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Tees CCPP Project

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

Tees CCPP, Environmental Statement, Non-Technical Summary

Regulations – 6(1)(b) and 8(1)

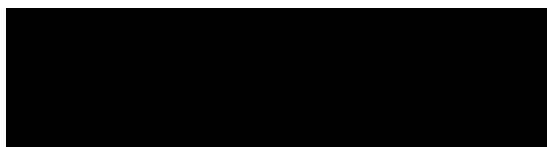
Applicant: Sembcorp Utilities UK
Date: November 2017

Tees CCPP, Environmental Statement, Non-Technical Summary

November 2017

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For and on behalf of
Environmental Resources Management
Approved by: Kevin Murphy



Signed: Position: Partner
Date: November 2017

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0.1 INTRODUCTION

0.1 Sembcorp Utilities (UK) Limited ('Sembcorp') proposes 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).

0.2 PURPOSE OF THIS DOCUMENT

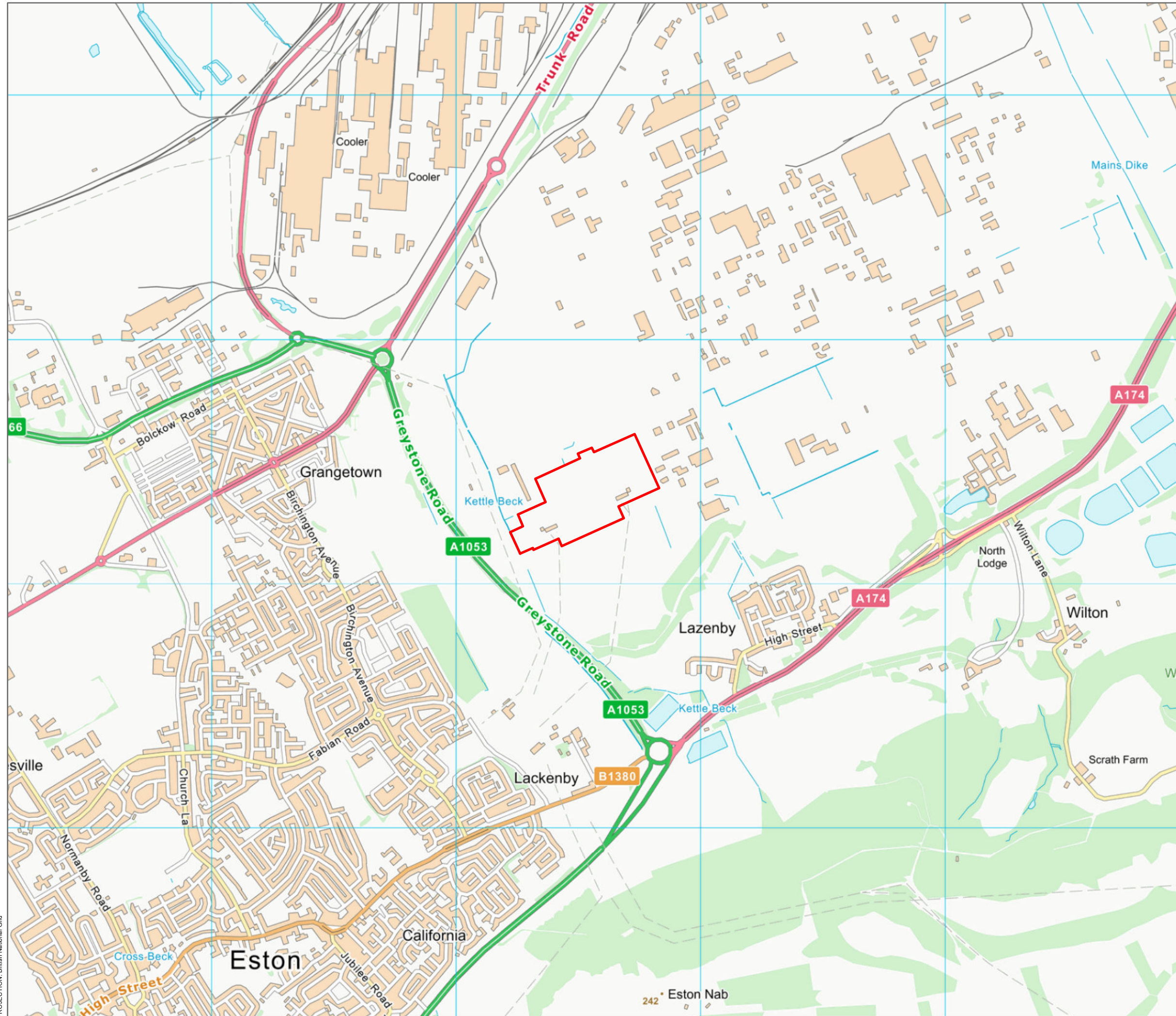
0.2 The Project is classed as a Nationally Significant Infrastructure Project (NSIP) and therefore a Development Consent Order (DCO) is required under the Planning Act 2008.

