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Tees CCPP Project

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

Applicant's Comments on the Responses to the Examining Authority's Second Written Questions

Examination Deadline 6

The Planning Act 2008 (as amended)



Applicant: Sembcorp Utilities (UK) Limited

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GLOSSARY

Abbreviation	Description	
AGI	Above Ground Installation	
AIL	abnormal indivisible loads	
AIL	abnormal indivisible loads	
AOD	above ordnance datum	
AQMA	Air Quality Management Areas	
ASI	Accompanied Site Inspection	
BAT	Best Available Techniques	
BCA	Bilateral Connection Agreement	
BCA	Bilateral Connection Agreement	
CAA	the Civil Aviation Authority	
CCR	Carbon Capture Readiness	
CCS	Considerate Constructors Scheme	
CCS	Considerate Constructors Scheme	
CEA	cumulative effects assessment	
CEMP	Construction Environmental Management Plan	
CEMS	Continuous Emission Monitoring System	
CEMS	Continuous Emission Monitoring System	
CHP	Combined Heat and Power	
CL	Critical Load/Level	
CoCP	Code of Construction Practice	
ConsAg	Construction Agreement	
CTMP	Construction Traffic Management Plan	
CTMP	Construction Transport Management Plan	
DCO	Development Consent Order	
dDCO	draft Development Consent Order	
DMRB	Design Manual for Roads and Bridges	
EA	Environment Agency	
EA	Environment Agency	
EM	Explanatory Memorandum	
EMF	electromagnetic fields	
EN-1	National Policy Statement for Energy	
EPC	Engineering, Procurement and Construction	
ES	Environmental Statement	
ES	Environmental Statement	
FRA	Flood Risk Assessment	
GLVIA3	Guidelines for Landscape and Visual Impact Assessment, Third Edition	
HER	Historic Environment Record	
HIA	Health Impact Assessment	
HRA	Habitats Regulations Assessment	



Abbreviation	Description
HRSG	heat recovery steam generator
HSE	Health and Safety Executive
IAQM	Air Quality Management
ICNIRP	International Commission on Non-Ionising Radiation Protection
IEMA	Institute of Environmental Management and Assessment
LAQM	Local Air Quality Management
LSE	likely significant effects
LVIA	landscape and visual impact assessment
MMP	Materials Management Plan
NCA	National Character Areas
NE	Natural England
NE	Natural England
NGET	National Grid Electricity Transmission Plc
NGG	National Grid Gas
NO_2	nitrogen dioxide
NO _x	nitrogen
NPS	National Policy Statement
NPS	National Policy Statement
NTS	National Transmission System
NTS	National Transmission System
PA 2008	Planning Act 2008
PEC/CL	Predicted Environmental Concentration/Critical Load
PEIR	Preliminary Environmental Impact Report
RCBC	Redcar and Cleveland Borough Council
SNR	Strategic Road Network
SPA	Special Protection Area
SPD	Supplementary Planning Document
SWMP	Site Waste Management Plan
SWMP	Site Waste Management Plan
TA	Transport Assessment
TRA	Transmission Related Agreement
TRA	Transmission Related Agreement
TVWT	Tees Valley Wildlife Trust
WFD	Water Framework Directive

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1 INTRODUCTION

Overview

- This document has been prepared on behalf of Sembcorp Utilities (UK) Limited ('SCU' or the 'Applicant') in respect of its application (the 'Application') for a Development Consent Order (a 'DCO'). The Application was accepted for examination by the Secretary of State (the 'SoS') for Business, Energy and Industrial Strategy on 18 December 2017. The 'Examination' began on 10 April 2018.
- 1.2 SCU is seeking a DCO for the construction, operation and maintenance of a new gas-fired electricity generating station with a nominal net electrical output capacity of up to 1,700 megawatts ('MW') at ISO conditions (the 'Project' or 'Proposed Development'), on the site of the former Teesside Power Station, which forms part of the Wilton International Site, Teesside.
- 1.3 A DCO is required for the Proposed Development as it falls within the definition and thresholds for a 'Nationally Significant Infrastructure Project' (a 'NSIP') under Sections 14 and 15(2) of the Planning Act 2008 ('PA 2008').
- 1.4 The DCO, if made by the SoS, would be known as the 'Tees Combined Cycle Power Plant Order' (the 'Order').

