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Tees CCPP Project

The Tees Combined Cycle Power Plant Project
Land at the Wilton International Site, Teesside

Volume 1 - Chapter 1

Regulations – 6(1)(b) and 8(1)

Applicant: Sembcorp Utilities UK
Date: November 2017

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1 INTRODUCTION

1.1 PURPOSE OF THIS REPORT

1.1 Sembcorp Utilities (UK) Limited ('Sembcorp') plans to construct and operate a natural gas fired combined-cycle gas turbine (CCGT) generating station with an output capacity of up to 1,700 MWe ('the Project') on land within the Wilton International site, Teesside (see *Figure 1.1*).

1.2 This document including, its annexes, comprises the Environmental Statement (ES) for the Project and reports the findings of the Environmental Impact Assessment (EIA) that has been undertaken. In doing so, it describes the likely significant environmental effects resulting from the construction, operation and decommissioning of the Project and, where appropriate, the measures that are intended to mitigate any adverse impacts and how these measures will be secured.

1.3 The Project proposes an electrical generation plant with an output capacity of up to 1,700 MWe. In accordance with sections 15(1) and 15(2) and 14(1)(a) of the Planning Act 2008, it is therefore a Nationally Significant Infrastructure Project (NSIP).

1.4 As a NSIP, and in accordance with Section 31 of the Planning Act 2008, development consent is required to authorise development of the Project. Sembcorp is preparing an application to the Secretary of State (SoS) for Business, Energy and Industrial Strategy, for an order granting development consent.

1.5 In accordance with Regulation 3 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (the '2009 EIA Regulations'), the SoS may not make an order, granting development consent unless he has first taken environmental information into consideration ⁽¹⁾.

(1) Regulation 4 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the '2017 EIA Regulations'). The context of for this ES in regard to the 2009 and 2017 EIA Regulations is discussed in *Section 1.6*.



NORTH SEA

SITE LOCATION



Middlesbrough



SCALE: 1:250,000	VERSION: A01
SIZE: A3	DRAWN: WB
PROJECT: 0375193	CHECKED: RE
DATE: 26/04/2017	APPROVED: RE

Figure 1.1
Site Location



PROJECTION: British National Grid

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Path: \\ukbrsd02\Data\Bristol\Confidential Projects\0375193 TLP2 DCO Support\RE2. Working Folders\2. GIS\MAPS\PEIR\Fig01.01_0375193_SiteLocation_A01.mxd

1.2 *THE PROJECT*

1.2.1 *Overview*

1.6 The application site (henceforth the 'Project Site') is located on land at Wilton International, a major industrial complex located near Redcar in Teesside, northeast England. The station will include up to two gas turbine units, up to two steam turbine units, ancillary plant and equipment located in the main power island in the western part of the Project Site. The northern part of the site will include hybrid cooling towers and, in accordance with policy requirements for new generating infrastructure, an area of land for possible future carbon capture equipment has been set aside in the eastern part of the site.

1.7 The Project Site also includes land provision for connections to existing gas transmission infrastructure and connections via existing substation on the Project Site to the national grid.

1.8 Dependent on market conditions at the time of construction, two development scenarios are envisaged: one in which the full 1,700 MWe is built (i.e. two trains of 850 MWe each); and a second scenario where one train of 850 MWe is built and up to five years after commencement of commercial operation of the first train, construction of the second train commences. To allow for these two scenarios all of the technical assessments within this ES outline their attendant assumption in a 'basis of assessment' section which allows the adoption of a reasonable worst case scenario.

1.2.2 *Project Components*

1.9 The main Project components are:

- two gas turbine generators;
- two waste heat recovery steam generators (HRSGs);
- two condensing steam turbines;
- two hybrid cooling towers;
- two existing sub stations
- two stacks;
- control room and instrumentation system;
- administration building;
- package boilers; and
- land set aside for future carbon capture plant.

1.10 The Project is likely to also include the following:

- ancillary plant, equipment and buildings;
- internal roads plus car and heavy goods vehicle (HGV) parking;
- security fencing and noise control walls;
- connection to the existing electricity grid infrastructure;

- inter-connections with the existing utilities for water, natural gas, and other ancillary fuels / materials to the plant;
- surface water management systems and foul drainage provision; and
- lighting.