0.3 Regulations stemming from the Planning Act 2008 include the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended) (the 'EIA Regulations') which requires an Environmental Impact Assessment (EIA) to be undertaken and an Environmental Statement (ES) to be submitted with the draft DCO for a project of this scale and type. The 2017 EIA Regulations came into force on 16th May 2017, replacing the 2009 EIA Regulations and implementing the Environmental Impact Assessment (EIA) Directive 2014, the purpose of which was to streamline the existing EIA regime. For applications where the DCO application process was commenced prior to 16th May 2017 (as is the case for the Project which received the Secretary of State's (SoS) scoping opinion in March 2017), a project may have the benefit of transitional provisions whereby the 2009 EIA Regulations will continue to. However the scoping opinion did state that: "*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.*"

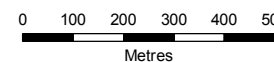
0.4 In consideration of the SoS's scoping opinion, the applicant has chosen to comply with the 2009 EIA Regulations whilst also voluntarily addressing the additional elements introduced by the 2017 EIA Regulations.

0.5 The ES considers the likely significant effects of the Project on the environment, including direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects, resulting from:

- the existence of the Project;
- the use of natural resources, and
- the emission of pollutants, creation of nuisances and waste.



Indicative Site Boundary



SCALE: 1:15,000
 SIZE: A3
 PROJECT: 0375193
 DATE: 16/05/2017

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

Figure 1: The Project Site



0.3 *EIA APPROACH AND METHODOLOGY*

0.3.1 *Overall Approach*

0.7 The Project has been subjected to its own stand-alone EIA process, undertaken in accordance with the EIA Regulations and guidance provide by the Planning Inspectorate.

0.8 To allow flexibility as the design of the Project progresses towards being finalised, a design envelope has been developed for some features and where this has been done, the EIA takes the environmental worst-case as the basis of assessment.

0.3.2 *Methodology and Scope*

0.9 In order to assess the effects of the Project, the ES includes:

- a description of the baseline environmental conditions at the Project Site and in the surrounding area, including a note on how these conditions may develop into the future;
- a definition of the components and activities that make up the Project, including consideration of potential alternatives;
- an identification of the potential environmental effects of the Project; and
- a discussion of the available options for avoiding, minimising or reducing the potential environmental effects of the Project.

0.10 Figure 2 sets out the approach taken to assess the likely significant effects that may arise from the Project.

0.11 The scope of the EIA was defined by identifying the potential areas of interaction between the Project and its environmental and socio-economic setting, in order to identify the key issues to be addressed. The EIA covers the following environmental topics:

- geology, ground conditions and water;
- air quality;
- noise and vibration;
- ecology and nature conservation;
- traffic and transport;
- landscape and visual amenity;
- cultural heritage; and
- socio-economic characteristics.

0.12 For each topic, a spatial scope for the assessment was defined taking into account the physical extent of the components and activities that make up the Project, and considering how their effects on the environment are likely to occur and to be transmitted away from the site. The assessment was also structured by considering the effects likely to occur during each phase of the Project: construction, operation and decommissioning.

Figure 2 EIA Methodology

Identify Impact

The scoping process will identify the potentially most important/significant impacts and effects (including secondary, indirect and cumulative) for the assessment to address. This will be done through a combination of:

- looking at the nature of the project activities and the impacts they will give rise to;
- looking at the project's environmental and social setting and those aspects which are likely to be most sensitive/vulnerable to impacts from the project;
- applying professional understanding gained from the evidence base; and
- considering inputs from stakeholders through consultation.

Decisions will then be made on which impacts and effects to assess or to prioritise in the assessment (scoping in and scoping out) and how to assess them (proposed methodology).

Predict Magnitude

The project's impacts will be quantified in terms of eg:

- landtake area or habitat loss;
- proportion of an ecological population exposed to impact;
- change in noise levels or pollution at a receptor; and
- numbers of jobs generated in the local economy.

In predicting magnitude the effect of all the project mitigation in place (i.e. committed to by Sembcorp) will be taken into account.

For some impacts, especially noise, air and water pollution, significance can be assessed directly against numerical criteria and standards. For exceedances, further mitigation must be incorporated by the project to reduce the magnitude of the impact (and the significance of its effect).

For other impacts nominal levels of magnitude (e.g. small, medium, large) may be adopted based on widely recognised factors such as: the nature of a change (what is affected and how); its size, scale or intensity; its geographical extent and distribution; its duration, frequency, reversibility and, for unplanned events, likelihood of occurrence .

Some activities will result in changes to the environment that may be immeasurable or undetectable or within the range of normal natural variation. Such changes will be assessed as having no impact or to be of negligible magnitude and will not lead to significant effects.

