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Planning Inspectorate  
National Infrastructure Planning  
Temple Quay House (2 The Square)  
Temple Quay  
Bristol  
BS1 6PN

**Our ref:** NA/2018/114039/01-L01  
**Your ref:** EN010082  
**Date:** 16 May 2018

Dear Sir/Madam

**APPLICATION BY SEMBCORP UTILITIES (UK) LIMITED FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE TEES CCPP PROJECT WRITTEN REPRESENTATIONS BY THE ENVIRONMENT AGENCY.**

In accordance with the timetable in Annex A of your letter dated 18 April 2018 please find enclosed our written representations for this Development Consent Order (DCO) on behalf of the Environment Agency. If you have any questions or require any clarification on the points below, please do not hesitate to contact me.

Yours faithfully

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## Tees CCPP DCO Application Planning Inspectorate Reference: EN010082

### Written Representations On behalf of the Environment Agency

Our response is based upon the DCO information originally submitted and accepted by the Inspector. We will provide our response to the proposed changes to the DCO application by Tuesday 29<sup>th</sup> May.

#### 1.1 Carbon Capture and Storage (CCS)

The Carbon Capture Readiness Statement was submitted as part of the DCO application. The written representations stage has been our first opportunity to review this document. We have assessed the Carbon Capture Readiness Statement and have the following comments:

##### Insufficient Information Submitted

The applicant has NOT provided sufficient information to demonstrate whether there is sufficient space to accommodate the carbon capture plant (CCP) and whether it is technically feasible to retrofit the carbon capture technology selected.

The Environment Agency's (EA) role is to provide advice to the consenting authority as to whether the applicant has adequately demonstrated that 'there are no foreseeable barriers' to carbon capture with regards to space or technical feasibility.

Since the publication of the DECC (2009) Carbon Capture Readiness guidance, the minimum footprint requirement for CCP has been reviewed downwards by Florin and Fennel of Imperial College London (2010). This work is available on the GOV.UK website:

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/47932/553-imperial-college-review-ccr-guidance.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/47932/553-imperial-college-review-ccr-guidance.pdf)

Despite this change in guidance, the EA considers that the space currently allocated to the carbon capture plant is too small. Therefore, the applicant will need to set aside further land **or** provide detailed evidence that the CCP could be accommodated in the space allocated. This may be difficult to demonstrate given that the current guidance (Florin and Fennel 2010) shows that even with detailed engineering design, the space required could only be reduced to 6.5 Ha, and not to the 5.4 Ha proposed by the applicant.

The DECC Carbon Capture Readiness (CCR) (2009) guidance states that *"Applicants should submit the required assessments demonstrating CCR as part*



*of their initial Section 36 consent application with its supporting documentation. The assessments should not be considered supplementary information which can be submitted at a later stage. Together with the rest of the Section 36 application material, these assessments will be public documents. This guidance also explains the level of information which applicants can reasonably be asked to submit in the demonstration of CCR when applying for Section 36 consent”.*

**Suggested solution:**

The applicant should submit the information required by the form “Environment Agency verification of CCS Readiness New Natural Gas Combined Cycle Power Station Using Post-Combustion Solvent Scrubbing”, as outlined in Annex C of the Department of Energy and Climate Change (DECC) (2009) Carbon Capture Readiness guidance, for assessment.

The required information is detailed in Annex C of the DECC Carbon Capture Readiness guidance (2009), which is at the following link:

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/43609/Carbon\\_capture\\_readiness\\_-\\_guidance.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/43609/Carbon_capture_readiness_-_guidance.pdf)

Information must be submitted in relation to:

- Design, planning permissions and approvals;
- Power plant location;
- Space requirements;
- Gas turbine operation and increase exhaust pressure;
- Flue gas system;
- Steam cycle;
- Cooling waste;
- Compressed air system;
- Raw water pre-treatment plant;
- Demineralisation /desalination plant; and
- Waste water treatment

This information must be submitted to enable the EA to determine whether it is technically feasible to retrofit the carbon capture technology selected.

The applicant should reconsider the space allocated to CCP, and either increase the allocated plot size, **or** provide detailed evidence that the CCP will be able to be accommodated within the space allocated.

