

Bilag H. Skema til kommentering af udkast hos rekvirent/ekstern part

Titel på produkt	Technical report, North Sea 1 – WPC - Bats		
Ansvarlig for produktet (projektleder i instituttet)	Signe Brinkløv		
Ekstern institution	Energinet		
Kontaktperson	Majken Them Tøttrup		
Deadline for fremsendelse af kommentarer	20/7 2024	Dato for afslutning af håndtering af kommentarer 12/9 2024	

	Rekvirent		Instituttet	
	Evt. linjenr.	Kommentar	Begrundet håndtering af kommentar	Ansvarlig for håndtering
1		Please consider changing the title to 'Bat surveys – pre-investigations for offshore wind farms in the area North Sea I'. Please do not use the term LOT 1 as this is just name used in the tendering of the pre-investigations. Please do not use the term Work package C as this on internal term used for the project management.	Title changed as suggested, LOT 1 and WPC terms removed throughout the report.	SB
2	43	Please note and correct: The report was commissioned by Energinet. The contract is between Energinet and NIRAS, legally there is no consortium contracted.	Corrected	SB
3	45	Please update the title to match the title on the front page.	Title of report is now included and the same on both front page and in Preface	SB
4	60	Please delete 'and financed by Energinet Transmission A/S', as it is already mentioned that NIRAS has been contracted by Energinet.	Deleted	SB
5	63	Please add that the report is published by the Danish Energy Agency (DEA) as part of the tender for offshore wind farms in the North Sea I.	Added	SB
6	73	Please delete the term LOT 1.	Deleted throughout, see response to comment #1	SB

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		Please use the terms: North Sea I / NSI instead of North Sea 1. And change this consistently throughout the report. Regarding 'Survey area' please consider adding that the surveys area is the NSI area plus 20 km buffer zone around it	North Sea I now used throughout the report Explanation changed as suggested	
7	82	Please consistently use the term 'surveyed' rather the 'monitored' to avoid any confusion. The program is a baseline survey for bats and a monitoring program.	Done	SB
8	98	Question: Can the lower registration frequency before 17/8 also be caused by weather conditions not being optimal?	This is highly unlikely. Most of the buoy stations were active from the start of August but did not register any bats, yet weather conditions (i.e., wind speeds, wind direction, temperature) showed no distinct or systematic changes around this date. This has now been added to the sentence and weather plots are now included.	SB
9	99	Question: Is the dataset strong enough to conclude that it indicates that offshore activity occurs specifically during the migration period?	Good point. Sentence added to explain that this is currently speculative and a more conclusive interpretation hinges on data from the second year of surveys.	SB
10	102	Please consider changing 'aim' to 'objective'.	Changed for section 1, unsure if the request was also minded for section 1.1, if so this can be adjusted prior to final version	SB
11	102	Please insert the below standard text in the introduction so that it replaces the first section. Energinet is requiring this to be the standard introduction of all the baseline reports.	Text inserted and note added in the declaration of contributions	Signe Brinkløv
12	108-109	Please consider changing to 'for the future environmental impact assessment of the specific offshore wind farm projects in the North Sea I area'.	Changed	Signe Brinkløv

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13	110	Please do not use the term work package C.	Noted, and changed throughout	Signe Brinkløv
14	114-115	Please explain why it is relevant to mention 'The position of the export cable track and land-based footprint was not specified for the pre-investigations'? Does this have any impact on the baseline surveys for bats?	Sentence has been moved to section 1.2.1 and its relevance explained	Signe Brinkløv
15	134	Please consider changing the 1.2 headline to 'Survey design'	Changed	Signe Brinkløv
16	155	Please consider adding a more high-level theoretical explanation of the chosen methodology to explain which considerations have gone into the chosen survey design, e.g. the number of PAMs, the locations, the combination of survey methods.	Section 1.2 Survey Design expanded	Signe Brinkløv
17	224-226	Please elaborate on which species are the most common and what are the two biographical regions in DK where they have a favorable conservation status?	Species with favorable conservation status in both Danish biogeographical regions are now listed, and the regions mentioned.	Signe Brinkløv
18	229	Please add reference.	Reference was already included in the sentence above but has been moved to here, along with a reference to table 2.1, which now includes EU conservation status per biogeographical region and relevant species. The table has been focused to species observed over the North Sea.	Signe Brinkløv
19	235	Please add information from Rodrigues et al. 2015 on whether this is collision risk in relation to onshore wind turbines.	Added in table legend that the collision risk applies to wind turbines in open habitats and Elaborated in section 2.2	Signe Brinkløv
20	261-265	Are the recorded/mentioned bats the total number recorded in relation to offshore structures and vessels from 1960-2021?	Yes, now specified	Signe Brinkløv

