

REPORT

Boston Alternative Energy Facility

Addendum to the Outline Ornithological Compensation
Implementation and Monitoring Plan

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1 Introduction

1.1.1 This 'Addendum to the Outline Ornithology Compensation Implementation and Monitoring Plan' ('the addendum to the OCIMP') is for the Boston Alternative Energy Facility (the Facility) and is prepared on behalf of Alternative Use Boston Projects Limited (the Applicant), to support the application for a Development Consent Order (DCO) (the DCO application) that has been made to the Planning Inspectorate under Section 37 of the Planning Act 2008 (the Act).

1.1.2 The final plan and will be developed by the Applicant in consultation with the Ornithology Engagement Group (OEG) and submitted to the Secretary of State for approval in the event the Secretary of State determines there is an Adverse Effect on Integrity (AEoI) under the Conservation of Habitats and Species Regulations 2017 and compensatory measures are required. Paragraph 4 of Schedule 11 to the draft Development Consent Order (DCO) (document reference 2.1(7)) requires that the final plan submitted for approval must be substantially in accordance with the OCIMP.

1.1.3 This addendum to the OCIMP has been prepared in response to a question raised by the Secretary of State in a letter dated 25th May 2023, which is as follows:

“Regarding the proposed adaptive management of The Wash SPA compensation sites, the Applicant is invited to provide an update on any progress it has made in considering what adaptive management might consist of. For example, what the trigger levels for adaptive management might be and any adaptive management measures that could be implemented should it be found that the compensation measures are not sufficiently delivering.”

1.1.4 This addendum to the Outline OCIMP now provides additional information on this matter.

2 Adaptive Monitoring and Management Strategy

2.1 Previous reference to the adaptive monitoring and management strategy

2.1.1 The Outline Ornithology Compensation Implementation and Monitoring Plan (OCIMP) (document reference 9.81(1), REP8-013), submitted in March 2022, states that adaptive monitoring and management would be used to increase the effectiveness of the compensation measures.

2.1.2 As stated in the OCIMP, annual reporting to the Secretary of State must include, *“details of the use of each site by waterbirds (split into species accounts) to identify barriers to success and target the adaptive management measures.”*

2.1.3 The OCIMP then states that variables for annual reporting are:

- Number of birds using the site
- Evidence of birds roosting, foraging and bathing around high tide periods, and
- Evidence of continued disturbance from vessels at the authorised development and at the mouth of The Haven.

2.1.4 The Without Prejudice Habitats Regulations Assessment Derogation Case: Compensation Measures (document reference 9.30(4)), submitted in March 2023 in response to the Secretary of State’s consultation letter of 10 January 2023, states that compensation sites would be monitored to show that they have been effective in providing suitable compensation for the target bird species, and an adaptive management strategy would be in place in case additional measures are required for the sites to provide sufficient resource to support planned bird numbers and activities. The monitoring will be more fully developed post-consent, through engagement with the OEG, but monitoring in outline is anticipated to include the following aspects:

- Monitoring of biotic and abiotic characteristics of the sites, and control of water level (and potentially water quality);
- Vegetation growth and sward height; and
- Stage of succession.

2.1.5 Examples of the means by which to carry out the adaptive management measures are:

- Confirmation of water sources and reserves;
- Water abstraction licenses; or
- Design-in of any water control system.

2.1.6 The Addendum to the Without Prejudice Habitats Regulations Assessment Derogation Case: Compensation Measures (for The Wash SPA) (document reference 9.112(1)) submitted in May 2023 in response to the Secretary of State's consultation letter of 24 April 2023, highlights that there is opportunity for adaptive management regarding the compensation sites over the two years available between securing of the compensation sites and the start of the (hot commissioning of Line 2 of the Facility, at least three years before the facility becomes operational) period where potential impacts from disturbance occur. This period allows management of the compensation sites to be adapted to maximise provision for waterbirds before operational phase potential impacts from disturbance.

