

White Rose Carbon Capture and Storage (CCS) Project

Document Ref: 8.6 - Rev. 6
PINS Ref: EN10048

The White Rose CCS (Generating Station) Order

Land adjacent to and within the Drax Power Station, Drax,
near Selby, North Yorkshire

Applicant's Statement of Common Ground with the Environment Agency

The Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 - Regulation 5(2)(q)



Applicant: Capture Power Limited
Date: August 2015

Document History

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|------------------------|-------------------------------|-------------|----------|
| Document Number | 8.6 | | |
| Revision | 6 | | |
| Author | Dalton Warner Davis LLP (DWD) | | |
| Signed | Geoff Bullock (GB) | Date | 05.08.15 |
| Approved By | GB | | |
| Signed | GB | Date | 05.08.15 |
| Document Owner | DWD | | |

| Revision History | | | |
|-------------------------|-------------|---|----------------------|
| Revision No. | Date | Reason for Revision | Authorised By |
| 1 | 20.05.15 | First draft for discussion. | GB |
| 2 | 19.06.15 | Deadline 3 update. | GB |
| 3 | 29.06.15 | Updated to reflect 'Duly made' status of EP and agreement relating to off-site biodiversity/ecology mitigation. | GB |
| 4 | 07.07.15 | Updated to take account of EA comments received 29.06.11. | GB |
| 5 | 08.07.15 | Updated to take account of EA comments received 07.07.15 | GB |
| 6 | 05.08.15 | Updated to reflect discussion with EA after 08.07.15 and for submission at Deadline 5 | JBG |

| Glossary | |
|-----------------|--|
| BAT | Best Available Technique |
| CCS | Carbon Capture and Storage |
| CHP | Combined Heat and Power |
| CO ₂ | Carbon Dioxide |
| CL | Critical load or level |
| CPL | Capture Power Limited |
| DCO | Development Consent Order |
| DWSZ | Drinking Water Safeguarded Zone |
| EA | Environment Agency |
| EP | Environmental Permit |
| ES | Environmental Statement |
| HRA | Habitats Regulations Assessment |
| NERC | Natural Environment and Rural Communities Act 2006 |
| NFU | National Farmers Union |
| NPS | National Policy Statement |
| PEC | Predicted Environmental Concentration |
| SAC | Special Area of Conservation |
| SO ₂ | Sulphur Dioxide |
| SoCG | Statement of Common Ground |
| SoS | Secretary of State |
| YWT | Yorkshire Wildlife Trust. |

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1.0 INTRODUCTION

OVERVIEW

- 1.1 This is the Statement of Common Ground ('SoCG') between Capture Power Limited (the 'Applicant') and the Environment Agency ('EA') relating to the application (the 'Application') that has been made to the Secretary of State ('SoS') for a Development Consent Order ('DCO') under Section 37 of the Planning Act 2008 (the '2008 Act').
- 1.2 The Application seeks development consent for the construction, operation and maintenance of the White Rose Carbon Capture and Storage (CCS) project (the 'Project'). The Application was submitted in November 2014 and accepted for Examination on 17 December 2014.
- 1.3 The Project would be located on land within and adjacent to the operational boundary of the existing Drax Power Station site (the 'Power Station site'), near Selby, North Yorkshire.

THE BACKGROUND TO THE PROJECT

- 1.4 The Project comprises a new thermal generating station (an ultra-supercritical oxy-fuel coal-fired power plant of up to 448 MWe gross with the ability to co-fire biomass) that will be fitted with carbon capture and storage ('CCS') technology and associated development.
- 1.5 The CCS technology would capture up to 90% of the carbon dioxide emissions from the new power plant. The carbon dioxide would be transported via the National Grid Carbon Limited's Yorkshire and Humber CO₂ Pipeline (a separate project) for permanent storage beneath the North Sea.
- 1.6 The Project forms part of the UK Government's CCS Commercialisation Programme and would assist in demonstrating new coal-fired power plant fitted with CCS at a commercial scale. The Project would make an important contribution toward the delivery of national energy policy, which is aimed at ensuring the security of energy supplies while moving toward a low carbon electricity generation mix.

