

# Riverside Energy Park

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## Preliminary Environmental Information Report

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CHAPTER:

# 04

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**EN010093**

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**PRELIMINARY ENVIRONMENTAL  
INFORMATION REPORT  
ASSESSMENT METHODOLOGY**

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Planning Act 2008 | Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

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## 4 PEIR Assessment Methodology

### 4.1 Introduction

4.1.1 This chapter sets out the methodology which is being followed in undertaking the Environmental Impact Assessment (EIA). It describes the EIA process, the stages of consultation and engagement which have been followed to date, and how the scope of the assessment has been defined. The steps in undertaking the EIA are described in detail, including:

- the consultation undertaken to date, and how any responses have been taken into account;
- the topic-specific, reasonable worst case assessment parameters;
- how the study area and baseline has been defined;
- the assessment methodology;
- the assumptions and limitations lying behind the assessment;
- how the assessment of cumulative effects has been undertaken;
- the approach taken to defining mitigation measures necessary to limit effects; and
- how residual effects remaining after mitigation have been assessed. Any further work required (to be included within the final Environmental Statement (ES)) has also been described.

4.1.2 In due course, the information summarised in this Preliminary Environmental Information Report (PEIR) will be developed, both as a result of feedback received through consultation and the continuing assessment work indicated below. This further development will allow for preparation and finalisation of a comprehensive ES which will accompany the Development Consent Order (DCO) application.

### 4.2 EIA Process

4.2.1 In accordance with the Planning Act 2008 (as amended) (PA 2008) and the Infrastructure EIA Regulations 2017, the EIA process has consisted of the following principal activities:

- establishing, through consultation, the scope of the EIA including obtaining a Scoping Opinion from the Secretary of State;
- consideration of reasonable alternatives studied by the Applicant;
- determining how likely significant adverse environmental effects could be avoided, reduced or off-set through informed design (embedded mitigation);
- determining a reasonable worst case scenario for assessment;
- establishing a detailed understanding of the existing baseline environmental conditions for the Application Site and the relevant study areas for each topic;
- establishing the evolution of the baseline to identify future baseline conditions;
- identifying the likely significant environmental effects arising from the Proposed Development;

- assessing the significance of the likely environmental effects of the Proposed Development against the future baseline (which includes existing developments that are constructed and/or operational);
- assessing the significance of the likely environmental effects of the Proposed Development arising in conjunction with cumulative developments (see **Section 4.10**) as well as certain effects arising and acting in combination with others (in-combination effects);
- determining how any significant adverse environmental effects could be avoided, reduced or off-set through further mitigation (further mitigation) as well as how any benefits of the Proposed Development may be enhanced (enhancement measures); and
- determining the residual likely significant environmental effects of the Proposed Development following the application of the further mitigation measures.

4.2.2 These steps are discussed in more detail in the following sections.

### **4.3 Consultation and Engagement**

#### **Non-statutory consultation**

- 4.3.1 The Applicant carried out non-statutory consultation on the Proposed Development in spring 2018. This included holding four public exhibitions at local venues within a community consultation period from 9<sup>th</sup> May to 29<sup>th</sup> May 2018; providing information on the Riverside Energy Park website; and providing information about the Proposed Development at open days for members of the public at Riverside Resource Recovery Facility (RRRF). A comments form was made available at public exhibitions and online during the community consultation period. This has enabled the Applicant to explain the rationale and key objectives of the Proposed Development and provided consultees with the opportunity to submit feedback early in the process.
- 4.3.2 The Applicant also continues to engage with key prescribed bodies including the relevant planning authorities, the Greater London Authority, Natural England, the Environment Agency, Historic England, Transport for London and the Port of London Authority, to incorporate advice throughout the development process and ensure latest information available is utilised.

