found in chapter 10.2.<br><br>The list of relevant projects to include in the cumulative impact assessment (CIA) has been supplied from the Danish Energy Agency.<br><br>With regards to the German projects the report states the following: No baseline ornithological data that infers risks to migratory species could be obtained for the German |

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| | down as mitigation measure which would stop the wind farm turbines when the density of migrating birds during night time exceeds a certain number or in weather condition with lowered visibility range during daytime. Furthermore suitable measure of monitoring should be applied to monitor the efficiency of the automatic shut and adjust the automatic bird density controlled shut if necessary. | projects (including Baltic II) that can inform a robust CIA with respect to Bornholm OWF. These sites have therefore not been included in the CIA pending further information on the status of the projects and information on baseline data and their ornithological significance.<br><br>Further to this an appropriate assessment has been undertaken with regards to potential impacts on Common Cranes. Both Baltic I and Arcadis Ost I along with other relevant planned projects in German territorial waters are included in the cumulative impact assessment in this report.<br><br>The conclusion of the background report on migrating birds is the following: For all migrating birds identified to have connectivity with Bornholm OWF the magnitude of collision impact is assessed as minor in all stages of the wind farm. This rating results from a low number of expected collisions and a high importance of the species due to their conservation status and abundance in the area. The barrier effect during operation is also assessed as minor for all species (low impact, but high importance).<br><br>With regards to migrating birds for Bornholm OWF alone no impact levels higher than minor were identified and no mitigation measures have been proposed. |
| Ministry for Agriculture, Environment and Consumer Protection | *Bats*<br>Bat migrating patterns and –corridors are rather unknown, and detailed studies cannot be required from the executive authorities. The species specific | **Information on Bats is provided in the EIA Part 2 "Marine environment" (in Danish).**<br><br>The description of bats in the investigation area is based on a literature review and additional site specific investigations of bats along the coast and at the offshore site. |

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| Mecklenburg-Vorpommern | migrating behavior and migrating pattern in the study area before and after the installation of the offshore wind farm are difficult to assess (attraction vs. avoidance), therefore the final evaluation of the collision risk of bats may not be possible.<br><br>To trace the bat activity in and around the offshore wind farm it is suggested to apply acoustical bat monitoring programs after the construction of the offshore wind farm by using automatic bat detectors and the automatic shutdown, if bat density is exceeding a given number in order to minimize the risk of collision. | It is assessed that migrations of bats in the area are very irregular and mainly occur during the night at low wind speeds. The degree of impact is considered minor.<br><br>The EIA recommend an investigation of migrating bats to be carried out during a spring period in order to investigate the approximate numbers of bats passing the area. |
| Federal Agency for nature Conservation (BfN) | *Migrating birds*<br>BfN points out that there may occur negative cumulative impacts from the German and Danish wind farms due to transboundary migration of birds, which might have a negative effect on German populations (mainly from | **Information on migrating birds is found in the background report "BORNHOLM OFFSHORE WIND FARM EIA – background report FINAL Migrating birds" (in English).**<br><br>The report includes an assessment with regards to collision risk and barrier effect. The data sources used in the migrating birds study are described in chapter 4.1 and summarized below: |

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| | Bornholm Offshore Wind Farm).<br><br>To limit the risk of collision and barrier effect a shut-down of the turbines is suggested in case of mass bird migration (which is a regular requirement for licensing of offshore wind farms in Germany). | A literature review was carried out investigating records and data of migratory species using potential Baltic flyways over the Arkona Basin and Bornholm. Bird migration observations from the DOFbasen the Danish Ornithological Society (DOF) database of sightings of birds were obtained and included in the assessment for two migration watch points on Bornholm; Dueodde at the southernmost tip of Bornholm and Hammerodde at the northernmost tip of Bornholm. These data were analysed to determine those species with likely migratory flyway connectivity with Bornholm OWF. Finally, a field survey targeted at migrating cranes was completed as a part of the EIA.<br><br>The conclusion of the potential impacts on migrating birds is found in chapter 15 and summarized below:<br><br>For all migrating birds identified to have connectivity with Bornholm OWF the magnitude of collision impact is assessed as Minor in all stages of the wind farm. This rating results from a low number of expected collisions and a high importance of the species due to their conservation status and abundance in the area. The barrier effect during operation is also assessed as Minor for all species (low impact, but high importance). Mitigation measures have therefore not been suggested for Bornholm OWF.<br><br>The report includes an assessment on cumulative impacts which is found in chapter 10.2. The list of relevant projects to include in the cumulative assessment has been supplied from the Danish Energy Agency. |