SCU

- 1.5 SCU 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 some of the industrial development land on the near 810 hectares (2,000 acre) site which is marketed to energy intensive industries worldwide.
- 1.6 SCU owns the land required for the Proposed Development.

The Project Site

- 1.7 The Project Site (the 'Site') is on the south west side of the Wilton International Site, adjacent to the A1053. The Site lies entirely within the administrative area of Redcar and Cleveland Borough Council ('RCBC') which is a unitary authority.
- Historically the Site accommodated a 1,875 MW Combined Cycle Gas Turbine power station (the former Teesside Power Station) with the ability to generate steam for utilisation within the wider Wilton International site. The Teesside Power Station ceased generation in 2013 and was demolished between 2013 and 2015.
- 1.9 SCU has identified the Site, based on its historical land use and the availability of natural gas supply and electricity grid connections and utilities as a suitable location for the Project. In summary, the benefits of the Site include:
 - brownfield land that has previously been used for power generation;
 - on-site gas connection, supplied from existing National Grid Gas Plc infrastructure;
 - on-site electrical connection, utilising existing National Grid Electricity Transmission infrastructure;
 - existing internal access roads connecting to a robust public road network;
 - availability of a cooling water supply using an existing contracted supply (from the Wilton Site mains) and existing permitted discharge consent for effluent to the site drainage system
 - screening provided by an existing southern noise control wall, approximately 6 m in height;

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- potential for future Combined Heat and Power ('CHP') and Carbon Capture and Storage ('CCS');
 and
- existing services, including drainage.
- 1.10 A more detailed description of the Site is provided at Chapter 3 'Description of the Site' of the Environmental Statement ('ES') Volume 1 (Application Document Ref. 6.2.3).

The Proposed Development

- 1.11 The main components of the 'Proposed Development are summarised below:
 - Work No. 1 a natural gas fired electricity generating station located on land within the Wilton International site, Teesside, which includes the site of a former CCGT power station, with a nominal net electrical output capacity of up to 1,700 MWe at ISO Conditions; and
 - Work No. 2 associated development comprising within the meaning of section 115(2) of the 2008 Act in connection with the nationally significant infrastructure project referred to in Work No. 1.
- 1.12 Please refer to Schedule 1 of the Draft DCO (Application Document Ref. 2.1) for more detail.
- 1.13 It is anticipated that subject to the DCO having been made by the SoS (and a final investment decision by SCU), construction work on the Project would commence in around the second half of 2019. The construction of the Project could proceed under one of two scenarios, based on SCU's financial modelling, as follows.
 - **'Scenario One'**: two CCGT 'trains' of up to 850 MW are built in a single phase of construction to give a total capacity of up to 1,700 MW.
 - **'Scenario Two'**: one CCGT train of up to 850 MW is built and commissioned. Within an estimated five years of its commercial operation the construction of a further CCGT train of up to 850 MWe commences.
- 1.14 The above scenarios have been fully assessed within the ES.
- 1.15 A more detailed description of the Project is provided at Schedule 1 'Authorised Development' of the draft DCO (Application Document Ref. 2.1) and Chapter 5 'Project Description' of the ES Volume 1 (Application Document Ref. 6.2.5).

The purpose and structure of this document

1.16 This document forms part of a package of documents submitted by the Applicant for Deadline 6 of the Examination. It sets out the Applicant's comments on the responses to the Examining Authority's ('ExA') Second Written Questions – see Section 2 of this report.

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2 THE APPLICANT'S RESPONSES

The Applicant's comments on the responses to the Second Written Questions provided by the ExA are set out in **Table 2.1** on the following pages.



