Planning Inspectorate
Arolygiaeth Gynllunio

Hearing Transcript

Project:	Dogger Bank South
Hearing:	Issue Specific Hearing 5 (ISH5) – Part 1
Date:	10 April 2025

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The video recording published on the Planning Inspectorate project page is the primary record of the hearing.

00:00:05:00 - 00:00:30:15
Good morning. The time is now 9:30 a.m., and I would like to welcome you to this issue specific hearing in relation to the application made by RWC renewables UK, Dogger Bank Southwest Limited and RWC renewables UK. Dogger Bank South East Limited for the proposed Dogger Bank offshore wind farms. Before I proceed any further, can I just check that everybody can see and hear me? If not, can you please raise your hand in teams?

00:00:33:24 - 00:00:34:18
Thank you.

00:00:36:12 - 00:00:42:10
Can I also confirm with Mr. Bernie that the live stream of the recording of this event is commenced? Thank you.

00:00:44:12 - 00:01:17:03
Please, could all participants ensure that they are muted unless invited to speak? And please silence all electronic devices? My name is Helena Abramsky. I am an examining inspector and a chartered town planner. I'm employed by the Planning Inspectorate and have been appointed by the Secretary of State to be a member of the panel of inspectors to examine this application. In this introduction, I will be going through the management of today's event and introductions, and what of my colleagues will be taking notes of any actions. I would now like to ask my colleagues to introduce themselves.

00:01:20:01 - 00:01:26:26
Good morning. My name is Claire Bello. I'm an examining inspector, a chartered scientist, and a chartered and water environmental manager.

00:01:28:19 - 00:01:38:00
Good morning. My name is Joe Dowling. I'm an examining inspector and a chartered town planner, and I've been appointed by the Secretary of State to be the lead member of the panel who examined this application.

00:01:40:02 - 00:01:42:00
Good morning. My name is Laura Ciani.

00:01:42:12 - 00:01:45:02
I'm an examining inspector and chartered town planner.

00:01:46:15 - 00:01:55:00
Good morning. My name is Matt Sandy. I'm an examining inspector, chartered water environmental manager, and also a civil engineer.

00:01:57:10 - 00:02:32:15
I can confirm that all members of the examining authority have made a formal declaration of interest, and that there are no known conflicts of interest with regard to us examining this application. Together, we formed the Examining Authority, or ESA, for this application. You will have all spoken with Mrs. Hopewell, who is our case manager in the joining conference. I would also like to mention

Mr. Burney, who is the case officer for this project. Together they are the case team. There are other colleagues from the planning inspectors with us today, and technicians from CVS who are attending solely for the purpose of managing the recording and live streaming of the hearing.

00:02:33:13 - 00:02:39:25
If you have any questions regarding the application process in general, could I ask that you please email the case team who will be happy to help?

00:02:41:28 - 00:03:12:23
This meeting is being held on the Microsoft Teams platform and is being live streamed. Participants should not use the chat function as it is not being monitored today. Should you wish to make a comment, please switch your camera on and use the Microsoft Teams Hands up function and please wait to be invited to speak. If you participate in the meeting, it is important that you understand that you'll be recorded and live streamed and that the digital recording will be published. If you do not want your image to be recorded, you can switch off your camera.

00:03:14:06 - 00:03:40:17
The planning Inspectorate's practice is to retain recordings for five years from the Secretary of State's decision on the Development Consent Order, to avoid the need to edit digital recordings. We would ask that you try your best not to add information to the public record that you do, not that you wish to be kept private and confidential. If you feel that personal information is necessary, please provide this in a written document and we can redact that before publication.

00:03:42:14 - 00:03:50:05
No requests have been made for any special measures or arrangements to enable participation in this hearing. I would just like to confirm that that is correct.

00:03:56:14 - 00:04:09:08
If at any point in the meeting you can't hear us or wish to speak, can I ask that you turn turn your camera on if it is turned off and use the raise hand function in teams. There may sometimes be a delay before we can acknowledge this.

00:04:11:00 - 00:04:20:00
The information contained in your joining instructions includes what to do if you lose your connection, and we are able to adjourn for a short period if there are more significant connection problems.

00:04:21:26 - 00:04:35:10
We will adjourn for a short break at a convenient point, usually no more than every hour or so. If the medical or the reason any anyone requires a break at a specific time, could you please let the case know and we can hopefully adjust the program to meet your needs.

00:04:37:02 - 00:04:57:18
But the purpose of identification, and for the benefit of those who may listen to the digital recording later, could I ask that at every point in which you speak, please give your name. And if you are

representing an organization or individual who it is that you represent? Does anyone have any questions or concerns about the technology or general management of today's event?

00:05:00:05 - 00:05:00:20
No.

00:05:04:05 - 00:05:28:25
Rule 14 two of the examination procedure rules requires that at the start of the hearing, the examining authority shall identify matters to be considered at the hearing. These are listed in the agenda for today's meeting, which was placed on the Inspectorate website on Friday. The 28th of March, 2025, can be found in the Examination Library reference at EV 9001. For expediency, I do not intend to repeat them now.

00:05:30:12 - 00:05:36:15
Please note that today's agenda is for guidance only. We may add other issues for consideration as we progress.

00:05:38:01 - 00:06:12:05
Finally, it is important that we get the right answer to the questions that the exam authority is going to ask. At this stage, it is worth reiterating that it is a predominantly written process. Therefore, if you cannot answer the question that's being asked or require time to get the information requested. Then, rather than giving a restricted or potentially incorrect answer, please indicate that you need to respond in writing. We can then defer the response either to an action point to be submitted at deadline four, which is the 25th of April 2025, or to a written question or a later hearing.

00:06:13:09 - 00:06:20:08
So before we move on to deal with the items detailed in the agenda, are there any questions at this stage about the procedural side of today's hearing?

00:06:23:06 - 00:06:23:21
No.

00:06:25:24 - 00:06:37:28
The case team have advised that the only persons attending to today's hearing will be the applicant and their representative. Before I ask them to introduce themselves, can I just check there isn't anyone else who wishes to participate in today's hearing?

00:06:39:29 - 00:06:41:09
I can't see any hands.

00:06:43:02 - 00:06:56:21
I'm now going to ask the applicants to introduce themselves to the examining authority and the people who are watching the live stream of the event. When you introduce yourselves, can you state how you would like to be referred to? For example doctor, Mrs.. Miss, Mr., etc..

00:07:01:12 - 00:07:12:28

Good morning madam. Mr.. Julian Boswell, partner and solicitor with Burgess Salmon LLP. Advising the applicant. I'm going to ask each member of the.

00:07:18:18 - 00:07:25:26
One expert on online, Mr. Trinder, who can introduce himself after that. So starting my left.

00:07:26:16 - 00:07:30:25
Miss Ellie Mark, principal consultant for collaborative.

00:07:30:27 - 00:07:31:15
Environmental.

00:07:31:17 - 00:07:32:13
Advisors.

00:07:32:19 - 00:07:33:26
On behalf of the applicant.

00:07:35:18 - 00:07:41:14
Mr. Paul Solar, technical director of Offshore Wind, on behalf of the company.

00:07:41:25 - 00:07:46:28
And Mrs. Jane Ashwell, solicitor and director of Burgess Salmon, acting for the applicants.

00:07:47:00 - 00:07:52:16
Applicant. Mr. Andrew Leadbeater, engineering manager for GBS projects, is the applicant.

00:07:56:04 - 00:08:02:04
That may then get. Doctor Mark Trinder at McArthur green. Advising the applicant on ornithological matters.

00:08:06:19 - 00:08:12:07
Thank you. Is there anyone else who's expecting to participate in this hearing who is not introduce themselves?

00:08:15:04 - 00:08:16:10
I can't see any hands.

00:08:20:23 - 00:08:25:11
Thank you. I'm now going to pass over to Mrs. Biello, who will deal with the next item on the agenda.

00:08:29:00 - 00:08:37:24
Thank you, Mr. Abramsky. We will move directly on to item two on the agenda, which is offshore ornithology environmental impact assessment.

00:08:40:04 - 00:09:13:12
So item 2.1. Throughout this examination, there has been disagreement between the applicants and the statutory nature conservation body, Natural England, on the appropriate parameters to use in the assessment of ornithological impacts. Therefore, I would just like to ask a few questions and points of clarification as to whether or not the full information has been submitted into the examination using the parameters advocated by both parties, which can be used for the recommendation and ultimately the decision by the Secretary of State.

00:09:14:16 - 00:09:55:20
So, firstly, considering abundance estimates for the assessment, the applicants consider that the use of the mean peak abundance in each season is appropriate. However, Natural England recommends using the upper 95% confidence interval for the reasons given in their relevant representation, which is RR 039 and also reiterated at deadline 3 in 3 057. So, Mr. Boswell, for the applicants. Can you confirm that? As has been stated in submissions by both parties, that at this stage of the examination, the two parties agree to disagree on this matter and that no resolution is likely?

