

**Drax Power Ltd**  
**Application by Drax Power Ltd for an Order Granting**  
**Development Consent for the Drax Re-power Project**

**Planning Inspectorate Reference:**  
**EN0100091**

**Written Representations**  
**by the Environment Agency**

**Unique Reference Number: 20011848**

**8 November 2018**

Submitted on behalf of the  
Environment Agency by:  
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## **Summary of response**

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Our written representations discuss the proposed development and the Environment Agency's role in the context of the Environmental Permitting (England and Wales) Regulation 2010 (EPR) as amended. We are of the opinion that a project of this type and nature should be capable of being adequately regulated under the Environmental Permitting Regulations (EPR) and at this point we know of no obvious errors or issues which would prevent a permit being granted at this time. However, as the permit application has not yet been fully assessed it would be premature to provide comments on whether or not a permit would be issued at this stage.

We also seek to clarify the outcome of any discussions with the applicant since we submitted our relevant representations. We have done this because some of our original concerns have been addressed and resolved whereas some areas we remain in discussion with the applicant. This will be reflected in the statement of common ground between the applicant and the Environment Agency.

We have commented on the following areas:

### **Environmental Permit:**

1. Operation of the proposed power plant
2. Combined heat and power ready requirements
3. Carbon capture ready requirements
4. Flood Risk Activities Permit
5. Discharges to surface and groundwater
6. Waste
7. Water abstraction licence

### **Draft DCO:**

8. Flood risk
9. Contaminated land
10. Surface water
11. Construction Environment Management Plan
12. Waste management on site – construction waste
13. Design parameters (schedule 13)

## **Environmental Permit Comments**

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### **1. Environmental Permit: Operation of the proposed power plant**

- 1.1. This project is for a new 3600 gross megawatt electrical generating plant operating as an Open Cycle Gas Turbine (OCGT) and Combined Cycle Gas Turbine (CCGT) power station. Each unit would have (subject to technology and commercial considerations) a battery energy storage facility with a capacity of up to 100 MW per unit, resulting in a combined battery energy storage capacity of up to 200 MW. The proposed development would provide electricity to the national grid.
- 1.2. As the works described in Schedule 1 (Authorised Development) are classed as a Section 1 Combustion Activity under the Environmental Permitting (England and Wales) Regulations 2018 (EPR), an environment permit would be required before operations commenced.
- 1.3. We have received the applicant's permit variation application and are in the process of carrying out a full technical assessment of this proposal, including an appropriate assessment under the Conservation and Habitats Regulations 2010, in our role as a competent authority under the Habitats Directive for the environmental permit.
- 1.4. As we are yet to carry out this assessment, the comments within this letter are provided in response to the DCO application only. They do not determine whether or not a permit will be granted.
- 1.5. In determining a permit application, we will consider:
  - Management - including general management, accident management, energy efficiency, efficient use of raw materials and waste recovery
  - Operating activities and techniques - including the use of Best Available Techniques for process design and management
  - Combined heat and power
  - Carbon capture and Sequestration
  - Emissions to air and discharges to water, land and groundwater along with odour, noise and vibration
  - Information - monitoring, records, reporting and notifications
- 1.6. All of the above are assessed within the requirements of Best Available Techniques (BAT). BAT is required in order to avoid or reduce emissions resulting from certain installations and to reduce the impact on the environment as a whole. Use of BAT is required when licensing the major potentially polluting industries under the Environmental

Permitting Regulations 2018. An assessment of BAT will be included in the determination phase of the environmental permit application.

- 1.7. When assessing the permit application we will set conditions to ensure the emissions and discharges are at a level that will not significantly affect people and the environment. This reflects current statutory requirements and will ensure compliance with European Directive 2010/75/EU on industrial emissions. We cannot grant a permit until we are satisfied that the operation of the process will not cause significant pollution to the environment or harm to human health.
- 1.8. If the applicant does not demonstrate an ability to comply with such conditions, the permit variation will be refused.

