



## **Thurrock Flexible Generation Plant**

**Preliminary Environmental Information Report  
Chapter 1: Introduction**

**Date:** September 2018

**Environmental Impact Assessment**  
**Preliminary Environmental Information Report**

**Volume 2**

**Chapter 1**

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<http://www.thurrockpower.co.uk>

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## Summary

This document introduces the applicant and the Preliminary Environmental Information Report (PEIR), describing the purpose of the PEIR and its structure.

## Qualifications

This document has been prepared by Anna Gillespie BSc (Hons), MSc, a Consultant who has three years' experience of planning consultancy and environmental impact assessment.

It has been checked by Tom Dearing, a Chartered Environmentalist and full Member of the Institute of Environmental Management and Assessment, who has eight years' experience of environmental impact assessment.

## 1. Project Overview

### 1.1 Introduction to the proposed development

- 1.1.1 Thurrock Power Ltd proposes to develop a flexible generation plant on land north of Tilbury Substation in Thurrock. The flexible generation plant will provide up to 600 megawatts (MW) of electrical generation capacity on a fast response basis when called by the National Grid, together with up to 150 MW of battery storage capacity.
- 1.1.2 The proposed development is a Nationally Significant Infrastructure Project (NSIP) for which Thurrock Power will submit an application to the Planning Inspectorate (PINS) for development consent.
- 1.1.3 The flexible generation plant is needed to provide resilience to the electricity grid when that is required due to unplanned outages and intermittent generation from renewable sources, particularly wind power, or short term demand from consumers (typically in the morning and evening, particularly in the winter). It will do so through providing peaking generation capacity from the fast-start gas engines, which will typically run for short periods. The battery storage facility will provide both electricity balancing and frequency management services for the grid.
- 1.1.4 The application boundary and location of the proposed development are shown in Figure 1.1. Further details of its design are provided in Volume 2, Chapter 2: Project Description.
- 1.1.5 This chapter sets out the legislative background and purpose of the Preliminary Environmental Information Report (PEIR). The PEIR forms the basis of the statutory consultation undertaken pursuant to sections 42 and 47 of the Planning Act 2008, which is a statutory stage of the pre-application consultation. The consultation commences on 16 October 2018 and concludes on 14 November 2018. At that point, comments received on the PEIR will be collated and considered when finalising the Environmental Statement (ES). The ES will be submitted with the application for a Development Consent Order (DCO) under Section 32(3) of the Planning Act 2008 and Regulation 17 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, as amended. The application for development consent is anticipated to be submitted in January 2019.

### 1.2 The applicant

- 1.2.1 Thurrock Power is a subsidiary of Statera Energy Limited, a private British company that develops, builds and operates flexible electricity generating plant in the UK.

- 1.2.2 Statera Energy was established with the aim of delivering increased flexibility for the UK electricity system to assist in the transition to a low carbon economy in the expectation that renewable energy sources, such as solar and wind, will become the dominant form of generation of the future.

- 1.2.3 Thurrock Power will be a fully integrated developer, owner, and operator of the proposed Thurrock Flexible Generation Plant.

### 1.3 Project timeline

- 1.3.1 The expected timeline for consultation, decision-making and (if consent is granted) development of Thurrock Flexible Generation Plant is as follows.