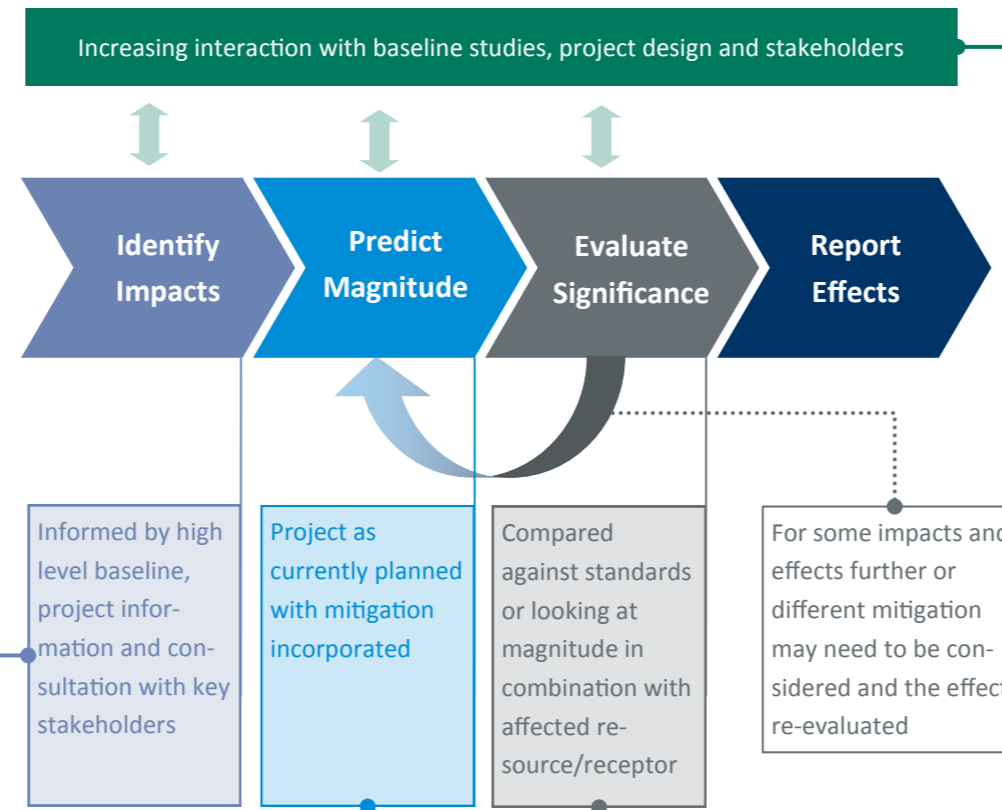
Evaluate Significance

In evaluating significance, the EIA process seeks to inform regulators and stakeholders about the effects of the project in a way that helps them make decisions on whether to approve and allows them to develop suitable conditions to attach to an approval. The evaluation of significance should ideally demonstrate legal compliance at least (e.g. compliance with quantified standards, avoidance of effects on legally protected resources).

In the absence of quantified standards, significance can be evaluated through considering the magnitude of an impact in combination with the importance/quality/value of the receptor or resource that is affected, also considering the response (or sensitivity) of a resource or a receptor to a particular impact. Effects of more than minor significance may warrant re-examination to see if an impact magnitude can be reduced further. Different mitigation options may be examined and the reasons for selecting one and rejecting others explained. Some impacts/effects that cannot be adequately mitigated may need to be addressed through the consideration of offsets or compensation.

The evaluation process may go through one or more iterations of working with project design to develop suitable mitigation and re-evaluating impacts and effects.

While the above provides a general framework for identifying impacts and assessing the significance of their effects, in practice the approaches and criteria applied across different environmental and socio-economic topics vary.



Describe Baseline

Baseline data will be collected to better understand the potentially most important impacts and effects identified in scoping. Baseline data may quantify existing exposure levels (e.g. for noise, air and water pollution), identify vulnerable populations of animals or people, more clearly delineate valued cultural property and ecosystem services etc.

Where a baseline aspect cannot be quantified then nominal levels of importance, quality or value (low, medium, high) will be assigned based on widely accepted criteria in fields such as ecology, cultural heritage, landscape and socioeconomic assessment. Inter-relationships between elements of the baseline will be identified.

Interact with Project Design

The EIA process will interact with the project design team to develop a basis for the assessment (for example quantities of emissions, noise levels of equipment, sizes of structures). The EIA process will also interact with design to assess 'best available technology' and mitigation options, especially when after initial assessment some impacts may need to be further reduced.

Consult Stakeholders

Ongoing stakeholder consultation, post-scoping, is good practice in EIA and is undertaken to refine the assessment and present preliminary findings to stakeholders to elicit early responses and help make the Environmental Statement as fit for purpose as possible.

