

**Boston Alternative Energy Facility –
Examining Authority’s third round of written questions and requests for
information (ExQ3) Issued on 15 February 2022**

Eastern IFCA Comments for Deadline 7, 1 March 2022



There is a question within document Examining Authority’s third round of written questions and requests for information (ExQ3) (Q3.10.0.25) which is of significant relevance to Eastern IFCA. This question was addressed to “Eastern / North-Eastern IFCA”, and contains text “*Confirm whether you have been consulted by the Applicant regarding their application and whether you have any concerns?*”.

Below is the Eastern IFCA (EIFCA) response to that question.

The proposed facility lies within the district of Eastern IFCA, which extends from The Humber to Harwich, and six nautical miles out to sea from the high water mark. As many of the activities associated with the proposed project, and potential impacts arising, either happen in or could impact upon that area, we consider it appropriate for Eastern IFCA to comment.

Eastern IFCA was contacted by the applicant in 2019, when they provided a copy of the Preliminary Environmental Information Report (PEIR). We examined and commented on that document, sending an email on 27th September 2019 which contained our comments, identification of concerns, requests for further information, and request for information as to the outcome of our response. The applicant acknowledged receipt of this document by email on the same date.

Eastern IFCA was contacted by the applicant’s consultants, Royal Haskoning DHV on 16th February 2022, requesting a meeting to discuss the application. This meeting was held on 22nd February 2022. On 23rd February this year, EIFCA received an email from Royal Haskoning DHV which included an attached document “Response to Eastern IFCA”. That document identified that concerns and questions raised in EIFCA’s September 2019 response to the PEIR had been addressed in the Environmental Statement (ES) Chapter 17 Marine and Coastal Ecology (document reference 6.2.17, dated 23 March 2021), and included a table summarising each concern.

This Table is reproduced below, with additions –

- Within column headed “Chapter Section Where Consultation Comment is Addressed”, additional text in red is as supplied by Royal Haskoning DHV in their communication of 23rd February 2022 to provide further insight or identify where further information has also been submitted to the DCO Examination that is of relevance to each point.
- Addition of column headed “Eastern IFCA comments for Deadline 7” which contains the Eastern IFCA comments in light of information provided by Royal Haskoning DHV in their communication of 23rd February 2022.

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<p>Section 42 Consultation Response – Eastern IFCA, 6th August 2019</p>	<p>(1) Eastern IFCA consider that the potential for cumulative impacts from the Project and nearby industrial sources should be fully considered. The combined effects of airborne emissions from different sources and discharges (e.g. washing out of clay delivery vessels, release of sodium hydroxide-dosed water) into the river (Haven) and into The Wash should be set out for consideration. Also the combined effect of restrictions to navigation from the Boston Barrier (when operating) and the Project requires consideration in the navigation risk assessment.</p>	<p>Airborne emissions have been assessed within Chapter 14 Air Quality and potential impacts of these on marine and coastal ecology is covered under Section 17.8 of Chapter 17 Marine and Coastal Ecology.</p> <p>Note: The baseline includes all existing air quality sources with cumulative projects set out in Table 14-36 of Chapter 14 Air Quality.</p> <p>There is no direct discharge of water to The Haven of any sort with surface water being discharged inland to the surface water drainage system and discharge to sewer under licence for sewage.</p> <p>Navigation impacts have been addressed in Chapter 18 Navigational Issues.</p> <p>A Navigation Risk Assessment with specific regard to the fishing vessels using The Haven is provided in REP6-022 9.27(1) Navigation Risk Assessment (Clean) (planninginspectorate.gov.uk)</p>	<p>(1a) Re Airborne Emissions. Within Section 17.8 of Chapter 17 Marine and Coastal Ecology consideration begins on document page 131. Section 17.8.244 contains text “<i>..that moderate enrichment may be beneficial to plant communities within a saltmarsh. Nitrogen is typically a limiting nutrient in saltmarsh ecosystems and added nitrogen resulted in increased primary production and decomposition...</i>”, supported by papers from 1974 & 1983. A more recent paper “Deegan, L.A., Johnson, D.S., Warren, R.S., Peterson, B.J., Fleeger, J.W., Fagherazzi, S. and Wollheim, W.M., 2012. Coastal eutrophication as a driver of salt marsh loss. Nature, 490(7420), pp.388-392.” identifies that additional nutrient inputs can drive saltmarsh loss, due to increase in above ground vegetative growth and loss of below ground roots, leading to increased susceptibility to erosion. Eastern IFCA recognise the value of saltmarsh as a nursery habitat for commercial fish species, as well as for providing numerous other ecosystem services. Thus, concerns over the possibility of impacts to saltmarshes is in line with our remit. Whilst it may well be the case that nutrient inputs from the proposed plant would be lower than from other sources, they should be considered in the light of best available evidence, both in isolation and in combination. Therefore, we do not think that the assessment of “negligible” for Operation / Impact 5 (Increased emissions to air and deposition on marine and estuarine habitats) within Table 17- 43 (starting on document</p>