1.11 Chapter 5 of this report provides a more detailed description of the Project.

1.2.3 *The Project Site*

1.12 The general location of the Project Site is shown on *Figure 1.2*. This land currently forms part of the Sembcorp Utilities (UK) landholding.

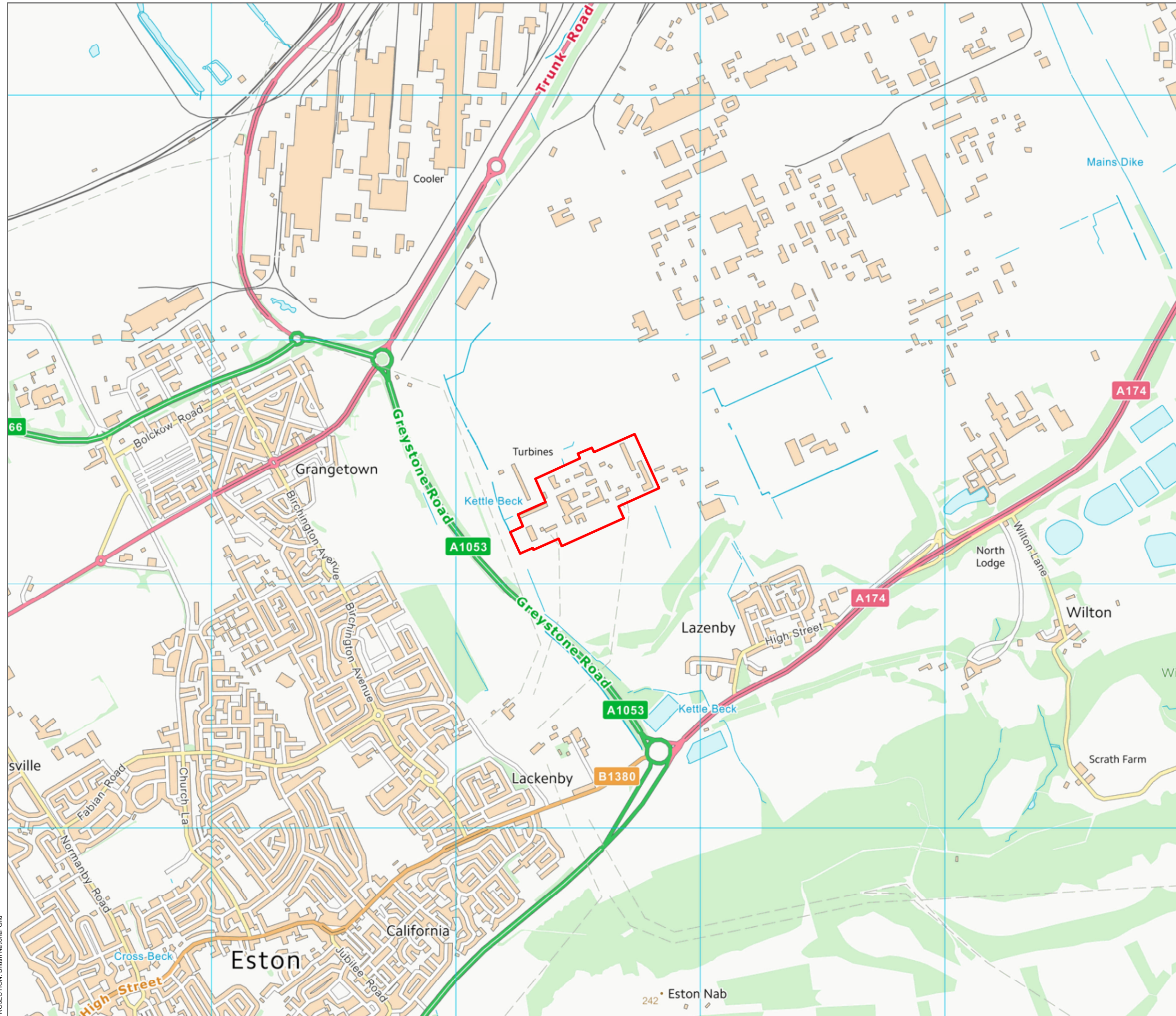
1.2.4 *The 'Rochdale Envelope'*

1.13 As noted in the Preliminary Environmental Information Report (PEIR), it is important to retain design flexibility to respond to emerging economic circumstances. A degree of flexibility will, therefore, be built into the Project design and two scenarios of development are considered. This need for flexibility does, however, introduce some complexity into the EIA process.

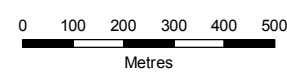
1.14 The 2009 (and 2017) EIA Regulations require an ES to provide a description of the location, design and size of the project to enable the likely significant environmental effects to be assessed and to enable the decision maker, statutory consultees and the public to make a properly informed response.

1.15 In summary a balance has to be sought, therefore, between defining the Project in enough detail to assess effects, while leaving enough flexibility to enable the Project to be successfully delivered under conditions which may be subject to change, such as final operational parameters. The adopted approach is to provide a reasonable worst scenario as a basis for assessing the effects of the Project.

1.16 In practice the EIA takes account of all the reasonable variations (up to the worst case scenario from an environmental perspective) and presents the likely significant effects of these where appropriate. Such an approach is good practice, as reflected in the Planning Inspectorate's Advice note 9 'Rochdale Envelope'.



Indicative Site Boundary



SCALE: 1:15,000
 SIZE: A3
 PROJECT: 0375193
 DATE: 26/04/2017

VERSION: A01
 DRAWN: WB
 CHECKED: RE
 APPROVED: RE

Figure 1.2
The Project Site



PROJECTION: British National Grid

1.3 THE APPLICANT

