

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

**Our ref:** NA/2018/114039/09-L01  
**Your ref:** EN010082  
**Date:** 21 September 2018

Dear Sir/Madam

**DEADLINE 7 SUBMISSION UPDATED COMMENTS: APPLICATION BY SEMBCORP UTILITIES (UK) LIMITED FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE TEES CCPP PROJECT SITE OF THE FORMER TEESSIDE POWER STATION, GREYSTONE ROAD, GRANGETOWN, MIDDLESBROUGH, TS6 8JF.**

Thank you for your letter in respect of the Examining Authorities request for further information and notification of the Report on the Implications for European Sites (RIES), which we received on 5 September 2018.

We have recently made comments in our letter dated 13 September 2018 with respect of carbon capture and storage matters and the following submitted information:

- Tees Carbon Capture Sizing Studies – Support to Carbon Capture Readiness Report Sembcorp Utilities (UK) Limited produced by AECOM Infrastructure & Environment UK Limited dated 18 June 2018; and
- Assessment of the CCR Compliance of the Tees Combined Cycle Power Plant Project Report produced by J.G. Yao, P.S. Fennell FIChemE, N. Mac Dowell FIChemE, Imperial College Consultants (no date given).

We wish to detail our current position with regard to carbon capture and storage matters following receipt of additional updated carbon capture and storage information from the applicant on 19 September 2018 in the form of:

- AECOM memo dated 19 September 2018, headed “Tees CCPP Project – Response To Environment Agency Letter Dated 13 September 2018 (Ref.NA/2018/114039/08-L01) Regarding Carbon Capture Readiness”



**Please note, our assessment is based on the information provided to date and is in relation to a power plant that has an electrical capacity of 1,520MWe.**

### **Environment Agency Position**

The submitted AECOM memo, now provides the outstanding information which we previously requested in our letter of 13 September 2018.

We consider that the applicant has now demonstrated that “there are no foreseeable barriers” to the technical feasibility of CCP retrofit for a 1,520MWe combined cycle gas turbine power plant (CCGT). There is sufficient space for the proposed carbon capture plant based upon the proposed 5.7Ha of land set aside for the 1,520MWe CCGT power plant and using class H gas turbines.

The Carbon Capture Readiness Statement submitted as part of the DCO application and the subsequent recent submissions set out in this letter address all of the technical verification requirements given in the checklist “Environment Agency verification of CCS Readiness New Natural Gas Combined Cycle Power Station Using Post-Combustion Solvent Scrubbing” in Annex C of the DECC (2009) guidance, for a 1,520MWe power output plant.

The applicant has, however, NOT provided sufficient information to demonstrate that it is technically feasible and that there is sufficient space to retrofit a carbon capture plant for a 1,700MWe power output. The applicant will need to provide further evidence to demonstrate the feasibility of a power plant with a maximum capacity of 1,700MWe. We, therefore, **recommend** that the DCO contains a requirement to limit the power output capacity to 1,520MWe until it can be demonstrated that a maximum capacity of 1,700MWe is feasible, as proposed by the Applicant in the AECOM memo dated 19 September 2018.

The applicant has provided us with the following proposed wording for the DCO requirement to limit the power output capacity:

### ***Electrical output limitation***

- (1) The authorised development must not be operated to generate a net electrical output of more than 1520MWe unless and until sub-paragraph (2) has been satisfied.*
- (2) In order to operate at a net electrical output of more than 1520 MWe and up to 1700MWe the undertaker must first demonstrate in compliance with the Guidance and to the satisfaction of the Environment Agency to be confirmed in writing that there is sufficient space within the order limits to comply with the land footprint requirement for the retrofitting of*



*appropriate carbon capture storage plant and equipment for a generating station with a net electrical output of up to 1700MWe.*

*Defined term - the Guidance - UK DECC (now BEIS) Carbon Capture Readiness (CCR) A guidance note for Section 36 Electricity Act 1989 consent applications November 2009 or such guidance as may amend replace or add to the 2009 guidance.*

We **recommend** the following amended wording for the DCO requirement. Point 2 of the requirement has been reworded to ensure that any submitted scheme to support a net electrical output of more than 1520MWe and up to 1700MWe is submitted to and approved in writing by the planning authority in consultation with the Environment Agency. We have also detailed the information that should be submitted for any scheme.

