

The Drax Power (Generating Stations) Order

Land at, and in the vicinity of, Drax Power Station, near Selby, North Yorkshire

Applicant's Response to Request for Further Information

(Submitted in Response to the Rule 17 Letter dated 14 March 2019)



The Planning Act 2008

The Infrastructure Planning (Examination Procedure) Rules 2010 (as amended) – Rule 17

Drax Power Limited

Drax Repower Project

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1 INTRODUCTION

- 1.1.1 An application (“the Application”) for a Development Consent Order (“DCO”) for the Drax Repower Project (“the Proposed Scheme”) was made by Drax (“the Applicant”) to the Secretary of State (“SoS”) for Business, Energy and Industrial Strategy (“BEIS”) on 29 May 2018. The Application was accepted for Examination on 26 June 2018, with the Examination commencing on 4 October 2018.
- 1.1.2 On 14 March 2019, the Examining Authority (“ExA”) issued a request for further information under Rule 17 of the Infrastructure Planning (Examination Procedure) Rules 2010 (as amended) (the “Rule 17 Letter”).
- 1.1.3 This document sets out the Applicant’s response to the Rule 17 Letter.

2 APPLICANT'S RESPONSE

2.1 First bullet point of Rule 17 Letter: Summary of Implications

- 2.1.1 The ExA has requested “A summary of the implications, if any, of an Order being made that grants development consent for Unit X only.”
- 2.1.2 There are significant and far reaching implications of the Secretary of State making an Order for the Drax Re-power Project that grants development consent for Unit X only (note we assume that reference to “Unit X only” in the Rule 17 Letter is a reference to an Order that does not include Unit Y in Schedule 1 but includes all other development as originally applied for).
- 2.1.3 Whilst the reasoning behind the Rule 17 Letter appears to be driven by greenhouse gas (“GHG”) emissions, consenting only Unit X would, perhaps contrary to first impressions, have the effect of *worsening* climate impacts from GHG emissions.
- 2.1.4 Other implications are:
- Contributing to a failure to meet the urgent need for electricity generation from all types of generating assets as identified in NPS EN-1; and
 - The de facto introduction of a cap on consents for gas plants (or indeed any generating plant (or potentially any development) which has the effect of increasing GHG emissions).

- 2.1.5 These implications are expanded upon below.

Need

- 2.1.6 The Applicant's position has been consistently clear, that need for the types of infrastructure covered by the Energy NPSs has been established and is not for debate. The UK needs all the types of energy infrastructure covered in EN-1 (which includes fossil fuel generation) in order to achieve energy security at the same time as reducing (dramatically) greenhouse gas emissions (EN-1, paragraph 3.1.1). NPS EN-2, paragraph 2.1.2 is explicit: the decision maker should act on the basis that the need for fossil fuel electricity generating infrastructure has been demonstrated.
- 2.1.7 Applications should be assessed on the basis that the Government has demonstrated that there is a need for those types of infrastructure covered by the energy NPSs (EN-1, paragraph 3.1.3). EN-1 covers fossil fuel electricity generation (see section 3.6) and EN-2 specifically sets out the national policy for fossil fuel generating infrastructure. Substantial weight should be given to the contribution that projects would make towards satisfying this need (EN-1, paragraph 3.1.4). The weight which is attributed to considerations of need in any given case should be proportionate to the anticipated extent of a project's actual contribution to satisfying the need for a particular type of infrastructure (EN-1, paragraph 3.2.3).
- 2.1.8 EN-1 makes it very clear in paragraph 3.3.24 that it is not the planning system's role to deliver specific amounts of generating capacity for each technology type and EN-1 does not limit in anyway the need for fossil fuel generation (it could have done). The paragraph goes on to say that “the Government has other mechanisms to influence the current delivery of a secure, low carbon, affordable electricity mix”.

2.1.9 With respect to setting targets or limitations, EN-1 also makes it quite clear at paragraph 3.3.18 that *"it is not possible to make an accurate prediction of the size and shape of demand for electricity"* in the future, which is why targets are not set in reliance on projections. Similarly, the Government's Clean Growth Strategy, October 2017 (the Executive Summary and the link to the whole document were provided as an appendix to Written Summary of Applicant's Oral Case at Issue Specific Hearing (Environmental Matters) (REP4-012)), states at page 54 that *"we cannot predict the exact technological changes that will help us deliver on the fourth and fifth carbon budgets (and beyond)"*. Reliance on nuclear demonstrates the reason for the policy position and why targets are not set for technology types, given projected contributions from nuclear now appear a highly unlikely scenario, with proposed nuclear projects at Moorside, Wylfa and Oldbury all on hold and only Hinkley C receiving consent and any prospect of being operational before 2030.