1.17 Sembcorp provides vital utilities and services to major international process industry customers on the Wilton International site on Teesside. Part of Sembcorp Industries, a Singapore-based group providing energy, water and marine services globally, Sembcorp Utilities UK also owns much of the industrial development land on the near 2,000 acre site which is marketed to energy intensive industries worldwide.

1.4 THE APPLICANT'S TEAM

1.4.1 EIA Study Team

1.18 The preparation of the EIA is being led by Environmental Resources Management (ERM) with support from other specialist organisations. ERM is a member of the Institute of Environmental Management and Assessment's (IEMA's) EIA Quality Mark, a scheme which allows organisations to make a commitment to excellence in their EIA activities, and have this commitment independently reviewed.

1.19 Specific topics in this EIA are being addressed by the following shown in *Table 1.1*.

Table 1.1 EIA Project Team

Item	Organisation	Person
EIA Project Director	ERM	Kevin Murphy, BSc (Hons, PhD
EIA Project Manager	ERM	Roderick Ellison MSc BSc (hons) CEnv MIEMA
Legal and Policy Framework	Dalton Warner Davis LLP	Technical lead and DWD Partner Geoff Bullock, BA (Hons) BPL MRTPI
Geology and Ground Conditions	ERM	Technical lead, ERM Partner Russell Cullen, BSc (Hons), MSc, FGS
Water Resources and Flood Risk Assessment	ERM	Senior Consultant Dr Andrew Gregory, BSc (Hons), PhD
Air Quality and Climate Change	ERM	Principal Consultant Dr Chris Hazell-Marshall, BSc, PhD, MIAQM, MIES Gavin Bollan, BSc, CEnv, CSci, MIEnvSc, FIAQM
Noise and Vibration	ERM	Principal Consultant Michael Fraser, BSc, MIOA
Baseline noise surveys	GT Acoustics	Dr Geoff Taylor BEng PhD CEng MIMechE MIOA
Ecology and Nature Conservation	Industry Nature Conservation Association (INCA) and ERM	Technical Director – Andy Coates MSc BSc (Hons) MCIEEM ES Author – Laura Cobden - BSc (Hons) MCIEEM Lead field ecologist Ian Bond, CEnv MCIEEM
Landscape and Visual	ERM	Principal Consultant Naushad Tahsildar,