#### Pre-application

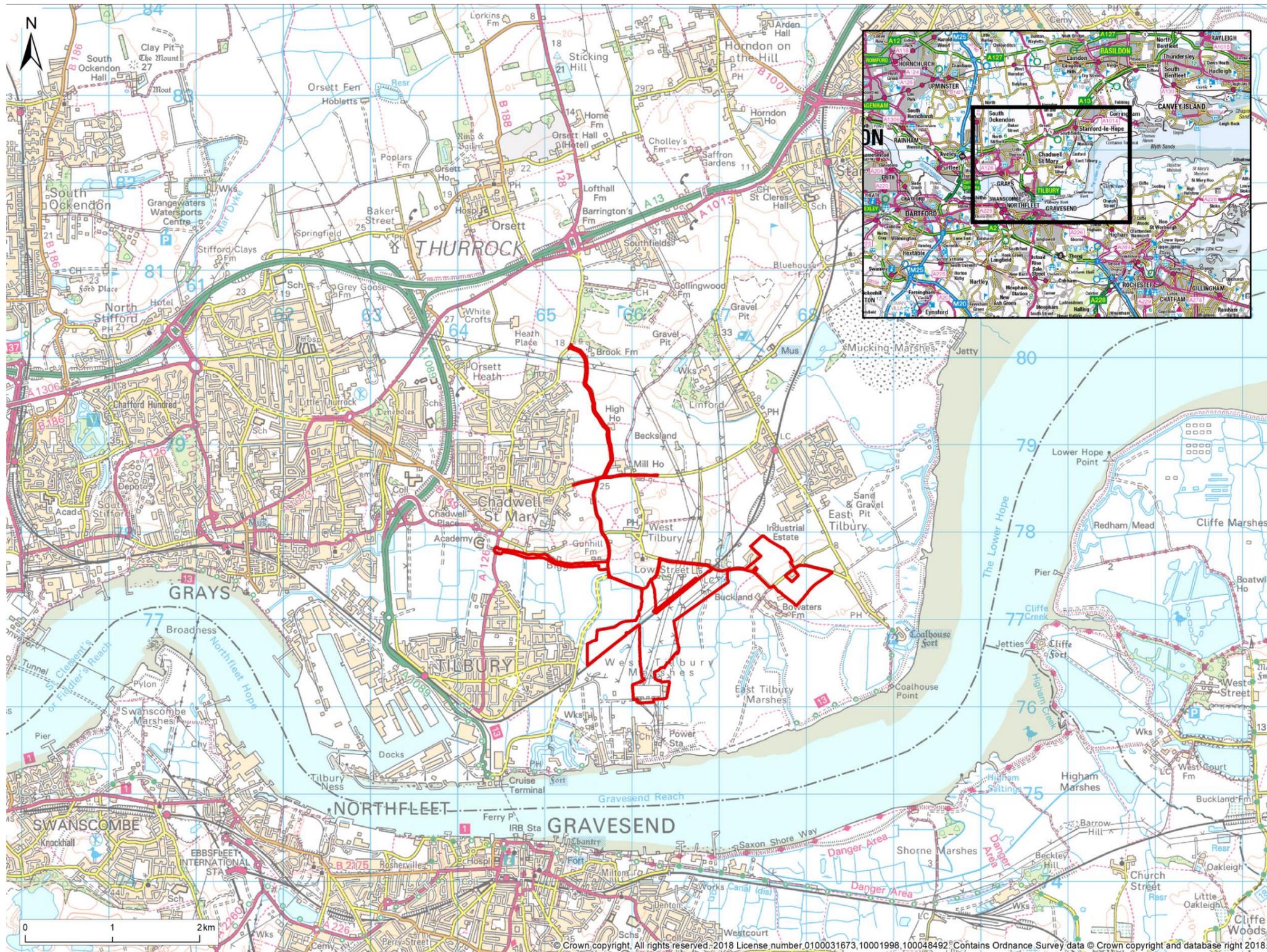
- Quarter 3 of 2018 – scoping of EIA with response from PINS; and
- Quarter 4 of 2018 – PEIR consultation with statutory and non-statutory consultees, running from 16 October 2018 to 14 November 2018.

#### Application and examination

- January 2019 – submission of application with ES to PINS; and
- Quarter 2 to Quarter 4 2019 – examination of the application by PINS, with input from interested parties, and decision by the Secretary of State.

#### Post-consent

- Anticipated in year 2020 – potential development commences for advanced works (site preparation, ecological management); and
- From 2021 – construction commences, potentially in phases lasting up to six years in total.



**Legend**  
 Development boundary

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Thurrock Flexible Generation Plant  
 Development boundary



Figure 1.1: Site Location Plan.