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| | | With regards to the German projects the report states the following: No baseline ornithological data that infers risks to migratory species have been possible to be sourced for these projects (including Baltic II) that can inform a robust Cumulative Impact Assessment (CIA) with respect to Bornholm OWF. These sites are therefore screened out of the CIA pending further information on the status of the projects and definitive baseline information on their ornithological significance.<br><br>With regards migrating birds no mitigation measures are considered as necessary. The impact assessment states that no impact is higher than "minor" and therefore it is concluded that no mitigation measures are required necessary. |
| Federal Agency for nature Conservation (BfN) | *Marine mammals*<br>Based on the current knowledge, the BfN does not assume any sound-caused impacts by the Danish projects on the marine mammals in German Waters due to the great distances to the German EEZ.<br><br>Precautionary the BfN recommends the use of noise mitigation measures to reduce the potential risk of of injuries and displacement effects on marine mammals BfN suggests the use of | **Information about marine mammals is found in the background report "BORNHOLM OFFSHORE WIND FARM EIA – background report Marine mammals" (in English).**<br><br>Energinet.dk on behalf of the Danish Energy Agency and the Danish Nature Agency, established the task force group for marine mammals and underwater noise. This task force group has given recommendations on how to regulate underwater noise in Denmark associated with the construction of Horns Rev 3 Offshore Wind Farm and future offshore wind farms at Kriegers Flak and six nearshore wind farms. The group has also provided recommendations for what the concession holder must fulfil and deliver in terms of prognosis and documentation of underwater noise emissions during construction. A summary of the task force group's recommendations is available in English. |

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| | noise mitigating measures (http://www.bfn.de/0314_offshore-windkraft.html).<br><br>Bfn refers to the international SAMBAH project pointing out that Harbour porpoises wintering in the Bornholm area most likely belong to the critically endangered Baltic Sea population rather than the Belt Sea population and need enhanced protection efforts.<br><br>BfN suggests the usage of alternative, low-sound foundations like suction bucket foundation. | At Bornholm Offshore Wind Farm the impact assessment on marine mammals with regards to underwater noise indicate that there is a requirement to reduce the level of underwater noise in the worst case situation (piling of monopiles with a 10 m diameter). In relation to the worst case scenario used in the ES to describe the noise distribution it is necessary to reduce the underwater noise from piling to secure that no Harbour porpoises experience permanent hearing damage with the assumptions given for the worst case scenario. Implementing this mitigation measure will change the assessment so that the total environmental impact will be minor. At present it is not possible to decide whether the described underwater noise reduction demands an active reduction by taking various physical mitigation measures to reduce the underwater noise propagation. Among other things it depends on the size of the foundations and the hammer being used during the construction of the offshore wind farm.<br><br>The background report on marine mammals includes the preliminary results from the SAMBAH project. The final results had not been published at the time of submission of the EIA for Bornholm OWF. These recent data from the SAMBAH project has documented that the animals in the area are probably part of the population in Kattegat, the Belt Sea, Oresund and the western Baltic Sea. More information is found in chapter 5.2.1.<br><br>The suction bucket is a part of the proposed foundation types described in the ES and included in the technical project description. |

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| Federal Agency for nature Conservation (BfN) | *Natura 2000 sites*<br>The shortest distance from Bornholm Offshore Wind Farm to German Natura 2000 sites is approximately 30 km. Therefore negative impacts of piling noise on the German Natura 2000 areas and conservation features like the Harbour porpoise (Adler Ground (DE 1251-301), Western Rønne Bank (DE 1249-301), Pomerian Bay with Odra Bank (DE 1652-301)) cannot be ruled out. Therefore effective noise mitigation or avoidance measures seem to be necessary. | **Information about marine mammals is found in the background report "BORNHOLM OFFSHORE WIND FARM EIA – background report Marine mammals" (in English).**<br><br>The background report on marine mammals includes an assessment on Natura 2000 sites within Danish jurisdiction in chapter 10. This assessment does not include an impact assessment on German Natura 2000 sites. The report concludes that the construction of Bornholm Offshore Wind Farm will not impact the integrity of Natura 2000 sites.<br><br>The background report on marine mammals introduces the requirement for mitigation measures to be implemented during construction of the Bornholm Offshore Wind Farm as outlined in the recommendations by the task force group for underwater noise and marine mammals. At present it is not possible to decide whether the described underwater noise reduction demands an active reduction by taking various physical mitigation measures to reduce the noise distribution. Among other things it depends on the size of the foundations and the hammer being used during the construction of the offshore wind farm.<br><br>As described above by implementing mitigation measures for reducing the underwater noise as a result of piling of the monopile foundations no marine mammals will be exposed to permanent hearing damage (PTS). |