## **2. Environmental Permit: Combined heat and power ready requirements**

- 2.1. The applicant has concluded that it would not currently be viable to produce heat or steam from the proposed development. The applicant has reached this decision by undertaking scoping exercise to identify potential sites and an economic appraisal and taking account of the distributed nature of the loads, the distances to the identified opportunities, potential barriers and constraints to the installation of export pipework.
- 2.2. We are satisfied that the applicant has precluded heat or steam production by following the guidance within CHP Ready Guidance for Combustion and Energy from Waste Power Plants' V1.0 February 2013.
- 2.3. All new combustion power plants that do not include CHP from the outset must nevertheless be CHP-ready. The degree to which they are CHP-ready will depend on the technical viability of future opportunities for heat supply in the vicinity of the plant. As such, any permit application will need to assess CHP readiness via a Best Available Technique (BAT) assessment alongside a cost-benefit assessment (under Article 14 of the Energy Efficiency Directive).
- 2.4. Should a permit be issued to the operator, it will include the following condition, which stipulates that the operator must undertake a periodic CHP review:

The operator shall review the viability of Combined Heat and Power (CHP) implementation at least every 4 years, or in response to any of the following factors, whichever comes sooner:

- new plans for significant developments within 15km of the installation
- changes to the local plan
- changes to the BEIS UK CHP Development Map or similar

- new financial or fiscal incentives for CHP
- 2.5. In our Relevant Representations response we stated that although the applicant has stated that ‘sufficient space will be allocated for future retrofit’ we highlighted that a site layout plan, indicating available space which could be made available for CHP, has not been provided with the DCO application. Information has been submitted by the applicant to address this. We are currently reviewing this and will respond in due course.
- 2.6. The selection of heat loads has not been agreed with the Environment Agency. Whilst this is a requirement for the environmental permitting regulations, it also has planning implications as the agreed heat loads could dictate the site infrastructure and therefore affect the footprint of any development required. A further revision of the CHP-R assessment will, however, take place following completion of the detailed design. This will be based on potential heat loads agreed with the Environment Agency. The applicant states it is likely that the heat load available from the proposed development would be the load from a single CCGT unit without modification and that the other two CCGT units and /or the peaking plant could be used to improve redundancy in the system. This needs further assessment via the revised CHP-R.
- 2.7. The CHP-R assessment takes into consideration the CC-Ready requirements.

### 3. Environmental Permit: Carbon capture ready requirements

- 3.1. The space allocated to the CCP is sufficient to conclude that “there are no foreseeable barriers” to carbon capture with regards space allocation.
- 3.2. In our Relevant Representations response we requested further information to enable us to conclude whether “there are no foreseeable barriers” to carbon capture with regards to technical feasibility:
- 3.2.1. The Applicant must identify, on a scaled site plan, the CO<sub>2</sub> pipeline within the plant and the exit point from the curtilage of the plant,
- 3.2.2. The Applicant needs to provide details of the space requirements for at least items a) to d) in Section 2.2, along with an explanation of how the space allocations have been determined,
- 3.2.3 The Applicant needs to provide a statement of the estimated cooling demand for the CCP, and evidence that the area allocated in figure 4 for air cooled towers is large enough to meet this demand,

3.2.4 The Applicant needs to provide a statement of the estimated additional compressed air requirements, along with an estimate of the size of the compressor(s) and their location on a scaled site plan,

3.2.5 The Applicant needs to provide details of the estimated additional waste water treatment needs and demonstrate that the exiting effluent treatment plant can handle this extra demand,

3.2.6 The Applicant needs to confirm that, in OCGT mode, CO<sub>2</sub> emissions will be the same or lower than that in CCGT mode, and if not then they need to assess carbon capture readiness against OCGT mode,

3.2.7 The Applicant needs to confirm how the CCP will be able to operate at 90% efficiency in the OCGT operating mode.

3.3 We have received information from the applicant to address the issues above. We are assessing this information and we will respond in due course.

#### **4. Environmental Permit: Flood risk activities**

4.1 In the submitted Flood Risk Assessment, the applicant has recognised that any work or structures, in, under, over or within 16m of the top of the bank of the tidal River Aire (Main River) will require an Environmental Permit and that an Environmental Permit will also be required for any temporary structures or stockpiles of materials within the floodplain.

Although it is not certain that any of the proposed works will fit the above criteria, we consider that applicant should also acknowledge the requirement for Flood Risk Activity Permits in their 'Other consents and licences' document (ref: 5.8).

It should also be noted and reflected that the permit requirement for fluvial main rivers applies within 8m as well as the 16m requirement for tidal main rivers.