00:10:00:24 - 00:10:04:04
I'm going to ask a doctor to respond to that.

00:10:06:18 - 00:10:39:13
Uh, doctor for the applicant. Uh, we have presented both the, uh, the means and the, uh, full confidence intervals from lower to upper 95% in all cases. So all the information is provided, um, in terms of which we consider to be the more appropriate figures to use. Um, I certainly think that's probably an area that we're not going to reach agreement with Natural England. We consider the mean or the central values to be more appropriate and representative. And Natural England take a more precautionary line and prefer the upper 95%.

00:10:41:08 - 00:11:13:00
Thank you. So can we take an action point, please, for Natural England to also respond to this question? Just confirming whether they believe that all the relevant information has now been submitted into the examination regarding abundance estimates. Thank you. So next I would like to discuss the number of birds at risk of displacement and mortality. So Natural England supports a range of displacement rates from 30 to 70%. And distributions of prey and mortality rates of 1 to 10%.

00:11:13:19 - 00:11:29:00
And whilst the applicants disagree with Natural England and advocate using displacement rates of 50% and mortality rates of 1%. And they have provided the full range requested, and this has been confirmed by Natural England in as 159.

00:11:30:24 - 00:11:51:10
Um. However, an outstanding point remains on this issue in that Natural England maintains that due to a high density of reasonable and guillemot being recorded between the potential arrays. A cumulative displacement impact on Orx is required using a buffer greater than the two kilometres used by the applicants.

00:11:52:27 - 00:12:08:03

So I'd like to understand the significance of this issue to the outcome of the assessment. Firstly, I'd like to understand what buffer distance would be needed to fulfil Natural England's request for a larger buffer, and have the applicants discussed this point with Natural England at all?

00:12:12:20 - 00:12:13:05
Um.

00:12:13:16 - 00:12:15:03
Mr. Hopkins?

00:12:15:06 - 00:12:15:21
Yeah.

00:12:19:11 - 00:12:22:05
If I could respond to that.

00:12:24:29 - 00:12:59:06
Uh, Mark, gender for the applicant. Um, this does remain an outstanding area of disagreement between the applicant and Natural England. Um, we have not specifically discussed, and I don't believe Natural England has actually, uh, specified, uh, a buffer distance that they consider to be appropriate in this case. My understanding is that they have considered that because there are numbers of birds between the two arrays beyond the two kilometer buffer, which is the industry standard guidance that we're we're intended to use.

00:12:59:20 - 00:13:36:01
Um, but beyond that distance, there are birds present. But in the, in the the area between the two arrays, they consider that this could be an additional source of impact. Um, but but the actual distance that has not been specified, they have just requested that we consider this as an additional source of impact. Our position is that this is unprecedented. And uh, in terms of, uh, impact assessment, whereas actually there is plenty of precedent for arrays being, uh, this close and indeed considerably closer than this distance to other wind farms.

00:13:36:12 - 00:14:14:07
And this has never been required previously. So it is fairly straightforward to to view these on a map. East Anglia three Norfolk Boreas and Norfolk Vanguard are all. Their boundaries are in fact adjacent to one another. There is no gap between them, but none of those wind farms were required to take this sort of extra consideration into account in their assessments. Similarly, Hornsea One and Hornsea Two are basically alongside each other, and again, there is no consideration for this potential kind of additional impact that Natural England is seeking here, and the list goes on.

00:14:14:09 - 00:14:45:23
There are plenty of wind farms all around the UK for which this is already the case, so we don't consider this to be an additional source of impact. Moreover, we disagree fundamentally on the scale of likely displacement impact, um, evidenced in the different rates of displacement and mortality which we advise. Um, as you alluded to, the 50% displacement and 1% mortality, for example, as opposed to Natural England's much higher range that they advocate.

00:14:46:09 - 00:15:22:22
And this is based on evidence conducted at operational wind farms. I was the lead author on a study conducted at the Beatrice Wind Farm in Scotland, where we actually looked specifically at the rates of displacement for these species, these auk species, from an operational wind farm, and we could find no evidence to indicate that there was any displacement occurring during the breeding season for these species. Um, Natural England has repeatedly said that they don't agree with this study, for reasons which we have responded to already in this examination, to say that we believe those reasons are false.

00:15:22:24 - 00:15:59:28
They have not properly understood the full implications in the study that we conducted, um, and have instead drawn information from other projects which are rather more dated. And, uh, fundamentally, I think have some problems with how the data were collected, which means that the results are less reliable in this matter. So overall, we do not consider this to be a robust additional requirement that Natural England are placing on the projects, and that there is no likely additional impact over and above, over and above the much smaller one that we consider appropriate.

00:16:01:21 - 00:16:13:07
Okay. Thank you. So can I take from that that do you do you believe that if you were to undertake that assessment, there would be no notable difference to the EIA conclusions?

00:16:14:20 - 00:16:24:20
Um, I don't think that would be the case. No, I think if if we were to undertake it in the manner that Natural England has requested we undertake it, it would increase the impact.

00:16:26:04 - 00:16:31:27
So would you be prepared to do that and submit that into the examination for consideration.

00:16:32:29 - 00:17:00:17
I think I would first want to discuss this matter, I think, with Natural England, because at the moment we don't have a clear idea of actually how they would like us to do that. They have merely asked us to take this into consideration. Um, and I fear that we could do that and, uh, not do it in a manner that they were, uh, happy with and that we would end up having to do it again. So I think it would be more appropriate to find out from Natural England precisely what it is they would like us to do.

00:17:02:08 - 00:17:33:02
Okay. If we could take that as an action point, please. I think given given that you have said that this analysis may well impact the results of the EIA conclusions, even though you've said that you do not necessarily agree with Natural England's approach. Um, if we could take an action point, please, for the applicants to discuss this further with Natural England and discuss whether an assessment could be undertaken, um, according to their proposed approach, um, And whether that could then be submitted into the examination.

00:17:34:20 - 00:17:35:11
Thank you.

00:17:39:00 - 00:18:08:18
So let's move on to collision risk now. So for completeness and for clarification, the applicants have stated that they've undertaken the collision risk modelling using Natural England's advice in rep 3027. And it appears that a number of collision risk issues have now been resolved, which is shown in the latest risk and issue log from Natural England, which is Rep 360. So are the applicants aware of any outstanding issues in relation to collision risk?

00:18:10:09 - 00:18:11:03
Mr.. Mr..

00:18:11:05 - 00:18:20:02
Trinder um, Mark render for the applicant. No, I'm not aware of any remaining sources of disagreement in terms of the collision risk estimates now.

00:18:20:26 - 00:18:31:12
Okay. Thank you. And can we take an action point, please, for Natural England to confirm? Um, also confirm whether they believe there are any outstanding issues in relation to collision risk.

00:18:36:22 - 00:19:15:28
Okay. We're going to move on to the digital aerial survey. Um, so my last area of questioning regarding AI methodology relates to ongoing concerns from the RSPB regarding the applicant's digital aerial survey expressed by the RSPB in as 173. And they state that they have some ongoing concerns related to the potential bias in the survey and the analysis, methods and interpretation of the data. They are concerned that the applicant's QA process only goes some way to addressing their concerns, stating that no external validation has been undertaken.

00:19:16:24 - 00:19:29:12
So, would the applicants consider undertaking an external QA validation process and submitting that into the examination? Um, Mr. Boswell or Mr. Trinder. Thank you.

00:19:30:20 - 00:20:10:29
Uh. Shall I? I'll take this first. Mark Trinder for the applicant. Um, the aerial surveys were conducted, um, in the same manner that has become industry standard for at least ten years now. Um, I think in the early days of this technology, because obviously it was a new method as we moved away from using boat surveys, uh, there was a greater extent of, uh, independent checking of some of the and I think there's primarily the RSPB point primarily relates to, um, identification of birds in aerial in the imagery that they're collecting.

00:20:11:17 - 00:20:44:26
Um, and there was more checking done as standard. Um, and I think this essentially failed to find any significant biases that was present. And as a consequence, is no longer part of the standard practice that goes into it, because it. It became an unnecessary step. Um, the it's a little bit surprising that the that the RSPB is, is raising this as a, as an issue at this point because as I said, this has become a standard method that all projects use.

00:20:45:06 - 00:21:01:27
And the level of QA that goes into it by the aerial survey provider is, uh, as I understand it, extremely high. And this requirement for external uh is not understood to, to be a requirement, uh, at this time.

00:21:04:26 - 00:21:15:06
Okay. Thank you for your response. Um, if we could take an action point, please, for the RSPB to respond, um, to Mr. Schindler's comments on that point, please. Thank you.