		Magnitude of Impact		
		Small	Medium	Large
Quality/Importance/Sensitivity of Resource/Receptor	High			Major
	Medium		Moderate	
	Low	Not Significant		

0.4 CONSULTATION

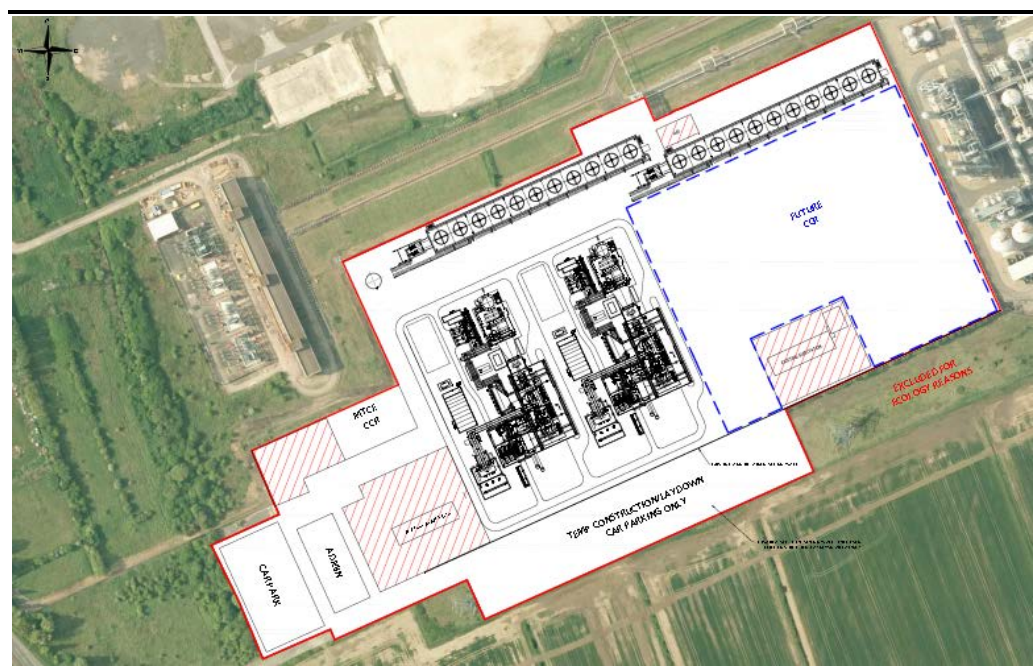
0.13 Consultation is a key aspect of the EIA process. It allows the EIA scope to be agreed, and ensures that the EIA focuses on the environmental and socio-economic issues of most relevance to the Project's location and context. In accordance with the EIA regulations, information was provided in the form of a Preliminary Environmental Information Report (PEIR). This ES directly responds to comments made by a number of consultees on the PEIR, as well as during the formal scoping process and informal consultation.

0.5 THE PROJECT

0.5.1 Overview

0.14 The Project will comprise a natural gas fired CCGT generating station with an output capacity of up to 1,700 MWe. 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 (see Figure 3). The northern part of the site will include hybrid water coolers and, in accordance with policy requirements for new large electricity generating plant, an area of land for possible future carbon capture equipment has been set aside in the eastern part of the site. The design also makes provision for combined heat and power (CHP).

Figure 3 *Layout of the Main Structures*



0.15 The Project Site also includes land provision for connections to gas transmission infrastructure and connections to the national grid for electricity export.

0.16 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 could commence.

0.6 *PROJECT COMPONENTS*

0.17 The main Project components are:

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

0.18 It should be noted that since the publication of the Scoping Report the Project no longer includes black start generator (s) and associated dedicated stack (s).

0.19 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.

0.20 The Project will be designed with resilience to future climate change in mind. By virtue of the Project Site the main considerations will be the inclusion of a sustainable drainage system that is sized to cope with future projected extreme rainfall events.

0.7 OVERVIEW OF EXISTING ENVIRONMENTAL AND SOCIO-ECONOMIC CONDITIONS

0.7.1 *General Setting for the Project Site*

0.21 The Project will be located on land at Wilton International, a major industrial complex located near Redcar in Teesside, northeast England. Approximately 1,500 people are employed directly by companies operating on the Wilton International site, and approximately another 1,000 work on the site as permanent contractors or in the 40 or more supply chain companies located on the site.

0.22 The Wilton International Site is approximately 810 hectares (2,000 acres) in size and benefits from three (identical) instruments of consent granted by Redcar, Eston and Guisborough Borough Councils in 1946 (referred to collectively as the 'IOC'). The IOC effectively confers deemed planning consent for heavy and light industrial development. It is noteworthy that the site is not at full capacity and some plots are currently vacant and would be categorised as brownfield.