Item	Organisation	Person
Impact		B' Arch, M Plan (Urban), MSc, PIEMA.
Archaeology, Material Assets and Cultural Heritage	ERM	Principal Consultant Charles Le Quesne, MA Hons, MCIfA
Traffic and Transport	Mayer Brown Ltd	Mayer Brown Director Vera Lamont, BE (Civil) CEng MICE MCIHT MCMI
Major Accidents and Natural Disasters	Sembcorp	Carole Nichols BSc (Hons)
Human Health	ERM	Roderick Ellison MSc BSc (hons) CEnv MIEMA
Socio-economic Characteristics	ERM	Georgia Tew-Street, MA, MSc

1.4.2 *Other Contributors*

1.20 In addition to the above, legal advice to the Project is being provided by Bond Dickinson and Project engineering is being undertaken by Sembcorp Group Project Development Team.

1.5 *SUMMARY OF THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS*

1.5.1 *Scoping*

1.21 As an initial stage in undertaking the EIA, a Scoping Report (see *Annex A*) was prepared and submitted to the Planning Inspectorate (PINs) in February 2017 (ERM, 2017). The scoping exercise that was undertaken is described in detail in *Chapter 3* of this ES. As a result of the Scoping Report being submitted, in February 2017 the Secretary of State responded with a Scoping Opinion in March 2017 (see *Annex B*) including responses from a range of consultees. As noted in *Chapter 3*, the technical scope of the EIA has derived from both the Scoping Report and the Scoping Opinion. Since the Scoping Report was prepared, whilst the development itself has remained the same, some changes have been made to the internal configuration and potential phasing of the Project as part of the iterative design process. These changes have been discussed with PINs, RCBC and the relevant statutory consultees and this ES reflects these changes in full.

1.5.2 *Preliminary Environmental Information*

1.22 A PEIR was prepared to accompany the consultation process as required under Regulation 10(b) of the 2009 EIA Regulations (Regulation 12(b) of the 2017 EIA Regulations). The purpose of the PEIR was to provide information and details on the Project, baseline conditions in the area of influence (including data collected to date) assessment methodologies, any identified effects and provisional mitigation. However, a key purpose of the PEIR was to provide consultees, particularly the public and local communities with relevant information on the Project to assist them in identifying the key

environmental and social issues at a stage where feedback could meaningfully influence the design process and the subsequent EIA and content of the ES.

1.6 THE NEW EIA REGULATIONS AND TRANSITIONAL PROVISIONS

1.23 The 2017 EIA Regulations came into force on 16th May 2017, replacing the 2009 EIA Regulations. The 2017 EIA regulations implement the Environmental Impact Assessment (EIA) Directive 2014, the purpose of which was to streamline the existing EIA regime.

1.24 Where the DCO application process was commenced prior to 16th May 2017, as is the case for the Project, a project may have the benefit of transitional provisions and the 2009 Regulations will continue to apply, if:

- the applicant has submitted an ES or updated ES (as defined in the 2009 Regulations), in connection with that application; or
- the applicant has requested that the Secretary of State (SoS) or the relevant authority adopt a scoping opinion (as defined in the 2009 Regulations) in respect of the development to which the application relates; or
- the applicant has made a request for a screening opinion or a subsequent screening opinion; or
- the SoS has initiated the making of a screening direction.

1.25 A scoping opinion was sought in relation to the Project earlier this year, and received in March 2017 (i.e. prior to 16th May 2017), which involved the submission of a scoping report; the Project therefore benefits from the transitional provisions and can undertake an assessment pursuant to the 2009 Regulations only, should it prefer to.

1.26 However in the Scoping Opinion the SoS did draw attention to the 2014 EIA Directive as follows:

“EU Directive 2014/52/EU

3.2 The SoS draws the Applicant’s attention to European Union (EU) Directive 2014/52/EU (amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment) which was made in April 2014.

3.3 Under the terms of the 2014/52/EU Directive, Member States are required to bring into force the laws, regulations and administrative provisions necessary to comply with the Directive by 16 May 2017.