00:21:16:03 - 00:21:51:01
If I could just follow up, mark, for the applicant just to say that in advance of these surveys being undertaken. This was all agreed with the Expert Topic Group, of which Natural England and RSPB are the primary sort of, uh, core members, if you like. And and no concerns were raised. All parties were happy with the proposed approach for collecting the data and the analysis methods that were proposed as well. So these comments from the RSPB have come subsequent to all of that agreement having been made.

00:21:53:04 - 00:22:01:20
Okay. Thanks for the clarification. Um, I saw the applicant's hand was raised. I do with the applicants. Like to comment.

00:22:03:15 - 00:22:08:19
No, doctor Trent has just covered the point that, uh, that we might have otherwise made.

00:22:10:24 - 00:22:11:15
Thank you.

00:22:15:28 - 00:22:24:00
Okay. I'm now going to move on to item 2.2 on the agenda, which is possibilities for further ornithological mitigation.

00:22:25:23 - 00:23:01:03
Natural England have stated in several places in its representations. That the proposed development alone is likely to have the highest impact on kittiwakes at the Flamborough and Filey coast, spas of all offshore wind farm projects to date, and therefore further consideration of mitigation is required to reduce the project's impacts. In addition, Natural England have challenged the effectiveness of two out of the three mitigation measures put forward by the applicants for birds outlined in the ES chapter 12, which is as 057.

00:23:01:24 - 00:23:49:15
So these are firstly the projects array areas being located at least 100km from the nearest seabird breeding colony at the Flamborough and Fly Coast Spar. But Natural England disputes that this is effective mitigation, as it states that the array areas are still within the foraging ranges of birds from the Flamborough and Filey Coast Spa. The second mitigation measure put forward by the applicants is that there would be a minimum blade tip clearance of at least 34m above the mean sea level. However, Natural England is asking the applicants to consider a larger air gap to reduce collision risk,

and the third term embodied embedded mitigation, is the use of shipping lanes and vessel movements to reduce potential impacts on red throated diver in the greater wash spar.

00:23:50:22 - 00:24:29:24
So the examining authority notes that the applicants have submitted an Ornithological Mitigation Option report as 118 into the examination. However, since then, Natural England has continued to request further consideration of mitigation options such as array reductions, changes to design and layout of arrays, or increasing the hub height of turbines to increase the air gap. The examiner authority notes the applicants have provided a detailed response to this issue, but for completeness and due to the fact that Natural England state that, if constructed, this would be the largest impact in wind farm on the Flamborough and Filey Coast Spa.

00:24:30:02 - 00:24:34:15
To date, I would like to take this opportunity to discuss these issues today.

00:24:36:14 - 00:25:08:21
So starting with the air gap. This matter overlaps with the HRA considerations discussed in detail in the alternative section of the HRA derogations case, which is AB 051, in which the applicants state that a larger air gap could potentially achieve the project objectives whilst having a lesser effect on kittiwake collision risk. But the applicant state that this was rejected as it does not support the commercial viability of the proposed development.

00:25:10:13 - 00:25:23:25
Um. Mr. Boswell. Can the applicants provide more detail on this statement as to why a larger air gap to reduce the potential effect on bird collision risk would not support the commercial viability of the proposed development.

00:25:28:03 - 00:25:33:08
Mr. Ledbetter is going to respond to that. Andrew Dempster.

00:25:33:11 - 00:25:34:21
Engineering manager for the company.

00:25:36:23 - 00:25:50:12
We have sought to understand the technical and engineering impact of the blade tip increase through studies with our expert design consultants. Increasing the wind turbine tower length

00:25:51:27 - 00:25:57:21
to reach, for instance, a clearance blade clearance of 40m MSL.

00:25:59:27 - 00:26:33:10
We've done this with three positions at DBS West Wind Farm to essentially represent shallow, medium and deep water regions of the site to consider what the impact would be. We've used The assumption of a large, but not the largest turbine that we would consider. So as a as a as an indication, the 276 metre rotor diameter turbine, which is well within our design envelope. Fundamentally, the problem is these two is the overall dynamics.

00:26:33:28 - 00:26:52:25
The offshore wind turbine structure changes. Um, simple way to picture this is, I guess, a having a thousand tonne nacelle and sort of a slender tower structure with the wind and waves causing oscillations, movements of the structure.

00:26:54:18 - 00:27:21:09
Frequency of oscillations drop as the height increases. And this essentially puts us closer towards a, um, resonant frequency of the structure, which we must avoid. Otherwise we have a structural issue in order to mitigate such issues. Now Our designers have considered amendments to the base case of identical design in order to adjust the natural frequency of sound structure.

00:27:23:06 - 00:27:27:14
Such amendments have included looking at the file diameters.

00:27:29:18 - 00:27:44:15
And the thickness ratio for the steel in the foundation with geometrical features such as the cone angle, which is where the diameter of the foundation changes from the small diameter to a bigger diameter within the seabed itself.

00:27:46:13 - 00:28:03:06
In order to meet the structural requirements and eliminate this resonance issue that we would otherwise have experienced is typically leads to an increase in the time of the foundation diameter by half a metre, and other adjustments to the geometry.

00:28:05:03 - 00:28:15:12
As I said before, it's worth bearing in mind that this turbine is not the largest turbine that We could consider from the project the impact. Increasing

00:28:17:02 - 00:29:00:00
the size of the turbine that we could be looking at. But the the overall conclusion is this assessment is showing that 28% increase its overall foundation steel mass across both projects, assuming DB's are very similar. Like I said, we have only DBS West. The reason for that project is more advanced in terms of early feed pre feed studies that we've been completing. There's no reason to expect this is very similar in the East, but 28% increase in total foundation steel mass is approximately 100,000 tonnes of steel with the value close to €300 million.

00:29:01:03 - 00:29:08:07
Now, we haven't looked at other costs on the wind turbine tower itself. Clearly the foundation

00:29:11:04 - 00:29:23:07
Other factors that you obviously need to consider are how is he and I approach to the project? So the heaviest foundation is typically the governing factor for foundation installation.

00:29:24:27 - 00:29:29:06
And in that case, the heaviest foundation is actually increased by 35%

00:29:30:23 - 00:30:01:06
to in excess of 3000 suns. And based on the original vessel assumption that we would expect to use for the project, for this turbine choice, it would no longer be possible just to reduce the weight of that foundation. We have to move to a different class of vessel, which are the next sort of scale really. We're moving into the oil and gas platform, relative installation vessel. And the cost could be €18 a day for that type of installation vessel.

00:30:03:24 - 00:30:33:18
Similarly for the wind turbines themselves, Styles. Increasing the heights limits the potential vessels that can actually lift the nozzle to the height required. There's only one installation vessel available at the moment that we believe can install such a turbine. Um, clearly increasing the height, um, probably makes it more risky. Um, and in this case, we actually said there'd be no vessels at the moment, but we believe the capable of actually installing outside.

00:30:37:01 - 00:30:52:00
Thank you. Um, I wonder if we could just bring up AI to diagram plate five four in the project description. Revision 31009. And bring that onto the screen, please.

00:31:03:03 - 00:31:03:24
Thank you.

00:31:05:25 - 00:31:44:12
So looking at this diagram, the maximum permitted height of the turbines and the draft DCO would be 394m. And the largest permitted rotor diameter would be 344m. So there's theoretically a 50 metre air gap between mean sea level and the tip of the blade, the largest rotor diameter. So why, therefore, have you said you will not commit to a larger air gap of 34m? Are the are the design implications that you've just referred to? Um, engaged by by increasing the air gap beyond 34m?

00:31:47:26 - 00:31:49:18
Without increasing the hub height.

00:31:52:21 - 00:32:13:29
We have included Andrew Leadbeater, engineering manager. We have included an allowance for the um, tip line to be higher. Obviously, we're considering the worst case. The parameters provided are indicative. There is an allowance here for flexibility in the future.

00:32:15:21 - 00:32:33:09
The maximum rotor blade diameter, um, that's been provided for the purposes of the assessment. Um, the governing factor is the overall swept area for the wind farm. That's the key factor obviously, for the bird, um, issue.

00:32:35:09 - 00:32:35:28
Okay.

00:32:36:10 - 00:33:11:03

So I'd like to draw a comparison to the Hornsea Four DCO, which has a minimum air gap of 37.72m above the highest astronomical tide, um, and is for up to 180 turbines using the same datum as Hornsea Four. You confirm in your response to the examiner authority written question 01.47 that the minimum lower blade tip clearance proposed is 32.4m above high astronomical tide. So this is 5.32m less than the minimum air gap in the Hornsea Four DCO.

00:33:11:24 - 00:33:29:09
So can you explain how the Hornsea Four project has been able to overcome these issues, to allow a greater air gap to reduce the impact on bird collisions with less turbines and maintain commercial viability? And why these approaches cannot be applied to the proposed development.