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			<p>page 150) is justified at this stage.</p> <p>Chapter 14 Air Quality contains table 14-9 “Critical Load Values for Nutrient Nitrogen Deposition in The Wash” (page 30 of document) which suggest a critical value of 20-30 kgN/ha/yr for several saltmarsh habitats. This table is seemingly unreferenced, and the source of this information seems not to be given.</p> <p>Table 14-22 “Construction Phase Ecological Impacts – The Wash” (page 51 of document) and table 14-30 “Operational Phase Ecological Impacts – The Wash” (page 62 of document) seemingly contain assessments of the predicted levels of various substances deriving from the proposed project in airborne emissions expressed as an impact per unit area. It is not clear what the abbreviations mean (“PC”, “PC/CL”, “% CL”, etc.) but it does seem as if there could be some levels which would indicate a requirement for deeper examination, if for instance a “PC/CL” of 6% for “NOx 24hr Mean (µg.m-3) indicates a likely increase in NOx level of 6% from the project alone.</p> <p>Especially in the light of Deegan et al 2012 (referenced above) Eastern IFCA would like to be assured that due consideration has been given to potential impacts arising from additional nitrate burden on sensitive habitats, both alone and in combination with other comparable pressures such as nitrogen loads in local freshwater sources draining into The Wash.</p>

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			<p>(1b) Re Surface Water aspects. Eastern IFCA's original comments related to the Preliminary Environmental Information Report referring to washing out of clay delivery vessels and release of sodium hydroxide-dosed water. We seek clarification now whether these activities will take place as a result of the Project, and if they will, whether their impacts have been duly assessed.</p> <p>We assume from the comments "<i>There is no direct discharge of water to The Haven of any sort</i>" that there will be no discharge of water from any of the processes involved without full treatment. If that is the case, we defer to the competent authorities such as the Environment Agency in respect of the suitability of and compliance with discharge consents. If that is not the case, we request full details of the potential discharges, effects and mitigation measures.</p> <p>(1c) Re navigation risks and impacts. Eastern IFCA raised the matter to ensure that the requirements of the fishery had been adequately considered, as well as to urge direct liaison between the Applicant and representatives of Boston fishermen. Eastern IFCA accept that the ultimate decisions as to safe operation rest with the Port of Boston, and regulations such as ColRegs. We recognise that the developers have produced a Navigational Risk Assessment (ref. PB6934-RHD-ZZ-XX-RP-Z-4040). We do not offer comment as to the suitability or otherwise of the measures therein, as this is beyond our remit. However, in keeping with the East Inshore and Offshore Marine Plan, we highlight that impacts from developments on fishing activity or on</p>