## 3 RESPONSE FROM SWEDISH STAKEHOLDERS

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| Naturvårdsverket (Swedish environmental protection Agency) | *Resting birds*<br>The response includes a summary of the responses which have been received in the Swedish ESPOO consultation and Naturvårdsverkets comments to the consultation primarily on birds.<br><br>Naturvårdsverket supports the comments from SOF Birdlife (see below). Naturvårdsverket state that 2-3 years of survey data is suitable to base conclusions on the impact on birds as a result of the proposed Bornholm Offshore wind Farm.<br><br>The presented survey data for 2013-2014 indicates that the investigated area is an important area for Long-tailed Duck (LTD) and Naturvårdsverket find it very concerning to establish an offshore wind farm in this area due to the decreasing number of overwintering Long-tailed Duck in the wider | **Information on resting birds including impact on Long-Tailed Duck, Common Scoter and Red-throated Diver are found in BORNHOLM OFFSHORE WIND FARM EIA – background report – FINAL Resting birds (in English).**<br><br>The background report on resting birds includes a presentation of the baseline (survey data and literature review) as well as impact assessments with regards to habitat loss, disturbance and collision risks.<br><br>The ornithological survey programme has been agreed with the Danish Government prior to commencement of the surveys. The survey data are supported by historical data to describe the baseline situation. In chapter 5.4.3 abundance and distribution according to other studies previous studies from the area are presented.<br><br>The densities for Long-tailed Duck in the surveyed area are relatively low (10.67 birds/km$^2$) comparing to the other studies presented in chapter 5.4.3, which refer to much higher densities.<br><br>The impact assessment states that the impact on Long-tailed Ducks is evaluated as “moderate” among other things with reference to the importance of the area as regional/national.<br><br>Moderate impacts are predicted for Long-tailed Duck in the period of operation. Mitigation measures in relation to the period of operation can only act via the spatial design of the wind farm. The impact assessment is based on the worst |

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| | area.<br><br>Naturvårdsverket notes that mussel banks are present in approximately 50% of the investigated area indicating that this area is an important area for feeding Long-tailed Duck.<br><br>Naturvårdverket suggests that the Bornholm Offshore Wind Farm is cancelled or re-located to another location on deeper water without the presence of mussel banks. Naturvårdsverket refers to the HELCOM Recommendation 34E/1 "Safeguarding important bird habitats and migration routes in the Baltic Sea from negative effects of wind and wave energy production at sea" with regards to protection of important areas for marine birds.<br><br>Naturvårdsverket would like to be involved in the further process with reference to the ESPOO convention article 5. | cases scenario with turbine locations affecting the highest number Long-tailed Ducks as key species in this area.<br><br>Any information about the ongoing process can be found on the Danish Energy Agency's web site:<br>https://ens.dk/en/our-responsibilities/wind-power/ongoing-offshore-projects/nearshore-wind-tender |

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| Geological survey of Sweden (SGU) | *Seabed*<br>SGU note the potential impact as a result of the wind farm is related to the installation of the foundations especially as a result of suspended sediments. SGU evaluate the impact as minor/negligible. | **The impact on the seabed is presented in section 13.3 in the report "Environmental Statement Part 2 Marine Environment" (not available in English) and in the background report "ATR 5-6 sediment and hydrographic study" (in English).**<br><br>The impact assessment includes an assessment of the project on the sea bed and sediment patterns. The impacts on the seabed and sediment transport are assessed to be minor/negligible. |
| Kustbevakningen | No comments regarding the proposed offshore wind farms at Sæby and Bornholm. | No action. |
| SOF Birdlife | *Resting birds*<br>SOF Birdlife has previously highlighted the importance of offshore banks for the marine birdlife. Rønne Bank is important for the Long-tailed Ducks due to the relatively low water depths and the presence of mussel banks at the seabed. Especially during the winter period this area is an important foraging area for several marine birds.<br><br>SOF Birdlife states that several inves- | **Bornholm OWF**<br><br>**Information on resting birds including assessment of the impact on Long-tailed Duck, Common Scoter and Red-throated Diver is found in the report "BORNHOLM OFFSHORE WIND FARM EIA – background report – FINAL Resting birds" (in English).**<br><br>The background report on resting birds includes a presentation of the baseline (survey data and literature review) as well as impact assessments with regards to habitat loss, disturbance and collision risk.<br><br>It is noted that several bird species are impacted in a buffer zone around the |