00:33:32:13 - 00:33:33:22
Mr. Boswell, thank you.

00:33:57:18 - 00:33:59:21
Impossible for me

00:34:01:25 - 00:34:31:24
I think the simple point on a question like this is that we aren't full, and therefore we don't know the detail, how it is that they reach the judgments that they have. And, um, it's it's not impossible for us to make a meaningful comment on, uh, on, on the question that you're asking because we, we don't have that information available to us to make the comparison.

00:34:35:11 - 00:34:46:25
Okay. Thank you. So is there not there for ample scope for the proposed development to have at least the same air gap as the Hornsea Four of 42.43m?

00:34:52:25 - 00:35:23:00
I think the short answer that has to be no. Um, we we've, as Mr. Leadbetter explained, there are a range of factors that are being balanced in considering this matter. Each project reaches its own judgment, uh, on that. And, uh, you can't simply conduct the kind of give me crude comparison that you're that you're inviting us to, to participate in.

00:35:23:07 - 00:35:49:24
Um, uh, the issues involved are very high stakes in multiple dimensions. They require the most careful consideration, and different projects reach different judgments. It just isn't as simple as saying, oh, well, they've they've done this. So every other project must be able to do it. Each project has has its own circumstances and its own point in time, and it's in its development.

00:35:51:15 - 00:35:59:22
I'm sure that there's an engineering manager to add as well. Or it's expected to be on a very different timeline. So.

00:36:02:00 - 00:36:13:02
They may well have chosen a turbine already. We're not party to that. They may well have proven viability of that. I'd like to call that a clearance that they've committed to.

00:36:14:26 - 00:36:37:18
So there are other, other factors at play. Um, generally the economics of the project will be very different to Dogger Bank South depending on ground conditions. Um, the nature of their export system, they may have more flexibility to accommodate cost increases in a way that perhaps DBS may not have. Very difficult to compare.

00:36:40:28 - 00:36:54:24
Okay. Thank you for your response on that. If we could take an action point, please, for you to submit, um, sort of detailed the detailed explanation that you that you gave earlier, um, into the examination, that would be, uh, welcome. Thank you. And you have your hand up.

00:36:54:26 - 00:36:55:13
Thank you.

00:36:59:19 - 00:37:00:20
Thank you.

00:37:07:09 - 00:37:08:24
Did you want to make a point?

00:37:12:26 - 00:37:48:05
Of the applicant. I mean, we were asked the very same question on East Anglia two, which was going through examination at the same time as projects like Norfolk Vanguard and all three. Um, and frankly, you know, that it comes down to, again, the very different conditions you got. We in that case, we were dealing with 40 meter water depth average up to 60m, whereas the other projects were referenced were in like 25m of water depth. So the, the the amount of steel required for the foundation before you even start to think about raising her height was in excess of 15m different.

00:37:48:07 - 00:38:22:27
So, as Mr. Leadbetter has already explained, there's a vast difference in cost between that. So it is it has been raised before on other projects and for other projects on East Anglia. I think we ended up with a 26 metre, um uh, draught height, which was far below what was the what the draft height was for the Norfolk projects, which were about 34 as well. So it's there there are very fundamental things here that you cannot look at things like water depth, things like ground conditions, which we don't know what the ground conditions are at once for.

00:38:22:29 - 00:38:36:29
We simply don't know that. So it isn't all about ships and and economics and all of that. There are fundamental underlying parameters here that we do not understand about the other projects that lead to the decisions that were made, individuals at each project.

00:38:40:11 - 00:38:42:17
Okay. Thank you for that clarification.

00:38:56:14 - 00:39:03:27

So can I just summarize from that? It's around feasibility rather than costs. Um.

00:39:07:01 - 00:39:19:00
Would you, would you say, is that a summary of your position? It's around engineering feasibility or is it around the cost of the of of of that scenario?

00:39:19:26 - 00:39:34:00
I'm afraid we're talking about hundreds of millions of pounds or euros here, and it just doesn't reduce to single adjectives. It's just a complex judgment. It simply isn't as simple as the way you're trying to frame.

00:39:37:21 - 00:39:55:07
Okay, so I'd like to finish this line of questioning by asking if you're absolutely sure that you've done everything possible to reduce the collision risk of impacts, uh, collision risk impacts and fully followed the mitigation hierarchy by proposing the maximum air gap possible for this development.

00:40:12:11 - 00:40:50:21
With the applicant. We have given this matter very careful consideration as of this delay, but as explained, this is a classic issue on offshore wind farms as it has been for a number of years, and the project has reached a settled position on this. And we will not be, uh. We are confident that we have gone as far as we can applying different factors in play, and we have no intention of increasing the air I got in the application in front of you.

00:40:53:09 - 00:40:55:09
Okay. Thank you for that clarification.

00:41:05:07 - 00:42:00:26
So I'm now going to move on to discuss foraging ranges as a mitigation measure. So there appears to be a continued disagreement between the applicants and Natural England as to whether the location of the proposed development array areas is regarded as an effective mitigation measure. The array areas would be located at least 100km from the nearest nesting seabird colony. And Natural England disputes that this is effective mitigation, noting that the standard mean maximum foraging ranges plus or minus one standard deviation as 8.7km for guillemot and 164.6km for razor bill, and they state that the East and West array areas would both be within these foraging ranges for both species, whereas the proposed location is fixed.

00:42:00:28 - 00:42:09:02
The point here is whether this location can be claimed as an effective mitigation measure. So how do the applicants respond to this?

00:42:11:26 - 00:42:12:22
Mr. Trinder?

00:42:15:16 - 00:42:49:18
Um, thank you much for the applicant. I will respond in terms of the definitions of appropriate foraging ranges. Um, I not not with respect to the mitigations per se. I will allow the remainder of the

project team to to comment on that aspect. Um, but I would say that, uh, I think there is rather a lot of detail that goes into the estimation of seabird species foraging Shooting ranges, which is somewhat, um, overlooked in terms of the simple sort of.

00:42:49:20 - 00:43:24:27
Statement that the mean max plus one standard deviation, as Natural England advise us to use um with respect to guillemot, the actual information where this this comes from. This was a study conducted by the British Trust for on ethology. And they looked at, uh, all of the studies that had uh, tracking of these various species. This is using GPS tags and this kind of equipment. And, uh, from that information, they, they came up with these estimates of, uh, so the mean maximum and the mean and these are the sorts of ways of describing the information.

00:43:25:27 - 00:44:22:05
The mean maximum is the average of the furthest distance recorded in these various different studies that went into their, their review. Uh, and in the case of um, guillemot, there were in fact only, uh, I think 6 or 7 uh, estimates of the maximum distance that were recorded. And I think I'm just going to go into some of the detail on this, because I think it's actually quite informative as to, uh, the overall approach that Natural England tend to take on these matters in terms of precaution. So the, the six estimates now, bearing in mind, as you said, the wind farms are a minimum of 103km I believe is the closest distance, uh, on a map, but certainly for for sake of argument 100km, the the six values for guillemot of their maximum distance recorded across these studies were seven kilometres nine, 27, 44 and 65.

00:44:22:10 - 00:44:53:29
And then one last one 338. And I think it would be fair to say that that final figure, uh, would very easily be classed as an outlier. And in fact, in the review, uh, the, the BTO authors, um, do make this very clear and they say that the foraging range in that one was unusually high. And in fact, it was the same for several species that were conducted at the same time. This was a study at Fair Isle, located halfway between Orkney and Shetland, and it was in.

00:44:54:01 - 00:45:28:15
The study was conducted in a year when the prey stock essentially collapsed and there was no food for these species to, um, to provide to their chicks. And so the birds were obviously undertaking rather unusual behaviour. Um, and it's very clear when you take that and the study in question, this BTO study, Woodward et al, 2019, uh, they do actually provide a figure for the mean maximum range with that outlier removed, uh, just because they were clearly identifying that this was not necessarily an appropriate figure.

00:45:29:04 - 00:46:04:27
And, uh, and when you take that out, along with the the adjusted standard deviation, the wind farms are no longer within foraging range of guillemots. So using an appropriate data set to estimate this, even using Natural England's precautionary approach of this mean maximum. And to be clear, this is, as I say, it's the average of the furthest distance that these birds travel. And then the standard deviation added on top of that. Now Natural England describes this as a perfectly reasonable estimate of foraging range.

00:46:04:29 - 00:46:38:25
It is not that. And in fact, the Woodward study also makes it clear that this is a figure that could be used to identify potential connectivity, but does not represent the core areas that these species are using, which is much better represented by the average distance these birds are going. So it basically that that distance and you quoted it at the beginning of your point here, 153.7km for guillemot, their mean max plus one standard deviation that reduced it to 95.2km.