#### **Statutory consultation**

- 4.3.3 In accordance with requirements of the PA 2008 and the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (the 'APFP Regulations'), this PEIR has been published as part of the Statutory Consultation process undertaken for the Riverside Energy Park (REP) DCO. Consultees are invited to provide feedback and comments on the Proposed Development and the information set out in this PEIR during the consultation period which runs from 18<sup>th</sup> June 2018 to 30<sup>th</sup> July 2018 (inclusive).
- 4.3.4 The statutory consultation will also comprise consultation events at local venues in proximity to the Application Site. These events are scheduled to take place in summer 2018.

### **4.4 Scope of the Assessment**

- 4.4.1 Scoping involves focusing the content of the EIA on those issues likely to result in a significant effect to the environment. It is an important tool for identifying the likely significant environmental effects of a development proposal through its design, construction, operation and decommissioning phases and ensures that appropriate mitigation options are considered, where necessary.

- 4.4.2 The Applicant sought a Scoping Opinion from the Secretary of State in November 2017 as part of the initial phases of work on the EIA. The request was accompanied by a Scoping Report (PBA, November 2017) which described the anticipated likely significant environmental effects that would require detailed evaluation as part of the EIA. The formal Scoping Opinion was received from the Planning Inspectorate (PINS) in January 2018 and has been used to inform those aspects of the environment on which the EIA has focused.
- 4.4.3 The Scoping Opinion can be found on the Planning Inspectorate's website and in **Appendix A.2**. The formal Scoping Opinion has been considered and has been reflected in the preparation of this PEIR.
- 4.4.4 Since the Scoping Opinion was issued by the Secretary of State, the scope of REP has been reduced. Temporary construction and dredging works within the marine environment, which were included in the Scoping Report, are no longer included as part of the Proposed Development. Similarly, the possible Electrical Connection route to Renwick Road, Barking (as defined in the Scoping Report) is no longer being proposed (see **Chapter 5** for further information). Additionally, a potential Main Temporary Construction Compound was included in the Scoping Report at Crabtree Manorway North to the south east of the REP site. Since the Scoping Report was submitted, land within this has been confirmed as unsuitable due to being committed through extant planning permissions, and more preferable locations being available. It is therefore no longer part of the Proposed Development.
- 4.4.5 Through regulation 14 (3)(a) of the Infrastructure EIA Regulations 2017, where a scoping opinion request has been submitted the subsequent ES must be based on the most recent scoping opinion adopted. As the scope of the EIA has reduced since the scoping opinion was issued, consultation on refinements to the proposals has been undertaken with the relevant stakeholders to allow updated advice to be provided. An update on the Proposed Development, including a note explaining the removal of temporary works in the marine environment and how the scope of the EIA has reduced (**Appendix A.2**), was sent to key prescribed bodies in March 2018.

## 4.5 Environmental Baseline

- 4.5.1 In undertaking an EIA for any project, it is important to identify the environmental baseline for the potential receptors which may be affected. This involves forming an understanding of the environmental receptors (e.g. their sensitivity) in an area and the developments that are already affecting those receptors at the time of the assessment. This allows any future baseline conditions to be determined and the effects of the Proposed Development to be compared and / or combined with the baseline in order to ensure an informed assessment is made of the potential effects of a project as well as to allow the identification of the most appropriate mitigation which could be employed to minimise any identified likely significant adverse effects, or enhancement of any beneficial effects.
- 4.5.2 To establish the baseline, a study area that is appropriate for each assessment topic is identified which takes into consideration the surrounding context and the scale and range of likely significant effects (the study area for noise, for example, would cover a smaller area than that used to assess townscape and visual effects which may be experienced over a wider area, or conversely, the study areas may be the same for certain assessment topics). Confirmation of the study area for each assessment topic is set out in the respective topic chapter.
- 4.5.3 A range of environmental data is then gathered from a combination of sources in respect of each study area. This will include:
- documentary information on the Application Site and its surroundings within each relevant study area, including information available from previous EIA work for other projects such as RRRF;

- field survey information, including: Phase 1 and 2 ecological surveys; townscape character assessments; background noise surveys; ground conditions/contaminated land assessments; identifying the location of sensitive receptors and existing traffic levels on the road network; and
- obtaining and reviewing data held by both statutory and non-statutory consultees, as well as through consultation with relevant consultees.