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| | tigations show that several marine bird species (Long-tailed Duck, Common Scoter, Velvet Scoter, Common Eider and Red-throated Diver) are impacted in a buffer zone and in a wider area than just the offshore wind farm area.<br><br>SOF Birdlife informs that the numbers of Long-tailed Duck in Swedish waters are reduced from 1.44 million to 0.44 million (70%) during the past 20 years. In a global perspective it is estimated that the numbers will be reduced with 59% over a period of 3 generations (1993-2020). Furthermore SOF Birdlife informs that Long-tailed Ducks have a status as endangered on the Swedish red list.<br><br>According to previous DMU surveys Rønne Bank is the most important overwintering area for Long-tailed Ducks in Denmark and up to 60% of the Danish population of Long-tailed Duck is found at Rønne Bank. | offshore wind farm area. The report on resting birds for Bornholm Offshore Wind Farm takes a precautionary approach in the impact assessments. A buffer zone of 2 km is included in the impact assessments in this study for all bird species. Further information can be found in the resting birds report.<br><br>The Resting bird report for Bornholm Offshore Wind Farm is based on a population size of 1,480,000 Long-tailed Duck individuals. Further information on the Long-tailed Duck is provided in table 35 in the background report. Regarding Bornholm the background report for resting birds includes a historical review of previous surveys with regards to Long-tailed Duck in section 5.4.3.<br><br>The resting birds report concludes the following with regards to impacts on Long-tailed Duck:<br><br>Moderate impacts on Long-tailed Ducks were found for habitat loss/change and displacement during the period of operation and minor impacts for both pressures during installation and decommissioning. The determined magnitudes of impact did not change for Long-tailed Ducks (moderate) when impacts of displacement are assessed cumulatively for the wind farms Bornholm, Kriegers Flak (DK), Baltic II Arkona- Becken Südos and Wikinger.<br><br>Moderate impacts are predicted for Long-tailed Duck in the period of operation. Mitigation measures in relation to the period of operation can only act via the spatial design of the wind farm. The impact assessment is based on the worst cases scenario with turbine locations affecting the highest number Long-tailed |

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| | Sæby Offshore Wind Farm will be located within an important area for divers (mainly Red-throated Diver).<br><br>SOF Birdlife finds there is a conflict at Rønne Bank due to the presence of Long-tailed Ducks and at Sæby primarily with Common Scoter but possibly also Common Eider, Velvet Scoter and Red-throated Divers at Sæby.<br><br>Sæby: Impact on the common scoter is assessed in the EIA report as "moderate". Previous studies have shown that wind farms can mean displacement of the individual number of population niveau (> 2%). SOF refers to the importance of assessing the cumulative impacts.<br><br>BirdLife Sweden considers that the implemented analyzes are unsatisfactory in that the expected impacts are deemed acceptable. BirdLife Sweden | Ducks as key species in this area. Considering alternative wind farm locations within the development area could reduce the number of affected birds.<br><br>The impact assessments are based on the precautionary principle and assessments are based on worst case assumptions with respect to wind farm layout and data selection.<br><br>The assessments follow data recorded during standardized surveys and procedures for analyses and the assessment is further modified by expert judgment. Therefore, there is a high confidence that the assessed impacts reflect a realistic situation when worst case assumptions are considered.<br><br>For assessing the worst case scenario for the Long-tailed Duck a pre-analysis was made to determine a wind farm layout including 16 turbines affecting the highest number of ducks. Even though Long-tailed Ducks were present in most of the investigated area a selection of a different park layout (than the worst case) would reduce the number of affected birds. For example, in the western parts of the development area lower densities of Long-tailed Ducks were found throughout the surveys (Figure 16, Figure 17 in the background report). For the whole wind farm project it has to be considered that the reduction in the capacity from 200 MW to 50 MW results in a reduced impact on resting birds. The presented impact assessment concerns a wind farm of 50 MW capacity.<br><br>Less birds are affected by displacement and habitat loss due to the smaller area covered by the a wind farm with lower number of turbines. |

