
5 Environmental Assessment Methodology

Introduction

- 5.1 This chapter describes the approach to the Environmental Impact Assessment (EIA) adopted by Brunner Mond, E.ON Energy from Waste UK Limited and their consultants to determine the main and likely significant effects of the project on the environment.
- 5.2 The following parts of this chapter have three purposes. First, to outline the main stages in the EIA process. Second, to report the results of the scoping process. Third, to describe in more detail how the various stages outlined enable a determination of the main and likely significant effects to be made.

The Environmental Impact Assessment Process

- 5.3 The EIA has been undertaken in accordance with the Electricity Works (Environmental Impact Assessment) (England and Wales) Regulations 2000 (the Regulations), as amended.
- 5.4 The key stages in the EIA process adopted by the applicants were:
- To identify the specific characteristics of the project and the environmental features likely to be affected;
 - To identify the main alternatives studied by the applicant and the main reasons for his choice, taking into account the environmental effects;
 - To obtain the opinion of the Secretary of State as to the information to be provided in the Environmental Statement;
 - To identify the existing (baseline) environmental conditions at the site and in the surrounding area;
 - To identify and describe the main and likely significant effects of the project on the environment, considering direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the project;
 - To identify measures envisaged to prevent, reduce and, if possible, offset any significant adverse effects on the environment and if possible to provide or enhance beneficial effects of the project. Where possible, to adopt such measures as an integral part of the project;

- To assess the environmental effects of the project, taking into account any measures to prevent, reduce or offset adverse effects and/or any enhancement measures which form part of the project and to which the applicant is committed.
- To recommend ‘further mitigation measures’ where these do not form part of the project assessed but where these could further reduce or avoid adverse environmental effects; and finally
- To produce an Environmental Statement (ES) to objectively present the above information.

Consultants and Personnel

5.5 Brunner Mond and E.ON have taken responsibility for managing the environmental effects of the project and have assembled an assessment team for the purposes of undertaking the EIA. The team comprises the following specialists and experienced consultants.

Table 5.1: Project Team

Consultant/Specialist	Subject Area/Specialism
Brunner Mond	Project management, project description and need/alternatives.
E.ON Energy from Waste UK Limited	Project management, project description and engineering and process design.
RPS	EIA co-ordination and ES production, landscape and visual resources, archaeology, noise and vibration, air quality, ecology and nature conservation, traffic, hydrology, hydrogeology, ground conditions and socio-economic effects.

5.6 The environmental assessment programme and project design have progressed in parallel in order to allow the fullest possible interaction between them. In this way, the Environmental EIA has been an integral part of the project planning process.

Scoping and Consultation

5.7 Included in this section are details of the scoping and consultations that were carried out with the aim of identifying potential areas of concern at an early stage and allowing them to be addressed in the EIA process.

Scoping

5.8 Scoping is the process of determining the issues to be addressed by an EIA. Regulation 7 of the EIA Regulations provides for a person who is minded to make an EIA application to ask the Secretary of State to state in writing their opinion as to the information to be provided in the Environmental Statement. Although not legally required by the Regulations, the production of a scoping report at an early stage in the EIA process permits subsequent work

to concentrate on a more focussed range of environmental topics and opens early dialogue with key stakeholders.

5.9 Consequently, for this project a Scoping Report was prepared in October 2009, the objectives of which were to:

- Identify potential environmental issues associated with the project;
- Provide a basis for consultation, where appropriate, with statutory and non-statutory consultees on the relevant environmental issues;
- Define the methods that would be used to assess the environmental effects of the project and, where appropriate, agree with statutory and non-statutory consultees on those methods.

5.10 A scoping request made under Regulation 7 of the EIA Regulations was submitted to the Secretary of State in October 2009. This request was updated in November 2009, to reflect a change in the boundary of the site. As part of this procedure, the Secretary of State consulted the appropriate consultation bodies under Regulation 7, including Cheshire West and Chester Council, Natural England and the Environment Agency.

5.11 On 19th January 2010, the Secretary of State responded to the scoping request confirming that the main areas to be covered in the EIA had been identified and highlighting further information requests.

5.12 The scoping opinion and a document indicating the key points raised in the scoping opinion, together with the response to these, are provided in Appendix 5.1.