2.1.10 That policy position has most recently been confirmed by the Secretary of State's decision to make The Millbrook Gas Fired Generating Station Order 2019, in which the Examining Authority's report stated (and with which the Secretary of State agreed):

3.1.11 EN-1 states that the decision maker should start with a presumption in favour of granting consent to applications for energy NSIPs. At the PM an IP argued that due to the rapid change in technology in renewable energy and battery storage there was no need for the type of gas fired peaking plant proposed [EV-001 and EV-002]. I raised the question of whether, given changes in technology since the publication of the energy NPSs, there was any flexibility around the interpretation of the NPS. The Applicant responded that the need for additional fossil fuel generating capacity had been established in the NPS EN-1 and that under s104 of PA 2008 the Secretary of State had to decide the application in accordance with any NPS. It was open to the Secretary of State to revise the NPS but he had not chosen to do so.

3.1.12 Part 3 of EN-1 sets out principles to be followed in decision taking on NSIP applications. The NPS states that 'the UK needs all the types of energy infrastructure covered by this NPS in order to achieve energy security The Government does not consider it appropriate for planning policy to set targets for or limits on different technologies.' The NPS identifies the role that can be played by a range of different generating technologies including gas and other fossil fuel generation. It states that applications should be assessed '... on the basis that the Government has demonstrated that there is a need for those types of infrastructure Taking these principles into account I agree with the Applicant's interpretation of the application of the NPS in this case and I do not consider that the choice of technology is an issue that I should address in the Examination.

2.1.11 The Applicant has set out in detail the anticipated extent of the actual contribution that the Proposed Scheme (being both Units X and Y) would make towards the identified need (see Section 3 of *Applicant's Note on Substantial Weight to be Given to Need and Application of Tests Under S104*, REP5-021). In summary, the ways in which the Proposed Scheme would contribute to need are:

- The Proposed Scheme will be able to deliver 3.6GW of high efficiency generation as well as store up to 200MW of electricity in its proposed battery storage capability

facility. This generation and storage capacity clearly satisfies the identified need for new electricity generation, as set out in NPS EN-1;

- The Proposed Scheme contributes to the need to provide affordable energy in line with the Government's energy policy. It does this because of the efficiency gains associated with construction, but more importantly operational efficiencies, which will mean the Proposed Scheme displaces less efficient generation;
- The Proposed Scheme makes a significant and important contribution to need with respect to the security and resilience of electricity supply. The Proposed Scheme will provide system services which are essential to grid stability and security of supply and which cannot be provided by intermittent renewable sources. The Proposed Scheme would provide those services more efficiently (and at a lower carbon emissions intensity) than existing fossil fuel plants; and
- The Proposed Scheme would provide benefits to society and the economy by assisting with reducing the average carbon intensity of the UK's electricity and the continued decarbonisation of other sectors as they electrify. This in turn results in indirect benefits from the Proposed Scheme in relation to reduced greenhouse gas emissions in other sectors.

2.1.12 The above benefits represent the significant contribution that would be delivered by both Units towards the demonstrated need. That suite of benefits would not be fully realised if only one Unit was consented. To be clear, consenting one Unit only would mean deciding that it is acceptable to provide a reduced actual contribution to the identified need, against an established policy basis for the urgent need for such a contribution. That position, aside from not being in accordance with the policies of the Energy NPSs, could create a national risk in terms of energy generation, particularly given the wider implications of this (as set out in Section 0 below, in relation to the introduction of a cap). The risk is a shortfall of electricity in terms of capacity, provision of affordable electricity, security and resilience of electricity supply, and the contribution to reducing the average carbon intensity of the UK's electricity and the continued decarbonisation of other sectors as they electrify. The Energy NPSs have been formulated with a view to delivering contributions to the established need, and a decision to only consent Unit X is a decision that no further contribution to the evidenced need (of the type set out above) is required.