THE APPLICANT

- 1.7 The Applicant, CPL, is an English private limited company that was incorporated in December 2011 as a fully owned subsidiary of Drax CCS Limited (a company fully owned by Drax Group plc) to promote the Project.
- 1.8 In December 2013 ALSTOM UK Holdings Limited (an Alstom Group company) and The BOC Group Limited (a Linde Group company) each acquired a one-third interest in CPL. The Applicant (CPL) is therefore currently a joint venture company equally owned by Drax CCS Limited, ALSTOM UK Holdings Limited and The BOC Group Limited.

THE ENVIRONMENT AGENCY

- 1.9 The EA is a non-departmental public body, the stated purpose of which is *"to protect or enhance the environment, taken as a whole"* so as to promote *"the objective of achieving sustainable development"*.
- 1.10 The EA is a statutory consultee in respect of all applications seeking a DCO that are likely to affect land in England.

THE PURPOSE AND STRUCTURE OF THE SOCG

- 1.11 The purpose of this SoCG is to set out the agreement that has been reached between the Applicant and the EA in respect of the following matters:
 - Environmental Permit.
 - Air Quality.
 - Flood Risk.
 - Surface Waters.

- Water Abstraction and Treatment.
- Groundwater and Land Contamination.
- Impact on Drinking Water Safeguarded Zones.
- Ecology.
- Waste and Environmental Management.
- Combined Heat and Power.
- Carbon Capture and Storage/Carbon Capture Readiness.
- Other Matters.

1.12 The SoCG also sets out any matters that are not yet agreed.

2.0 MATTERS AGREED

ENVIRONMENTAL PERMIT

- 2.1 There are a number of other consents and licences, in addition to the DCO, that are required in respect of the construction and operation of the Project, including a variation to the Environmental Permit ('EP') for the existing Power Station site. Although the 2008 Act provides the ability to include the EP within the DCO, it is agreed that the Applicant's chosen approach to progress the EP variation application separately is acceptable.
- 2.2 The consents and licences that the Applicant has identified as being required (in addition to the DCO, are listed within the 'Other Consents and Licences' document (Document Ref. 5.3). This is a live document and details the discussions that have taken place to date with the relevant consenting bodies. It also sets out any actions that are required and confirms the status of the applications required.
- 2.3 It is agreed, in accordance with Section 5 of the Overarching National Policy Statement for Energy (EN-1), paragraph 4.10.6, that the Applicant has made early contact with the EA in respect of the EP variation. The contact was made to discuss the requirements of the EP variation application and to ensure that it took account of all relevant considerations.
- 2.4 The EP variation application (EA Ref. EPR/VP3530LS/V012) was submitted to the EA on 8 April 2015. Receipt of the application was acknowledged by the EA on 10 April 2015. The EA confirmed (on 29 June 2015) that the application was 'duly made' as of 25 June 2015, meaning that the EA has all the required information needed to begin determination of the application. The email confirming the 'duly made' status of the application is provided as **Appendix 1**.

AIR QUALITY

- 2.5 There is the potential for air quality effects as a result of direct emissions to air from operation of the Project. Additionally, potential effects on air quality could result from increased traffic during construction, operation and decommissioning. Effects on air quality could lead to secondary impacts on both sensitive human and ecological receptors. There is also the potential for air quality effects as a result of project start-up and shut down and emissions during some foreseeable non-routine operations.
- 2.6 The Applicant has undertaken dispersion modelling to assess the effects from the operational Project (oxy-mode and air-mode) on sensitive human receptors. It was agreed that modelling be undertaken for two scenarios; the first being the coal-fired power plant functioning 100% in air-mode and the second functioning 100% in oxy-mode.
- 2.7 It is agreed, in terms of methodology, that the effects on human receptors must be assessed using the maximum ground level concentration predicted at any point on the grid predicted by atmospheric dispersion modelling as a 'worst case' approach. In addition, it is agreed that the results of the modelling must be based upon the worst case results for any of the five years of meteorological input data used.
- 2.8 Dispersion modelling was also undertaken to assess the effects from the operational Project (in both air-mode and oxy-mode) on sensitive ecological receptors. The EA will review the assumptions included in the modelling as part of its assessment of the EP variation application.
- 2.9 In terms of mitigation measures, it is agreed that the coal-fired power plant must operate using Best Available Techniques ('BAT').
- 2.10 The EA will consider the following as part of its assessment of the EP variation application:
 - the plant-specific mitigation measures incorporated into the data used to model emissions from the plant and predict effects on air quality;
 - the effects upon human health of the plant operating in air-mode and oxy-mode from a number of substances, including arsenic, chromium VI and sulphur dioxide ('SO₂'); and

- the effects upon ecological receptors of the plant operating in air-mode and oxy-mode, including European sites and the critical loads from the plant's emission to the atmosphere (acid deposition and SO₂ concentration).