Table 2.1 - Applicant's Comments on the Responses to Examining Authority's Second Written Questions

REF NO.	RESPONDENT	QUESTION	INTERESTED PARTY RESPONSE	APPLICANT'S COMMENTS
2	Air Quality and Er	nissions		
Q2.0.1	Environment Agency	Is the EA content with the Applicant's explanation (as summarised in [REP4-011]) of why near identical air modelling results occur in the PIER (where the turbine hall building height is 21.3m) and the ES (with a turbine hall building height 31m)?	We can agree that a relatively small change in the building height has a minimal impact on the air modelling results and provides sufficient confidence to set the building heights within the DCO, noting that once the preferred technology has been agreed, the air model will be re-run for the environmental permitting process.	No comments from the Applicant.
Q2.0.3	Natural England	The Applicant maintains a position that it is not feasible to undertake a quantitative assessment of in-combination air quality impacts [REP4-011]. The finding of no likely significant effects with regards to the assessment of in-combination effects lacks authoritative evidence in the form of quantitative data. In absence of such evidence it is not obvious how the Applicant has arrived at the outcome of no likely significant effect. The Wealden judgement clearly demonstrates the importance of addressing this issue as a matter of legal principle. It is also important to note that the in-combination assessment suggests that there is a 'widespread reduction in emissions' in the surrounding area. The robustness of this assertion would be increased if the evidence to support it was provided. In order to address the points raised above can the Applicant and NE explain what information is available to support the Applicant's position of ongoing improvements to background emission levels? The Applicant should also explain how, in absence of a quantitative in-combination assessment, the findings of no likely significant effect have been derived.	Natural England notes that the applicant has provided further information relating to background emission levels (document ref 8.46). We have no further information to provide.	No comments from the Applicant.
2.1	Ţ	Uncertainty, assessment parameters and the DCO		
Q2.1.2	Environment Agency	The Applicant has confirmed in [REP2-080] the stack locations which have been utilised in the air quality assessment, as follows: • Western Stack: 456437, 520398 • Eastern Stack: 456525, 520438 The limits of deviation on the Works Plans allow for lateral movement of the stacks; it is proposed that the exact location of the stacks is confirmed at the Environmental Permitting stage. The Environment Agency expressed concerns [REP2-079] that changing the locations of the stacks from those specified in the air quality assessment may alter the findings of the assessment, and recommended that their locations are fixed by grid reference. In response, the Applicant has stated that movement of the stacks within the lateral limits of deviation would not materially change the outcome of the air quality assessment [REP3-003; REP4-011]. In light of the Applicant's response,	Whilst we assert that changing the lateral location of the stacks can have unintended, negative environmental impacts off-site, the Applicant has indicated that any changes will be within the Limits of Deviation (LoD) from the Works Plans which allows minimal lateral movement. Also, taking into account the severe restriction in available space on site for the civils work required for such tall structures, it is reasonable to agree that the precise location of the stacks does not need to be determined within the DCO. Sufficient control over the eventual citing of the stacks will be achieved by using the LoD to define the stack location envelope in order to avoid the requirement for a DCO variation if required, in future. The Applicant is correct in stating the exact stack locations will be set during the determination of the environmental permit, once the preferred technology has been chosen.	No comments from the Applicant.