A flood risk activity permit is separate to and in addition to any planning permission/DCO granted. Further details are available at: [www.gov.uk/guidance/flood-risk-activities-environmental-permits](http://www.gov.uk/guidance/flood-risk-activities-environmental-permits)

#### **5. Environmental Permit: discharges to surface water and groundwater**

5.1. An EPR permit may be required if there are any discharges to surface water arising from dewatering activities as part of the construction phase. Early consultation with our environmental management team is advised as these permits can take up to 3 months to determine.

- 5.2. The 'Others consent and licences' document (ref: 5.4) should be updated to reflect any permitting requirements in relation to discharges to surface water or groundwater

## 6. Environmental Permit: Waste

- 6.1. Should demolition waste require treatment prior to being reused as part of the construction phase, a relevant exemption or environmental permit would be required.
- 6.2. According to 'The Definition of Waste: Development Industry Code of Practice' (DoWCoP) document, suitably processed or source-segregated aggregate material such as crushed brick and concrete (reused on the site of production) can be used within earthworks/drainage. This voluntary code of practice sets out current good practice and provides a framework for determining whether or not excavated materials arising from the site during remediation and/or land development works are considered waste or not.
- 6.3. If the demolition waste requires treatment to make is suitable for re-use, it would be classed as a waste and therefore should be regulated by the Environment Agency.
- 6.4. If stockpiles of demolition waste are anticipated to be in place for longer than 12 months, then an agreement from the Environment Agency should be sought (see DoWCoP, Paragraph 4.1).

## 7. Water abstraction Licence

- 7.1. The submitted 'Other consents and licences' document indicates that the applicant does not intend to make any variations to their existing licence to abstract groundwater.
- 7.2. The submitted 'Other consents and licences' document indicates that the applicant will require a new surface water abstraction licence for temporary works during construction. The applicant should contact Aden Biddle on [aden.biddle@environment-agency.gov.uk](mailto:aden.biddle@environment-agency.gov.uk) to further discuss water abstraction licence requirements.

## **Draft DCO Comments**

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## 8. Flood Risk

- 8.1. We are satisfied with the contents of the FRA and the mitigation measures proposed within. The DCO does not contain any requirements that ensure that the proposals are carried out as per the FRA and that any detailed design is submitted and signed off by the planning authority.
- 8.2. The applicant has suggested in the draft Statement of Common

Ground that the following requirement is added:

*The works are to be carried out in accordance with the submitted Flood Risk Assessment Rev 02 [AS-014]. Specifically;*

- 1. Site specific flood evacuation procedures are to be developed and implemented for those working on the construction of the gas pipeline and associated infrastructure. Those working within the existing Drax complex are to be made aware of the risk of flooding and are to follow the existing evacuation procedures.*
- 2. Finished floor levels of proposed structures are to be set 600mm above the 1:200 modelled flood level with climate change breach scenario.*
- 3. A flood relief channel is to be provided, as per section 5.3.5 of the FRA. Detailed designs of the flood relief channel shall be submitted to and agreed in writing by the planning authority. The flood relief channel is to be put in place prior to the construction of those works which block the potential flow path of flood water to the Northern Part of the Power Station, in order to both maintain the flood flow route and minimise the risk/impact of flooding to others.*
- 4. No materials or plant are to be stored or offices located in areas of the construction compound which are indicated to be at risk of flooding (Section 8.2.2 of FRA)*
- 5. Ground levels are to be reinstated following completion of the work to ensure that there is no reduction of flood plain storage.*

8.3 We are satisfied that the proposed wording ensures that works are in compliance with the FRA.

## **9. Contaminated Land**

9.1. The following includes comments on the Environmental Statement to set the scene for comments on the draft DCO. We have provided comments on the following documents:

- 6.1.11 Environmental Statement - Volume 1 - Chapter 11 Ground Conditions
- 6.1.12 Environmental Statement - Volume 1 - Chapter 12 Water Resources, Quality and Hydrology
- 3.1 Draft Development Consent Order

9.2. We are satisfied with the summary of the Chapter 12 Water Resources, in principal, and do not have any significant comments to make.

9.3. We accept the findings within Chapter 11 which indicates that there are potential for site reconfiguration works and construction phase activity could potentially impact on controlled waters. Therefore, it recommends that a ground investigation is undertaken to assess the risks to groundwater associated with potential sources of contamination.