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| | states that all levels of effects that cause more severe population declines are contrary to our shared responsibility and our obligation to protect vulnerable bird species. BirdLife Sweden is concerned about the proposed projects, as they may involve significant habitat loss and displacement of special protection seabird species, several of which are undergoing severe population declines. At Rønne Bank this applies primarily to Long-tailed Duck and at Sæby concerned including Common Scoter, Velvet Scoter, Eider and Red-throated Diver.<br><br>BirdLife Swedish recommendation is, in accordance with waterfowl leading researchers, to avoid completely the wind power exploitation in shallow offshore banks (< 20m).<br><br>If Denmark chooses to proceed with the current plans this requires a deeper analysis of the impact on the spe- | **Sæby OWF**<br><br>**Information on resting birds at Sæby Offshore Wind Farm is found in the in the "EIA and Environmental Report, Part 0: Non-technical summary: Marine Environment", and in the background reports "Sæby Offshore Wind Farm. Birds and Bats. Baseline and impact assessment" and "Sæby Offshore Wind Farm Appropriate Assessment, Birds Natura 2000" (all reports are available in English).**<br><br>The potential impact of Sæby Offshore Wind Farm on resting bird species, Common scoter, Velvet scoter, Common Eider and Red-throated Diver are all assessed in the EIA process and as well the potential cumulative effects. Moreover the potential impacts on Natura 2000 sites (EF-fuglebeskyttelsesområder) Aalborg Bugt, Nordlig del (DK00FX002), Aalborg Bugt, Østlig del (KD00VA344) and Læsø, Sydlig del (DK00FX345) are assessed in the Appropriate Assessement included in the EIA reporting.<br><br>All potential effects on those species are evaluated in relation to collision effects, displacement effects, barrier effects and direct loss of habitat. The evaluations are based on 10 years of monitoring data and supplemented with studies undertaken I 2013 – 2014 supporting the EIA. Studies include airplane based registrations of resting birds on species level, radar and rangefinder observations of flight height and direction on species level. |

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| | cies mentioned above, so that the effects can be minimized.<br><br>Institute of Bioscience at Aarhus University has previously been involved in extensive investigations on wind power's impacts on waterfowl. BirdLife Sweden recommends that researchers are consulted with regards to the proposed plans. | All conclusions are based on the precautionary principle and evaluations of cumulative effects are included in all assessments.<br><br>The possible construction of Sæby Offshore Wind Farm as close as a minimum of 4 km from land and thus at possible water depths less than 20 m is evaluated in accordance with Danish and international regulations through a dedicated EIA including an Appropriate Assessment of possible effects on designation basis for international protected areas.<br><br>Effects related to collision with wind turbines, barrier effects and direct loss of habitat are ranging from insignificant to minor for all relevant species of birds both evaluated for Sæby Offshore Wind Farm alone and cumulatively with other existing or planned OWF and possible extension of the harbor of Frederikshavn.<br><br>Effects of displacement are insignificant for most species of birds, but for Common Scoter, Velvet Scoter and Common Eider the displacement will lead to possible losses of birds. The losses of birds related alone to the possible construction of Sæby Offshore Wind Farm will not lead to any unacceptable effects on the protected populations of either of these species.<br><br>It is stated in the IEA for Sæby OWF, that cumulative effects on the population of Common Scoter with existing and planned OWF will lead to unacceptable effects on the population of Common Scoter. This would be the case if Sæby and ex. Smålandsfarvandet OWF (both part of the nearshore tender) are getting constructed at the same time. It should be stated, that all the three potential loca- |