4.5.4 If the DCO is granted by the Secretary of State within the current programme it is anticipated that construction of the Proposed Development would commence in 2021. The assessment therefore uses a '2021 baseline' to provide a future baseline against which the direct, indirect and cumulative effects can be assessed.

## 4.6 Parameters Used for Assessment

4.6.1 As discussed in **Chapter 3**, the proposed DCO application will seek a degree of flexibility for the final design of the Proposed Development (for example, the stack height). To take account of this, each topic-specific assessment has tested a reasonable worst case scenario to ensure that the likely significant effects arising from Proposed Development have been robustly assessed on a conservative basis. This reasonable worst case scenario is set out in each topic chapter.

## 4.7 Assessment Methodology

4.7.1 Significance criteria have been used to help understand, evaluate and quantify the likely significant environmental effects which may be positive (i.e. beneficial) or negative (i.e. adverse).

4.7.2 The significance of an effect is typically the product of two factors, the value or sensitivity of the environmental resource affected and the magnitude of the impact, while consideration may also need to be given to the likelihood of an effect occurring. A significant effect may arise as a result of a slight impact on a resource of national value or a severe impact on a resource of local value. In addition, the accumulation of many non-significant effects on similar local resources geographically spread throughout the Proposed Development may give rise to an overall significant effect. An example of this might be the loss of ecological habitat of low value at many locations.

4.7.3 This approach to assessing and assigning significance to an environmental effect will rely upon such factors as legislative requirements; guidelines, standards and codes of practice; consideration of the Infrastructure EIA Regulations 2017; the advice and views of statutory consultees and other interested parties; and expert judgement. The following questions are relevant in evaluating the significance of likely environmental effects:

- Which risk groups are affected and in what way?
- Is the effect reversible or irreversible?
- Does the effect occur over the short, medium or long term?
- Is the effect permanent or temporary?
- Does the effect increase or decrease with time?
- Is the effect of local, regional, national or international importance?
- Is it a beneficial, neutral or adverse effect?
- Are health standards or environmental objectives threatened?

- Are mitigating measures available and is it reasonable to require these?

4.7.4 Specific significance criteria are being prepared as appropriate for each specialist topic, based on the above and the generic criteria set out in **Table 4.1** below.

Table 4.1: Significance Criteria

	Significance Level	Criteria
Significant	Substantial	These effects are assigned this level of significance as they represent key factors in the decision-making process. These effects are generally, but not exclusively, associated with sites and features of national or regional importance. A change at a district scale site or feature may also enter this category.
	Major	These effects are likely to be important considerations at a local or district scale and may become key factors in the decision-making process.
	Moderate	These effects, while important at a local scale, are not likely to be key decision-making issues.
Not significant	Minor	These effects may be raised as local issues but are unlikely to be of importance in the decision-making process. Nevertheless they are of relevance in enhancing the subsequent design of the project and consideration of mitigation or compensation measures.
	Negligible	Either no effect or an effect which is beneath the level of perception, within normal bounds of variation or within the margin of forecasting error. Such effects should not be considered by the decision-maker.

4.7.5 Effects that are described as ‘substantial’, ‘major’ or ‘moderate’ are determined to be *significant*; and effects that are described as ‘minor’ or ‘negligible’ are determined to be *not significant* in the context of the Infrastructure EIA Regulations 2017.

4.7.6 For clarity, within assessment sections of this PEIR, assessments have been split to consider the ‘REP site and Main Temporary Construction Compounds’ and the ‘Electrical Connection and the Cable Route Temporary Construction Compounds’ separately. This is to ensure that potential effects are clearly attributed to the relevant aspect of the Proposed Development. A summary of the assessment is included in each chapter to draw together conclusions of the ‘REP site and Main Temporary Construction Compounds’, and the ‘Electrical Connection and the Cable Route Temporary Construction Compounds’.