3.4 Whilst transitional provisions will apply to such new regulations, the Applicant is advised to consider the effect of the implementation of the revised Directive in terms of the production and content of the ES.”

- 1.27 In consideration of the SoS's scoping opinion, the applicant has chosen to comply with the 2009 EIA Regulations while also voluntarily addressing the additional elements introduced by the 2017 EIA Regulations.
- 1.28 It should also be noted that under the 2017 EIA Regulations, where a scoping opinion has been adopted, the ES must be "based on" that opinion. The Applicant confirms that this ES is based on the scoping opinion. Each chapter of the ES sets out how the scoping opinion has been addressed.
- 1.29 *Table 1.2* at the end of this chapter sets out the required contents of an ES for both regulations and describes how and where in the ES the requirements have been addressed.

1.7 **REPORT CONTENT AND STRUCTURE**

1.30 This ES has adopted the following structure.

- The Non-technical Summary provides a concise summary of the ES and its technical annexes to improve accessibility to a non-specialist readership.

Volume 1

- *Chapter 1* details the purpose of the EIA and Development Consent Order processes and introduces the Project proponent, the Project's background and the Project Site (and its key component).
- *Chapter 2* outlines the planning policy and context for the Project and key legislation and guidance.
- *Chapter 3* describes the EIA process applied in the EIA. This chapter also details the methodology adopted to identify other significant development and plans within the Project's area of influence so that the potential for cumulative effects can be considered in the technical assessments contained within *Chapters 6 to 15* of the ES.
- *Chapter 4* provides a brief overview of the environmental and social baseline conditions within the area of influence for the Project. The baselines relevant to each topic are subsequently described in the following technical chapters.
- *Chapter 5* provides a detailed description of how the Project will be constructed and its operational components. This section also considers key alternatives to the design assumptions adopted within this EIA and how waste arising during construction / operation will be managed.
- *Chapter 6* addresses hydrogeology, drainage, flood risk, geology and ground conditions in relation to all stages of the Project.

- *Chapter 7* addresses emissions to atmosphere of pollutants in relation to all stages of the Project (construction, operation and decommissioning).
- *Chapter 8* addresses noise and vibration in relation to all stages of the Project.
- *Chapter 9* addresses terrestrial ecology and birds in relation to all stages of the Project.
- *Chapter 10* addresses traffic and transport in relation to all stages of the Project.
- *Chapter 11* addresses landscape and visual amenity in relation to all stages of the Project.
- *Chapter 12* addresses archaeology, material assets and cultural heritage in relation to all stages of the Project.
- *Chapter 13* addresses socio-economic characteristics in relation to all stages of the Project.
- *Chapter 14* addresses health and well-being in relation to all stages of the Project.
- *Chapter 15* addresses major accidents and disasters in relation to all stages of the Project.
- *Chapter 16* provides a summary of potential cumulative effects for the Project in combination with other significant development within the areas of influence from the technical assessments contained within *Chapters 6* to *15*.
- *Chapter 17* summarises the mitigation measures proposed to avoid, minimise, reduce and where possible offset any significant adverse effects on the environment.
- *Chapter 18* provides a summary of the likely significant effects of the Project on the environment, including the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the Project.

Volume 2

1.31 This volume includes a number of supporting documents namely:

- *Annex A*, Scoping Report.
- *Annex B*, the Planning Inspectorate's Scoping Opinion.

