REPORT

Boston Alternative Energy Facility - Preliminary Environmental Information Report

Chapter 6 Approach to EIA

Client: Alternative Use Boston Projects Ltd

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6 Approach to Environmental Impact Assessment

6.1 Introduction

6.1.1 This chapter describes the methodology used throughout the Preliminary Environmental Information Report (PEIR) chapters for the Boston Alternative Energy Facility ('the Facility').

6.2 The EIA Process

6.2.1 The process of Environmental Impact Assessment (EIA) for projects falling under the Planning Act 2008 is governed by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, the "EIA Regulations" (HMSO, 2017). The EIA Regulations implement EC Directive 2011/92/EU (European Parliament, 2011), as amended by Directive 2014/52/EU (European Parliament, 2014), into domestic legislation.

6.2.2 The Facility falls within Schedule 2 Part 3a of the EIA Regulations, which identifies industrial installations for the production of electricity, steam and hot water. Given the location, scale and nature of the proposed development, and notwithstanding the selection criteria in Schedule 3 of the EIA Regulations, it is considered that the Facility may have the potential to give rise to significant effects on the environment.

6.2.3 The EIA Regulations set out the requirements for undertaking an EIA, and Regulation 14 and Schedule 4 detail the required information for inclusion in an Environmental Statement (ES).

6.2.4 The preliminary findings of the EIA process are detailed within this PEIR, which was produced to support consultation under Section 42 of the Planning Act 2008. Feedback from this consultation will be used to inform the design and impact assessment of the Facility which will be reported in a final ES. The ES and supplementary documents will be submitted to the Planning Inspectorate in 2019 as part of the Development Consent Order (DCO) application.

6.2.5 The EIA will identify and assess the likely significant effects in respect of the construction, operational and decommissioning phases of the Facility. A summary of the EIA process is provided below.

EIA Screening

6.2.6 Given the nature and scale of the Facility, it was decided that an EIA Screening Opinion would not be sought from the Planning Inspectorate. A decision was made by the Applicant to undertake an EIA process and produce an ES which will form part of the DCO application suite of documents.

EIA Scoping

6.2.7 Whilst every ES should provide a full factual description of the development, the emphasis of Schedule 4 of the EIA Regulations (HMSO, 2017) is on the "main" or "significant" environmental effects to which a development is likely to give rise.

6.2.8 A Scoping Report was submitted to the Planning Inspectorate in May 2018 (Royal HaskoningDHV, 2018). The Scoping Report provided an outline of the proposed approach to assessment and the potential environmental effects. A Scoping Opinion was received from the Planning Inspectorate in July 2018 (The Planning Inspectorate, 2018) (additional details are provided in **Chapter 7 Consultation**). The PEIR has considered the comments and direction provided by the Scoping Opinion and presents an analysis of the likely significant environmental effects and key issues relevant to the decision-making process to enable stakeholder engagement.

Impact Assessment

6.2.9 The assessment of impacts presented in the PEIR was guided by both EIA and technical specialists using available data, new data, experience and, where necessary, expert judgement. A matrix approach was used to provide a consistent framework and system of common tools and terms, unless topic-specific guidance documents provided alternative methodologies for the determination of the significance of impacts. Where different assessment methodologies were employed in the PEIR, these are described in the relevant technical chapters.

6.2.10 The impact assessment steps are detailed below.

<u>Characterisation of the Existing Environment</u>

6.2.11 The first stage of the assessment process is to establish the baseline conditions in the area covered by the project and relevant surrounding study areas, which are specific to each technical topic and detailed in the relevant chapters. Any identifiable trends in the baseline conditions have also been included in the relevant chapters where appropriate. The impact assessment will then consider impacts in relation to baseline conditions. The following steps were followed for each technical topic:

- Study areas were defined for each receptor based on the relevant characteristics of the receptor (e.g. mobility/range);
- Review of available information;
- Review of likely or potential impacts that might be expected to arise from the project;
- Determination of whether sufficient data are available to make the EIA judgements with sufficient confidence;

- If further data were required, data were gathered in a targeted manner to answer key questions and fill data gaps; and
- Review of information gathered to ensure the environment can be sufficiently characterised in adequate detail and the data are suitable to make the EIA judgements with sufficient confidence.

6.2.12 The specific approach to establishing a robust baseline is set out under each chapter within this PEIR. This approach is based on feedback in the Scoping Opinion (The Planning Inspectorate, 2018) and subsequent discussions and agreements on the scope of the assessment with statutory stakeholders and The Planning Inspectorate. The approach was also adapted as new data were collected and the design of the project was advanced.

Determination of Receptor Sensitivity and Value

6.2.13 Receptor value considers whether the receptor:

- Is rare;
- Has protected or threatened status;
- Has importance at a local, regional or national scale; and / or
- Has a key role in ecosystem function (in the case of biological receptors).

6.2.14 To assess receptor sensitivity, the ability of the receptor to adapt to change, tolerate and/or recover from potential impacts is considered. The time required for recovery of receptors is key in determining receptor sensitivity. Therefore, overall receptor sensitivity is determined by considering a combination of value, adaptability, tolerance and recoverability and the application of professional judgement and/or past experience.