2.2 Updated information

2.2.1 The adaptive monitoring and management plan (as part of the final CIMP) is intended to be developed together with the OEG, following the making of the DCO. The Applicant maintains its position that there will be no Adverse Effect on Integrity, but the Applicant has continued to give consideration to the measures it will propose for the monitoring and management measures that would be expected to be included within the plan and these are provided below in outline. As in any adaptive management plan the monitoring and management would be intended to remain under review and discussion to ensure the required outcomes are being achieved. Therefore, the objective of the process is of prime importance.

2.2.2 The objective for the monitoring and management related to the Facility is to demonstrate that the compensation sites provide suitable habitats for any birds that are displaced from their roosting, foraging or bathing grounds as a result of the increased numbers of vessels traversing through The Haven to the Facility.

2.3 Monitoring Proposed

2.3.1 Monitoring would occur in three phases:

- the first phase would be pre-construction monitoring which would provide the baseline conditions (anticipated to take place in 2024 as set out in Figure 4-3 of the Without Prejudice HRA Derogation Case - Compensation Measures 9.30(4));
- the second phase would commence as soon as the habitat creation works are completed and would continue into the operation phase until the birds are using the newly created site, or until it is clear that birds do not need to use the created sites and are continuing to use the existing alternative roosting sites. This monitoring would consist of habitat monitoring with the objective of ensuring that the habitat is suitable for the birds should they need to use these sites.
- the third phase (bird monitoring for Adverse Effect on Integrity (AEoI) together with suitability and usage of the compensation sites) would commence once the operational phase of the development is in progress. The reason that this monitoring would only commence at this stage is that birds are not specifically expected to use the newly created sites until the greater number of vessels are using The Haven (albeit the Applicant believes that the compensation sites will not be required to prevent an AEoI as discussed in the previous documents (including Appendix 17.1 Habitats Regulations Assessment (document reference 6.4.18(1), AS-006)).

2.3.2 The detailed monitoring methodology would be agreed with the OEG with an initial detailed draft developed following the making of the DCO.

Habitat Monitoring

2.3.3 Monitoring of habitat success would include at least the following measures and would be undertaken regularly at pre-defined points throughout the year to ensure that the features needed for the birds are present during the seasons when they are required:

- Vegetation development to determine successional stages of development of the site.
- Water retention on site to ensure areas of wetland remain in order to support the birds through the seasons.
- Water quality to ensure that conditions are suitable and there are no pollutants on site that could affect the vegetation or the birds. It is acknowledged that there will be an excess of nutrients in the early stages due to the disturbance of the ground and the likely presence of fertilisers in

the soil, and such conditions can lead to eutrophication. This can be managed with different methods and/or left to reduce naturally (as appropriate, depending on the scale of effect) as flushing of the water features following their creation may alleviate any such issue. The regular monitoring would identify the scale of any eutrophication (if it occurs) and if mitigation actions were working, allowing adaptive management to take place.

- Habitat suitability for birds (vegetation type, height, density, distance from water's edge, sward height).

Bird Monitoring

2.3.4 Monitoring of birds would include at least the following measures that would determine if there was an AEoI, if it was attributable to a localised effect and whether that effect was likely to be the increase in vessel numbers at the mouth of The Haven and whether the compensation measures were providing adequate compensation, if it is needed:

- Review of bird count data for The Wash SPA as a whole to determine any AEoI.
- Review of Wetland Bird Survey (WeBS) count data for the sections of The Wash SPA that could be affected by the increase in number of vessels.
- Review of bird count data internationally, nationally and regionally to determine any trends in numbers that could reflect any localised changes occurring. Any effects of suspected natural events or pandemic events that might affect visiting bird numbers will be noted for each year, prior to any decision on effectiveness of the mitigation sites status; e.g. Avian flu outbreaks or decreases in feed stocks on any migratory paths.
- Review of any additional activities that could be affecting bird numbers within the SPA and locally to the mouth of The Haven (e.g., increased use of the Coast Path, increase in vessel numbers visiting the Port of Boston, increase in number of fishing vessels or small recreational vessels using The Haven, potential effects on prey species, etc.)
- Monitoring to determine that birds are continuing to use the mouth of The Haven roosts.
- Evidence of disturbance at the authorised development, along the Haven and at the mouth of The Haven.