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| | | tions in Kattegat (Sejerø Bay, Smålandsfarvandet and Sæby) are valuable sites for common scoter. Conclusions about the cumulative effects, in the IEA for Sæby OWF, have been based on a population size for Common Scoter, which has later on been adjusted to a larger estimate by Wetlands International. The IEAs for Smålandsfarvandet and Sejerø Bay OWF were conducted on the basis of the most recent revision of the flyway population and resulted that it was possible to build up to 350 MW on two different OWF on the selected areas in Kattegat (Sæby, Sejerø Bay or Smålandsfarvandet). On the other hand, it was concluded that the potential location in Sejerø Bay will have a negative effect on the Common Scoter population in the nearby Natura 2000 area. Consequently, the Sejerø Bay site has been excluded from the nearshore tender.<br><br>Concern has been raised concerning effects on divers. Divers are not included in the designation basis for any of the SPAs in the area, so evaluations of effects are not included in the Appropriate Assessments. Evaluations in the EIA estimates that approximately 500 divers will be displaced equivalent to 0,4% of the biogeographical population – the effects on divers are assessed as moderate during operation of Sæby OWF, but not to a level where the wind farm cannot be constructed and operated as planned. |
| Transportstyrelsen (TSS) | *Shipping and navigation*<br>TSS notes that the impact assessments include a risk assessment with regards to shipping and navigation. TSS does not have any comments to | **The impact on shipping and navigation is presented in section 13.13 in the reports "Environmental Statement Part 2 Marine environment" (in Danish) and "Navigational Risk Assessment Bornholm Offshore Wind Farm" (in English).** |

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| | the proposed projects | The impact assessment includes a navigational impact assessment which follows the IMO's (international Maritime Organization) guidelines for evaluation of navigational safety assessment. |
| Sjofartsveret (SMA) | *Shipping and navigation*<br>The SMA would like to suggest that, for both Bornholm and Sæby Offshore Wind Farms, safety distances are presented between the planned wind farms and fairways in order to avoid future collisions and accidents.<br><br>This also includes a specification of what kind/size of vessels should be allowed to pass within the planned shipping corridor of the Sæby Offshore Wind Farm.<br><br>Pleasure crafts within ship class 1 could have air drafts exceeding 20 meters which is identified as a potential hazard / risk when passing through the wind farms.<br><br>The Marine Nautical Institute (MNI) | **Bornholm OWF**<br><br>**The impact on shipping and navigation is presented in section 13.13 in the reports "Environmental Statement Part 2 Marine environment" (in Danish) and "Navigational Risk Assessment Bornholm Offshore Wind Farm" (in English).**<br><br>The overall approach for the navigational risk assessment follows IMO's (international Maritime Organization) guidelines for evaluation of navigational safety assessment. The approach has been approved by the Danish Maritime Authority (DMA) (Søfartsstyrelsen) and the results have been evaluated together with DMA.<br><br>According to the technical project description of Bornholm OWF the air gap between Mean Sea Level (MSL) and the lower wing tip will be determined based on the actual project. However, it is expected that the Danish Maritime Authority (DMA) will request a minimum of approximately 20 metres between the Highest Astronomical Tide (HAT) and the lower wing tip. The determining factors for acceptable air gap will be: |

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| | has presented a report regarding marine spatial planning which could serve as guidance considering safety distance from wind farms. The document can be downloaded from this link http://www.nautinst.org/en/forums/msp/<br><br>The SMA suggests that a survey on the possible impact on VHF band radio is made. VHF channel 70, used for digital safety broadcasting, and also AIS broadcasting are important for the safety of shipping. The reports do not describe what eventually will happen with the wind farms when they are decommissioned after 20 to 25 years. | • Regulatory requirements<br>• Sufficient air gap between the access platform on the turbine foundation and the blade tip. (Typically the elevation of the platform is determined by the extreme wave height)<br><br>The Danish Maritime Authority (Søfartsstyrelsen) will need to approve the detailed design of the offshore wind farm.<br><br>Safety zones have been addressed in the technical project description for Bornholm Offshore Wind Farm. The exact safety zones during construction will be agreed with the Danish Maritime Authority (DMA) prior to construction.<br><br>VHF has not been considered problematic and therefore it has not been handled in the technical report or the Environmental Statement.<br><br>The impact on the construction and decommissioning of the offshore wind farm will be assessed when the detailed design of the project has been completed. The Danish Maritime Authority (Søfartsstyrelsen) will need to approve the detailed design of the offshore wind farm.<br><br>**Sæby OWF**<br><br>**The impact from shipping and navigation is presented in the EIA report part 2 Marine Environment, sections 11.19, 12.20, 13.2.6 and 16.3 (in Danish); EIA report part 4 Summary and Conclusion, sections 27.2 and 27.11** |