## 2. Purpose and Structure of this Document

### 2.1 Policy and legislation

- 2.1.1 The planning process for dealing with proposals for NSIPs was established by the Planning Act 2008 (the 2008 Act). This process, as amended by the Localism Act 2011, involves an examination of major proposals and includes significant consultation and engagement before a decision is made by the relevant Secretary of State.
- 2.1.2 The 2008 Act, as amended, sets out the thresholds for NSIPs. For the generating stations sector, applications for development consent will be referred to the Secretary of State if the construction or extension of the generating station:
- is in England or Wales;
  - is not an offshore generating station; and
  - has a capacity of more than 50 MW.
- 2.1.3 The proposed scheme, once operational, would provide up to 600 MW of electrical generation capacity together with up to 150 MW of battery storage capacity.
- 2.1.4 As a result, the throughput of the proposed flexible generation plant exceeds the threshold stated within the 2008 Act and therefore the proposed development constitutes a NSIP, requiring consent from the Secretary of State via a Development Consent Order (DCO), under Section 31 of the Planning Act 2008.
- 2.1.5 Pursuant to Section 104 of the 2008 Act, in considering a DCO the Secretary of State must have regard to any relevant National Policy Statements (NPSs) that are in force. NPSs are documents produced as a consequence of the 2008 Act that have been designated by the Secretary of State following public consultation and scrutiny by the Houses of Parliament.
- 2.1.6 NPSs describe the national case and establish the need for certain types of infrastructure development including energy and electricity networks, as well as identifying potential key issues that should be considered by the examining body and decision maker when considering an application for a DCO.
- 2.1.7 The NPS is therefore the most important policy document(s) against which the proposed development will be assessed.
- 2.1.8 The NPSs relevant to Thurrock Flexible Generation Plant are:

- Overarching National Policy Statement for Energy (EN-1) (Department of Energy and Climate Change (DECC), 2011a);
- National Policy Statement for Fossil Fuel Electricity Generating Infrastructure (EN-2) (DECC, 2011b);
- National Policy Statement for Gas Supply Infrastructure and Gas and Oil Pipelines (EN-4) (DECC, 2011c); and
- National Policy Statement for Electricity Networks Infrastructure (EN-5) (DECC, 2011d).

#### Overarching National Policy Statement for Energy

- 2.1.9 NPS EN-1 sets out the Government's policy for the delivery of major infrastructure. NPS EN-1, in conjunction with the relevant NPSs (in this case NPS EN-2), will be the primary basis for PINS' decision making.
- 2.1.10 NPS EN-1 identifies that the energy NPSs are likely to contribute positively towards improving the vitality and competitiveness of the UK energy market by providing greater clarity for developers, which should improve the UK's security of energy supply.

#### National Policy Statement for Fossil Fuel Electricity Generating Infrastructure

- 2.1.11 NPS EN-2, considered together with NPS EN-1, provides the primary basis for decisions by PINS on applications it receives for nationally significant fossil fuel electricity generating stations. NPS EN-2 sets out the need and urgency for new energy infrastructure to be consented and built with the objective of contributing to a secure, diverse and affordable energy supply and supporting the Government's policies on sustainable development, in particular by mitigating and adapting to climate change.

#### National Policy Statement for Gas Supply Infrastructure and Gas and Oil Pipelines

- 2.1.12 NPS EN-4, taken together with NPS EN-1, provides the primary basis for decisions by the IPC on applications for gas supply infrastructure and gas and oil pipelines. NPS EN-4 identifies that through supporting the transition to a low carbon economy, EN-4 is considered to have significant positive effects on security of supply and the economy and skills in the medium term.

## National Policy Statement for Electricity Networks Infrastructure

2.1.13 NPS EN-5 relates to applications for electricity networks infrastructure. NPS EN-5, together with NPS EN-1, provides the primary basis for decisions on applications for electricity networks infrastructure development. NPS EN-5 identifies certain environmental topic specific policy considerations. Where appropriate, these are outlined within the relevant topic chapters of this PEIR.

## 2.2 Need for Environmental Impact Assessment

2.2.1 Certain categories of development are required by European and UK domestic legislation to be the subject of Environmental Impact Assessment (EIA). The EIA regime in Europe originated from European Council Directive 85/337/EEC, which was amended by Directive 97/11/EC, Directive 2003/35/EC and Directive 2009/31/EC. In 2011, the initial 1985 Directive and its three amendments were codified by Directive 2011/92/EU (the EIA Directive) on the assessment of the effects of certain public and private projects on the environment.

2.2.2 Directive 2014/52/EU, which amends Directive 2011/92/EU, entered into force on 15 May 2014 and required Member States to transpose its requirements into national law by 16 May 2017. On 16 May 2017, The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 entered into force and were subject to minor amendments in 2018.

2.2.3 The purpose of the EIA Directive is to ensure that when an authority giving consent for a particular project makes its decision, it does so in the knowledge of any likely significant effects on the environment. The EIA Directive and EIA Regulations set out a procedure that must be followed for certain types of project before they can be granted development consent. EIA provides for the systematic assessment of a project's likely significant environmental effects for consideration by both the public and the relevant competent authority before a decision is made.