2.1.13 The Applicant's position in terms of need and its contribution to it is set out in more detail most recently at the section starting at paragraph 1.13 of the *Applicant's Response to ClientEarth's Deadline 6 Submission* (REP7-018) and section 3 of the *Applicant's Note on Substantial Weight to be Given to Need and Application of Tests Under S104* (REP5-021).

Adverse Climate Impacts

2.1.14 Granting consent for Unit X on the basis of the total GHG emissions of both Units would have the opposite effect to that intended. The wider implications of the Proposed Scheme (with both Units) needs to be considered. It must be understood in the context of the UK as a whole (not just the energy sector) transitioning to a low carbon economy, and in doing so helping to meet national carbon targets. Climate change obligations are measured at the national scale and the Government must be free through legislation and policy to balance emissions across the economy as a whole such as to enable the transition to low carbon. If a project-by-project approach is taken it could stand in the way of achieving the national goals. In this case, the Proposed Scheme would make the electricity generation sector more efficient and lower its carbon intensity and allow other sectors to electrify. The

implications of removing Unit Y, therefore, would be: (a) to reduce the improvement this project could bring to the electricity generation sector and (b) slow down the decarbonisation of other sectors. If that approach were to be replicated systematically it would prevent the UK from meeting its climate change obligations. We set out further detail below.

- 2.1.15 Paragraph 2.5.2 of EN-2 acknowledges that “CO2 emissions are a significant adverse impact of fossil fuel generating stations”. Section 2.2 of EN-1 describes how policy supporting new energy generation capacity sits alongside the UK’s climate change obligations. In short, the need for fossil fuel generating stations (set out above) is identified in the context of, and with the aim of, meeting the legally binding target contained in the Climate Change Act 2008 to cut greenhouse gas emissions by at least 80% by 2050 as compared to 1990 levels; delivering a contribution to that need by way of a fossil fuel generating station is not inconsistent with that aim.
- 2.1.16 The Proposed Scheme (Units X and Y) would result in an increase in GHG emissions of 90% at the Drax site, which is a direct, significant adverse effect. However, it is overly simplistic to look at that effect on its own. The Proposed Scheme also delivers a 173% increase in capacity, at an improved carbon intensity. The reduction in carbon emissions per MW is from the current Units 5 and 6 operating at 840g CO2/kWh to 380g CO2/kWh for Units X and Y.
- 2.1.17 The Proposed Scheme has indirect benefits on GHG emissions given it would (1) displace less efficient, higher GHG producing generating plant (see paragraph 3.5 and following under the heading of Affordability in the *Applicant’s Note on Substantial Weight to be Given to Need and Application of Tests Under S104*, REP5-021), and (2) facilitate decarbonisation and hence lower GHG emissions in other sectors due to electrification (see paragraph 3.45 and following under the heading of Benefits to society and the economy in the *Applicant’s Note on Substantial Weight to be Given to Need and Application of Tests Under S104*, REP5-021). Reducing the emission intensity of electricity generation is essential in order to decarbonise other more-difficult sectors. Drax’s submissions have demonstrated (see, for example, the Applicant’s response to ANC 2.4 (REP6-013)) that the Proposed Scheme will provide for a reduction in average emissions intensity of electricity generation, therefore contributing to this aim, not conflicting with it.
- 2.1.18 It is not as simple as saying this one project (with both Units X and Y) will produce ‘x’ amount of GHG emissions, when it will provide capacity for energy security, support renewable energy generation and meet future increases in demand (particularly from the electrification of sectors such as industry, heating and transport), combined with providing such benefits at a lower emissions intensity than alternatives. The impact of the Proposed Scheme on GHG emissions and climate change needs to be considered on a national and global basis, rather than being focussed on this project or sector alone.
- 2.1.19 If the contribution from Unit Y is not delivered that leaves an energy gap, as explained above, which still needs to be filled. The Applicant has explained elsewhere with respect to justification for a carbon baseline of 450g CO2/kWh why, without the Proposed Scheme, energy would otherwise be provided by coal or older, less efficient gas plants, operating at an intensity of 450 gCO2/kWh (see *Applicant’s responses to Further Written Questions ANC2.2 and 2.4*, REP6-013 and Section 4 of the *Note on Substantial Weight to be Given to Need and Application of Tests Under S104*, REP5-021). This is the case because the