4.7.7 In order to provide a consistent approach and enable the comparison of effects upon different environmental components, the assessments generally use the structure and terminology as set out in **Table 4.1**. However, it is noted that for some environmental topics, significance criteria may need to differ depending on the topic assessment and conditions encountered at the Application Site. Each topic chapter clearly identifies and explains the specific criteria used.

## 4.8 Assumptions and Limitations

4.8.1 The prediction of future effects inevitably involves a degree of uncertainty. Where necessary, the topic specific assessment chapters describe the principal factors giving rise to uncertainty in the prediction of environmental effects and the degree of that uncertainty.

4.8.2 Confidence in predictions is engendered by employing accepted assessment methodologies,

e.g. Guidance for Ecological Impact Assessment by the Institute of Ecology and Environmental Management. Uncertainty inherent within the prediction is described within the limitations section of **Chapters 6 to 14** as required.

- 4.8.3 Uncertainty also applies to the success or otherwise of measures to mitigate adverse environmental effects. Where the success of a mitigation measure is uncertain, the extent of the uncertainty is identified.
- 4.8.4 The PEIR identifies, in accordance with Schedule 4 to the Infrastructure EIA Regulations 2017, any difficulties that have been encountered in undertaking the assessment to date.
- 4.8.5 The PEIR details the preliminary environmental information available at the time of its publication. More detailed information and assessments will be outlined and undertaken, as appropriate, in the ES.

## **4.9 Mitigation, Monitoring and Enhancement**

- 4.9.1 Consideration has been given to the potential mitigation measures which could be used to ensure that likely adverse significant environmental effects of the Proposed Development are reduced.
- 4.9.2 In the hierarchy of mitigation, likely significant adverse effects should, in the first instance, be avoided altogether; where this is not possible such effects should then be reduced and, finally, offset.
- 4.9.3 Significant adverse effects are best avoided by incorporating appropriate measures into the design process. As such, the iterative nature of the EIA process assists in informing the development of the final design of the Proposed Development that will be the subject of the REP DCO application.
- 4.9.4 Two broad types of potential mitigation measures are being applied in the EIA and are reported in this PEIR, namely:
- embedded mitigation - those designed to be an inherent part of the scheme for which planning permission is sought (e.g. limiting the height of a stack, or building form). Embedded mitigation evolves through the iterative design process and early consideration of the likely significant effects; and
  - further mitigation - those which require further activity to be achieved, are identified through carrying out assessments and do not form part of the scheme design in their own right. For example, through being imposed as part of a DCO Requirement, or those which would be undertaken to meet existing legislative requirements.
- 4.9.5 Opportunities to provide environmental enhancements, or to maximise beneficial effects, will be sought where possible.
- 4.9.6 The Proposed Development has been developed in such a way that the reduction and, wherever possible, elimination of significant adverse environmental effects is integral to the overall design philosophy.

## **4.10 Cumulative Effects**

- 4.10.1 Schedule 4 (part 5) to the Infrastructure EIA Regulations 2017 requires an ES to include “...a description of the likely significant effects of the development on the environment resulting from...the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources”.

4.10.2 PINS Advice Note 17 (Version 1, December 2015) (AN17) provides advice on a ‘staged’ process that applicants may wish to adopt in cumulative effects assessment for Nationally Significant Infrastructure Projects (NSIP). The four assessment stages comprise:

1. Establish the NSIP’s zone of influence and identify a ‘long list’ of other developments which could potentially have effect interactions with the NSIP;
2. Develop a ‘short list’ of other developments which could potentially have effect interactions with the NSIP. Essentially, analysing the ‘long list’ developed in stage 1 in more detail in order to include only those developments that have potential to give rise to significant cumulative effects by virtue of overlaps in temporal scope; due to the scale and nature of the ‘other development’/receiving environment; or any other relevant factors;
3. Gather available information on the shortlisted developments; and
4. Assess likely significant impacts arising as a result of the NSIP cumulatively with the short listed developments identified during stage 2 and available information gathered in stage 3.