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| | | **(in Danish) and in the Report Sæby Offshore Wind Farm, Ship Traffic (in English).**<br><br>The general information above for Bornholm OWF is also valid for Sæby OWF.<br><br>The passage of ships through the navigational channel crossing the OWF area for optimizing access to the Marina of Sæby will be mitigated by constructing the channel directly East-West and 1 nm wide. The Marina of Sæby can handle recreational vessels up to a length of approximately 35 meters. It is evaluated during the HAZID workshop that the dimensions of such a navigational channel will enable possible navigation by all relevant types and sizes of vessels operated at the Marina of Sæby. |
| Havs and Vattenmyndigheden (HaV) | *Marine mammals and fish*<br>Due to the relatively small areas as both Sæby and Bornholm Offshore Wind Farms HaV evaluate the impact on fish and marine mammals to be relatively limited.<br><br>However HaV states that the animals which potentially will be impacted are a part of the Swedish population.<br><br>HaV suggest that not to use monopile | **Bornholm OWF**<br><br>**Information on marine mammals is found in the background report "BORNHOLM OFFSHORE WIND FARM EIA – background report Marine mammals" (in English).**<br><br>**Information on fish is found in the report "BORNHOLM HAVMØLLEPARK, EIA – background report on Fish" (in Danish).**<br><br>At Bornholm Offshore Wind Farm the assessment shows that there is a requirement to reduce the underwater noise in the worst case situation to secure that no Harbour porpoises contract permanent hearing damage with the assumptions |

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| | foundations or at least not allow piling during summer and autumn to limit underwater noise impacts. At least the guidelines from the Danish task force group for underwater noise and marine mammals shall be followed.<br><br>With regards to fish it is recommended to limit the underwater noise impacts on fish by introducing a time restriction on the piling and scare the fish away from the area before piling activities.<br><br>HaV states that there is no impact on Swedish commercial fishery as they do not fish in the investigated areas. | given for the worst case scenario. Implementing the suggested mitigation measure will change the assessment so that the total environmental impact will be minor. At present it is not possible to decide whether the described noise reduction demands an active reduction by taking various physical measures to reduce the underwater noise propagation. Among other things it depends on the size of the foundations and the hammer being used during the construction of the wind farm.<br><br>The recommendations from the underwater noise task force group will be implemented during the development of the project.<br><br>Preliminary results from the SAMBAH project have been included in the background report and the conclusion is the following: Until recently it was speculated that porpoise at Bornholm would probably primarily be part of the subpopulation in the inner Baltic Sea. However, recent data from the SAMBAH project have documented that the animals in the area are probably part of the population in Kattegat, the Belt Sea, Oresund and the western Baltic Sea.<br><br>The impact on fish as a result of the underwater noise is presented in the background report on fish chapter 6.2.1. The impact is evaluated as minor. No mitigation measures have been considered. |

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| | | **Sæby OWF**<br><br>**The impact on marine mammals are presented in the EIA report part 2 "Marine Environment", sections 11.10, 12.11, 13.1, 13.2, 14.2.2, 15.3 and 16.1 (in Danish); EIA report part 4 "Summary and Conclusion", sections 27.8 and 27.9 (in Danish), in the report "Sæby Offshore Wind Farm, Baseline and Impact Assessment in relation to Marine Mammals" (in English) and in the report "Underwater noise and marine mammals" (in English).**<br><br>**The impact assessment on marine fish population are presented in the EIA report part 2 "Marine Environment", sections 11.9, 12.10, 15.4 and 16.3; EIA report part 4 "Summary and Conclusion", sections 27.8 and 27.9 and in the report "Sæby Offshore Wind Farm, Baseline and Impact Assessment in relation to Marine Mammals" (in English).**<br><br>The general information above for Bornholm OWF is also valid for Sæby OWF The possible construction of Sæby OWF using monopiles as foundation for wind turbines will require mitigating underwater noise following the procedures stated in the recommendations from the Danish working group with a zero tolerance of PTS effects. The noise mitigation will mean that any effect in Swedish territorial waters will be highly unlikely and effects as temporary hearing reduction (TTS) will not be possible inside Swedish territorial waters.<br><br>The effects on fish population and on the fishery in the regional area are assessed as insignificant including possible noise effects on fish. Even though the |