0.7.2 *The Project Site and its Immediate Surrounds*

0.23 The Project Site is classified as 'brownfield' and covers an area of approximately 15 hectares. The site has a history of similar industrial use to that proposed in this application; specifically a CCGT plant was constructed at the site in 1990 by Enron Power Company (later acquired by GDF Suez) and came into operation in 1993. Prior to 1990 the site was mainly undeveloped / agricultural land. The previous power station ceased operations in 2013, and the decommissioning and demolition of all buildings and plant was undertaken between 2013 and 2015. The ground bearing slabs and foundations are still present on site as are connections to natural gas, water and electrical distribution infrastructure.

0.24 The Teesside Ensus bioethanol plant is adjacent to the east of the Project site and is Europe's largest wheat bio refinery. Open grazing land and Lazenby village lies to the south of the site and to its north is brownfield industrial land. To its west lies the A1053 road and mature perimeter planting, which acts as screening between the Wilton International site and the residential areas of Grangetown and Eston. This large area of mature planting is part of the Green Wedge (Green Infrastructure Policy CS23b), which is made up of open or green spaces that link together to create an informal but planned network across a wide geographical area.

0.25 The Project Site is accessed from the A1053 Greystone Road, which forms part of the strategic trunk road network. The A1053 connects to the A174 to the

south and A66 Tees Dock Road to the north. The A174 provides a link to the A19 to the south which in turn links to the A1 (M).

- 0.26 Made ground (or fill) is known to be present across the application site to depths of up to 2.2 m. Below this layer British Geological Survey mapping indicates that the site is underlain by superficial deposits of glacial till and clays and silts to thicknesses of up to 11 m overlying a mudstone bedrock.
- 0.27 A number of surface watercourses and drains are located in the vicinity of the Project site but no natural water bodies are within the site itself. Kettle Beck is located immediately adjacent to the western site boundary and flows in a northerly direction towards the River Tees. There are also four other small drainage ditches within close proximity of the Project site
- 0.28 As the Project site is located in an industrial area there are local sources of emissions to atmosphere surrounding the Project; these are predominantly made up of industrial sources and road traffic. There are sensitive residential receptors to the south, east and west of the Project site although no Air Quality Management Areas (AQMAs) for nitrogen dioxide (the only gaseous pollutant of concern for the Project) are declared within the 15 km study area used for air quality assessment.
- 0.29 The site is of low ecological sensitivity and all habitats present are highly modified. The Project is not located within any statutory or non-statutory nature conservation designations. There is only one Local Wildlife Site within a 2 km radius of the Project site. There are no Local Nature Reserves within 2 km of the Project site.
- 0.30 The acoustic environment at potential residential receptors near to the Project site is affected by the various existing industrial activities on the Wilton International site, road traffic and other sources. It is worth noting that in response to previously expressed concerns over noise the Project Site benefits from an acoustic barrier in the form of a 6 m high wall along the southern edge; this mitigation feature will be retained for the Project and an additional acoustic barrier will also be installed on the western edge.
- 0.31 The local economy is quite mixed but in many ways is reflective of the wider region and England in general. The main settlements within 3 km are Grangetown, Eston and Lazenby. The area local to the Project site is not a major tourist destination but it has some tourist attractions further afield. In the vicinity of the Project site, there are some recreational amenities including footpaths and areas sensitive from a landscape perspective including the North Yorkshire Moors and Cleveland Hills.
- 0.32 A number of Scheduled Monuments and Listed Buildings are located within 2 km of the Project site including buildings within the Wilton conservation area; for instance Wilton Castle (Grade II) and the Church of St Cuthbert (Grade II). The Scheduled Monuments identified in the study area are associated with Eston Nab hill fort's palisaded settlement and beacon.

0.8 *WIDER GEOGRAPHICAL CONTEXT*

0.33 The surrounding area is highly industrialised with port facilities, oil refineries and chemical works although there are also several areas of residential development; the nearest one being more than 500 m to the west of the Project Site.

0.34 The wider North East Region has a population of approximately 2.5 million, primarily concentrated in the two conurbations of Tyne and Wear and Tees Valley; it is here that economic activity is focused. Two thirds of the North East Region (mainly in the north and west) is rural in character, and sparsely populated. Redcar is a key industrial location in the Tees Valley. The structure of the economy has changed from being reliant on heavy industries to a more diverse and balanced economy; however, chemicals, steel making and fabrication industries remain important.

0.35 In terms of ecology there are 11 nationally and four internationally designated sites within a 15 km radius of the Project site. The closest of these is North Tees Mudflats, which is a component of the Tees and Hartlepool Foreshore and Wetlands SSSI. This is an area of intertidal mud along the north bank of the River Tees, approximately 4.3 km to the west.