REF NO.	RESPONDENT	QUESTION	INTERESTED PARTY RESPONSE	APPLICANT'S COMMENTS
		can the EA confirm its position as to whether stack locations should be fixed in the draft DCO?		
Q2.1.5	Natural England	The Applicant describes "embedded measures" as turbines that meet current Best Available Technology (BAT) for NOx emissions and stack design to achieve sufficient dispersion [response to Q1.1.20, REP2-080]. The Applicant states that no further mitigation is required. a) To what extent does NE agree that BAT and stack design are 'embedded measures' and not avoidance or reduction measures as described in the Sweetman judgement? b) The Applicant's position is that the Sweetman judgement does not affect the Applicant's HRA screening exercise, on the basis that no mitigation measures have been relied upon [REP4-011]. Can NE confirm whether or not it is in agreement with the Applicant's position?	The Sweetman judgment is a recent ruling and there is little guidance from the courts at the moment as to what constitutes avoidance or reduction measures. We advise the Applicant and Competent Authority to take their own legal advice on this matter. Where the Competent Authority is unsure whether certain matters are avoidance or reduction measures, it will need to consider whether to carry out an appropriate assessment to avoid the risk of a legal challenge.	The Applicant has sought legal advice where necessary in preparing application documents and submissions made as part of the Examination and in particular has sought legal advice on the implications of the recent Sweetman judgements. We confirmed our position on this at the Issue Specific Hearing on 13 June 2018 and this is summarised in our written summary of oral case at paragraph 2.86 onwards [REP4-011]. The only aspect of the Project that is relevant in the context of potential effects on European protected sites is the emission and dispersion of NOx. The reference in the dDCO requirement 13(2)(f) to potential mitigation measures to protect controlled waters relate to securing compliance with licence conditions and are not intended to avoid or reduce a potential adverse significant effect on a protected site under the Habitat Regulations. As such, they were not considered in the NSER. NOx emissions and their dispersion are directly influenced by the design of the turbines, which by law will be required to achieve NOx emissions concentrations of 30 mg/Nm3, and the height of 75 m in order to minimise visual effects and meet a level at which there are no significant human health effects and insignificant contributions of pollutants at all European protected sites. The gas turbine design and stack heights are regarded to be inherent features and characteristics of the design of the proposed generating station itself and not protective measures intended to avoid or reduce harmful effects on European protected sites. In light of the above we do not consider there is any need for the Examining Authority as Competent Authority to carry out an appropriate assessment.
2.2	1	Biodiversity, Ecology and Natural Environment		
Q2.2.1	Natural England	Please confirm whether or not NE is content with the Applicant's revised HRA screening matrices [Tables H3.2 – H3.6, REP1-001].	We refer to our answer to question 2.1.5 whether an appropriate assessment might be necessary. We presume that section H.1.76 (page H-27) should be labelled as 'c.'. We have no further comments regarding the matrices.	Please refer to the Applicant's answer to 2.1.5. In respect of document REP1-001, section H.1.76, the Applicant can confirm that this should be labelled as 'c' – as suggested by Natural England.
Q2.2.2	Environment Agency Natural England	The EA indicated at the ISH that it would like to run the Applicant's detailed air quality data through its model. The Applicant has now submitted this data to the Examination [REP4-010]. Do they EA or NE have any comments in this regard?	Environment Agency Undertaking this work during the DCO process would not be beneficial as the preferred technology has not yet been agreed. We would request that this verification work is undertaken during the environmental permitting process.	No comments from the Applicant on the response from the Environment Agency or Natural England.