2.2.4 The process of identifying whether or not EIA is required for a development is known as screening. Projects of the type listed in Schedule 1 of the EIA Regulations require EIA in all cases. Projects of the type listed in Schedule 2 may require EIA in certain circumstances.

2.2.5 The proposed development would fall under the following paragraph of Schedule 1 of the EIA Regulations;

*2 – (1) Thermal power station and other combustion installations with a heat output of 300 megawatts or more.*

2.2.6 As the development falls within Schedule 1 it is considered to be EIA development.

## 2.3 Purpose of this Preliminary Environmental Information Report

2.3.1 The Planning Act 2008, as amended, requires Preliminary Environmental Information (PEI) to be produced for public consultation and for review by consultation bodies, so as to develop an informed view of the likely environmental effects of the development (and of any associated development). The level of detail required for PEI is not defined by the EIA Regulations, but as a minimum it should include the information specified in Schedule 4 of the EIA Regulations. Guidance on the detail of PEI is, however, provided in PINS Advice Note Seven (Environmental Impact Assessment: Preliminary Environmental Information, Screening and Scoping) (PINS, 2017).

2.3.2 The purpose of this PEIR is to provide the preliminary environmental information that has been gathered, to enable consultees to understand the potential environmental effects of the proposed development and to help inform consultation responses. This affords an opportunity to engage with PINS and statutory and non-statutory consultees during the pre-application process, inviting them to review those assessments undertaken to date and to provide comments, which in turn will inform the EIA process and subsequent ES.

2.3.3 This PEIR specifically:

- provides statutory and non-statutory consultees with technical information to enable an understanding of the proposed development;
- provides an outline of the main project alternatives considered for the proposed development and indications of the reasons for the development selection made by Thurrock Power;
- describes the methodology used in the EIA process;
- presents the existing environmental baseline information, established from desktop studies, field surveys and consultation undertaken to date;
- indicates any difficulties encountered during the compilation of the environmental information, including the acknowledgement of any data gaps or deficiencies and confidence in the information gathered;
- presents the potential environmental impacts arising from the proposed development, based upon the baseline information and data gathered, and the analysis and assessments completed to date;
- puts forward potential mitigation measures that could prevent, minimise, reduce or offset potential negative environmental impacts identified to date;

- outlines the work that will be undertaken between the publication of the PEIR and the finalising of the ES, including any further survey work, if required; and
- forms the basis for discussions about the proposed development with statutory and non-statutory stakeholders, in order to facilitate agreement of the provisions and requirements within the draft DCO.

### Structure of this Preliminary Environmental Information Report

- 2.3.4 Significant survey and assessment work has been completed to date to inform the EIA process, including baseline ecological surveys, landscape and visual surveys, noise and air quality surveys, traffic modelling, and desk-based archaeological, flood risk and ground conditions assessment.
- 2.3.5 At this stage, however, not all the detailed surveys or assessments required to complete the EIA process and prepare the ES has been completed. This PEIR therefore presents the environmental information available at this time and the current understanding of the likely environmental effects of the proposed development.
- 2.3.6 Table 2.1 details the structure of the PEIR.
- 2.3.7 The information presented in this PEIR will be developed further through the EIA process, and the findings of the EIA will be presented in the ES which will accompany the application for development consent. If the application is accepted for examination, PINS and Thurrock Power will further publicise the application and interested parties will be able to register their interest on the application, which will enable them to participate in the examination process and be kept informed of the opportunities to present their views.

## 2.4 Statutory and public consultation

- 2.4.1 Under the Planning Act 2008, as amended, the applicant has a duty to consult and publicise the proposed development. The responses received will be taken into account in preparing the design of the proposed development submitted with the application for development consent, and in the ES.
- 2.4.2 Consultation regarding the project has been ongoing and this PEIR is part of a suite of documents which have been made available for the statutory consultation. This stage includes the formal section 42 consultation with statutory consultees and public consultation under section 47 under the Planning Act 2008, as amended.

- 2.4.3 Thurrock Power will consider responses from the public and stakeholders in continuing to assess the merits of the proposed development and, where appropriate, to improve and refine the proposals. Thurrock Power expects to submit the application for development consent to PINS in January 2019.
- 2.4.4 Further detail on the consultation undertaken to date is included in Volume 2, Chapter 5: Scoping and Consultation.