0.9 *POTENTIAL ENVIRONMENTAL EFFECTS*

0.9.1 *Land and Water*

0.36 Following demolition of the previous power station on the Project Site, baseline surveys of land condition were undertaken, primarily to establish any potential for contamination associated with the previous use. The survey findings were provided to the Environment Agency in a Site Condition Report that was prepared as part of surrendering the Environmental Permit. The report concluded that soil contamination concentrations were low and remediation was not required.

0.37 From a land and water resource perspective, potential effects during the construction phase of the Project are associated with the mobilisation of possible pre-existing contamination sources within the sub-soil which could then affect aspects of the wider environment.

0.38 The soil and groundwater conditions at the Project Site are considered to be of low vulnerability given the presence of low permeability deposits near to the surface that act to restrict the movement of groundwater for example. Whilst there are several minor watercourses/drainage ditches in close proximity to the site, the potential for existing contamination is limited.

- 0.39 In relation to the Project, potential impacts during construction can be avoided and minimised through standard good construction management practices. Similar provisions would apply to the demolition phase following closure of the facility.
- 0.40 During the operational phase, land quality impacts will be of lesser concern. Potential effects on the water environment are also unlikely as the Project will be constructed to make use of the existing water disposal and drainage infrastructure, via the existing Wilton International surface water drainage system.
- 0.41 Potential impacts during operation can be avoided and minimised through appropriate water management plans and designs for flood prevention management measures.
- 0.42 Overall that the risks can be appropriately managed and there should be no significant effects on the ground, water resources and flooding during the construction, operation and decommissioning of the Project. In addition building on the site of a former power station has sustainability advantages compared with developing a greenfield site.

0.9.2 *Air Quality*

- 0.43 The air quality impact assessment considered impacts during the construction phase from traffic and dust; the operational phase for combustion emissions from the stacks; and the decommissioning phase for traffic and dust. Consideration was given to the predicted pollutant levels at nearby sensitive human receptors where the highest impacts are likely to arise, or the baseline is likely to be elevated. In addition, impacts at statutory and non-statutory sensitive ecological receptors within 15 km were assessed considering site-specific baseline and critical loads and critical levels.
- 0.44 Based on the application of nationally recognised criteria to the numbers of road movements during construction, there will be no significant effects from emissions associated with construction traffic on any road during any phase of the construction. Similar conclusions apply to the operational and likely decommissioning phase traffic.
- 0.45 If unmitigated, the potential for significant effects associated with dust emissions at nearby existing industrial facilities within the Wilton site was noted. For a phased development, the first operational CCGT itself could also be affected during construction of the second CCGT. No residential receptors or public amenity areas would be affected. Standard control measures will be applied to reduce dust emissions; residual effects are considered to be, at worst, minor and likely not significant.
- 0.46 During the operational phase, in terms of human health there are no significant effects predicted at the large majority of receptors. The air quality standard is not exceeded or approached and effects are not significant for the

large majority of locations. There is predicted to be an effect of moderate significance at one off-site (non-residential) location associated with a maximum level of short-term exposure to nitrogen dioxide.

0.47 In terms of European and nationally designated sensitive ecological receptors, the contributions by the Project to impacts at all receptor locations are insignificant for all pollutants and impacts of interest. The contributions from the Project at the two Local Wildlife Sites are also insignificant.

0.48 Overall, no specific mitigation is required above and beyond that inherent in the good design and operation of CCGT plant according to Best Available Technique (BAT) and meeting the required emission limits.

0.9.3 *Noise and Vibration*

0.49 The Project has the potential to result in noise impacts at the closest residential receptors to the site. These include Grangetown, Lazenby and Lackenby.

0.50 Construction phase noise from on-site construction activities and from traffic movements on local roads was assessed and is predicted to be below acceptable levels, leading to no identified significant effects on sensitive receptors.

0.51 The most important potential impacts are from the operation of the Project, especially the noise generated by fixed equipment during the night when baseline noise levels are likely to be lowest and the operating plant more likely to be noticeable. These potential impacts have been mitigated by careful early optimisation of the layout of the site and design of plant mitigation including:

- placing key external noise sources such as cooling towers as far from receptors as possible;
- the retention of the existing noise barrier which provides noise reduction to residents in Lazenby;
- the provision of a new noise barrier on the western site boundary to reduce noise at Grangetown;
- on-plant mitigation such as placing key items in buildings or enclosures with suitable noise cladding.

0.52 In response to local community concerns about noise a revised layout was assessed using a noise model; however it offered no advantages in terms of reduce noise levels at the nearest sensitive receptors and was slightly worse in some instances.

0.53 As a result of the design, layout and embedded mitigation measures the resulting noise levels are not expected to result in significant noise effects at the nearby residential receptors at any time of day or night.

0.9.4 *Ecology and Nature Conservation*

0.54 The Project Site itself is of negligible ecological importance and the construction and land take of the Project is predicted to have no significant effects on habitats or species.