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21	273	Are these verbal accounts documented in log books and how many accounts are there?	No, there is no reporting system in place and hence no quantification. Partly for this reason those records are not very useful unless put into system, e.g. logging required by law, encouragement for vessels to report findings of bats, e.g., in FOGA Newsletter... Sentence expanded to clarify.	Signe Brinkløv
22	280-285	Please elaborate on how many individual bats were recorded and where do they migrate to/from? - over which distance of sea?	The number of individual bats was not estimated due to limitations of the study design that are a common hindrance and not a flaw specific to the study referenced. Text now explains that occurrence is based on presence/absence of bats per night and a few more details from the study have also been added.	Signe Brinkløv
23	319	How far offshore were the bats recorded? And at what height above the water?	Distance to shore and height information (microphone placement) added	SB
24	322	What is meant by 'strategic pre-investigations' - were these not baseline surveys?	Correct, and corrected	SB
25	323	Please add distance to shore for the North Sea Energy Island surveys.	Distance information added	SB
26	371-372	Please check sentence – is there a word missing?	No words missing but wording now changed to make clearer	SB
27	385	Please clarify: Does this mean that a recorder was not installed during all vessel-based surveys? On how many surveys was the recording for bats included?	A recorder was deployed on each bird survey, now clarified, see also table 4.2	SB
28	395-396	Does the 20 km range also apply for the GPS tags used in this study? - or what is the likely detection range in this study?	20 km is the maximum range stated by the MOTUS network. The actual detection range	SB + ELM

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			depends on, e.g., the transmitter strength (i.e. size of tag and remaining battery power), weather conditions, behaviour (flight height) of the bat, the position of the tag in relation to the antenna directions (i.e. it is not the same 360° around the masts), and height of the receiver station and topography of the landscape, which is generally favourable (flat and open) in this case (line of sight detection). More commonly, detection ranges are estimated to be in the 10 km range. This is now added in text and reference to feasibility publication added. We are currently testing the range and expect to include the results of this test in the final version of the report.	
29	397	Please provide a reference for the database.	Link added, all data is accessible from the Motus website.	SB
30	402	Please consider using 'bat surveys' or 'bat baseline surveys' rather than 'bat pre-investigations'	Bat baseline surveys now used throughout	SB
31	402	Please add 2023 after August-September. Please also pay attention to that in other parts of the report.	Added and other sections reviewed with this in mind.	SB
32	405	Please elaborate on the expected range of the tags in this study.	Please see reply to comment #28	SB
33	434-435	Not sure what is meant by the last sentence? Can you elaborate or rephrase?	Rephrased	SB
34	437-439	Please check the sentences – they are difficult to understand.	Rephrased	SB
35	444-445	Compared to onshore in general or specifically onshore in this study?	Both, although that is not really a vital point to this part of the methods description. 'Compared to onshore' deleted.	SB

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36	455	Please explain why the 'last three categories' have not been included in the further analysis.	Explanation added	SB
37	491-492	Regarding Table 4.1 – Please consider adding a total line indicating the actual number of individual bats detections (max 20 specimens)	'Max 20 specimens' appears to arise from addition of the 'individuals per recording' column and is not correct. To get a max. specimens estimate, the column 'recordings with bats' should be summed and for each recording with two individuals one extra 'specimen' should be added. This number is now stated immediately before the table is presented.	SB
38	516	Please mention how many hours of vessel-based surveys that also had recordings included, since it was previously stated that the recorder was not on all the vessels.	There appears to be some confusion as to whether all bird surveys included bat monitoring. This was indeed the case, as is now explicitly stated earlier in the report (please see reply to comment #27). The number of days (nights) monitored for bats is already included in table 4.2. Paragraph expanded to make this clearer.	SB
39	520-521	Regarding Figure 4.1 - Please add an outline for the NSI area in the map to the right	The two figures will be combined into one for the final version and this will include the outline for NSI	SB
40	537	Regarding Figure 4.2 - it is very difficult to see and distinguish the information on the figure, e.g. large and small black dots.	The figure has been rotated 90 degrees and is inserted on a horizontal page format to improve legibility. Regarding the large and black dots, these are merely included to give overview regarding functionality of the detector but are, as explained in response to comment #44 not bat registrations.	SB