REF NO.	RESPONDENT	QUESTION	INTERESTED PARTY RESPONSE	APPLICANT'S COMMENTS
			Natural England We refer to the Environment Agency's engager on this metter.	
Q2.2.3	Environment Agency	The ExA is aware that it is intended to submit an updated SOCG between the Applicant and the Environment Agency. The current version [Paragraph 3.9, REP2-061] states that: 'the EA does not yet agree that the HRA demonstrates that it is unlikely the Project will not have significant effects upon European Designated Sites alone or in combination with other projects and plans'. Can the EA confirm whether there is any change to this position?	We refer to the Environment Agency's answer on this matter. In the latest version of the SOCG, we have advised that the Habitats Regulations Assessment can be moved to the Matters Agreed section of the SOCG. We consider that sufficient information has been submitted for the DCO to progress. Once the preferred technology has been chosen at the environmental permitting stage, any emissions will be able to be predicted more accurately. During the determination of the Environmental Permit (EP), we will further assess the impacts of the proposed activities on the protected habitats in the vicinity of the application site within our separate HRA. We will consult Natural England for their assessment of our HRA as part of the EP determination process. The EA will also assess the revised air impact modelling results, limiting operations to reduce the environmental impact, if necessary.	No comments from the Applicant.
Q2.2.5	Natural England	The Applicant has confirmed [REP1-001; REP4-011] that it is not relying on any mitigation to reach the conclusions of the NSER. The ExA notes that the draft DCO (R13)(2)(f) refers to 'mitigation measures designed to protect controlled waters', with such measures described in the Updated Mitigation Summary Table [REP2-006] as primary and/or tertiary mitigation. The Applicant has confirmed that the River Tees is hydrologically connected to the Proposed Development via the existing Wilton International drainage system. To what extent does NE agree that the proposed measures to ensure safe discharge of water to the existing drainage system (as described in REP2-006] are 'embedded measures' and not avoidance or reduction measures as described in the Sweetman judgement?	The Sweetman judgment is a recent ruling and there is little guidance from the courts at the moment as to what constitutes avoidance or reduction measures. We advise the Applicant and Competent Authority to take their own legal advice on this matter. Where the Competent Authority is unsure whether certain matters are avoidance or reduction measures, it will need to consider whether to carry out an appropriate assessment to avoid the risk of a legal challenge.	The Applicant has sought legal advice where necessary in preparing application documents and submissions made as part of the Examination and in particular has sought legal advice on the implications of the recent Sweetman judgements. We confirmed our position on this at the Issue Specific Hearing on 13 June 2018 and this is summarised in our written summary of oral case at paragraph 2.86 onwards [REP4-011]. The only aspect of the Project that is relevant in the context of potential effects on European protected sites is the emission and dispersion of NOx. The reference in the dDCO requirement 13(2)(f) to potential mitigation measures to protect controlled waters relate to securing compliance with licence conditions and are not intended to avoid or reduce a potential adverse significant effect on a protected site under the Habitat Regulations. As such, they were not considered in the NSER. NOx emissions and their dispersion are directly influenced by the design of the turbines, which by law will be required to achieve NOx emissions concentrations of 30 mg/Nm3, and the height of the stacks. The stack height has been set at a maximum height of 75 m in order to minimise visual effects and meet a level at which there are no significant human health effects and insignificant contributions of pollutants at all European protected sites. The gas turbine design and stack heights are regarded to be inherent features and characteristics of the design of the proposed generating station itself and not protective measures intended to avoid or reduce harmful effects on European protected sites. In light of the above we do not consider there is any need for the Examining Authority as Competent Authority to carry out an appropriate assessment.
2.3		Oraft Development Consent Order		
Q2.3.3	Environment	Does the EA have any concerns regarding Article 6 of the	We understand that the vertical deviations described in Article 6	Article 6 of the draft DCO has been updated to more clearly