0.55 The site will be checked prior to construction commencing to confirm that it continues to have no ecological interest. If necessary, protective measures will be adopted, such as the removal of any bird habitat prior to the breeding season.

0.56 There are several areas protected for nature conservation at the international, national and local levels around the Project Site. Although they are too distant to be affected by any of the physical works associated with the Project they could potentially be affected by operational emissions to air through exposure to nitrogen dioxide, deposition of acid and deposition of nutrient nitrogen. All of these impact mechanisms were assessed using an air quality model. The predicted contributions from the Project at all the protected areas were below the 'insignificant' threshold set out in Environment Agency guidance. Such insignificant contributions from the Project to existing concentrations and loads will not result in significant ecological effects even cumulatively with other projects.

0.9.5 *Traffic and Transport*

0.57 Traffic generated by the Project during construction and operation has been assessed, with the construction phase generating the larger number of movements of both workers' vehicles and heavy goods vehicles (HGVs) (and very large 'abnormal' loads).

0.58 During construction the peak daily movements of vehicles to and from the Project Site will be timed to avoid the peak hours for general traffic on the road network near to the site itself. The impact on daily traffic flows is generally within accepted criteria for avoiding significant effects on the network/other road users both during construction and operational phases.

0.59 In one instance the percentage increase of HGVs would only exceed the 10% of baseline flows (the assessment criterion) on the A1053 Greystone Road at the peak period of the construction phase. This road is part of the strategic road network and designed to carry large volumes of traffic and HGVs and the temporary period of exceedance is not anticipated to lead to any significant effects in terms of congestion or safety.

0.9.6 *Landscape and Visual Amenity*

0.60 The baseline landscape is already industrial with a number of infrastructural elements in the vicinity of the Project Site. These include the existing Ensus

Plant, other facilities, pylons and transmission lines and road networks. In terms of visual amenity, existing views from receptors to the Project Site also take in these industrial elements. It is also worth mentioning from a visual perspective that the Project is located on the site of a larger power station (now demolished although demolition works only ceased as recently as 2015). At most the presence of the Project will have a localised effect on the landscape.

- 0.61 The main impact is from the taller/bulkier elements of the Project such as the heat recovery steam generators housing and the stacks.
- 0.62 The assessment has considered effects on visual amenity at a number of representative receptor locations (mainly residential). It should be noted that the assessment considered a worst case of 90 m tall stacks. However, the air quality modelling study showed that stack heights of 75 m would deliver an acceptable environmental performance and this height is the design basis.
- 0.63 Generally views of the Project tend to be partial (for example of the taller elements) or even nearly obscured entirely by the large area of mature planting that form parts of the Green Wedge, which are open or green spaces that link together to create an informal but planned network across large parts of Teesside. Residual effects on visual amenity range from not significant to minor to moderate and will reduce over time as the Project is within a large industrial area and adjacent to an established industry, together with a number of industrial elements to the north-north west continuing clockwise round to the east of the Project Site (see Figure 4).

Figure 4: *Provisional Photomontage of the Project*



0.9.7 *Cultural Heritage*

- 0.64 Cultural heritage has been considered in terms of the potential for site works to damage buried archaeological remains and for the Project to have an effect on the setting of heritage assets in proximity to the Project Site

- 0.65 A previous baseline study concluded that there are unlikely to be archaeologically significant buried remains on the Project Site. Other information assessed to date provides no indication that there are any subsurface archaeological remains from any period. Given the above and the level of ground disturbance on the site since 1990, it is concluded that there is low to nil potential for the survival of archaeological remains.
- 0.66 A number of important listed buildings lie within 2 km of the Project Site. However, the Project Site is located within the Wilton International site and within the footprint of a former power station. Industrial development commenced around the River Tees during the Industrial Revolution and continued at an accelerated rate during the latter 20th century. This industrial landscape now to some extent forms the regional landscape setting of the area and industrial development within this context constitutes minor change or 'like for like'.
- 0.67 Most of the heritage assets are Grade II listed, with a few Grade II* and two Scheduled Monuments. Most of these assets do not have long-distance views to or from the Project Site because of surrounding woodland and/or built form. Furthermore, the presence of the Wilton International site and other elements of industrial infrastructure mean that the settings of the majority of Listed Buildings are not affected by the Project.
- 0.68 Of all the heritage assets in the area the iron age hillfort site at Eston Nab is the most likely to be affected by the Project. However, the vista from Eston Nab is dominated by the existing heavily industrialised nature of the Teesside landscape and the Project will cause little change to the setting of this asset.
- 0.69 Overall there will be no significant effects on any of the cultural heritage assets around the Project Site as a result of changes to their settings.