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| | | mitigating measures that has to be implemented due to the recommendations from the Danish working group for noise effects on marine mammals will also mean reduced noise effects on the fish population. |
| Försvarsmakten | *Radars*<br>Försvarsmakten (The Armed Forces) have an objection to the proposed offshore wind farm at Rønne Bank. The proposed offshore wind farm will lead to disturbances of Försvarsmaktens technical systems and therefore impact Försvarsmaktens ability to solve the government decided assignments. Försvarsmakten concludes that the establishment of the proposed wind farm at Rønne Bank will impact military radars by impacting the functionality of the radars leading to significant impact on the Swedish national interests. | No response with regards to potential impacts on Swedish radars was received during the first round of ESPOO consultation. Therefore only Danish radars on Bornholm are evaluated in the EIA. The distance from the proposed offshore wind farm to the Swedish coast is app. 50 km. |

## 4 RESPONSE FROM POLISH STAKEHOLDERS

| Stakeholder | Response | Reply to response |
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| Departament Ocen Oddziaływania na Środowisko/Department of Environmental Impact Assessment | *Migrating birds*<br>The area of particular interest for Poland is the wind farm planned near Bornholm. The Department of Environmental Impact Assessment (DEIA) state that in their opinion, the planned project at Rønne Bank will not have significant negative transboundary impact on the environment on the Polish side, so they do not ask for transboundary consultations.<br><br>DEIA request information about the final decision in accordance with Article 6 of the ESPOO Convention.<br><br>Furthermore DEIA ask for information about other offshore wind farm projects in the area between Bornholm and Rugia which in their opinion could have significant negative impact on migration corridors of birds and on the Polish Natura 2000 site PLB "Zatoka Pomorska" (both new wind farms and Kriegers Flak Offshore Wind Farm). | The Environmental Statement for Bornholm Offshore Wind Farm is supported by a Habitat Regulation Assessment including an assessment of impacts on Natura 2000 areas and Annex IV species.<br><br>**The Habitats Regulation Assessment is found in the background report "Bornholm Offshore Wind Farm, EIA Background Report, Migrating birds" (in English).**<br><br>**Assessment of Natura 2000 sites**<br>The assessment on Natura 2000 sites follows a screening process based on relevant guidance documents.<br><br>The Natura 2000 site "PBL 990003 Zatoka Pomorska" is located 54.2 km from the Bornholm Offshore Wind Farm and protects 11 bird species (http://eunis.eea.europa.eu/sites/PLB990003#tab-species).<br><br>The Habitat Regulations Assessment concludes that there is no likely significant effect at any Natura 2000 site within a distance of 150 km.<br><br>*Migratory species*<br>An in-depth analysis of the potential effects of Bornholm OWF on migratory bird species has been undertaken. This study considers |

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| | | the population dynamics and migratory flyways of these species, identifying potential for connectivity with Bornholm OWF.<br><br>No Likely Significant Effect is predicted on the sites and features identified within 150 km from Bornholm OWF as a result of collision mortality, during any phase of the project.<br><br>Migratory species are not considered to be exposed to the effects of boat based traffic during the construction phase or the displacement effects associated with the presence of turbines during the operational phase.<br><br>**Cumulative impacts on migrating birds**<br>When assessing the cumulative impacts on migrating birds in the migrating birds background report **"Bornholm Offshore Wind Farm, EIA Background Report, Migrating birds" (in English).** Bornholm Offshore Wind Farm has been assessed in conjunction with Kriegers Flak Offshore Wind Farm. The assessment shows a minor cumulative impact on cranes due to collision risk.<br><br>**Appropriate Assessment – Common crane**<br>The EIA Background Report includes a literature review investigating records and data of migratory species using potential Baltic flyways over the Arkona Basin and Bornholm. The EIA further considers cumulative impacts on Common Crane are minor or moderate depending on the avoidance/attraction scenario applied within Collision Risk Modelling. Further investigation has been provided in |

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| | | a report to Inform an Appropriate Assessment (RIAA) with respect to Natura 2000 sites designated for migratory Common Crane in the Baltic region in the report: **"Report to Inform an Appropriate Assessment: Natura 2000 sites designated for migratory Common Crane in the west-central Baltic" (in English).**<br><br>The Appropriate Assessment concludes that no adverse effects on any Natura 2000 site integrity as a result of collision impacts on migratory Common Crane from Bornholm OWF either alone or in-combination with other projects are expected (including Kriegers Flak Offshore Wind Farm).<br><br>Any information about the ongoing process can be found on the Danish Energy Agency's web site: https://ens.dk/en/our-responsibilities/wind-power/ongoing-offshore-projects/nearshore-wind-tender |