- *Annex C*, Flood Risk Assessment which provides a qualitative analysis of flood risk for the present day and over the lifetime of the Project, taking into account climate change allowances.
- *Annex D*, Contaminated land documentation which provides details of the Project Site's history, its environmental setting and its potential to be affected by land contamination.
 - *Annex D.1*, Phase 1 study.
 - *Annex D.2*, Envirocheck Report.
 - *Annex D.3*, Site Condition Report.
 - *Annex D.4*, Framework Site Waste management Plan.
- *Annex E*, Air Quality
 - *Annex E.1*, Air Quality Modelling Results.
 - *Annex E.2*, Stack Height Assessment.
 - *Annex E.3*, Greenhouse Gas Statement.
- *Annex F*, Noise and Vibration.
 - *Annex F.1*, Noise Baseline provides details of the baseline surveys undertaken.
 - *Annex F.2*, Operational Noise provides details of the operational noise model and the assumptions and predictions used.
- *Annex G*, Ecology and Nature Conservation.
 - *Annex G.1*, Effects of Air Quality on Nationally and Locally Designated Sites.
 - *Annex G.2*, Preliminary Ecological Appraisal.
 - *Annex G.3*, Breeding Bird Survey.
- *Annex H*, a Habitat Regulations Assessment Report which examines the likely effects of the Project either alone, or in-combination with other projects and plans on European sites. The report includes Stage 1 (Screening) and seeks to answer the question "can it be concluded that no likely significant effect will occur"?
- *Annex I*, Traffic and Travel
 - *Annex I.1*, Transport Assessment.
 - *Annex I.2*, Framework Construction Traffic Management Plan.
- *Annex J*, provides the gazetteer of designated heritage assets.
- *Annex K*, provides supporting landscape and visual photomontages.
- *Annex L*, Construction Environmental Management Plan.

Table 1.2 EIA Requirements and where they are Addressed in this ES

Required Information 2009 EIA Regulations	Required Information 2017 EIA Regulations	How the 2017 EIA Regulations have been Addressed	Reference to where Addressed in the ES
<p>Paragraph 17 of Schedule 4 A description of the Project, including in particular:</p> <p>A description of the physical characteristics of the whole Project and the land-use requirements during the construction and operational phases; A description of the main characteristics of the production processes, for instance, nature and quantity of the materials used; An estimate, by type and quantity, of expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc.) resulting from the operation of the Project.</p>	<p>Paragraph 1 of Schedule 4 A description of the development, including in particular:</p> <p>(a) a description of the location of the development; (b) a description of the physical characteristics of the whole development, including, where relevant, requisite demolition works, and the land-use requirements during the construction and operational phases; (c) a description of the main characteristics of the operational phase of the development (in particular any production process), for instance, energy demand and energy used, nature and quantity of the materials and natural resources (including water, land, soil and biodiversity) used; (d) an estimate, by type and quantity, of expected residues and emissions (such as water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities and types of waste produced during the construction and operation phases.</p>	<p>Although setting out more detail in terms of the topics that are required to be addressed no material differences are introduced above and beyond the matters that are normally addressed pursuant to the 2009 EIA Regulations and have been covered in this ES.</p> <p>In terms of demolition works, the former CCGT facility has already been demolished and this is covered in <i>Chapter 6</i>.</p> <p>Energy demand and energy used is covered in <i>Annex E.3</i>.</p>	<p><i>Chapter 5</i> provides a description of all aspects of the Project.</p> <p><i>Chapter 4</i> describes the general location and setting for the Project.</p> <p>Topic <i>Chapters 6 to 15</i> also contain relevant information under the sub-heading: <i>Basis of Assessment including Realistic Worst Case Scenario</i>.</p>
<p>Paragraph 18 of Schedule 4 An outline of the main alternatives studied by the applicant and an indication of the main reasons for the applicant’s choice, taking into account the environmental effects.</p>	<p>Paragraph 2 of Schedule 4 A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.</p>	<p>Although the 2017 Regulations give examples of alternatives to be considered and introduce the caveat of “reasonable alternatives”, no material differences are introduced above and beyond the matters that are normally addressed under the 2009 EIA Regulations and are covered in this ES.</p>	<p><i>Chapter 5</i> provides an outline of the main and reasonable alternatives studied by Sembcorp and the rationales for the main elements of decision-making for the chosen option.</p> <p>Where relevant further consideration of alternatives (e.g. for mitigation options) is considered for each topic in <i>Chapters 6 to 15</i></p>
	<p>Paragraph 3 of Schedule 4</p>	<p>This is a new requirement,</p>	<p><i>Chapter 4</i> provides an overview of the</p>