0.9.8 *Socio-economic Characteristics*

- 0.70 The Project is located within an enterprise zone allocated for energy use and on a site with a history of being used for energy generation. The local and wider areas contain a resident population with experienced construction workers and unemployed residents for whom employment generation may provide welcome opportunities. The economic, demographic, skills and education and industrial characteristics of the local and wider areas of influence are broadly similar.
- 0.71 During construction, the Project is anticipated to result in direct investment of £700 million and employment equating to up to 131 full time equivalent jobs. This will bring both direct economic and employment benefits and additional benefits arising from indirect and induced expenditure by suppliers and employees of the Project. The beneficial employment and economic effects of the Project will contribute to meeting Redcar and Cleveland's Core Strategy policy aspiration that developments at Wilton will act as drivers of the Tees Valley economy. Sembcorp's approach to supporting local suppliers and

promoting apprenticeships, training and employment of graduates will contribute to enhancing these benefits.

0.72 Temporary disruption to the local community and reduced amenity for directly affected properties may occur during construction as a result of increased traffic, air quality, dust and noise effects. These effects will be appropriately managed through tailored management plans; on the basis of their proper implementation no significant adverse effects are anticipated in respect of disruption to local communities and amenity.

0.73 During operation, the Project is expected to generate 247 full time equivalent jobs (60 as a direct result of the Project and approximately 187 jobs within the local economy,), bringing economic benefits through direct and indirect investment in the local, regional and national economy. This is anticipated to result in minor beneficial employment and economic effects during operation.

0.74 More broadly, operation of the Project will contribute to the security of energy supply across the UK, supporting the economic and social activities which depend on a reliable, available and economic source of energy.

0.9.9 *Public Health*

0.75 The EIA included a health impact assessment to look at how, if at all, the Project could potentially affect public health. The overall conclusion was that whilst there are potential public health effects during construction and operation of the Project with regard to factors such as noise, air quality and traffic, these have been assessed elsewhere in the EIA to be not significant; all are amenable to mitigation measures.

0.76 However, in addition to those mitigation measures set out in the ES for the above topics other good practice measures will also be adopted to help minimise the negative effects on health during construction:

- A community complaints procedure will be established and advertised widely, including the steps that will be taken once a complaint is received and the timescale in which a response and resolution can be expected.
- Information regarding construction activities will be communicated throughout the construction period to the most local communities via channels such as community meetings and the Project website.
- The Project will ensure the construction site area is secure and not vulnerable to trespass through adequate fencing and if appropriate the use of security guards.
- The Project will implement a Construction Traffic Management Plan, aimed at amongst other matters, minimising the potential for road traffic accidents during construction.

0.77 During operation the integrity of site access and security will be maintained (in liaison with the police and emergency services where necessary) to ensure public safety.

0.9.10 *Cumulative Effects*

0.78 Cumulative effects have been assessed by identifying other planned and proposed projects that by virtue of their scale, nature and proximity to the Project could have cumulative impacts on the same receptors, including:

- water resources;
- air quality and human health;
- air quality and nature conservation resources;
- noise;
- habitats and species of flora and fauna;
- traffic and transport;
- landscape;
- visual amenity;
- cultural heritage assets; and
- socio-economic characteristics.

0.79 In the majority of instances the Project will make little contribution to potentially significant effects, including for water resources, air quality (people and ecology), noise, habitats, flora and fauna, traffic, landscape, heritage assets and economy and employment. The main exception is visual amenity at Eston Nab and similar high vantage points to the south. These will have cumulative effects on their views due to the Project and several other planned and proposed projects. While the change in views would be small they are considered to result in a minor to moderate cumulative effect.

0.9.11 *Major Accidents*

0.80 CCGT gas-fired power stations are intrinsically safe operations however the new EIA regulations require an assessment of major accidents and hazards. A structured risk assessment was undertaken to identify the Project's vulnerability to, and from, major accidents and disasters. The assessment considered how the baseline environment (such as existing roads, utilities and natural risks such as flooding) could interact with the Project to generate a scenario where a potential major accident or natural disaster could arise.

0.81 For situations where the potential for major accidents was identified, the embedded mitigation and management within the design of the Project was considered to identify appropriate controls. The level of regulatory control and/or industry guidance in relation to the potential major accident situations was also considered. Where necessary, additional mitigation has been identified to reduce the accident/hazard risks to an acceptable level.

0.82 The underlying objective of the assessment was to ensure that appropriate precautionary action is taken, to avoid major accidents or disaster risks which could have significant adverse effects on the environment.

0.83 The assessment concluded that appropriate mitigation, management and/or regulatory controls are/or can be in place to minimise the risk of major accidents or impact of natural disasters. As a result it is considered that there will not be any likely significant environmental effects arising from the vulnerability of the Project to or from major accidents and natural disasters.

0.10 *FURTHER INFORMATION*

0.84 In addition to this document further and more detailed information is available from the following sources:

- the ES itself;
- www.tccpp.co.uk ;and
- <https://infrastructure.planninginspectorate.gov.uk/projects/north-east/tees-ccpp/>

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