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41	593	Please consider adding a figure showing the distribution of wind (and possibly temperature?) in relation to the recorded bats. Or add in section 4.1.4	Section 4.1.4 has been updated with figures including weather parameters (temp, wind speed, wind direction) Statements related to wind direction have been corrected as we discovered an error in the conversion of degrees and radians to wind directions.	SB
42				
43	602	Please explain (again) why the offshore data are not calculated as activity minutes - as with the onshore data?	There are not presently enough data (based on Y1 surveys alone) for this measure to be representative and for this reason, presence/absence is used. This is expected to change with the addition of data from Y2 which are predicted to enable modelling of occurrence. Importantly, though, it should be underlined that too few data does not necessarily equal that there are too few bats, rather it speaks to method limitations, e.g., low detection range.	SB
44	615-622	Regarding Figure 4.4. Are the black dots without the grey bars counted as positive bat detections even though the recorder log files could not be recovered?	Only orange dots represent bat detections. The black dots do not reflect bat detections. Rather, they indicate that the recorder was prompted to trigger scaled in size from one (smallest) to more (largest) recordings (i.e. wave files were saved that night). IF those recordings contained bat calls, this is indicated by the orange dot. The black dots (wave files were saved) and the grey bars (the recorder logged that it was active and ready to record or was recording	SB

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			during some of (lighter grey) and up to all (dark grey) night) are both indicators of system functionality. In a few cases, the log file (.txt) was corrupted, but recordings were still made during the night indicating that the system worked even though the log file could not indicate this. We have tried to clarify this even further in the figure legends.	
45	710	Please elaborate on why there were no detections on the MOTUS masts?	Done	SB
46	715	Please don't use the term work package C.	Deleted	SB
47	714	Please consider changing 'Status' to 'Conclusion'	Changed	SB
48	725	Please clarify how migration is defined. Where to are bats heading if they are migrating from the west coast of Jutland?	Clarification and speculation about potential migration routes added	SB
49	741	Please consider this study's objective is not to verify if migration occurs but to establish a set of baseline data for environmental impact assessment.	But surely it is relevant baseline information if there are indications that bat migration activity occurs in the pre-investigation area. Given the limitations in the PAM method (acoustic detection range) offshore, it is relevant to consider coastal activity as an indicator of concurrent activity peaks in the offshore survey area. Sentence changed to include 'occurs into and across the project area'.	SB
50	748	Please insert OWF (offshore wind farm) after North Sea I	Inserted	SB
51	745-751	Please consider that the purpose of gathering baseline data in this study is to enable impact assessment in relation to offshore wind farms – not management strategies for bats.	Management strategies removed	SB
52	755	Please elaborate on why the MOTUS tagging would add value to this specific project.	Paragraph added but moved to conclusion.	SB

Line 102: Please insert this standard introduction:

In order to accelerate the expansion of Danish offshore wind production, it was decided with the agreement on the Finance Act for 2022 to offer an additional 2 GW of offshore wind for establishment before the end of 2030. In addition, the parties behind the Climate Agreement on Green Power and Heat 2022 of 25 June 2022 (hereinafter Climate Agreement 2022) decided, that areas that can accommodate an additional 4 GW of offshore wind must be offered for establishment before the end of 2030. Most recently, a political agreement was concluded on 30 May 2023, which establishes the framework for the Climate Agreement 2022 with the development of 9 GW of offshore wind, which potentially can be increased to 14 GW or more if the concession winners – i.e. the tenderers who will set up the offshore wind turbines – use the freedom included in the agreement to establish capacity in addition to the tendered minimum capacity of 1 GW per tendered area.

In order to enable the realization of the political agreements on significantly more energy production from offshore wind before the end of 2030, the Danish Energy Agency has drawn up a plan for the establishment of offshore wind farms in three areas in the North Sea, the Kattegat and the Baltic Sea respectively.

The North Sea I area has a total area of 1.400 km² which is divided into three sub-areas planned for offshore wind farms. The North Sea I area is located 20-80 km off the coast of West Jutland and from each of the three sub-areas there will be corridors for export cables connecting the offshore wind farms to the onshore grid.