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	<p>(2) Similarly, impacts on seabed habitats from the Project's increased shipping through The Wash and North Norfolk Coast SAC should be considered alongside existing activities that could impact the same habitats.</p>	<p>Consideration of impacts on marine and coastal ecological receptors from shipping levels is included within Section 17.8. This is compared against existing shipping levels.</p>	<p>access to fishing grounds should be avoided, minimised or mitigated (Policy FISH1).</p> <p>(2a) We could not identify coverage of the interaction between shipping and seabed habitats in Section 17.8, beyond a comment in 17.8.161 that "...<i>the increase in the shipping traffic would result in an increase in erosion.</i>", which seem not to be examined any further. We request clarity as to the extent and results of assessments which have been conducted on the impacts of the increased shipping on seabed habitats. Our original response (to the PEIR) highlighted that our comment on this subject related to potential impacts on sensitive seabed habitats (of The Wash & North Norfolk Coast SAC) from increased anchoring (associated with the increased shipping levels needed for the Project), and the fact that Eastern IFCA has developed fisheries management measures to prevent damage to seabed habitats in some parts of The Wash. We note the comment (page 18 of Table 17-2) that anchoring will only take place in existing anchoring zones. We maintain that consideration should be made of whether the increase in anchoring activity could adversely affect protected Wash & North Norfolk SAC habitats. We query whether this matter has been raised with Natural England.</p>
	<p>(3) The Non-Technical summary reported that "potential impacts from increased emissions to air and deposits on marine and estuarine habitats will be</p>	<p>Airborne emissions have been assessed within Chapter 14 Air Quality and potential impacts of these on marine and coastal ecology is covered under Section 17.8 of Chapter 17 Marine and Coastal Ecology.</p> <p>Specific regard to airborne emissions of</p>	<p>(3a) See comments above under (1a) in connection with potential interactions with saltmarshes, and in relation to Chapter 14 Air Quality. Those comments are also applicable to this section. We note section 17.8.246 considers deposition onto intertidal habitats such as mudflats and shellfish beds, and concludes that although there is potential for this to</p>

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	<p>assessed when results of the air quality assessment are available”.</p> <p>Eastern IFCA query when such potential impacts on marine and estuarine habitats, including shellfish beds in The Wash, will be considered. Mussel and cockle beds are an economic resource for local inshore fishermen as well as being attributes of the intertidal mudflats and sandflats feature of The Wash and North Norfolk Coast Special Area of Conservation. If impacts on shellfish habitats are anticipated, consideration must be given to potential impacts on the food chain as well as on biodiversity.</p>	<p>key pollutants on human health is provided in Appendix 14.5 Human Health Risk Assessment (REP1-022)</p> <p>9.9 Appendix 14.5 Human Health Risk Assessment (planninginspectorate.gov.uk)</p> <p>Page 8 of this document contains a discussion in relation to shellfish.</p>	<p>contribute to a change in water quality, it is not considered to be significant. We are satisfied that this risk has been considered, but would seek confirmation from EA (as pollution experts) and NE (as ecological advisors) that this conclusion is robust, i.e. that there is not considered to be a risk of contamination of shellfish beds as a result of emissions from the Project and subsequent deposition.</p> <p>Appendix 14.5 Human Health Risk Assessment (ref. PB6934-ZZ-XX-RP-Z-4037) presents opinions as to the potential impacts on shellfish beds, this point having been raised by Eastern IFCA.</p> <p>There seem to be no calculations to support these opinions, nor identification as to the parameters used as the basis for assessment.</p> <p>The relevant chapter seems only to refer to “shellfish beds”. Whilst these are of the most immediate, direct relevance to the remit of Eastern IFCA in achieving sustainable utilisation of marine resources, we recognise the importance of all parts of marine ecosystems in supporting such sustainable utilisation. We suggest that a more analytical approach to the calculation and assessment of impacts from emissions to the air on local marine environments will be beneficial. We accept that such an assessment will contain degrees of uncertainty, due to incomplete understanding of the hydrology of the region, and intrinsic variability. Use of an approach incorporating the “Rochdale Envelope” will address this issue.</p>
	<p>(4) Furthermore, Eastern IFCA highlighted in previous engagement (May 2019) the potential for subtidal habitats of The Wash & North Norfolk Coast Special Area of Conservation to</p>	<p>Anchoring would only be within existing anchoring zones.</p> <p>We recognise that Eastern IFCA require a more specific response than that set out above. Our marine ecology lead</p>	<p>(4a)</p> <p>A call between the marine ecology lead (Chris Adnitt) and Eastern IFCA (Stephen Thompson) took place on 23rd February 2022. This identified that Eastern IFCA have assessed fisheries and concluded that certain areas are not compatible with bottom towed gear, and</p>