00:46:39:07 - 00:47:12:06
So this is this is now less than the distance to the wind farms. And and as I say, I emphasize that's a highly, uh, extended distance that doesn't actually represent what these birds are doing the majority of the time. It's fairly straightforward with, um, uh, sort of estimates of the species flight speeds and this sort of thing to work out that if these individuals were undertaking foraging distances of, of that foraging rate, trips of that sort of distance on any kind of regular basis, there simply aren't enough hours in the day for them to provide the food to their chicks.

00:47:12:08 - 00:47:46:23
They can't fly fast enough to fly that far on anything but a very occasional basis. So and I've gone through in detail there for guillemot, it's a very similar story. For Razorbills, the distance doesn't does still encompass just the edge of Dogger Bank South West. However, as I've stated, uh, these voting ranges are extremely precautionary. So the mere fact that it still does just encompass the wind farms doesn't change our position that that isn't a representative foraging distance for these species.

00:47:47:08 - 00:48:19:03
So I think there's a very strong argument to be made that including breeding season, uh, impacts for these species from Flamborough, uh, is simply inappropriate. The birds are not foraging there on any kind of regular basis because it's too far away for them to be doing that reasonably. Um, and this is this is sort of fairly typical of the kinds of precautionary, um, positions that Natural England adopt as one of the several bits that feature into the impact assessment.

00:48:19:17 - 00:48:52:03
And, uh, it it's the compounding of these, which is how we end up with, uh, what we would consider to be highly inflated impact assessments at the end of the day. Um, but I won't I won't go on further in detail on on on that aspect, because obviously you were asking about foraging ranges and I imagine the project team would like to discuss the mitigation bit, but I would just like to stress that that actually the the biology biology does not support the fact that actually these projects are within foraging range.

00:48:53:02 - 00:48:58:01
Okay. Thank you. Mr. Boswell, would you like to comment on that question?

00:48:59:27 - 00:49:21:13
Yeah. Doctor friend. It's just, um, very eloquently and compellingly explained why it is fair and reasonable to say that our location, um, is, uh, one of the mitigations here. Um, and I think he's made the point already, but, um,

00:49:23:06 - 00:49:59:21

as he's indicated and we put in a paper on the compounding of proportion, which you will have seen, this continues to be an issue for the way that offshore wind farms are assessed, and developers continue to be frustrated with a mindset that puts, um, excess proportion on every element and then aggregates it. And they continue to be frustrated by Natural England's persistent, uh, reluctance to address that point.

00:49:59:23 - 00:50:08:23
The aggregation point. They persistently, um, declined to address that head on, even though point is very powerful.

00:50:09:27 - 00:50:25:05
Okay. Thank you. Um, as Natural England are not here today, um, if we could take an action point, please, for Natural England to respond to these points that the applicants have made and Mr. Trend has made, um, on this issue. Please. Thank you.

00:50:26:27 - 00:51:06:22
We'll now move on to other potential mitigation measures. Um, Natural England consider that potential mitigation measures could be to identify high impact areas within the proposed array areas. And they state that they have requested further, that they request that further consideration is given to hotspot modelling to identify particularly high impact areas within the site to inform a rate reductions, um, which has not been provided. So I note that the applicants have responded to this in, um, the response to the first written question, 01.39, which is rep 302.

00:51:07:22 - 00:51:20:12
Could the applicants briefly summarize their response and explain why they've not included this as a mitigation option, and why the information requested by Natural England has not been provided? You.

00:51:26:18 - 00:51:27:03
Know.

00:51:27:20 - 00:52:19:08
Uh, Of the applicant. So as we state in a previous response, we did look at the data that were available and we did make the post pay stage. The changes that we made to the boundaries at the time reflected the consideration of data, than what were the what we knew about the sites, including consideration of the the survey data from the ecological surveys. The the critical thing was with that data is that birds are highly mobile and that there were very few evident patterns of abundance that we could point to when we were advising the RWA on this in terms of if you chop this bit of the site off, you will definitely be avoiding a hotspot.

00:52:19:10 - 00:53:01:16
The data did not really show that other than a point between the in in the middle of the two sites as they were at play. Uh, which now is the space between east and west where there was, uh, a consistent pattern. Uh, I think it was with the kittiwake, but other than that, the birds were all over the place. Uh, for the period of the surveys. And they would continue to be if we did another two years of aerial survey, it's highly likely that you would see distinctive patterns coming out of that, because the birds are going where they are, depending on where the prey is that day.

00:53:01:18 - 00:53:33:20
And, and also, and that is highly dependent on the day that you've flown the survey. So if you've flown the survey on Monday and you flew the survey on Wednesday, the birds would not be in the same place. So it's it's really difficult to try and undertake the that the what's natural is talking about or probably impossible. So we we identified one area that was seemed to be a clear area, and that combined with other information that was available on ground conditions, etc.,

00:53:33:22 - 00:53:48:08
led to the boundary changes that we applied at the post API. But beyond that, it really isn't feasible to undertake the kind of thing that Natural England's asking for it, asking for us to do.

00:53:49:00 - 00:53:58:24
Okay. Thank you for your response. If we could take another action point, please, for Natural England to respond to the applicant's statement on that potential mitigation measure.

00:54:01:17 - 00:54:31:25
So there's one more ornithological mitigation consideration to discuss, which is the potential impact on red throated diver at the Greater Wash Spa, um, mitigated through measures related to use of shipping lanes and vessel movements and potential seasonal restrictions on activities related to the exit pits, which Natural England consider could disturb the red throated diver, and this is probably best discussed in the next item on the agenda relating to ornithological HRA issues.

00:54:32:08 - 00:54:38:21
But suffice to summarise now that any advise further mitigation for this issue.

00:54:40:12 - 00:55:09:26
Um, so to finish this section on ornithological mitigation that Natural England consider that the proposed development would be the highest impacting windfarm to date on the Farnborough and finally coast with regards to impact on birds, and I note that you have identified the three mitigations, three main mitigations, but that Natural England have advised that given the scale of the impacts, these would not currently adequately address its concerns.

00:55:12:20 - 00:55:28:23
So in light of this, is there any further information the applicants would like to provide beyond what has been stated in the Ornithological Mitigation Options report and the HRA derogations case and the applicant's response to examining authority. First written questions.

00:55:34:01 - 00:55:56:16
Impossible for the applicant? No, I don't think there's anything specific that we that we want to say. We think we've put a very full case. I would just make the observation that on a project alone basis, the projects are not causing an adverse effect on integrity. This is all about, uh, cumulative or in combination effects.

00:56:01:06 - 00:56:52:15

Okay. Thank you. So we'll move on now to item three on the agenda, which is the offshore ornithology HRA. And we will start by considering um item 3.1 which is the Flamborough and Filey Coast Special Protection Area. So firstly item 3.1.1 considers kittiwakes. So we'll now discuss the population viability assessments, or otherwise known as PVA for kittiwakes. Natural England states in its latest Risk and Issues log at deadline 330 60 that it remains dissatisfied with the PVA undertaken for kittiwake at the Flamborough, Filey Coast Spa because it doesn't agree with the in combination totals presented, um, that the incorrect starting populations appear to have been used, and the inputs and outputs of the PVA have not been provided for review.

00:56:53:08 - 00:57:34:04
Um, and also they have concerns relating to the results of the PVA is undertaken. So taking each of these in turn. So we'll look at the in combination totals for the kittiwake at the Flamborough and Filey Coast Spey. These are lower than Natural England would expect based on the Sheringham and Dudgeon previous examination. The applicants have responded, confirming that they will review the kittiwake in combination table and update if necessary, a deadline for. So I note that the applicant's response states that they are of the opinion that as adverse effects and integrity has been conceded on this feature, that any increase in the in combination total would not change the assessment.

00:57:34:06 - 00:57:56:15
Conclusions. However, I'd like to understand if it would make a difference to the compensation calculation. Whilst the nomination totals for kittiwake at the Farnborough and Coast Spar may not make a difference to the risk assessment conclusions as adverse effects on integrity has been conceded. Would it not change the calculation compensation and therefore is relevant?

00:57:58:26 - 00:58:00:13
Uh, so, Mr. Trinder.

00:58:01:01 - 00:58:33:04
Yep. Uh, Doctor Trinder for the applicant. Um, uh, your apologies if I don't answer every single aspect of that question because there was quite a lot of information there. So I will do my best to remember. But if I've missed anything at the end, please correct me. Um, so this is, uh, with respect to, uh, drawing together the cumulative and, uh, for AIA and in combination for HRA totals across all windfarm developments to come up with the overall total impact estimate.

00:58:33:17 - 00:59:10:25
And, uh, this is, uh, this is a matter which is, um, uh, fraught with these kind of like sort of smallest errors because it can be quite difficult to keep on top of projects as they change and, uh, sort of retrospectively as these changes, which also kind of feeds back into things like avoidance rate for collision estimates, which means that all of the numbers get updated every so often. And, uh, I have gone back through and confirmed, checked all of the numbers and confirmed, uh, which ones I think are appropriate.