2.11 It is agreed that the EA will review the data relating to European sites during the EP process in its role as 'competent authority' under the Habitats Regulations for the EP variation. Air dispersion modelling files have been sent to the EA as part of the permitting process.

FLOOD RISK

2.12 It is agreed that the Project would operate on a platform constructed to bring it to a level that is above the flood risk level for the operational area and that it would be served with suitable emergency access and egress. The height of this platform was calculated by a breach analysis (of the River Ouse) and a detailed flood risk assessment ('FRA'); both of which have been agreed with the EA.

2.13 It is acknowledged that the development platform would reduce the storage capacity of the flood plain and the Project would change (increase) the rate and volumes of surface water run-off from the pre-Project levels. It is agreed that together these factors could increase the risk of flooding elsewhere. However, notwithstanding the potential adverse effects, it is agreed that through the site raising, flood risk would be appropriately managed and that flood risk effects to receptors as a result of the Project and associated loss of floodplain storage are not considered significant and that the Project would not significantly increase the risk or severity of flooding on neighbouring land. No other risks from other flood sources have been identified in the study area. It is also agreed that even if flood defences were to fail, the Project would be adequately protected.

2.14 Revised wording of requirement 13 'Flood risk mitigation' has now been agreed. This revised wording will be included in Schedule 2 of an amended draft DCO (Document Ref. 2.1) which shall be submitted at Deadline 5.

SURFACE WATERS

2.15 Operational stage pollution risk to surface waters will be assessed as part of the EP variation application as will process effluent discharges.

2.16 It is agreed that the following requirements contained at Schedule 2 of the draft DCO would secure the proposed mitigation:

- No.14 'Contaminated land and groundwater'
- No.18 'Construction environmental management plan'

2.17 Revised wording of requirement 12 'Surface and foul water drainage' has now been agreed. This revised wording will be included in Schedule 2 of an amended draft DCO (Document Ref. 2.1) which shall be submitted at Deadline 5.

WATER ABSTRACTION, TREATMENT AND EFFLUENT DISCHARGE

2.18 It is agreed that new water treatment facilities will be provided as part of the Project, which would be linked to existing facilities within the existing Drax Power Station site. Water treatment and discharge will be assessed as part of the EP variation application.

2.19 The Applicant considers that the Project will operate within the abstraction and discharge limits and parameters set by the existing EP for the Power Station site. The EA will assess this as part of its consideration of the EP variation application and any subsequent Abstraction Licence variation application.

GROUNDWATER AND LAND CONTAMINATION

2.20 The EA agrees with the conceptualisation of the geology and hydrogeology of the site contained within ES Volume 2, Chapter D Geology Technical Report (Document Reference 6.3.5). It is also agreed that the ES adequately identifies all potential sources of contamination existing on the Project site, as well as the environmental receptors and potential pathways subject to the mitigation outlined within the ES. Other than potential impacts on Drinking Water Safeguard Zones via air emissions

and deposition, which will be assessed through our determination of the Environmental Permit, it is agreed that the Project would not result in significant effects on groundwater or in terms of land contamination.

IMPACT ON DRINKING WATER SAFEGUARDED ZONES

- 2.21 The Applicant's position with regard to Drinking Water Safeguarded Zones ('DWSZ') is set out in its responses to the Examining Authority's First Written Question 7.11 (Document Ref. 9.1) and the National Farmers' Union Relevant Representation (Document Ref. 9.2).
- 2.22 The EA will undertake its own assessment of effects on DWSZ as part of the EP process.