## 2.5 Document Availability

- 2.5.1 A Non-Technical Summary (NTS) document has been produced which describes the proposed development, its location and the likely environmental effects in non-technical language. The PEIR and NTS can be viewed and downloaded free of charge from the Thurrock Power website: <http://www.thurrockpower.co.uk>
- 2.5.2 Copies of the PEIR can be requested by post, email or telephone:
- Post: Freepost THURROCK POWER
- Email: [contact@thurrockpower.co.uk](mailto:contact@thurrockpower.co.uk)
- Telephone: 0207 1860580
- 2.5.3 A charge may be made for paper copies.
- 2.5.4 Written responses on the content of this PEIR can be made through the project website or to the addresses above.

Table 2.1: Structure of the PEIR.

Volume	Document Number	Title
1	-	Non-Technical Summary
2	<b>Chapters</b>	
	-	Glossary, acronyms and units
	1	Introduction
	2	Project Description
	3	Consideration of Alternatives
	4	Environmental Impact Assessment Methodology
	5	Scoping and Consultation
3	<b>Chapters</b>	
	6	Landscape and Visual Resources
	7	Historic Environment
	8	Land Use, Agriculture and Socio-Economics
	9	Ecology
	10	Traffic and Transport
	11	Noise and Vibration
	12	Air Quality
	13	Human Health
	14	Climate Change
	15	Hydrology and Flood Risk
4	<b>Chapters</b>	
	17	Summary of Inter-Related Effects
	18	Summary of Cumulative Effects
	19	Summary of Further Mitigation, Residual Effects and Monitoring
5	<b>Appendices to Volume 2</b>	
	2.1	Enhancement, Mitigation and Monitoring Commitments
	2.2	Code of Construction Practice
	2.3	Accident and Emergency Management Procedures
	4.1	Cumulative Developments and Screening

Volume	Document Number	Title
	4.2	Transboundary Impacts Screening Note
6	<b>Appendices to Volume 3</b>	
	6.1	Addendum to the Assessment of Landscape and Visual Resources
	7.1	Historic Environment Desk Based Assessment
	7.2	Geophysical Survey Report
	9.1	Ecological Desk Study and Survey Report
	9.2	Outline Ecological Management Plan
	10.1	Transport Assessment
	11.1	Baseline Sound Monitoring Report
	11.2	BS4142:2014 Statements of Competence
	11.3	Construction Noise Assessment Methodology and Results
	11.4	Operation Noise Assessment Methodology and Results
	11.5	Standards and Guidance Relevant to Noise and Vibration
	12.1	Assessment of Air Quality Impacts on Ecological Receptors
	12.2	Baseline Air Quality Conditions
	12.3	Stack Height Determination
	12.4	Model Inputs and Outputs
	12.5	Results of Other Scenarios
	13.1	Health Baseline
	14.1	GHG Calculations
	15.1	Flood Risk Assessment
	15.2	Flood Zones and Model Data
	15.3	Surface Water Abstraction Licences, Discharge Consents and Pollution Incidents
	16.1	Phase 1 Preliminary Risk Assessment

### 3. References

Department for Environment and Climate Change (2011a). Overarching National Policy Statement for Energy (EN-1).

Department for Environment and Climate Change (2011b). National Policy Statement for Fossil Fuel Electricity Generating Infrastructure (EN-2).

Department for Environment and Climate Change (2011c). National Policy Statement for Gas Supply Infrastructure and Gas and Oil Pipelines (EN-4).

Department for Environment and Climate Change (2011d). National Policy Statement for Electricity Networks Infrastructure (EN-5).

European Council Directive 2003/35/EC providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending with regard to public participation and access to justice Council Directives 85/337/EEC and 96/61/EC.

European Council Directive 2009/31/EC the geological storage of carbon dioxide and amending Council Directive 85/337/EEC.

European Council Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment.

European Council Directive 2014/52/EU amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.

European Council Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment.

European Council Directive 97/11/EC amending Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment.

Localism Act 2011.

Planning Act 2008.

SI 2017/572. The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.

SI 2018/695. The Town and Country Planning and Infrastructure Planning (Environmental Impact Assessment) (Amendment) Regulations 2018.

The Planning Inspectorate (2017) EIA: Process, Preliminary Environmental Information and Environmental Statements. Advice Note Seven. Version 6. December 2017.