Proposed Scheme is most likely to run when there is high demand for electricity and low supply from renewables, and these are the same conditions under which other fossil fuel plant would run in the absence of the Proposed Scheme. The Applicant has explained fully why the gap left by not consenting the Proposed Scheme would not be filled by renewable energy sources (see REP6-013 and REP5-021 as referenced above). The arguments as to why, in the absence of the Proposed Scheme, energy generation at an emissions capacity of 450g CO₂/kWh should be assumed, are equally applicable to the situation in which only Unit X is consented; in the absence of Unit Y, that capacity would be delivered by generation at greater emissions intensity of 450g CO₂/kWh.

- 2.1.20 For that reason, it would be overly simplistic to conclude that if only Unit X is consented that is 1800MW of capacity not provided and the commensurate GHG emissions are avoided. Given the need for the contribution from the Proposed Scheme, then the resultant capacity gap would have to be met by other plant, most likely existing gas plant (given the particular role of the plant in the supply mix (e.g. inter alia the provisions of flexible generation to support intermittent renewables)) such that the CO₂ emissions would be similar to existing gas plant (i.e. 450g CO₂/kWh for the reasons already provided elsewhere). The benefits of the Proposed Scheme (both Units X and Y) are therefore obvious: more power at a lower carbon intensity.
- 2.1.21 Essentially, when considering GHG emissions, the ExA and SoS need to consider those emissions globally or at least nationally, in the context of UK-wide targets for carbon. What needs to be considered is providing 3600MW of capacity at an emissions intensity of 380g CO₂/kWh or providing 1800MW of capacity at that intensity, and the other 1800MW at an intensity of approximately 450g CO₂/kWh. The implication of consenting only Unit X is that the potential for a positive impact on climate by providing more efficient and lower carbon emission energy is not only reduced, but the opportunity to then take off line or displace a source of energy generation with a higher carbon intensity is also reduced. This makes meeting carbon budgets more difficult, and supporting the transition of other sectors to electrification as well as the energy sector to greater reliance on renewables, less effective.
- 2.1.22 The Proposed Scheme is entirely consistent with the Government's position on climate change and the transition to a low carbon economy, and supports that aim rather than conflicting with it. Accepting that there is a role for fossil fuel generation in the decarbonisation of other sectors, as well as with respect to energy security and enabling the growth of renewables, the benefit of the Proposed Scheme (Units X and Y) is that it can fulfil those roles at a lower carbon intensity than the plant that would otherwise be called upon; without Unit Y those roles are fulfilled at a greater carbon intensity, and therefore with greater national GHG emissions. The implication of only consenting Unit X is a failure to deliver on the benefit both Units would deliver in terms of meeting climate change obligations and the UK's carbon budgets.

Introduction of cap on gas plants

- 2.1.23 The implications of only consenting Unit X is that a cap is introduced on gas plants (and in fact any energy generation at the same or greater carbon emissions intensity than the Proposed Scheme). The effect of that decision is to put a limit on the need for generating plants and a limit on the type of generating technology (neither of which is in accordance with NPS EN-1), and to impose a restriction which operates to allow at least 1800MW of

additional capacity at this carbon emissions intensity, but not as much as a further 3600MW of capacity at this emissions intensity. That decision has far-reaching implications for the energy sector, and potentially projects in other sectors with similar carbon emissions intensities.