4.10.3 PINS Advice Note 9 (Version 2, April 2012) (AN9) provides a definition of cumulative effects which are described as considering “...*other proposed developments within the context of the site and any other reasonably foreseeable proposals in the vicinity*” (AN9, footnote 12).

4.10.4 AN9 also sets out that “*the potential cumulative impacts with other major developments would also need to be carefully identified such that the likely significant impacts can be shown to have been identified and assessed against the baseline position (which would include built and operational development). In assessing cumulative impacts, other major development should be identified through consultation with the local planning authorities and other relevant authorities on the basis of those that are:*

- *under construction;*
- *permitted application(s), but not yet implemented;*
- *submitted application(s) not yet determined;*
- *projects on the Planning Inspectorate’s Programme of Projects;*
- *identified in the relevant Development Plan (and emerging Development Plans - with appropriate weight being given as they move closer to adoption) recognising that much information on any relevant proposals would be limited; and*
- *identified in other plans and programmes (as appropriate) which set the framework for future development consents/approvals, where such development is reasonably likely to come forward.”*

4.10.5 The above advice notes provide high level guidance on the assessment of cumulative effects. Detail on specific cumulative assessment methodologies are outlined in each topic chapter.

4.10.6 Table 3 of AN17 describes potential schemes for cumulative assessment in three tiers and recognises that for each tier, there is a decreasing level of detail likely to be available. The three tiers are:

- Tier 1:
  - projects under construction:

- permitted application(s), whether under the PA 2008 or other regimes, but not yet implemented; and
- submitted application(s) whether under the PA 2008 or other regimes but not yet determined.
- Tier 2:
  - projects on the Planning Inspectorate's Programme of Projects where a scoping report has been submitted.
- Tier 3:
  - projects on the Planning Inspectorate's Programme of Projects where a scoping report has not been submitted;
  - identified in the relevant Development Plan (and emerging Development Plans - with appropriate weight being given as they move closer to adoption) recognising that much information on any relevant proposals would be limited; and
  - identified in other plans and programmes (as appropriate) which set the framework for future development consents/approvals, where such development is reasonably likely to come forward.

4.10.7 **Table 4.2** below identifies the initial Zone of Influence (ZOI) for each assessment scoped in to this EIA. 'Other development' which falls within both the tier structure as identified above and the ZOI has been identified to complete Stage 1 of the cumulative assessment.

Table 4.2: Cumulative assessment Zones of Influence.

EIA Discipline	Criteria
Transport	Cumulative effects from Transport are not intended to be assessed separately, as they are inherently included within the Transport Assessment (TA) which will be submitted with the DCO application. Accordingly, cumulative noise and air quality impacts from transport are provided for within the Transport Assessment model.
Air Quality	Specific area identified for potential interaction with dispersal of emissions from REP, see <b>Figure 4.1, Appendix A.1</b> .
Noise and Vibration	50 m from the Electrical Connection during construction, 0.5 km from the REP site during construction, 1 km from the REP site during operation.
Townscape and Visual Impact Assessment	2.5 km from REP's stack for all development. From 2.5 to 5 km from REP's stack for development above 65 m AOD in height (maximum parameter height for the Main REP Building).
Historic Environment	2.5 km from REP's stack for all development. From 2.5 to 5 km from REP's stack for development above 65 m AOD in height (maximum parameter height for the Main REP Building).
Terrestrial Biodiversity	2 km from the Application Site.
Hydrology, Flood Risk and Water Resources	2 km from the Application Site.
Ground Conditions	1 km from the REP site – south of the River Thames only.
Socio-economics	2 km from the REP site.