Required Information 2009 EIA Regulations	Required Information 2017 EIA Regulations	How the 2017 EIA Regulations have been Addressed	Reference to where Addressed in the ES
	A description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.	although it should be noted that ESs produced under the 2009 EIA Regulations would often look at future trends (e.g. traffic growth, future extreme rainfall influenced by climate change). A subsection addressing this matter is included within each technical topic chapter (<i>Chapters 6 to 15</i>).	general environmental and socio-economic setting for the Project and <i>Chapters 6 to 15</i> each contain a topic-specific description of existing conditions.
Paragraph 19 of Schedule 4 A description of the aspects of the environment likely to be significantly affected by the Project, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the interrelationship between the above factors.	Paragraph 4 of Schedule 4 A description of the factors specified in regulation 4(2) likely to be significantly affected by the development: population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydromorphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape.	Although setting out more detail in terms of the topics that are required to be addressed no material differences are introduced above and beyond the matters that are normally addressed under the 2009 EIA Regulations and are covered in this ES. In particular, climate in terms of greenhouse gas emissions is addressed in <i>Annex E.3</i> and impacts relevant to adaptation are covered in the flood risk assessment (<i>Annex C</i>) and <i>Chapter 5</i> . Health is covered in <i>Chapter 14</i> and biodiversity is covered in <i>Chapter 9</i> .	<i>Chapter 4</i> provides an overview of the general environmental and socio-economic setting for the Project and <i>Chapters 6 to 15</i> each contain a topic-specific description of existing conditions.
Paragraph 20 of Schedule 4 A description of the likely significant effects of the Project on the environment, which should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the Project, resulting	Paragraph 5 of Schedule 4 A description of the likely significant effects of the development on the environment resulting from, inter alia: (a) the construction and existence of the development, including, where relevant, demolition works;	Although setting out more detail in terms of the topics that are required to be addressed, other than items (d) and (f) no material differences are introduced above and beyond the matters that are normally addressed under the	<i>Chapters 6 to 15</i> describe and assess the likely significance of effects for each technical topic. Cumulative effects are addressed in each of these chapters (according to the methodology set out in <i>Chapter 3</i>)

Required Information 2009 EIA Regulations	Required Information 2017 EIA Regulations	How the 2017 EIA Regulations have been Addressed	Reference to where Addressed in the ES
<p>from:</p> <ul style="list-style-type: none"> • The existence of the Project; • The use of natural resources; • The emissions of pollutants, the creation of nuisances and the elimination of waste, <p>And the description by the applicant of the forecasting methods used to assess the effects on the environment.</p>	<p>(b)the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources;</p> <p>(c)the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste;</p> <p>(d)the risks to human health, cultural heritage or the environment (for example due to accidents or disasters);</p> <p>(e)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;</p> <p>(f)the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change;</p> <p>(g)the technologies and the substances used.</p> <p>The description of the likely significant effects on the factors specified in regulation 4(2) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the development. This description should take into account the environmental protection objectives established at Union or Member State level which are relevant to the project, including in particular those established under Council Directive 92/43/EEC and Directive 2009/147/EC.</p>	<p>2009 EIA Regulations. This ES covers all of the relevant aspects of the 2017 Regulations.</p> <p>The impact of the project on climate (in terms of the nature and magnitude of greenhouse gas emissions) is addressed in <i>Annex E.3</i>.</p> <p>The vulnerability of the project to climate change is addressed in <i>Annex C (Flood Risk Assessment)</i> and <i>Chapter 5 (Project Description)</i>.</p> <p>In terms of risks to human health this is covered in chapter X.</p> <p>In terms of demolition works, the former CCGT facility has already been demolished and this is covered in Chapter 6 and <i>Annex D.3</i>.</p>	<p>and are be summarised along with indirect effects in <i>Chapter 16</i>.</p>