00:59:11:01 - 00:59:53:17
There were some very minor edits that I've made to some of those tables, and those will be part of resubmitted documents at the next deadline. Um, however, with respect to, uh, the applicant's, uh, position on this, um, in terms of the, the ultimately the compensation requirements, those are purely

based on the project's impacts, not the in combination, the in compensation total, uh, is the number that the Natural England determine as to whether or not adverse effect on integrity has been, uh, it can be concluded or at least, uh, cannot be, uh, discounted.

00:59:54:09 - 01:00:27:19
Um, however, once that that threshold has been breached, which happened for uh, Hornsea three and project subsequently to that um the the requirement to compensate is then just for the project alone. So it's only the impacts that we're ascribing to the project for which the project has to provide compensation. And this is why we say it doesn't really make any difference whether the in combination total is 450 or 453. It's the project's impact of whatever that number is.

01:00:28:01 - 01:00:38:15
Uh, and again, this is a source that we don't necessarily agree with Natural England, but but that's the figure which is that is required to be compensated for, not the in combination total.

01:00:40:18 - 01:00:42:24
Okay. Thank you for that clarification.

01:00:42:26 - 01:00:43:11
Yeah.

01:00:47:26 - 01:00:54:07
Did we just take an action point please, for Natural England to respond to that as well if they would like to.

01:00:56:09 - 01:01:35:03
Okay. So the incorrect. So we'll move on now to the second point that they made, which was the incorrect starting population appears to have been used. So at deadline three, Natural England continues to state that an incorrect starting Population has been used, while the applicant state that the correct values have been used. So this continues to be another one of the agree to disagree situations. Um, so is a sensible approach. Uh, to obtain calculations using both parties suggested starting values and then to understand what degree this parameter impacts the outcome of the assessment.

01:01:35:17 - 01:01:49:10
So could the applicants confirm whether they would submit an assessment using Natural England suggested values alongside their own, to provide and provide commentary as to whether this impacts the outcome?

01:01:50:22 - 01:02:26:09
Uh, for the applicants. Um, I'm going to need to correct you there. There isn't any disagreement on this. We have used the starting population. The Natural England have requested us to. However, they do not appear to have seen that we did that. Um, and it was in the revised assessment. Uh, apologies. I can't remember exactly when that went in, uh, for. But it was the revised assessment that was submitted prior to Christmas. Um, we we updated that, uh, the starting value, initial population as, uh, natural language requested.

01:02:26:12 - 01:02:42:03
We have also, um, uh, contrary to Natural England statements, provided all of the input parameters for those PVA models and they're all there. There was an appendix to the rear, um, that included, uh, all of these, uh, all of this information.

01:02:44:14 - 01:02:46:18
Okay. Thank you for clarifying that.

01:02:48:24 - 01:02:52:15
If we could just take another action point for naturally to respond. Thank you.

01:02:53:06 - 01:03:26:22
Uh, can I just follow that up and say that, um, because of the, uh, fairly minor, uh, updates to some of the in combination totals that I alluded to, uh, in my previous question. Uh, previous answer. Um, I have actually rerun the PVA again. Those aspects of the inputs are not not changed, but some of the, uh, the impact, uh, that are, um, uh, have updated. So there will be another revision to those PVA. But I hasten to add that it's nothing to do with these points that you have raised.

01:03:26:24 - 01:03:33:25
Now it's just to cover off, uh, some of the additional requirements Natural England are placed on us for those PVA models.

01:03:34:22 - 01:03:35:09
Okay.

01:03:35:14 - 01:03:36:26
Thank you for confirming that.

01:03:48:09 - 01:04:24:12
Okay. Moving on now to the consideration of realistic assessments of current and future seabird population trends, including density dependence considerations in the PVA. So this has been brought up by Natural England in its relevant representation Presentation and its risk and issue log point. GE 4962. In rep 360, Natural England is requesting the need to consider future realistic seabird population trends, rather than assuming the same growth rate will continue over the next 30 years.

01:04:25:00 - 01:05:00:16
The applicant state that Natural England's standard advice is to omit density dependent regulation within the PVA, but Natural England has suggested the applicants consider submitting a range of potential future growth rates. Um, as Sheringham and Dudgeon did so I note that the applicant stated in their response that this would be very straightforward, and that was in rep 3027. So therefore, I'd like to understand if the applicants would consider submitting this as a pragmatic way to resolve this particular issue.

01:05:04:11 - 01:05:38:15
Doctor Trinder for the applicants. Um, I think just to to comment on that, uh, point to you raised there that we said it would be a straightforward issue that was with respect to actually running the models,

including density dependence. Um, our position on this matter is that, um, Natural England has taken, uh, what what I think we would, uh, describe as a contradictory position in this matter. On the one hand, uh, they do not advise applicants to include density dependence in their population models.

01:05:38:18 - 01:06:14:00
And just for the sake of anybody who's not familiar with the ins and outs of seabird demography and how we model them. I will just quickly, uh, digress into that. Density dependence is the natural, um, uh, sort of feedback mechanisms present in all, uh, wild populations, which prevents the populations growing, uh, without any limit. And so these are things like prey resources and availability of partners for breeding. That mean that that population simply can't grow indefinitely because they begin to compete for those, those resources.

01:06:14:03 - 01:06:51:06
And this is a self-limiting feedback that occurs. It's pretty straightforward to include these in the PVA. The PVA model includes um, the possibility to do this. However, Natural England's position is that we don't have, uh, the specific detailed information for the colonies in question. So in this case Flamborough and Filey coast, um, to uh, to be able to, to, uh, stick the right values for the parameters into the model, um, at this position somewhat overlooks the fact that we do have this information for seabird populations more generally.

01:06:51:19 - 01:07:25:12
And furthermore, there are ways that we can approach this problem. Uh, the fact that we're not entirely sure what the numbers might be, and we can make some, some fairly sort of robust and simple assumptions about how it might operate and undertake the modelling in that way. Um, so having having taken this position, Natural England stating that that we're not to use these density dependent models for the reasons as noted, um, even though it's fairly straightforward to do, uh, they then turn around and say, yes, well, we know that these models are wrong.

01:07:25:22 - 01:08:03:04
And, uh, and so we want you to consider how the results are wrong in relation to what we think might actually happen, as opposed to just admitting that actually a density dependent model would be the best solution all round, because it would capture this information, and we wouldn't need to try and force a square peg into a round hole, which is, in essence, what Natural England are asking us to do. So this is essentially the reason why we consider this to be a, um, uh, an inappropriate piece of advice from Natural England, and they are largely asking us to.

01:08:03:06 - 01:08:08:00
To combine apples and oranges. And this is not an appropriate way for the assessment to go.

01:08:09:03 - 01:08:09:23
Okay.

01:08:09:25 - 01:08:17:12
Thank you for your explanation. If we could take another action point, please, for Natural England to respond to that deadline for. Thank you.

01:08:24:20 - 01:08:33:08
So we're going to move on in agenda now to kittiwake compensation quanta for the potential adverse effects on integrity at the Flamborough and Filey Coast Spar.

01:08:35:10 - 01:09:06:20
So for calculation of the compensation quanta the Secretary of State will need to decide values of displacement, mortality and apportionment and then consider the compensation calculation method. So either the Hornsea Three or the Hornsea Three stage two or the Hornsea Four method, or any other approach they think most applicable to this case and also consider the compensation ratio to apply to the displacement. Displacement and mortality values have already been considered in this hearing.

01:09:07:12 - 01:09:40:01
Um, so now, considering the apportionment of the kittiwakes to the Flamborough and Filey coast Spey, the applicants have agreed with Natural England to apportion 100% of the kittiwakes in the array area to the Flamborough Coast, Spey, and are not contesting this point. So the remaining parameters to consider are the compensation calculation method. So either the Hornsea Three or Stage two, or the Hornsea Four method and the compensation ratio to use either a ratio of 1 to 1, 1 to 2 or 1 to 3.

01:09:40:27 - 01:10:13:04
So the important factor at this stage of the examination is to um, is whether we have the full matrix of compensation values submitted into the examination using these different parameters along with both parties justification for the choice of the parameters, so that the examining authority can make a recommendation, and the Secretary of State can ultimately make a decision. So the applicant set out impacts and the compensation requirements in the Community Rate Compensation plan, which is.

01:10:13:06 - 01:10:17:18
Table five one of Rep two zero ten. Um,

01:10:19:10 - 01:10:34:03
I understand that an updated table five one has just been submitted into the examination, which is ref uh reference as 174. So can we bring this up on the screen, please?

01:10:47:13 - 01:10:54:29
Thank you. So first of all, can we can the applicants confirm why there's been a change to the numbers in table five one.