- 2.1.24 When considering GHG emissions, and their impact on the ability for the UK to meet national carbon budgets, there is no distinction between consenting (i) one 1800MW gas generating station and nine x 200MW gas generating stations anywhere in the UK, or (ii) consenting two 1800MW gas generation stations (assuming they operate at the same carbon intensity). The effect of not granting consent for two 1800MW gas plants is to impose a cap on the capacity that can be consented, which begs the question, what amount of capacity is acceptable? The implication of consenting only Unit X is that such a cap on gas generating stations (or in fact any energy generation at this carbon intensity or greater) is somewhere at or more than 1800MW, but not as much as a further 1800MW. This may mean three more 200MW gas plants can be consented, but not nine more.
- 2.1.25 Of course, it is not entirely accurate to say that one 1800MW gas generating station is the equivalent of nine 200MW gas generating stations, because whilst their carbon intensity per MW generated may be the same, and therefore from an operational GHG perspective they have the same GHG output and effect on the national carbon budget, the wider implications of building nine small gas plants are a loss in efficiency in terms of land use, construction costs, use of materials and the embedded carbon costs associated with nine individual projects. Further, whilst a 1800MW gas plant will be required to be carbon capture ready (CCR), and therefore has the future potential to mitigate carbon emissions, those nine 200MW gas plants would not be CCR. It follows that if it is not the ExA and SoS's intention to introduce a cap on how much more gas generation can be consented over and above the 1800MW of Unit X (or in fact any generation at the equivalent or higher level of carbon intensity of the Proposed Scheme), there can be no limit on the energy generation that can be consented nor the type of generation technology that can be consented (see also paragraph 2.1.8 above). Accepting that, there is an advantage to granting consent for a scheme that provides that unrestricted capacity in the most efficient form.
- 2.1.26 To be very clear, to consent only Unit X on the basis of a global or national effect, such as GHG emissions, creates a new precedent and introduces a cap on the consent of any further energy generating projects in the UK that have the same or higher carbon emissions intensity than the Proposed Scheme. Whilst the extent of the cap is not completely clear, what is clear is that such a cap would allow less than a further 1800MW of capacity (at the same or higher emissions intensity, over and above the capacity of Unit X) to be consented in the UK. This would be entirely inconsistent with the Energy NPSs which (1) confirm there is a need for energy generation of all types; (2) state that targets or limits should not be put on types of generating technology; and (3) anticipate contributions from fossil fuel generation to the need.
- 2.1.27 Further, there is a risk that, given the benefits the Proposed Scheme (with both Units) would provide (see Section 4 of the *Note on Substantial Weight to be Given to Need and Application of Tests Under S104*, REP5-021) and the limited adverse effects (also set out in Section 4 of REP5-021), a decision to only consent Unit X creates a precedent not only for a cap on energy generation at the same or higher carbon intensity, but a cap on other

projects, which are otherwise acceptable in policy terms but which have the same or higher carbon intensity.

- 2.1.28 The implications of a decision to only grant consent for one Unit would therefore be significant and far reaching, with real consequences for the UK's energy sector and ability to achieve its budgets and obligations with respect to carbon and climate change.

2.2 Second bullet point of Rule 17 Letter: Information in support

- 2.2.1 The ExA has requested an *“Explanation as to whether information provided thus far is sufficient to support this approach, particularly with regards to the assessment of significant effects in relation to the total increase in GHG emissions and the relationship between a Unit X only option alongside the existing Coal Unit 5 or 6. The Applicant’s answer in this regard should take into account information previously provided when responding to Written Question ANC1.12 [REP2-035].”*

- 2.2.2 Whilst the Applicant strongly opposes a decision to grant consent for Unit X alone, for the reasons set out above, it provides the following response to this request, without prejudice.

Environmental Impact Assessment

- 2.2.3 The Applicant has considered the assessment of environmental effects presented in the Environmental Statement (APP-69 – APP-132, together with various revisions during the course of the Examination), to confirm that, should the SoS be minded to grant consent for Unit X alone, the information provided would be compliant with the requirements of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.
- 2.2.4 Specifically, the Applicant has reviewed the information submitted in order to confirm that the EIA can be said to “identify, describe and assess in an appropriate manner, in light of each individual case, the direct and indirect significant effects of the proposed development.”
- 2.2.5 Stage 2 of the Proposed Scheme involves the operation of Unit X alongside an existing coal fired Unit remaining in operation (with CO₂ abatement after 2025) and the construction of Unit Y. The Environmental Statement assesses this Stage. Table 1 sets out and confirms that the Environmental Statement submitted with the application provides sufficient information for a Unit X only scenario. Indeed, this is already confirmed by Table 3-8 of Chapter 3 (Site and Project Description) to the Environmental Statement (REP6-003), which states that “If Unit Y is not built then this stage 2 is a worst case assessment of the operation of Unit X.”