### **Electrical output limitation**

- (1) *The authorised development must not be operated to generate a net electrical output of more than 1520MWe unless and until sub-paragraph (2) has been satisfied.*
- (2) *The authorised development must not be operated at a net electrical output of more than 1520MWe and up to 1700MWe until the undertaker submits a scheme to demonstrate there is sufficient space within the order limits to comply with the land footprint requirement for the retrofitting of appropriate carbon capture storage plant and equipment for a generating station with a net electrical output of up to 1700MWe. The scheme shall be submitted to and approved in writing by the relevant planning authority in consultation with the Environment Agency. The scheme shall include:*
  - *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 a generating station with a net electrical output of more than 1520MWe and up to 1,700MWe.*
  - *Details demonstrating how the Carbon Capture Plant will fit into the space allocated for the plant including the submission of engineering design details.*

### **Informative:**

*Please note that the above listed requirements of the scheme is not exhaustive and there may be additional information which could assist in demonstrating sufficient space for any proposed generating station operating at a net electrical*



output of more than 1520MWe and up to 1700MWe.

### **Laydown area during construction of carbon capture plant**

The AECOM report, dated 18 June 2018, discusses the laydown area stating “It is envisaged that the carbon capture plant construction would be sequenced in such a manner that the areas incorporating the cooling system are used as laydown for the construction of the main capture equipment; the cooling system would then be installed last. SembCorp has a significant land holding outside the Tees CCGT Order Limits, as shown in Figure EN010082-000503 that was submitted as part of the DCO application. Part of this land would be allocated to the construction of the capture plant at that time.”

It is noted that part of the land allocated to the construction of the carbon capture plant will be outside of the Tees CCGT Order Limit. We strongly recommend that an area of land is kept available for laydown during the construction of the carbon capture plant.

We also have the following comments to make with respect of the RIES.

### **Report on the Implications for European Sites (RIES)**

Paragraph 3.3.20 of the RIES identifies the following,

“The Applicant stated [REP5-005] that it had added some wording into version 4 of the dDCO [REP5-001], to *“ensure that the stack diameter would be 8m unless the undertaker can demonstrate that a different diameter would not result in any new or materially different effects and can be agreed with the relevant planning authority in consultation with the EA”*. However, this wording was not included in version 4 of the dDCO submitted at Deadline 5 [REP5-001]; or version 5 of the dDCO submitted at Deadline 6 [REP6-008].”

There does not appear to be a reasoning provided in the RIES for why this wording was omitted from version 4 or version 5 of the dDCO. We would request that this wording is included in any subsequent versions of the dDCO.

If you have any questions, or require any clarification on the points above, please do not hesitate to contact me.

Yours faithfully

**Louise Tait**  
**Senior Planning Advisor**

Tyneside House, Skinnerburn Road, Newcastle Business Park, Newcastle upon Tyne, NE4 7AR.  
Customer services line: 03708 506 506  
Email: [enquiries@environment-agency.gov.uk](mailto:enquiries@environment-agency.gov.uk)  
[www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)



creating a better place



Direct dial 02084746523

Direct e-mail [louise.tait@environment-agency.gov.uk](mailto:louise.tait@environment-agency.gov.uk)

Tyneside House, Skinnerburn Road, Newcastle Business Park, Newcastle upon Tyne, NE4 7AR.  
Customer services line: 03708 506 506  
Email: [enquiries@environment-agency.gov.uk](mailto:enquiries@environment-agency.gov.uk)  
[www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)