01:11:03:02 - 01:11:36:21
There was a mistake in the previous version of this, in the way that the, um, the DBS East and DBS West figures together for that. Um, for the upper 95 confidence interval have been combined. So it was just a misunderstanding, uh, when putting this document together so that those numbers weren't incorrectly placed. The main numbers which appear not in brackets were correct, and then the upper 95 were incorrect.

01:11:36:24 - 01:11:57:15

So the numbers that, uh, will appear in the next version of this document be submitted at deadline for the match. The figures that were in the precaution document, which went in a document deadline three, which is where we picked up this error when we were preparing that document. So the numbers will be consistent.

01:11:58:01 - 01:12:00:01
Okay. Thank you. Um,

01:12:01:16 - 01:12:17:13
and this table represents the ratio of 1 to 1. So can you confirm which document presents a table that shows the predictions for the compensation quantity using ratios 1 to 2 and 1 to 3 across the full range of outputs for table five one.

01:12:23:19 - 01:12:50:24
For the applicant. Um, yes. So that is the place that we've presented the ratios to date has been in the precaution document, which shows that all in tabular form, the 2 to 1 ratio is incorporated within the text of the compensation plan. And when we update the documents for deadline, we'll make sure that those are updated both in the text and in the table as well.

01:12:52:02 - 01:13:09:02
Thank you. I think that'll be very useful to have have these in the same, in the same place. Um, as you suggest. So if we could make sure that in the next iteration that the table does include the 1 to 2 and the 1 to 3 ratio as well, that would be very helpful. Thank you. Can we take that as an action point, please.

01:13:13:29 - 01:13:21:29
Okay. So moving on to the kittiwake compensation plan and the proposal for the offshore artificial nesting structures.

01:13:26:03 - 01:14:09:00
The latest kittiwake compensation plan submitted into the examination is appendix one to the report to inform appropriate assessment or the rear wreck two zero ten, which was submitted in February. And Natural England remains concerned that the artificial nesting structures proposed by the applicants may not have sufficient nesting spaces. If the Secretary of State were to decide to use the most precautionary calculation method as that whilst the applicant is presented the level of compensation required according to both the Hornsea Three and Hornsea Four approaches, only the Hornsea Four values have been carried through for consideration of the provision required to ratio greater than 1.1.

01:14:14:24 - 01:14:27:09
But as we've discussed that you're going to present that table five one into an updated version at the next deadline. At ratios 1 to 2 and 1 to 3, which will be helpful.

01:14:34:20 - 01:14:42:22
So taking the most precautionary scenario in table five one. So if we could just perhaps put table five one up again so I can see you've got your hand up.

01:14:46:09 - 01:15:21:04
Yeah. Just to clarify, obviously that Natural England informed us that they were had commissioned a review by BTO of the methodology for this. Uh, so at the moment, the position or their position on Hornsea Three and whether or not that is an appropriate, um, methodology for this is is in flux. Uh, we understand that they have received the Vito's report on this, but we are unsure as to whether what the timescales for Natural England are actually submitting that evidence into examination.

01:15:21:06 - 01:15:32:07
We spoke to Natural England last week about this and that was that position. So, um, obviously they will be providing that as soon as they possibly can into examination as my understanding.

01:15:33:24 - 01:15:35:01
Okay. Thank you.

01:15:46:00 - 01:16:01:11
So just going back to the number of artificial nesting structures that you're proposing. So as discussed earlier in the hearing, if the Secretary of State were to decide the 3 to 1 compensation ratio was appropriate.

01:16:03:05 - 01:16:19:17
The comp this table shows the 1 to 1. So the compensation would be the largest value on that table, which is 2086 multiplied by three, which would be 6258 nesting spaces. Do you agree with that?

01:16:21:06 - 01:16:23:06
That a ratio of 1 to 3.

01:16:25:03 - 01:16:26:02
The applicant.

01:16:26:14 - 01:16:56:17
Um, the Ann's topside design is actually scalable up to the point of fabrication. And what this means is that the number of nesting spaces that can be housed within the structure, um, can be increased up until the point of final compensation quantum. Um. This gives us flexibility and confidence that a single structure provided by the applicant could sufficiently provide the necessary compensation requirement.

01:16:59:23 - 01:17:00:17
Okay.

01:17:02:29 - 01:17:12:29
So would your proposed artificial nesting structure be able to provide the maximum number of 6258 nesting spaces?

01:17:16:09 - 01:17:40:15
Um, we're not actually aware of the upper limits at present, but we understand from engagement with our foundation engineers that the foundation would be capable of supporting a structure which would

be able to contain a fairly significant amount more of nesting spaces. Um, but this hasn't been confirmed and will need to be subject to further investigation.

01:17:42:22 - 01:17:52:08
Okay. In your comp plan to date, I believe that you've given an upper value of 5500 nesting spaces.

01:17:54:06 - 01:18:08:28
Can you confirm whether that's accurate? You've just said that you could. You don't have an upper limit. So how does that tell you what you've put in the current kittiwake compensation plan?

01:18:09:25 - 01:18:46:06
Any more for the applicants? Um, that number originates from the Crown estates around for strategic kittiwake compensation plan, where an envelope approach has been taken to estimating the nesting requirements for the welfare projects, which is in this case at Dalhousie and the applicants project. Um, our calculations have been undertaken based upon the applicant's Atkins position towards recreation methodologies and the same for our citizens.

01:18:46:08 - 01:18:53:11
We've used their numbers as provided within their compensation plans, which also align. We believe with three and four.

01:18:57:25 - 01:19:21:20
Okay. Thank you. If you could please take an action point to submit in to the examination at deadline for, um, your position on this, please, stating whether or not you would be able to provide sufficient nesting spaces to meet the most, uh, conservative estimates of compensation required.

01:19:23:07 - 01:19:30:19
Um, as you've just stated. So if you could take an action point, please, to submit a written statement on that at deadline for.

01:19:31:18 - 01:19:33:07
To come back to three.

01:19:35:24 - 01:19:39:17
Do you have anything else you wish to say on this point this morning.

01:19:40:14 - 01:20:09:26
Everyone. The applicants. We intend to submit an updated version of the project level compensation plan at deadline for. So this will be addressed there. And furthermore, we are unsure of the relevance of the Hornsea Three method at present, given Natural England's position regarding, um, lack of confidence and transparency for this measure, and therefore the referral of the case to the British Transport Authority.

01:20:13:02 - 01:20:15:02
Okay. That's noted. Thank you.

01:20:20:29 - 01:20:35:24
So I'd now like to move on just to discuss, uh, plans, the plans for kittiwake compensation to to discuss the latest regarding site selection and locations of the offshore kittiwake artificial nesting structures.

01:20:37:12 - 01:20:44:20
So could we bring up figure six three? In the compensation plan please, which is rep two zero ten.

01:20:51:08 - 01:21:13:15
Thank you. Could the applicants briefly explain the specific reasons for the elimination of the three originally shortlisted sites that have now been discounted? Those are sites five, sites F and the North West. And also point out which remain as potential sites. Thank you.

01:21:15:15 - 01:21:46:19
The applicant. So there are a number of factors which fed into the elimination of these sites. And these weren't all mutually exclusive at each of the sites. They were quite often led within the sites. Um, so primarily these were related to engineering constraints. Um, in some areas that were ground conditions which were unsuitable for the development and installation of foundations, for example, if there was bedrock within the foundation depths. In other locations there were mobile beds.

01:21:46:21 - 01:22:26:19
Which ones whose? Both the installation of an offshore structure. Um, further to this, there were navigation and risk issues within some of the areas of search. Um, and further to that, they were also considered to be some health and safety issues considered with isolated location and distance from project infrastructure and safe harbour for some of the areas such as area F um, there were also limited opportunities for development within some of the areas where there were, um, suboptimal water depths, um, which created significant engineering challenges.

01:22:27:09 - 01:22:36:21
Um, this would all be summarised on a side by side basis in provision Proficient five at the project level, getting a compensation plan which will be submitted at deadline.

01:22:42:17 - 01:23:16:05
Okay. Thank you. That would be very helpful for you to set that out in that deadline for. Thank you. Natural England have stated and there that I'm three submission appendix H three which is rep 305455. That site six A is in close proximity to the area of search. Um that could be taken forward by Outer Dowsing Offshore Wind farm and therefore advised that consideration should be given to the added ecological resilience of having two artificial nesting structures in different locations.

01:23:16:14 - 01:23:20:06
So how do the applicants respond to this comment by Natural England?

01:23:23:02 - 01:24:10:26
Or the applicant? Um, each of the shortlisted candidates sites assessed are considered to be ecologically viable and suitable. So with that in mind, the next step in terms of priorities for the applicant is ensuring that the sites that are taken forward or the site that is taken forward is deliverable

from the terms. In terms of engineering and logistics. So those are the factors that will be prioritised. Um, and the applicant also understands that there is no ecological reason that the structures would not would be any less successful being within the distances of approximately 12 and 20km apart, which they would be should an inner structure be placed within an area.