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	<p>be impacted by the increased level of anchoring associated with the Project. This has not been reflected in the Non-Technical Summary document. Eastern IFCA is currently expanding the extent of areas it has closed to towed demersal fishing in this SAC in order to protect habitats that are sensitive to abrasion and penetration – for further information, please see: https://www.eastern-ifca.gov.uk/wp-content/uploads/2019/09/2019_09_Management_measures_development_tracker.pdf . We suggest that this consideration needs to be raised with Natural England, the statutory conservation advisor.</p>	<p>(Chris Adnitt) will call Judith to discuss further.</p>	<p>have put in place closures to protect those areas. Some of these areas are within designated anchorage zones, and we think there is a fundamental incompatibility in saying that an area is not able to sustain light bottom-towed fishing gear, but is not adversely affected by anchoring and the associated “dragging” of chain across the seabed as a vessel swings on its anchor as the tide turns. We accept that the Port of Boston is the ultimate regulator of these anchoring areas, and provided that they have conducted assessment as required by Natural England (if any) then we do not think they are breaking any laws. The issue is that of the incompatibility, and also to raise awareness that this issue is one where local fishermen perceive an inequality in the treatment of different activities.</p>
	<p>(5) Eastern IFCA welcome the detailed consideration given to potential impacts from the Project on fish populations in The Haven. We urge that best practice is followed to minimise impacts from underwater noise through appropriate timing of construction works. We also query whether noise reduction measures such as the use of bubble curtains, could be beneficial to further reduce impacts.</p>	<p>A full assessment of underwater noise impacts to fish species has been undertaken in Section 17.8, including proposed mitigation measures.</p>	<p>(5a) Within Section 17.8 of Chapter 17 Marine and Coastal Ecology consideration of Impact 4 - Underwater noise (piling and dredging) begins with section 17.8.92 on document page 89. Section 17.8.100 states that “<i>Fish species are mobile, and would be expected to vacate the area with the onset of piling....</i>” We accept that this is likely to be the case, but it does raise the issue that such underwater noise generated within a narrow channel may well in effect act as a barrier to fish movement. This could have the effect of preventing fish undertaking movements that they need to make either as a part of their migration, or as normal movement through an estuary as the tide</p>

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			<p>rises and falls.</p> <p>The identified measure of soft-start is unlikely to mitigate this, as the intention of soft-start is to “scare” fish out of the area before full impact piling begins. If this is achieved, the fish are likely to vacate the area. It is identified in section 17.8.101, that “<i>If piling is carried out at low tide when The Haven is at its narrowest, no underwater noise would be generated due to the piling being carried out in the dry (whilst the tide is out)</i>”. This would seem to offer the prospect of effective mitigation, and we ask what assessment has been done as to the ability to apply this approach.</p> <p>We asked in a response in September 2019 as to the potential use of bubble curtains as a measure to reduce transmission of noise generated by underwater pile driving. We can find no reference to such consideration in Section 17.8, but there is one relevant reference listed in the References (document page 175)</p>
	<p>(6) The Project would result in a significant increase in the number of large vessels using The Haven (up to 624 additional vessel movements per year). These vessels will be required to turn in the Haven, either inside the Wet Dock or at the Knuckle (turning point) outside the Wet Dock. This increase in vessel activity in The Haven could impact on navigation of fishing vessels between The Wash (fishing grounds) and the London Road quay (fishing vessel moorings).</p>	<p>A Navigation assessment has been undertaken to consider impacts on other users, with the findings being reported in Chapter 18 Navigational Issues.</p>	<p>(6a) See comments in section (1c) of this table relating to the Navigational Risk Assessment. Those comments also apply to this section.</p>

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	<p>Eastern IFCA acknowledge that the Project team have been liaising with representatives of Boston fishermen; we urge that this dialogue is continued with suitable frequency.</p> <p>(7) The Wash supports shellfish production areas and has been highlighted in the East Marine Plan as an optimum potential aquaculture area.</p> <p>Eastern IFCA seeks assurance that these shellfish production areas (as well as the naturally-occurring cockle and mussel beds in The Wash) will not be adversely affected by the “potential impacts from increased emissions to air and deposits on marine and estuarine habitats” noted in the Non-Technical Summary.</p>	<p>Impacts of aerial deposition on marine and coastal habitats have been assessed within Section 17.8 of Chapter 17 Marine and Coastal Ecology for the construction and operation phases.</p> <p>See previous comment in relation to air quality deposits and human health assessment.</p>	<p>(7a)</p> <p>See comments above under Section (3a), relating to Appendix 14.5 Human Health Risk Assessment (ref. PB6934-ZZ-XX-RP-Z-4037). Those comments also apply to this section.</p>