- Evidence as to whether the birds are using the alternative roosting locations that are currently used (for species that use these areas) when disturbance events occur at the mouth of The Haven.
- Evidence that birds that remain at the site (including lapwing and golden plover) are being disturbed more often and reducing in number.
- Number and species of birds using the newly created sites and the purpose of their usage (i.e., roosting, foraging and bathing).
- Evidence of pedestrian intrusion onto a site.
- Evidence of bird disturbance responses to normal use of Rights of Way adjacent to the site.

2.3.5 The monitoring therefore combines review of existing data to gain an understanding of trends in bird numbers for the SPA and regionally, nationally and internationally together with on-site survey monitoring of bird numbers around the localised area.

2.3.6 The review of existing data will include WeBS data that is collected on a regular basis.

2.3.7 To undertake the on-site monitoring the number of waterbirds using the compensation sites, the mouth of The Haven roost site, sites along The Haven and the Habitat Mitigation Area will be monitored. This will be carried out monthly during a high tide for the baseline period and during the initial two-year period before hot commissioning of the Facility, and continuing for a further two-year period after this time. The results of the monitoring will then guide the frequency and duration of continued monitoring but it is expected to be at least monthly during winter months at high tide in peak non-breeding months (e.g. November, December or January) under typical winter climatic conditions (not during severe cold weather as defined by the JNCC) for at least another three years.

2.3.8 Monitoring of waterbird numbers will continue until the success of the compensation has been demonstrated, including if determined necessary throughout the operational lifespan of the Facility. Monitoring will include counts of waterbirds in The Haven, sites along The Haven and the mouth of The Haven roost site with ongoing review of data for The Wash SPA and wider areas for trend information (via BTO WeBS data) in order to permit comparison in waterbird population trend between the compensation sites, existing roost and foraging sites, the locality and the region. BTO WeBS data for England and Britain will also be available annually to allow comparison with national trends.

2.3.9 In all cases, monitoring results will be shared with the OEG on a regular basis at

agreed meetings (e.g., quarterly) and also within an annual report. Any requirement for adaptive monitoring or management measures will be agreed with the OEG.

- 2.3.10 The monitoring programme would identify any sites that are not functioning as required (whether as a result of location/geography or due to damage, human intrusion etc) and therefore requiring adaptive management intervention. In the event that a compensation site is no longer providing, or able to provide, its expected contribution to the compensation requirement, the need for alternative site(s) or additional measures (*in situ* or *ex situ*) would be assessed and agreed with the OEG and implemented accordingly.

2.4 Thresholds Proposed

- 2.4.1 The monitoring set out above will provide data for analysis that will determine if any action needs to be taken as part of the adaptive management approach. The actions would be linked to The Wash SPA's conservation objectives, in particular to the number and distribution of birds using the site and the localised areas. There are many possible scenarios that will need to be mapped out in detail during the early post-consent stage but the key scenarios have already been considered as discussed below. There are high level triggers linked to bird usage of the SPA overall and triggers linked to the site-specific monitoring results.

High Level Triggers

- 2.4.2 The first scenario is that the monitoring does not show any change from the existing situation for the number and distribution of SPA birds, or shows a change that is reflected in the regional or national trends. This would therefore indicate that birds are either continuing to use the existing alternative roost sites, or are using the new compensation sites (this would also have been observed from the monitoring data). No action would need to be taken to change the existing management or monitoring in this case.
- 2.4.3 The second scenario is if the monitoring shows no change overall to SPA bird numbers but the localised data is showing a change in distribution of birds within the SPA such that birds are not using the area around the mouth of The Haven as they currently do. This would also trigger investigations to determine if the birds are using the compensation sites or re-distributing elsewhere in the SPA which could eventually have an effect on bird numbers or health. If the birds are not using the compensation sites, then an investigation into the suitability of the sites would be undertaken and management measures would then be initiated to rectify this.