Required Information 2009 EIA Regulations	Required Information 2017 EIA Regulations	How the 2017 EIA Regulations have been Addressed	Reference to where Addressed in the ES
<p>Paragraph 20 of Schedule 4 And the description by the applicant of the forecasting methods used to assess the effects on the environment.</p> <p>Paragraph 23 of Schedule 4 An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information.</p>	<p>Paragraph 6 of Schedule 4 A description of the forecasting methods or evidence, used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.</p>	<p>Although introducing a specific requirement to describe the evidence used, in reality an ES produced under the 2009 EIA Regulations and produced in accordance with good practice would as a matter of course set out the evidence base that it had used. Therefore no material differences are introduced above and beyond the matters that are normally addressed under the 2009 EIA Regulations and this ES complies with the requirements of the 2017 Regulations on this aspect.</p>	<p>The overall approach to the EIA is described in <i>Chapter 3</i>.</p> <p>Each technical topic chapter (<i>Chapters 6 to 15</i>) contains a section setting out the methodology, including forecasting and modelling methods and evidence used.</p> <p>Uncertainty and related matters and how they have been dealt with are also considered for each topic in <i>Chapters 6 to 15</i> where relevant.</p>
<p>Paragraph 21 of Schedule 4 A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.</p>	<p>Paragraph 7 of Schedule 4 A description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparation of a post-project analysis). That description should explain the extent, to which significant adverse effects on the environment are avoided, prevented, reduced or offset, and should cover both the construction and operational phases.</p>	<p>No material differences are introduced above and beyond the matters that are normally addressed under the 2009 EIA Regulations. Although there is an emphasis on any proposed monitoring arrangements to be specified, monitoring has traditionally formed a cornerstone of mitigation and environmental management in EIA and is picked up in this ES in the relevant chapters, for example on noise where monitoring requirements are proposed in the DCO to ensure the mitigation is effective and noise limits can be achieved.</p>	<p>Certain items of inherent (designed-in) mitigation are described in <i>Chapter 5</i>.</p> <p>Mitigation measures specific to particular topics are described in <i>Chapters 6 to 15</i>.</p> <p>Mitigation measures are also summarised in the form of a ‘register’ in <i>Chapter 17</i> and their means of delivery are outlined in a Draft Construction Environmental Management Plan (CEMP) (<i>Annex L</i>) and Framework Construction Traffic Management Plan (CTMP) (<i>Annex I.2</i>), as well as in specific DCO Requirements.</p>
	<p>Paragraph 8 of Schedule 4 A description of the expected significant adverse effects of the development on the</p>	<p>This is a new requirement (although some ESs produced under the 2009 EIA Regulations</p>	<p><i>Chapter 15</i> provides an assessment of the potential effects arising from accident scenarios and the control</p>

Required Information 2009 EIA Regulations	Required Information 2017 EIA Regulations	How the 2017 EIA Regulations have been Addressed	Reference to where Addressed in the ES
	<p>environment deriving from the vulnerability of the development to risks of major accidents and/or disasters which are relevant to the project concerned. Relevant information available and obtained through risk assessments pursuant to EU legislation such as Directive 2012/18/EU of the European Parliament and of the Council or Council Directive 2009/71/Euratom or UK environmental assessments may be used for this purpose provided that the requirements of this Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.</p>	<p>may typically have addressed such matters as major oil spills).</p> <p>The ES includes a stand-alone chapter covering this topic.</p>	<p>measures to address these.</p> <p><i>Chapter 6</i> provides an assessment of potential spill and leak scenarios that could adversely affect the soil and water environments and how these will be mitigated.</p>
<p>Paragraph 22 of Schedule 4 A non-technical summary of the information provided under paragraphs 1 to 5 of this Part.</p>	<p>Paragraph 9 of Schedule 4 A non-technical summary of the information provided under paragraphs 1 to 8.</p>		<p>The ES is prefaced by a <i>Non-technical Summary</i>.</p>
	<p>Paragraph 10 of Schedule 4 A reference list detailing the sources used for the descriptions and assessments included in the environmental statement.</p>	<p>Although nominally a new requirement all ESs produced under the 2009 EIA Regulations and in accordance with good practice would have included this information.</p>	<p>Key sources of information are described in a specific sub-section of each of the technical topic <i>Chapters 6 to 15</i>. In addition other sources of information, including cited literature sources and links to websites are provided as footnotes throughout the ES.</p>