9.4. The Draft Development Consent Order currently has the proposed wording for the requirement for Ground Conditions:

*Ground conditions*

14.—

(1)

*No part of the main development must commence, save for the permitted preliminary works, until geotechnical and geo-environmental phase 2 ground investigations have been carried out.*

*(2) The ground investigations carried out pursuant to sub-paragraph (1) must be substantially in accordance with the principles set out in chapter 11 (ground conditions and contamination) of the environmental statement and the outcomes of the ground investigations must be taken into account in the preparation of the construction environmental management plan submitted pursuant to requirement.*

9.5. The current wording was considered insufficient to protect controlled waters. We requested that the requirements are amended to reflect standard Environment Agency planning condition wording. From the latest draft Statement of Common Ground we understand the proposed wording is now:

*Requirement [XX] of the DCO shall state:*

*Prior to each phase of development approved by this planning permission no development shall commence until a remediation strategy to deal with the risks associated with contamination of the site has been submitted to, and approved in writing by, the Planning authority.*

*This strategy will include the following components:*

- 1. A site investigation scheme, based on the preliminary risk assessment provided in the Environmental Statement, to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off site.*
- 2. The results of the site investigation and the detailed risk assessment referred to in (1) and, based on these, an options appraisal and remediation strategy giving full details of the remediation measures required and how they are to be undertaken.*
- 3. A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in the remediation strategy in (2) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action.*

*Any changes to these components require the written consent of the planning authority.*

*The scheme shall be implemented as approved.*

a) *Requirement [XX] of the DCO shall state:*

*Prior to each phase of development being brought into use a verification report demonstrating the completion of works set out in the approved remediation*

*strategy and the effectiveness of the remediation shall be submitted to, and approved in writing, by the planning authority. The report shall include results of sampling and monitoring carried out in accordance with the approved verification plan to demonstrate that the site remediation criteria have been met.*

b) Requirement [XX] of the DCO shall state:

*If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing with the Planning Authority) shall be carried out until a remediation strategy detailing how this contamination will be dealt with has been submitted to and approved in writing by the Planning authority. The remediation strategy shall be implemented as approved.*

9.6. We are satisfied that the proposed wording above is sufficient to protect controlled waters.

## 10. Surface Water Drainage

10.1. We welcome the inclusion of this requirement.

## 11. Construction environment management plan

11.1. We support the inclusion of a requirement for submission of a construction environmental management plan (CEMP)

11.2. We consider that the CEMP must consider the following as a minimum:

1. Appropriate bunding (at least 110% of the container sizes) for potentially hazardous liquids required during construction.
2. Production of silty water, especially during wet weather – attention to be given to potential routes for runoff water. As with point 1 above there should be no surface water's generated discharged to the ground from run-off. Care should be especially focused in areas next to excavations / sub surface ground works to avoid potential release of sediment fines to ground.
3. Stockpiling soil and aggregates – stockpiling to take place on hard surfaced areas with enclosed drainage and consideration to be given to covering stockpiles in times of heavy rainfall.
4. Relevant emergency contacts for on-site in the event of emergency / spill / pollution at site (this should include both the EA and Yorkshire Water Services).

Further advice and guidance can be found at:

[https://www.designingbuildings.co.uk/wiki/Construction\\_environmental\\_management\\_plan](https://www.designingbuildings.co.uk/wiki/Construction_environmental_management_plan)

## **12. Waste management on site – construction wastes**

- 12.1. We note from the Environmental Statement that the applicant intended to produce a Site Waste Management Plan (SWMP) as part of the CEMP. We support the intention to adhere to the waste Hierarchy.
- 12.2. Following discussions we understand that the SWMP is to be included within the wording of the outline CEMP. Therefore we accept there is no additional requirement needed for this.

## **13. Design parameters (schedule 13)**

- 14.1. Schedule 13 sets out the maximum and minimum design parameters for the stacks and other buildings and structures. The dimensions for certain structures on site will be dependent on the results of the technical assessment submitted with environmental permit application.
- 14.2. As we are yet to consider the permit application in detail, we are currently unable to comment on the appropriateness of the thresholds set out in the DCO. It remains possible that the limits set out in the DCO may not be considered appropriate for the permit application.