Table 2-1 - Review of ES Chapters for “Unit X only” Scenario

Chapter	Scenario considered for Stage 2	Comments
5. Transport [APP-073]	Assessment considers traffic associated with the operation of Unit X and one remaining coal unit and the additional traffic generated by the construction of Unit Y.	<p>The assessment adequately assesses the effects of Unit X alone.</p> <p>The mitigation proposed for transport in Stage 2 comprises the measures set out in the Outline Construction Traffic</p>

Chapter	Scenario considered for Stage 2	Comments
		<p>Management Plan and Outline Construction Worker Transport Plan. Stage 2 mitigation measures in these documents only relate to the construction phase of Unit Y and therefore will not be required if only Unit X is built.</p> <p>No mitigation is required for the operation of Unit X.</p>
6. Air Quality [APP-074]	<p>Assessment considers operational impacts of Unit X and the construction impacts for Unit Y.</p> <p>The effects of operating Unit X are not quantified as Stage 3 (Operation of Units X and Y) was considered to be the worst case. However, the Chapter states (paragraph 6.5.9) <i>“the effects of the combined operation of both Unit X and Unit Y on local air quality are not significant”</i> and that the <i>“impacts of the operation of one Unit alone will be approximately one half of the modelled impacts and similarly not significant.”</i> In terms of ammonia emissions, the Chapter also notes <i>“the operation of a single unit is one possible way to meet the ammonia cap for Scenario B (with NOx abatement)”</i> described in the Stage 3 assessment.</p>	<p>The assessment adequately assesses the effects of Unit X alone.</p> <p>Construction dust mitigation will no longer be required in Stage 2.</p> <p>The proposed ammonia cap of 120 tonnes/annum remains valid if only Unit X is built and, as set out in the Application and confirmed by the Environment Agency, would be within the Environmental Permit for Unit X.</p>
7. Noise and Vibration [APP-075]	<p>Assessment considers the effects of operating Unit X and constructing Unit Y both separately and in combination.</p> <p>Mitigation is only proposed for the operation of Unit X.</p> <p>No mitigation is required during the construction of Unit Y.</p>	<p>The assessment adequately assesses the effects of Unit X alone.</p> <p>The secondary mitigation proposed and described in paragraphs 7.7.4-7.7.5 of Chapter 7 remains valid for Unit X only, and is secured via</p>

Chapter	Scenario considered for Stage 2	Comments
		Requirement 21 of the final draft Development Consent Order.
8. Historic Environment [APP-076]	<p>The assessment considers the operation of Unit X and construction of Unit Y and confirms that if Unit Y is not built then Stage 2 is a worst case assessment of the operation of Unit X.</p> <p>There is no additional land take outside the Existing Drax Power Station Complex after Stage 1.</p> <p>The assessment, reported in full in Section 8 of the Cultural Heritage Desk Based Assessment (Appendix 8.1, Examination Library Reference APP-104), differentiates between the impacts associated with the operation of Unit X and those resulting from the construction of Unit Y and the use of Development Parcel A and B as temporary construction/compound areas.</p>	<p>The assessment adequately assesses the effects of Unit X alone.</p> <p>Requirement 16 of the Development Consent Order requires that must not commence relevant works must not commence until a written scheme of investigation has been approved by the relevant planning authority.</p> <p>No change to mitigation would be required.</p>
9. Biodiversity [APP-077]	<p>The assessment considers Stage 3 as a worst case as this scenario will result in the greatest levels of site clearance and construction activity and greatest potential extents of habitat loss.</p> <p>The assessment confirms that <i>“Emissions are greatest in this scenario for pollutants relevant to the biodiversity assessment. In Stage 2 there are no significant interactions between construction emissions and the operational emissions from Unit X that would create greater impacts than those considered at Stage 3.”</i></p>	<p>The assessment adequately assesses the effects of Unit X alone.</p> <p>Measures relating to construction and site clearance in Table 9-17 (Chapter 9 of the Environmental Statement) would no longer be required.</p> <p>Measures contained in the Outline Landscape and Biodiversity Strategy (“OLBS”) will be implemented through a detailed strategy, which is only required for each numbered work before the commencement of that work (see Requirement 8 of the final</p>