ECOLOGY

- 2.23 It is agreed that the Project would provide for on-site habitat mitigation, including some mitigation of the reduction in wetland habitat through the provision of the flood attenuation pond (subject to its appropriate design and management), but that this would not fully offset the loss of habitat at the Project site. The Applicant is currently working with the YWT to further develop the Indicative Landscaping and Biodiversity Framework Plan submitted as part of the DCO Application (Document Ref. 4.10) to maximise the contribution that the proposed on-site mitigation can make to the biodiversity value and interest of the site.
- 2.24 It is agreed that there is a need to provide further habitat mitigation off-site and that the priority for such mitigation should be the improvement and/ or creation of wetland habitat and on-going maintenance of such habitat.
- 2.25 The Applicant, the YWT and the Environment Agency ('EA') have worked together to agree an appropriate package of off-site habitat mitigation. The Skerne Wetlands Complex and Barlow Common have been identified and agreed as appropriate locations for the off-site mitigation and it has been agreed between the parties that the following package would be sufficient to fully mitigate the biodiversity/ecology effects of the Project and to provide biodiversity/ecology enhancements consistent with EN-1:

Skerne Wetlands Complex

- 2.26 The agreed package for the Skerne Wetlands Complex provides the following habitats:
- 2.7 hectares ('ha') of ponds;
 - 5.6 ha of mixed (wet and dry) grassland;
 - 2.4 ha of restoration of fen/wet grassland within the Site of Special Scientific Interest ('SSSI') adjacent to the chalk stream SSSI; and
 - Restoration of 2km of chalk stream SSSI and feeder stream/drain (non-SSSI) and creation of areas of scrub and boundary hedgerow.
- 2.27 The agreed contribution for the above is as follows:
- habitat creation and improvement - £120,000;
 - habitat management funding over a ten year period - £60,000; and
 - surveys - £6,000.00.

Barlow Common

- 2.28 The details of the package for Barlow Common is still to be defined but it is envisaged that this will encompass:
- pond and wetland creation;
 - infrastructure to enhance and manage public access to and enjoyment of the site (e.g. fencing, path creation and signage); and
 - measures aimed at species such as grass snake, amphibians and potentially water vole.

2.29 The agreed contribution for the above is as follows:

- habitat creation and improvement - £75,000;
- habitat management over a ten year period - £50,000; and
- survey fund - £6,000.

2.30 It is agreed that the most appropriate mechanism by which to secure the agreed off-site mitigation is a Section 106 planning obligation.

WASTE AND ENVIRONMENTAL MANAGEMENT

2.31 Details relating to waste and environmental management are set out within ES Volume 1, Chapter 5 Project Description, Section 5.9 Waste Management and Section 5.10 General Environmental Management (Document Ref. 6.2), ES Volume 3, Section J Construction Environmental Management Plan (Document Ref. 6.4.1) and Section R Framework Site Waste Management Plan (Document Ref. 6.4.11). It is agreed that the project information, assessment of effects and mitigation outlined is sufficient subject to the points relating to the drafting of the DCO.

2.32 The Applicant accepts the EA's request (within its Relevant Representation) that "*in consultation with the Environment Agency*" is added to the end of the first part of proposed requirement 25. This has been reflected in the version of the draft DCO (Revision 3) submitted for Deadline 2.

2.33 The Applicant also accepts the EA's request (again within its Relevant Representation) that the Soil Management Plan and Sediment Control Plan mentioned in Section 6.2.2 of ES Volume 1 Chapter 6, Summary of Construction Stage Effects (Document Ref.) are secured through an amendment to requirement 18 'Construction environmental management plan. Again, this has been reflected in the draft DCO (Revision 3).

COMBINED HEAT AND POWER

2.34 It is agreed that the Applicant has assessed the feasibility of combined heat and power ('CHP') through its CHP Assessment (Document Ref: 5.6). In addition, it is agreed that the draft DCO (Revision 3) includes a requirement (requirement 25 'Combined heat and power').

2.35 Periodic reviews of potential CHP opportunities will be required under the EA's CHP guidance (CHP Ready Guidance for Combustion and Energy from Waste Power Plants V1.0, February 2013) throughout the lifetime of the Project under the provisions of the EP Regulations. A CHP Assessment has been submitted as part of the EP variation application and will be assessed by the EA during its consideration of the application.