- 2.4.4 The third scenario is if declines in SPA numbers are observed that are not obvious in the regional or national trends. This would then trigger an investigation to determine if the declines are occurring in the areas around the mouth of The Haven or along The Haven and whether they could be due to the increase in vessel numbers using The Haven. Alternative causes would also be investigated such as increased disturbance due to other localised factors, such as more people using the coast path. If the declines are considered to be due to the increase in vessels related to the Facility, then it would need to be considered that the compensation is not working. The site-specific survey data for habitats and birds would then be used to determine if birds are using the compensation sites, to what extent and what issues there may be with the compensation habitats. Management actions would then be initiated to rectify this.
- 2.4.5 There will be a number of thresholds and triggers for action that will be developed in detail with the OEG during the early post-consent period. Triggers would be set to allow action to be taken before a significant effect could occur and these would relate to the localised use of the habitats that are currently used and the created compensation sites.

Site-Specific Triggers

- 2.4.6 During the two-year period prior to hot commissioning of Line 2 of the Facility, or if there is a decline in bird numbers locally that could lead to an AEoI and it is attributable to the increase in vessels after hot commissioning, the following site-level triggers are proposed and would lead to further investigation and management measures to be taken to rectify the situation (if necessary):
- Number of individual waterbirds in the area within and around the mouth of The Haven, along The Haven or at the Facility are below a threshold number on a high tide visit (or a threshold number of consecutive high tide visits) during the main non-breeding period (August to April) after hot commissioning of Line 2 of the Facility. The threshold levels would be agreed with the OEG during the post consent period;
 - Depth of water becomes too low to maintain a wetland at a key location on the site (to vary seasonally) as determined from a standing gauge or meter in the water;
 - Extent of water on a compensation site contracting below a set area during each season, as determined from water distance from a standing marker at the water's edge at a key location on the site;

- Sward height exceeds a threshold height at a key location on the site (to vary seasonally) as determined from visibility of a standing gauge or meter in the ground at this point;
- Any observation or evidence of significant bird disturbance response to vessels passing a compensation site;
- Any observation or evidence of signs of human intrusion onto the site that could affect its suitability to provide the required habitat;
- Any observation of birds vacating a compensation site in response to human use of a public Right of Way adjacent to the site; and
- Miscellaneous opportunities to adapt compensation, identified within routine and incidental correspondence between OEG members.

2.5 Management Proposed

2.5.1 If a trigger level is reached that means that:

- there has been a decline in the number and distribution of birds that could potentially lead to an AEol; or
- the habitat suitability is not conducive to bird usage for the birds that could be, or have been, displaced.

2.5.2 In this instance there would need to be a review of the monitoring data and the suitability of the compensation sites and either further compensation measures developed or adjustments made to the existing habitat measures.

2.5.3 For the existing sites, it will be necessary to ensure that the habitat is suitable for the birds. Adaptive management measures proposed following these triggers will depend on the trigger but such measures may include the following:

- Lowering of water level via opening of a sluice into a drainage ditch;
- Raising of water level and extent via release from a water storage tank or reservoir either adjacent to or along a pipeline from the compensation site;
- Addition of security or barrier measures to fortify the site from human intrusion and/or pedestrian disturbance of birds;
- Expansion of island habitat within the compensation waterbodies through

increased distribution, or fresh deposition, of aggregate or gravel;

- Addition of raised features to islands to facilitate breeding, or shelter from easterly wind exposure;
- Placement of 'decoy roosts' (e.g., cluster of decoy roosting knot or redshank);
- Reactive vegetation management such as targeted removal or spraying;
- Supplementation or introduction of invertebrate food supply of the wetland through translocation of water or sediment samples from local sites; and/or
- *Ex-situ* adaptive management including donations to waterbird conservation projects (land acquisition for reserves, head-starting projects) or investment in other waterbird sites in the locality or wider east of England region.