Chapter	Scenario considered for Stage 2	Comments
		draft Development Consent Order). The mitigation contained in the OLBS for Stage 2 includes mitigation for Unit X. Accordingly, no changes to the OLBS would be required if only Unit X is built.
10. Landscape and Visual Amenity [APP-078]	<p>Assessment considers the operation of Unit X and Construction of Unit Y and confirms that if Unit Y is not built then Stage 2 is a worst case assessment of the operation of Unit X.</p> <p>The LVIA considers that the degree of effect on landscape character and visual amenity arising from Stage 2 would be similar to that arising from Stage 3, despite Stage 2 comprising a smaller mass of development and fewer elements. Four stacks (rather than eight) would protrude above the horizontal lines created by the tops of the cooling towers, but this would still form a strong contrast to the existing mass, and visually “clutter” the top of the towers resulting in a slightly discordant view from certain angles. Other impacts, relating to the temporary and permanent loss of land for construction laydown and parking and the relocation of the sludge lagoons would not take place.</p>	<p>The assessment adequately assesses the effects of Unit X alone.</p> <p>Measures contained in the Outline Landscape and Biodiversity Strategy (“OLBS”) will be implemented through a detailed strategy, which is only required for each numbered work before the commencement of that work (see Requirement 8 of the final draft Development Consent Order). The mitigation contained in the OLBS for Stage 2 includes mitigation for Unit X. Accordingly, no changes to the OLBS would be required if only Unit X is built.</p>
11. Ground Conditions [APP-079]	The assessment considers operational impacts of Unit X and the construction impacts for Unit Y. Table 11-26 (Chapter 11 of the Environmental Statement (APP-079) reports these impacts, differentiating between those associated with construction activities and operation.	<p>The assessment adequately assesses the effects of Unit X alone.</p> <p>Requirement 15 of the final draft Development Consent Order secures measures relating to the identification and</p>

Chapter	Scenario considered for Stage 2	Comments
		remediation of contamination issues within the Order Limits. No change to mitigation is required.
12. Water Resources, Quality and Hydrology [APP-080]	<p>The impacts to the water environment and the receptors during construction of Unit Y are considered to be similar to the construction impacts during Stage 1 but much less intrusive, and therefore are discussed in the Stage 1 scenario.</p> <p>The impacts to the water environment and the receptors during the operational phase of Unit X are the same as in Stage 3 scenario, which represents the operational phase of the entire Proposed Scheme (when both units are repowered).</p> <p>Considering this information, no separate assessment is provided for Stage 2 as the potential impacts to the water environment during construction are discussed in the assessment of Stage 1, and the impacts during operational phase are discussed in the assessment of Stage 3.</p>	<p>The assessment adequately assesses the effects of Unit X alone.</p> <p>Requirement 13 of the final draft Development Consent Order secures surface water drainage scheme and Requirement 14 requires that the authorised development be carried out in accordance with the flood risk assessment and that the flood mitigation channel must be completed before other elements of work number 3A.</p> <p>No change to mitigation is required.</p>
13. Waste [APP-081]	The assessment considers only construction waste in Stage 2. Operational waste was scoped out of the assessment and was not considered.	The assessment adequately assesses the effects of Unit X alone.
14. Socio-economics [APP-082]	The assessment considers Stage 2 only in relation to the employment opportunities (direct, indirect and induced) generated during the construction of Unit Y, and Stage 3	The assessment adequately assesses the effects of Unit X alone.

Chapter	Scenario considered for Stage 2	Comments
	<p>only in relation to employment opportunities (direct) once both Unit X and Unit Y are operational.</p> <p>The economic benefit resulting from the construction of Unit Y during Stage 2 would not occur. The anticipated reduction in direct employment opportunities at the Power Station during Stage 3 would not occur if only Unit X is built while one coal unit remains in operation.</p>	
15. Climate [APP-083]	The assessment considers a future scenario in which Unit X begins operation in 2023 and construction of Unit Y begins in 2024. In the event that construction of Unit Y did not take place then, whilst the mass emissions of GHG from Drax Power Station would be lower, the carbon intensity of power generated would be greater than assessed in the Environmental Statement. The overall impact of the Proposed Scheme on national power generation emissions would, therefore, be less positive than if both Unit X and Unit Y were built.	Further discussion on this topic is provided below.
16. Major Accidents and Disasters [APP-084]	The assessment considers construction (Stages 1 and 2) and operation (Stages 2 and 3) impacts separately. Mitigation is described in the Environmental Statement Appendix 16.3 for construction activities and Appendix 16.4 for operation (Examination Library Reference APP-126 and APP-127).	<p>The assessment adequately assesses the effects of Unit X alone.</p> <p>Mitigation is delivered through embedded (primary and tertiary) mitigation. No secondary mitigation measures are required.</p>

Chapter	Scenario considered for Stage 2	Comments
17. Cumulative Assessment [APP-085]	The assessment considers the potential for cumulative impacts, differentiating between construction and operational impacts and taking into account the uncertainties around the timing of each proposed development. The summary of cumulative effects in Table 17-6 (Chapter 17 of the Environmental Statement, APP-085) would not be affected if only Unit X is built.	The assessment adequately assesses the effects of Unit X alone.