Predicting the Magnitude of Impacts

6.2.15 The magnitude of an impact is predicted through establishing the scale and probability of the impact through consideration of:

- Scale or spatial extent;
- Duration (short-term to long-term);
- Frequency; and
- Nature of change relative to the baseline.

Evaluation of Significance

6.2.16 After the sensitivity and magnitude were established, the impact significance was predicted. To aid assessment of impact significance, a matrix, such as the one in **Table 6.1**, was used where possible. Definitions of the significance of impacts are

provided in **Table 6.2**.

6.2.17 For each section of the PEIR, best practice methodology (based on the latest available guidance) was followed and, where relevant and appropriate, an alternative approach to the use of a matrix may be used.

6.2.18 To ensure that the definition of impacts is specific to each topic, a description of the approach to impact assessment and the interpretation of significance levels was provided within each technical chapter of the PEIR.

6.2.19 The general approach taken in this PEIR is that impacts which were determined to be of major or moderate significance were considered to be significant under the EIA Regulations (HMSO, 2017). It is possible that a moderate impact may not be considered significant under the EIA regulations; however, in these cases, a justification and rationale was provided in the impact assessment text.

Table 6.1 Impact Significance Matrix

		Adverse impact				Beneficial impact			
		High	Medium	Low	Negligible	Negligible	Low	Medium	High
Sensitivity	High	Major	Major	Moderate	Minor	Minor	Moderate	Major	Major
	Medium	Major	Moderate	Minor	Minor	Minor	Minor	Moderate	Major
	Low	Moderate	Minor	Minor	Negligible	Negligible	Minor	Minor	Moderate
	Negligible	Minor	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible	Minor

Table 6.2 Definitions of Impact Significance

Impact Significance	Definition
Major adverse	Very large or large change in receptor condition, which are likely to be important considerations at a regional or district level because they contribute to achieving national, regional or local objectives, or, could result in exceedance of statutory objectives and/or breaches of legislation.
Moderate adverse	Intermediate change in receptor condition, which are likely to be important considerations at a local level.
Minor adverse	Small change in receptor condition, which may be raised as local issues but are unlikely to be important in the decision-making process.
Negligible	No discernible change in receptor condition.
Minor beneficial	This impact is of minor significance but has been assessed as having some environmental benefit.
Moderate beneficial	This impact is assessed as providing a moderate gain to the environment.
Major beneficial	This impact is assessed as providing a significant positive gain to the environment.

Confidence

6.2.20 Once an assessment of potential impact is made, it is necessary to provide a confidence value to the assessment. This is based on a simple scale of high-medium-low, where high-confidence assessments are made based on robust evidence, with lower confidence assessments being based on, for example, extrapolation and use of proxies.

Mitigation

6.2.21 The EIA Regulations require an ES to contain: "*a description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment*" (HMSO, 2017, p.73). To reduce significant environmental impacts to acceptable levels, or to enhance the environment, mitigation measures will be proposed and discussed with the relevant authorities.

6.2.22 Mitigation takes many forms and can be classified as follows:

- Embedded mitigation – this type of mitigation can best be described as modifications to the location or design of the development made during the pre-application/design phase that are an inherent part of the project and do not require additional action to be taken. Examples include amendments to site layout and massing to reduce visual impact, or identifying a key habitat or feature that should remain unaffected by the development's layout and operation e.g. retaining an un-improved grassland area in situ as part of an open space strategy; and
- Secondary mitigation – this type of mitigation can best be described as actions that will require further activities to achieve the anticipated outcome. An example includes describing certain lighting limits which will be subject to the submission of a detailed lighting layout as a condition of approval.

6.2.23 The PEIR has identified the proposed mitigation measures for the main or significant impacts or effects identified in each topic chapter. This includes embedded mitigation, which has been identified within the relevant chapter.

Assessing Residual Impacts

6.2.24 Once mitigation measures are identified, impacts are re-assessed and the residual impacts described. Each technical chapter contains a description of the effectiveness of the proposed mitigation measures. Where relevant, and where effects are identified as having a significant impact on the receptor, an explanation of why an impact cannot be reduced by the implementation of mitigation measures was provided.

Cumulative Impact Assessment

6.2.25 A Cumulative Impact Assessment (CIA) forms part of the EIA process. This

considers the cumulative impacts of other developments alongside the impacts of the proposed scheme. Plans and projects which should be considered in the CIA, according to the Planning Inspectorate Advice Note 17 (The Planning Inspectorate, 2015), include:

- Projects that are under construction;
- Permitted applications, not yet implemented;
- Submitted applications, not yet determined;
- Projects on the Planning Inspectorates Programme of Projects;
- Development identified in relevant Development Plans; and
- Sites identified in other policy documents as development reasonably likely to come forward.

6.2.26 At the PEIR stage, a full CIA was not undertaken, as a definitive list of cumulative projects had not been agreed with stakeholders. A full CIA will be carried out for the ES, and the full list of plans or projects to be included in the CIA is being developed as part of on-going consultation with technical consultees.

References

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