An approach taken at another plant involved engaging the services of Florin and Fennel, to review their technical CCR proposals and to write a report confirming whether they considered the space available and the design was feasible. The EA accepted this report as part of the DCO consultation process. This approach should be considered by the applicant.



## **1.2 Air Emissions/Air Quality and Stack Height and Stack Diameter**

Air impact modelling data for a minimum stack height of 75m and maximum stack diameter of 8m has been submitted.

The applicant has not considered the technical feasibility of reducing the stack diameter to aid environmental monitoring of emissions, and to increase the exit velocity from the stack to improve dispersion. Emissions from the site must be controlled to levels which are below the relevant exposure criteria which are protective of human health and the environment. This issue must be addressed in the DCO.

The EA will assess the air quality risk assessments and take into consideration the impacts of the proposed development on internationally designated sites, non-statutory sites and protected habitats in the vicinity of the application site, as part of the determination of the Environmental Permit application. It should be noted that we cannot prejudge the application for an Environmental Permit at this stage.

## **1.3 Combined Heat and Power (CHP)**

The applicant has stated that the proposed plant will be CHP Ready and have given a commitment to conduct regular reviews for CHP opportunities. The limited CHP Assessment shows that opportunities for the supply of heat are primarily dependent on the medium to long term plan to attract new energy intensive customers to the Wilton International site, and engagement with the South Tees District Heating project, currently at the feasibility study stage.

We would encourage the applicant to actively support/ help drive the South Tees District Heating Scheme, ensuring the scheme includes their nearest neighbours at Lazenby village and Normanby, which encompass residential areas and nursing homes. The Tees Valley City Deal, proposed by Tees Valley Unlimited, describes the South Tees District Heating scheme as taking industrial heat from Wilton International to supply homes, local authority buildings and a large hospital, and is currently completing the final stages of scheme feasibility. An active, central involvement in this scheme would satisfy our requirement for the applicant to consider the potential economic opportunities to supply heat to a wide search radius, as part of the Environmental Permit.

## **1.4 Construction Environmental Management Plan (CEMP)**

We advise that the wording of Requirement 13 (1) Construction environment management plan of the draft Development Consent Order is amended so that the EA are consulted by the planning authority on the CEMP.



### 1.5 Environmental Permit

The development will require an Environmental Permit under the Environmental Permitting (England & Wales) Regulations 2010 from the EA. This is a separate consenting process.

An Environmental Permit application has not yet been duly made. Given that the permit has not been applied for during the NSIP process and is not running parallel to the DCO application, there are a number of matters which we have not been able to resolve or consider fully to date.

### 2.0 Water Framework Directive (WFD)

Based on the information submitted, the applicant has not fully demonstrated compliance with the requirements of the WFD.

As part of the WFD assessment, the applicant will need to demonstrate:

- whether the proposed development will lead to a deterioration in status of any WFD waterbody;
- whether the proposed development will compromise the achievement of Good Status in any WFD waterbody;
- whether the proposed development will contribute towards a cumulative deterioration of WFD status or prevent cumulative enhancement of WFD status in any waterbody; and
- whether the proposed development will support the delivery of measures identified in the Northumbrian River Basin Management Plan.

The WFD waterbodies in question are:

- Tees estuary (S Bank) (GB103025072320)
- TEES estuary (GB510302509900)

The WFD process involves the following stages:

- Stage 1: Pre-screening;
- Stage 2: Screening; Look at each WFD quality element within each potentially impacted waterbody – *potential impact on status – is further assessment required?*
- Stage 3: Further assessment; followed by, if required;
- Stage 4: Identification and evaluation of measures; and
- Stage 5: Article 4.7 considerations

The above should be considered for both potential WFD impacts during construction and post construction once the development proposal is operational.



### **3.0 Habitat Improvement**

In accordance with the Government's 25 Year Environment Plan and WFD, we would encourage the applicant to consider biodiversity enhancement and net-gain opportunities as part of the proposed development.

Please note that the EA reserves the right to make further comments on this application throughout the examination process and to modify its present advice or opinion in view of any additional information that may come to our attention.