- 2.2.6 With regard to GHG emissions, the EIA has considered the scenario of Unit X only under Stage 2 (see section 15.6 of ES Chapter 15: Climate, APP-083), and provided further information in response to written question ANC1.12 (REP2-035 – see Scenario 3). The Applicant therefore considers there is sufficient information assessing the GHG emissions from Unit X on its own. However, the Applicant provides the following comments to clarify the likely impacts of this approach.
- 2.2.7 Units X and Y are the same capacity and efficiency, and therefore their carbon intensity (gCO₂/kWh) is the same. As such, if only Unit X was granted consent, the Proposed Scheme's generating capacity would be halved – however in terms of GHG, the balance between benefits and effects of the Proposed Scheme would remain unchanged. Specifically, this would mean that half the electricity would be produced, half of the absolute GHG emissions from within the Proposed Scheme boundary would be produced, and half of the UK wide GHG emissions reduction benefit from the displacement of less efficient plant would be realised.
- 2.2.8 It is particularly important to note that if only Unit X was granted consent, although emissions would decrease within the Proposed Scheme boundary, UK wide emissions would increase. This is because with or without Unit Y being consented, the same quantity of fossil fuel electricity will be required (when renewable sources are not running due to weather conditions and to provide system services). However, without Unit Y this electricity will be provided by other plant with a higher carbon intensity than Unit Y, resulting in higher absolute emissions from the UK power sector as a whole. This point has been set out in further detail in response to the first bullet point of the Rule 17 Letter above.
- 2.3 Third bullet point of Rule 17 Letter: Modifications to the draft Development Consent Order**
- 2.3.1 The ExA has asked “*Can the Applicant explain what modifications that would be required to the draft Development Consent Order [REP7-003] for a Unit X only option.*”
- 2.3.2 As noted, the Applicant strongly opposes a decision to grant consent for Unit X only. In order to comply with the Rule 17 Letter, however, it has provided the following documents:

- a) A draft DCO which consents Unit X only in clean copy, and with a comparison against the DCO submitted at Deadline 9 for the Proposed Scheme;
- b) A new sheet 3 of the land plans, which shows a smaller Plot 5 than is needed for the Proposed Scheme; and
- c) A book of reference which shows a reduced area for Plot 5.

2.3.3 In terms of the revisions to the draft DCO:

- a) Work numbers, table numbers, and defined terms have not been changed for understanding and clarity. As a result, where work numbers are no longer required this is indicated by “not used” rather than revising all work numbers. The same approach has been taken to table references. The definition of “stage 1” has similarly been kept as this term is used throughout the environmental statement and other certified documents;
- b) The Applicant has considered what changes are required to certified documents. Because of the way the environmental statement has assessed the Proposed Scheme (as explained above) and the way the other certified documents are structured, it is considered that they are clear as to what provisions or mitigation relates only to stage 1 / Unit X, and no change is therefore required to these documents; and
- c) In terms of changes to the land plans, as noted above, a replacement sheet for the land plans and a new book of reference have been provided to reflect that a smaller area of Plot 5 would be needed for Unit X. In terms of land required for carbon capture storage (CCS), Figure 3 of the CCR Statement (REP7-005) shows an indicative layout of CCS for a 1800MW generating station. The ExA and SoS can therefore be satisfied that the area provided is sufficient for CCS and the Applicant complies with the requirements in this respect. In any event, the Applicant will only be able to exercise compulsory acquisition powers under the Order for land required for the authorised development.

2.3.4 The Applicant has reviewed the certified documents and prepared the DCO and above documents in the time available. However, should the Secretary of State be minded to grant consent for Unit X alone, the Applicant must be given the opportunity to undertake a full and more detailed review of the certified documents and draft DCO.