4.10.8 At this stage, the long list of 'other developments' for inclusion in the assessment is identified in **Appendix A.5**. This list has been prepared using the above criteria and the ZOI for each environmental topic (as identified in **Figure 4.1, Appendix A.1**). This list will be refined into the short list in accordance with AN17, to allow a robust yet proportionate assessment of likely significant cumulative effects arising from the Proposed Development.

4.10.9 It is acknowledged that the long list does not yet provide for internationally designated sites of ecological importance which have the potential to be affected by emissions from the Proposed Development and 'other developments'. It is intended to broaden the search for 'other development' to include the potential for cumulative effects upon internationally designated sites within 15 km of REP, once further assessment results are available.

4.10.10 Statutory bodies will be consulted on the short list once prepared, however comments are welcomed on the long list provided in **Appendix A.5** and **Figure 4.1, Appendix A1**.

## 4.11 In-Combination Effects

4.11.1 Effects to the environment can result from incremental changes caused by interactions between effects resulting from an individual development. Direct and indirect effects of REP that have been assessed within the relevant topic chapters (**Chapters 6 to 14**), could lead to effects being reported in separate chapters but the in-combination effect on the same environmental receptor not being considered.

- 4.11.2 **Chapter 16** seeks to address this by considering where differing assessments have identified effects to common receptors.

## 4.12 Residual Effects

- 4.12.1 At the end of each topic chapter the residual likely significant effects arising from the Proposed Development are described. These are defined as effects which cannot be reduced to a 'not significant' level through the application of both embedded and/or additional mitigation and therefore remain in place after mitigation has been incorporated.

## 4.13 Transboundary Effects

- 4.13.1 Regulation 32 of the Infrastructure EIA Regulations 2017 (Development with significant transboundary effects) applies where an ES is to be provided that, in the opinion of the Secretary of State, shows the development is likely to have significant effects on the environment in another European Economic Area (EEA) State.
- 4.13.2 When this is the case, the Secretary of State must consult with that EEA state and provide information on the description of the development, together with any available information on its possible significant effects on the environment, and information on the nature of the decision which may be taken.
- 4.13.3 Further information on the study area for each EIA discipline is included in each topic specific chapter of this PEIR. The study area identifies and justifies a spatial extent of areas within which the likelihood for significant effects exists. Considering the scope of identified study areas, transboundary effects arising from the Proposed Development are not anticipated to be likely and are therefore not considered further within this document.
- 4.13.4 A transboundary screening assessment was undertaken by PINS in May 2018, which concluded that on the basis of the information available at the time, the Proposed Development would not be likely to have a significant effect on the environment in another EEA State.

## 4.14 Water Framework Directive and Habitat Regulation Assessment

- 4.14.1 The Proposed Development has been scoped for compliance with the Water Framework Directive (WFD) through consultation with the EA and in accordance with the EA's latest 'Clearing the Water for All' guidance. A WFD Compliance Statement will be included within **Chapter 12** of the ES.
- 4.14.2 Habitats Regulations Assessment (HRA) is a distinct process from EIA, being a requirement of the Conservation of Habitats and Species Regulations, 2017 (Habitats Regulations). The Proposed Development, as for the majority of projects considered under the NSIP regime, will require both EIA and HRA. The EIA will assess potential likely significant effects of the Proposed Development on European Sites within the study area of the Proposed Development. However, given the different requirements of the EIA and HRA processes, a separate Habitats Regulations Assessment will be provided for the Proposed Development which will run in parallel with the EIA. The HRA report, to be submitted with the ES, will consider whether the Proposed Development, alone or in combination with other plans or projects, is likely to have an effect on a European designated site. The approach to the HRA will follow Planning Inspectorate Advice Note 10 (November 2017, version 8) (AN10). The scope of the HRA will be determined through consultation with statutory consultees but will ultimately be confirmed by the Secretary of State, as the competent authority for the purposes of the Habitats Regulations.