5.13 The scoping exercise highlighted a number of areas that consultees wished to see addressed within the EIA. Taking into account the nature, size and location of the project, the information provided in the scoping request, the scoping opinion responses and the continuing refinement of scope that has resulted from the ongoing EIA, the following topics have been identified as requiring consideration within this ES:

- Traffic and Transportation;
- Air Quality;
- Landscape and Visual Effects;
- Ecology and Nature Conservation;
- Hydrology and Flood Risk;
- Hydrogeology and Ground Conditions;
- Noise and Vibration;

- Archaeology and Cultural Heritage;
- Socio-Economic Effects.

5.14 The site is located within an existing industrial area on areas of previously developed land. The project does not affect any areas of agricultural land and therefore effects on agriculture have not been included within this assessment.

Consultation

5.15 During the project design stages, the applicants and RPS have maintained consultation with Cheshire West and Chester Council and other interested parties.

5.16 In addition to the scoping process, input to the environmental assessment process has been received through consultation with or requests for information from a number of organisations, including the following:

- Cheshire West and Chester Council;
- Natural England;
- Environment Agency;
- Cheshire Wildlife Trust;
- rECOrd (biological records centre);
- RSPB;
- British Trust for Ornithology;
- Cheshire & Wirral Ornithological Society;
- Wirral & Cheshire Badger Group;
- Cheshire Bat Group; and
- Cheshire & Wirral Amphibian and Reptile Group.

5.17 The applicants have also undertaken public consultation for the project. Leaflets announcing and describing the project were circulated to households within an approximate two mile radius of the project site in late September 2009, in November and early in 2010. The area covered included the settlements of Rudheath, Leftwich, Wincham, Lostock Gralam, Lostock Green, Higher Wincham and Pickmere, as well as the central area of Northwich. It is intended to circulate a further leaflet after the submission of the application.

5.18 A community exhibition was held on Tuesday 1 December and Wednesday 2 December 2009 at the Lostock Social Club in Works Lane, Lostock. The exhibitions were staffed by

representatives of Brunner Mond, E.ON Energy from Waste UK Limited, RPS and Staniforth (public relations advisors to the applicants).

Approach to EIA

Relevant EIA Guidance

- 5.19 The EIA has been undertaken taking into account relevant government guidance, including:
- Department of the Environment, Transport and the Regions (DETR) (1999) Circular 02/99: Environmental Assessment. HMSO.
 - Department of the Environment (1995) Preparation of Environmental Statements for Planning Projects that Require Environmental Assessment: A Good Practice Guide. HMSO.
 - Department of the Environment, Transport and the Regions (DETR) (1997) Mitigation Measures in Environmental Statements. HMSO.
 - Department of the Environment, Transport and the Regions (DETR) and the National Assembly for Wales (2000) Environmental Impact Assessment: A Guide to the Procedures. HMSO.
- 5.20 In addition to the above, the Department for Communities and Local Government has recently consulted on proposed amendments to Circular 02/99 and on new EIA guidance to update guidance provided to date. This has been considered where relevant.
- 5.21 The recently published draft National Policy Statements also include some guidance in relation to EIA for energy projects. In particular, EN-1, the overarching draft National Policy Statement for energy sets out assessment principles at Section 4.
- 5.22 Other topic specific specialist methodologies and good practice guidelines have been drawn on as necessary and details of these can be found in the environmental topic chapters.

General Approach to EIA

- 5.23 The assessment of each environmental topic forms a separate chapter of this ES, as described in Chapter 1. For each environmental topic chapter in the ES, the following are addressed:
- Methodology and assessment criteria;
 - Description of the environmental baseline (existing conditions);
 - Identification of likely effects and assessment of the significance of identified effects, taking into account any measures designed to reduce or avoid environmental effects which form part of the project and to which the developer is committed;

- Identification of any further mitigation measures envisaged to avoid, reduce and, if possible, remedy adverse effects (in addition to those measures that form part of the project).
- Cumulative effects, including consideration of the effects of the project together with other developments planned in the area.

5.24 The approach to the assessment is described in further detail in the sections below.

Methodology and Assessment Criteria

5.25 The general environmental assessment methodology is set out in the subsequent sections of this chapter. Each environmental topic has been considered by a specialist in that area and subsequent chapters define the scope of the assessment in more detail. Identification and evaluation of effects has been based on the description of the project and follows relevant topic-specific guidance where available (e.g. Guidelines on Ecological Impact Assessment, IEEM 2006).