REF NO.	RESPONDENT	QUESTION	INTERESTED PARTY RESPONSE	APPLICANT'S COMMENTS
	Agency	dDCO [REP4-005], which allows the Applicant to 'deviate vertically to any extent downwards as may be found necessary or convenient' (noting the Applicant's justification in this regard [Q1.3.12, REP2-080])?	of the dDCO only refer to civils work during construction, and that the stack heights will be measured from ground level and therefore, we have no concerns. However, we suggest that Article 6 of the dDCO is amended to clearly explain these limitations.	explain the limitations. An updated draft DCO (Application Document Ref: 8.51) has been submitted for Deadline 6 of the Examination.
Q2.3.4	Redcar and Cleveland Borough Council Environment Agency	An updated version of the Construction Environmental Management Plan (CEMP) has been submitted at Deadline 4 [version 3, REP4-003]. Please confirm whether you are content with the contents of the updated CEMP and provide any comments you may have.	RCBC The Local Planning Authority have considered the information within the update CEMP which has been submitted at Deadline 4. The Local Planning Authority do not wish to raise any objection to the updated CEMP and has taken into consideration those issues discussed at the Issue Specific Hearings. Environment Agency The preliminary information provided in version 3 of the CEMP is satisfactory for a project at this stage of its development. In any future iterations of the CEMP, we would advise the following: Section L4.3 of the CEMP could be amended to encourage the Applicant to maximise the re-use of suitable waste materials within the site boundary, within the terms of a relevant exemptions. Thereby, reducing landfill costs and minimising the use of virgin natural resources. Table L4.5 of the CEMP refers to Pollution Prevention Guidance Notes but it should be noted that these are under review and may not be up-to-date guidance. We, therefore, recommend the Applicant also reviews Pollution Prevention for Businesses webpage on GOV.UK for current pollution prevention advice to be incorporated into future versions of the CEMP. The webpage can be found at the following: https://www.gov.uk/guidance/pollution-prevention-for-businesses	The CEMP has been updated to address the comments from the Environment Agency. An updated CEMP (Application Document Ref: 6.3.20) – clean and tracked version – has been submitted for Deadline 6 of the Examination.
2.4	L	andscape and Visual		
2.4.2	Redcar and Cleveland Borough Council	Is the Council content with the amendment to Requirement 5 of the draft DCO [version 3, REP4-005], which secures that the external lighting schemes for both construction and operation of the Proposed Development must accord with the Guidance Notes for the Reduction of Obtrusive Light GN01:2011?	The Local Planning Authority note the amendment made to Requirement 5 of the draft DCO. The reference to the Guidance Notes for the Reduction of Obtrusive Light GN01:2011 is considered to be acceptable and the Local Planning Authority have no issue with the wording of Requirement 5	No comments from the Applicant.
2.5		Vater Environment	We can confirm that the Applicant has addressed the relative	Discounces that the following has been somed in the Contract of
2.5.1	Environment Agency	Does the EA consider that the Applicant has addressed the points raised in the EA's WR regarding the Water Framework Directive (with the exception of opportunities for enhancement measures, which the ExA understands is to be covered in the forthcoming revision to the SOCG)?	We can confirm that the Applicant has addressed the points raised in our previous written representations response regarding the Water Framework Directive. I attach a copy of an email to the Applicant dated 14 June 2018 as Appendix 1 and a subsequent letter sent to the Applicant on 11 July 2018 as Appendix 2 which forms part of our submission on the second round of written questions. The email and letter sets out our	Please note that the following has been agreed in the Statement of Common Ground ('SoCG') with the Environment Agency: "On the basis of the information provided by the Applicant, it is agreed that the Proposed Development will have no significant adverse impact upon WFD water bodies. There is therefore no obligation on the Applicant under the WFD to provide specific



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REF NO.	RESPONDENT	QUESTION	INTERESTED PARTY RESPONSE	APPLICANT'S COMMENTS
			position with regard to WFD issues.	mitigation measures in respect of relevant water bodies.
			In summary, we have assessed the submitted WFD information and consider that the proposed development will have no significant adverse impact upon WFD waterbodies. We acknowledge that it seems highly unlikely that it will be possible to implement mitigation measures to remediate the watercourses within the proposed site. It is also considered that the existing modifications at the proposed site are not significant in the context of the waterbody. We have also advised that there are other practicable opportunities to improve the waterbody as part of the proposed development with regard to environmental enhancement opportunities.	Notwithstanding the above, the Applicant is already voluntarily participating in water course clean up initiatives in the area and is committed to continuing participation in the future. Specifically, the Applicant has participated in the River Tees Clean Up Initiative that took place in February 2018. This was organised by the Tees Rivers Trust in conjunction with the National Lottery funded organisation River Tees Regenerated. The initiative focused on collecting plastic and other debris that had washed onto the riverfront. The Applicant is intending to participate in a further clean up, expected to take place in August 2018. The Applicant is also working with the Industry Nature Conservation Association ('INCA') on biodiversity enhancement on land owned by SCU on the Wilton International Site, including water bodies. In recent discussions, the Applicant has agreed to join the work INCA is doing with other companies in the Tees Estuary Partnership and has pledged an initial £500 to cover INCA activities. The Applicant is proposing to agree a suitable, future project to work on with INCA and proposes to make a further, more substantial, financial contribution. It is agreed that the above demonstrates that the Applicant is pursuing and partaking in practicable opportunities to enhance and improve a WFD water body, in addition to other improvement on the Wilton International Site. Furthermore, it is agreed that WFD matters have been satisfied for the purposes of the DCO application."