01:24:11:06 - 01:24:11:21
Okay.

01:24:15:28 - 01:24:17:02
Okay. Thank you.

01:24:23:15 - 01:24:33:24
So, can the applicant confirm when there will be a definitive final location for the proposed artificial nesting structure submitted into the examination. Thank you.

01:24:36:00 - 01:24:57:19
The final candidate site will be selected following the completion of geophysical surveys, which are due to start imminently, I believe, this month. We anticipate that we will have a final site to submit with our marine licence application before the end of examination in June or July.

01:25:02:08 - 01:25:04:23
So will that be before the end of the examination?

01:25:05:20 - 01:25:07:11
Well, the applicant. That's correct.

01:25:07:17 - 01:25:08:23
Yes. Thank you.

01:25:12:17 - 01:25:45:26
So one last point on this item. Um, I'd just like to briefly discuss the plan delivery of artificial nesting structures collaboratively without a dousing. So I understand that the applicants have now committed to deliver a single project led artificial nesting structure, with a second artificial nesting structure to be delivered by outer dowsing. And the current plan is to deliver the artificial nesting structures collaboratively. But the applicants have confirmed that this could be delivered independently if required.

01:25:46:00 - 01:25:59:20
So could you just clarify the latest position on this, please? And if there are any updates, um, on this plan to deliver the kittiwake compensation that the applicants would like to make at this stage?

01:26:02:04 - 01:26:38:26
The applicant I can confirm that a memorandum of understanding has now been signed by the applicant and our starting offshore wind. This collaborative agreement has allowed the both parties to, um, outline apportionment of nesting spaces and the associated compensation that comes along with

that. It's also enabled the parties to share details regarding design, logistics, monitoring and maintenance of the structures, which should help create efficiencies for both parties.

01:26:39:04 - 01:26:54:04
The intention remains that the applicants will deliver their own options and advertising will deliver their own offshore honours, and there will be apportioned nesting spaces for the respective parties on each individual structure.

01:26:59:02 - 01:27:04:09
Okay. Thank you. So. Will you be submitting further documentation at deadline for on this?

01:27:06:28 - 01:27:28:19
The applicant. Due to the commercially sensitive nature of the Memorandum of understanding, we won't be able to submit this, but we plan to update the outline kittiwake compensation, compensation implementation and monitoring plan in due course and where we can we will share. um, information on the delivery mechanism. Delivery mechanism for collaboration.

01:27:30:18 - 01:28:07:25
Hey, thank you for confirming that. I'd just like to move on now to to briefly discuss the number of breeding seasons in advance of first operation for these artificial nesting structures. Um, the Natural England and the RSPB stated opinion um which is in appendix H three at deadline three um and RSPB recent submission which is 366 um is that there's a significant amount of time is required to achieve the required level of compensation, and the delay in installation is likely to lead to an equivalent delay in full compensation delivery.

01:28:08:26 - 01:28:14:26
Um, how are they disagree that there is therefore little biological relevance for the four year figure?

01:28:17:26 - 01:28:28:00
So RSPB maintains that four breeding seasons is required to allow for the uncertainty involved in successful outcomes to compensation measures.

01:28:31:11 - 01:28:58:24
I understand that your latest proposal is to reduce this from 3 to 2 breeding seasons in advance of the first operation, but I also note that Hornsea Four is now able to meet the requirement of four breeding seasons in advance of first operation. So I'd like to understand a bit more fully why you have proposed a reduction from 3 to 2 breeding seasons in advance of operation. Thank you.

01:28:59:21 - 01:29:40:02
Animal. The applicant. Following the latest site selection work undertaken in regard to the offshore. And as we were able to take a review of the detailed delivery programme for the INS, um, and during this review, it became apparent that it would be extremely challenging to deliver the structure ahead of approximately Q4 2027. There are a number of factors that feed into this, which include the final parts of the site selection work, including the surveys, and then following this, the detailed design phase at the top side and foundation.

01:29:40:13 - 01:30:17:02
We would need to then undergo a procurement to identify the appropriate contractor to fabricate the structure itself. Um, this would then involve, um, humans of materials, including steel, to build the structure, following which the structure would be built and then would need to be transported. So it is not through lack of ambition that the applicant cannot deliver the offshore urns. Um, within four breeding seasons. It's due to, um, appropriate care and diligence being taken in each of these steps to ensure that this is done correctly.

01:30:19:12 - 01:30:29:13
Okay. Thank you. If you could submit your reasoning on that into the examination at deadline for then, please, that would be appreciated. Thank you.

01:30:38:26 - 01:30:46:09
So finally, uh, before we break, uh, I can see you have your hand up. Yes. Mr. Russell, for the applicants.

01:30:48:07 - 01:31:19:12
Of the applicants. Um, yeah. So we will just to clarify, we will we note the comments that Natural England has made on 2060, which was the paper on breeding seasons. Uh, and we'll be updating that document for deadline for, I think just to highlight that that document showed, depending on the, uh, parameters that you put in, we were achieving compensation, equivalent compensation to the mortalities between 14 and 36 years.

01:31:21:07 - 01:31:52:22
So that that gives you kind of the range within which we would achieve success. Um, therefore, and that is the basis on which we're saying that the, the four years is somewhat irrelevant. I think if you look historically at where that four years comes from, it does come from the breeding, uh, behaviour and demographics of kittiwake, but also on some of the earlier projects where compensation came in, there was a realistic chance of achieving the compensation contour.

01:31:52:24 - 01:32:24:02
If you think about East Anglia one, North two, where we had 1.7 and 0.7 kittiwake mortalities on those projects. It was reasonable to achieve compensation by a point either comes operation or quickly after. And that's where that period comes when we move into the the quantum of mortalities that we have, It's less achievable. It's obviously not achievable within those four years and goes to much more. So it becomes, in our opinion, less relevant.

01:32:24:04 - 01:32:40:18
And that's where we're coming from with this point is kind of less relevant when we're looking at it's going to be 14 years post, you know, post installation of this device before it's achieving those numbers. That's where that is coming from really.

01:32:41:09 - 01:33:16:20
Well I add three point to that. Any more. The applicant um, another position where that four years may be somewhat irrelevant is that the applicant has already installed an onshore artificial nesting structure at Gateshead. Um, by the time of earliest operation, this will have been in place for seven

full kittiwake breeding seasons. Um, and we consider that there is capacity for this structure to deliver um compensation, which may offset sufficient mortality debt, um, with reduced breeding seasons ahead of fast operation.

01:33:20:17 - 01:33:21:02
Okay.

01:33:21:06 - 01:33:22:00
Thank you.

01:33:24:19 - 01:33:38:05
Could we take an action point, please, for Natural England to comment? Um, if they would like, on the applicant's statements on this topic. Thank you. And the RSPB as well, if they would like to.

01:33:40:24 - 01:34:10:26
Do finally, before we break. Um, I'd just like to refer to Natural England's Commission methodology review by the British Trust for ornithology. If this is published in time prior to the end of the examination, the applicants have confirmed in rep three zero 30 that they would apply this methodology to their data and amend relevant documents. How long would you need for this, and how likely is it that this information will be submitted within the examination time frame?

01:34:15:29 - 01:34:52:13
Probably solid for the applicant, but they said that we would review that information and apply it assuming that we agreed with it. Um, but if you check the exact wordings, but it it's really up to when Natural England actually get around to submitting that. Obviously they've got their own review processes etc. to go through. Um, but in terms of unless it's something that's radically different from what has been presented so far that, you know, they're all relatively straightforward formulae, so it shouldn't be a big deal to update those numbers.

01:34:52:15 - 01:35:10:16
But again, I would just caveat that with we would want to look at that and understand the underlying assumptions within that before we, uh, wholeheartedly adopted it. It would be more likely that if we were to present that we would continue to present that alongside 24, unless it was exactly showing exactly the same thing. Of course.

01:35:12:27 - 01:35:25:27
Okay. Thank you. If we could take an action point, please, for Natural England to respond to that. Um, and, yeah, consider what the applicants have said in terms of when they may be submitting this information into the examination.

01:35:27:15 - 01:35:34:28
Okay. I think that's probably an appropriate point for a break. Um, so I'll just hand back to Miss Abramsky to adjourn. Thank you.

01:35:36:06 - 01:35:47:14

Thank you. Uh, the time is now 1105, and I would suggest we take a 15 minute break and come back at 1120. Is that okay for everybody?

01:35:49:00 - 01:36:04:04
Assuming so. Well, we are adjourned. Can I ask that all participants, uh, turn off the cameras and mute their microphones? Those people watching the live live stream will need to refresh their browser. This meeting is now adjourned, and we will be resumed at 1120.