CARBON CAPTURE AND STORAGE/CARBON CAPTURE READINESS

2.36 It is agreed that the Carbon Capture and Storage ('CCS') and Carbon Capture and Readiness (CCR) Statement (Document Ref. 5.7), in conjunction with the Design and Access Statement (Document Ref. 5.5), Chapter IV 'Technical Description of CCS Plant' of the EP variation application (April 2015) and the Pipeline plans in Section 2.1 of the Yorkshire and Humber (CCS Cross Country Pipeline) DCO Application (PINS Ref. EN070001) (June 2014) demonstrate that there are no foreseeable barriers to CCS/CCR in relation to space allocation and technology feasibility.

2.37 It is agreed that there would be no need for any retrofitting of carbon capture technology as the Project would have the ability to capture carbon from the commencement of operations.

OTHER MATTERS

2.38 The following non-exhaustive list of matters will be assessed and (where appropriate) controlled in the context of the EP variation application:

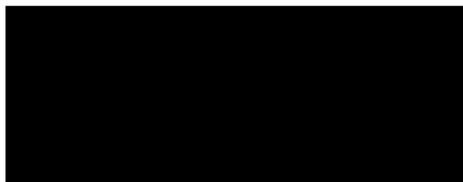
- Air quality effects from stack emissions.
- The need for amendments to existing discharge consents/licences.
- Impact on Drinking Water Safeguarded Zones.
- Operational noise.

- 2.39 The parties agree to keep the Examining Authority apprised of progress with the EP variation application.

3.0 MATTERS NOT YET AGREED

There are no outstanding matters to agree for the purposes of this SoCG.

Signed



Print name and position

Sam Kipling, Planning Specialist, Yorkshire Area Sustainable Places

On behalf of the Environment Agency

Date . . . 05/08/2015.....

Signed



Print name and position JAKE BARNES-GOTT, ASSOCIATE, DALTON WARNER
DAVIS LLP

On behalf of the Capture Power Ltd

Date . . . 05/08/2015.....

APPENDIX 1 - EMAIL DATED 29.06.15 CONFIRMING ENVIRONMENTAL PERMIT APPLICATION DULY MADE STATUS

Hayley Armitage

From: Geoff Bullock
Subject: FW: Your application EPR/VP3530LS/V012 is duly made

From: PSC Waste [mailto:PSC@environment-agency.gov.uk]
Sent: 29 June 2015 08:24
To: Jim Doyle
Subject: Your application EPR/VP3530LS/V012 is duly made

Dear Dr Doyle

Your environmental permitting application is duly made

Application reference: EPR/VP3530LS/V012
Operator: Drax Power Limited
Facility: Drax Power Station, Drax, Selby, North Yorkshire, YO8 8PH

We're writing to let you know that your application, received on 10 April 2015, is duly made as of 25 June 2015. Duly made means that we have all the information we need to begin determination. Determination is where we assess your application and decide whether or not we can allow what you've asked for. If we have to refuse your application, we'll explain why.

We may need to ask you for more information during determination. If we do we'll write to you to explain what we need and how long you have to reply.

We want to give you a decision as quickly as possible, but the time it takes depends on what's in the application.

If you have provided us with all the information we need, included the appropriate fee and there are no complicating factors such as confidentiality decisions, you can expect us to determine your application within the following timescales:

- for transfer or partial transfer of an environmental permit within two months
- for a standard permit (except for installations); minor or normal variation or surrender or partial surrender of an environmental permit within three months
- for a standard permit for an installation, a bespoke permit or substantial variation to a permit (with public participation) within four months.

We may need to agree a longer timescale with you:

- if the application is complex
- if we need to ask you for more information about the technical aspects of your application
- if there's a considerable level of interest from the public or other organisations.

If we haven't already spoken to you about when to expect our decision, one of our officers will contact you soon to explain this and deal with any questions you have. If your application contained a request for confidentiality we will write to you separately about our decision on that.

We must advertise new bespoke applications, standard rules applications for installations and substantial variations on our website. We explain more about this in our Public Participation Statement.

If you have any questions please phone our Customer Contact Centre on 03708 506506 and they will put you in touch with one of our Permitting and Support Centre advisers or email psc@environment-agency.gov.uk.

Yours sincerely

Matt Franklin
Permitting Support Advisor

National Permitting Service (part of National Services E&B)

☎ External 0114 280 0661 (Direct dial 0114 280 0645)

✉ psc@environment-agency.gov.uk

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