Description of the Environmental Baseline

5.26 Each topic based chapter includes a description of the current (baseline) environmental conditions. The geographical baseline (or study area) varies according to the type of effect under consideration. The approach taken to baseline studies for each topic is made clear within each chapter.

5.27 The baseline conditions of the site and its environs form the basis of the assessment for the EIA, enabling the likely significant effects to be identified through a comparison with the baseline. This baseline includes the current and future situations without the project. This ES is based on information available at the time of assessment during 2009 and 2010. Where appropriate, future changes to this baseline are considered.

Assessment of Effects

5.28 The EIA Regulations require the identification of the likely significant environmental effects of the project. The process by which effects are identified and their significance evaluated is set out below.

Sensitivity or Importance of Receptors

5.29 Receptors are defined as the physical resource or user group that would be affected. The baseline studies identify potential environmental receptors for each topic. Some receptors will be more sensitive to certain environmental effects than others. The sensitivity or importance of a receptor may depend, for example, on its frequency or extent of occurrence at an international, national, regional or local level.

Description of Effect

5.30 Effects are defined as the changes to the environment attributable to the project. For each topic, the likely environmental effects are identified and taken into account, including their

magnitude and other dimensions of identified change in the environment with the project by comparison with the situation without the project.

5.31 Effects are defined as either adverse or beneficial. Depending on discipline, they may also be described as:

- Direct: Effects directly attributable to a project action/activity;
- Indirect: Effects not directly attributable to a project action/activity.

5.32 Effects are divided into those occurring during the construction, operational or decommissioning phases. Where appropriate, some chapters refer to these as temporary and permanent effects.

Significance of Effects

5.33 The significance of an effect differs according to the topic under assessment. The magnitude of an effect does not directly translate into its significance. For example, a significant effect may arise as a result of a relatively modest effect on a resource of national value, or a large effect on a resource of local value. In broad terms, therefore, the significance of the effect can depend on both its magnitude and the sensitivity or importance of the receptor.

5.34 The significance of an effect has generally taken account of the following criteria:

- Extent and magnitude of the effect;
- Duration (short-term and long-term);
- Reversibility and irreversibility;
- Performance against environmental quality standards;
- Number and sensitivity of the receptor.

5.35 Levels of significance that are used in the assessment include, in descending order:

- Substantial;
- Major;
- Moderate;
- Minor;
- Neutral.

5.36 Where an effect is described as 'neutral' this means that there is either no effect or that the significance of any effect is considered to be negligible. All other levels of significance apply to both adverse and beneficial effects. These significance levels are defined separately for each topic within the methodology sections. In all cases, the judgement made as to

significance is that of the author of the relevant chapter with reference to appropriate standards/guidelines where relevant.

Inter-relationships between Topics

- 5.37 Inter-relationships between topics can arise that lead to environmental effects. For example, changes in traffic flows may lead to changes in local air quality and noise. Where relevant, these have been identified within individual chapters.

Mitigation Measures

- 5.38 The project includes a range of measures that have been designed to reduce or prevent significant adverse environmental effects arising. In some cases these measures result in enhancement of environmental conditions. The assessment of effects has therefore taken into account all measures that form part of the project and to which the applicants are committed.
- 5.39 In a few cases it has been considered desirable to identify what have been described as 'further mitigation' measures. These are measures that could also prevent, reduce and where possible offset any adverse effects on the environment but are not part of the assessed project.

Other Developments and Cumulative Effects

- 5.40 The effects of the project together with other developments planned in the area have been considered in the each topic chapter. Information on other developments in the area has been obtained from a number of sources, including Cheshire West and Chester Council and development plans. Other developments considered in the cumulative effects assessment include those that have planning permission, those where applications have been submitted and are considered likely to be approved in the near future and other projects planned in the area (such as those for which development briefs have been adopted in order to encourage a specific type of development at a particular site and sites allocated in local plans). The scope of the cumulative effects assessment has been established in consultation with Cheshire West and Chester Council. The projects considered as part of the cumulative effects assessment are identified and briefly described in Appendix 5.2. The author of each topic chapter of the ES has considered the developments set out in Appendix 5.2 and identified those that are relevant to their assessment.
- 5.41 In some cases the timescale of these developments may be such that construction would be progressed at the same time as the project and, where this is the case, this has been taken into account.