

# NATIONAL POLICY STATEMENT COMPLIANCE TRACKER (TRACKED)

## **Drax Bioenergy with Carbon Capture and Storage**

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

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### 1. INTRODUCTION

- 1.1.1. This National Policy Statement Compliance Tracker has been prepared by WSP UK Limited on behalf of Drax Power Limited ('the Applicant') to support the application for a Development Consent Order ('DCO Application') relating to the Drax Bioenergy with Carbon Capture and Storage Project.
- 1.1.2. Under section 104 of the Planning Act 2008 ('PA2008'), National Policy Statements ('NPSs') are the primary policy framework on which the Secretary of State ('SoS') makes decisions on whether Nationally Significant Infrastructure Projects (NSIPs) should be consented. For projects such as the Proposed Scheme, they will also be considered as an important and relevant consideration where section 105 of the PA2008 applies. Compliance of the Proposed Scheme with the applicable policies within the relevant adopted NPSs is assessed in the policy appraisal table below. It is noted that references to the Infrastructure Planning Commission ('IPC') in the NPS policies referenced below have been replaced with reference to the SoS.
- 1.1.3. In this case, the relevant NPSs are the Overarching NPS for Energy ('EN-1') and the NPS for Renewable Energy Infrastructure ('EN-3'), prepared in 2011 by the Department of Energy and Climate Change ('DECC'), now BEIS.
- 1.1.4. The Government is currently undertaking a review of the existing energy NPSs to ensure they reflect current energy policy, and to ensure the planning policy framework can deliver investment in the infrastructure needed for the transition to net zero. The draft NPSs of relevance are Draft Overarching Energy NPS (EN-1) and Draft National Policy Statement for renewable energy infrastructure (EN-3), and accordingly are considered below.
- 1.1.5. The purpose of the planning policy assessment contained in Tables 1 and 2 below, is to determine whether the Proposed Scheme, as a whole, would accord with the relevant planning policy framework and would therefore be acceptable in planning terms.
- 1.1.6. Table 1 considers adopted NPSs EN-1 and EN-3, and demonstrates how the Proposed Scheme complies with the relevant policies.
- 1.1.7. Table 2 considers the emerging NPSs EN-1 and EN-3 which were published for consultation in March 2023. As per Table 1, Table 2 assesses compliance of the Proposed Scheme with the relevant draft policies. In the track changes version of this document:
  - the left hand column shows in track changes the changes that the March 2023 revisions make to the 2011 adopted NPS; and
  - the right hand compliance column shows additions and removals to the text that previously appeared in that column in respect of the 2021 revisions, updated to account for the text that now appears in the March 2023 revisions.

- 1.1.8. In Table 2, under the second column titled "Emerging Policy Text Detailing Changes", changes between the existing policies in the adopted 2011 versions of the relevant NPSs (EN-1 and EN-3) and the draft policies within the equivalent emerging March 2023 NPSs (EN-1 and EN-3) are shown as 'tracked changes'. This ensures that text proposed for removal or insertion in the draft NPSs is clearly identifiable against the adopted policies, in order to allow easy identification of any proposed policy changes.
- 1.1.9. Tables 1 and 2 assess the Proposed Scheme against adopted and emerging national policy, inclusive of the first and second Change Applications which were accepted at the discretion of the Examining Authority ('ExA') on 05 December 2022 and 27 April 2023 respectively.
- 1.1.10. This National Policy Statement tracker will be reviewed and updated if required throughout the course of the examination. In this revision, assessment of tThe draft NPSs were originally published in September 2021 and have subsequently been updated and has been removed as the former draft NPSs have been superseded in this tracker by the March 2023 publications.
- 1.1.11. Whilst the 2021 draft NPS policies are no longer assessed within this document, it is noted that of most relevance to the Proposed Scheme, the 2023 proposed amendments to EN-1, compared to the 2021 drafts, seek to:
  - Strengthen the need case for energy infrastructure and align further with the net zero commitment;
  - Be more specific in certain areas for example, being clearer on how an energy mix could potentially look in the future, and how proposed NSIPs will be given priority to help meet net zero targets;
  - · Adding further detail and clarifications in relation to matters relevant to CCS; and
  - Bring the NPS's in line with current policies, strategy documents and legislation e.g., Environment Act 2021.

### 2. ADOPTED NATIONAL POLICY STATEMENTS

Table 1 assesses the Proposed Scheme against EN-1 and EN-3. The assessment considers both the 'assessment principles' and 'generic impacts' policies in EN-1. The technology-specific information parts of EN-3 have also been assessed below and the relevant part of the NPS is referenced. The assessment undertaken below is inclusive of the first and second Change Applications accepted at the discretion of the ExA, as detailed in the Proposed Change Application Report ('PCAR') (AS-045) and the Second Change Application Report ('SCAR') (AS-126).

**Table 1 - Adopted National Policy Statement Compliance Tracker** 

Policy	Policy Text	Compliance with NPS
Technical Considerations for the SoS when Determining Biomass/Waste Combustion Plant Applications: Flexibility in the Project Details (Part 2.5 of EN-3)	Paragraph 2.5.30 of EN-3 states:  Generic information on flexibility is set out in Section 4.2 of EN-1. The SoS should accept that biomass/waste combustion plant operators may not know the precise details of all elements of the proposed development until some time after any consent has been granted. Where some details have not been included in the application to the SoS, the applicant should explain which elements of the scheme have yet to be finalised and give the reasons. Therefore, some flexibility may be required in the consent. Where this is sought and the precise details are not known, then the applicant should assess the effects the project could have (as set out in EN-1 paragraph 4.2.8) to ensure that the project as it may be constructed has been properly assessed. In this way the maximum-adverse case scenario will be assessed and the SoS should allow for this uncertainty in its consideration of the application and consent.	Section 2.5.30 of EN-3 details the need for flexibility in the application process. The Environmental Statement ("ES") has therefore sought to define the principles of the Proposed Scheme in sufficient detail to allow the likely significant effects on the environment to be assessed and the mitigation measures to be identified.  In some respects, it has not been possible to fix details of the Proposed Scheme in advance of the submission and subsequent examination of the Application and therefore flexibility is required. Flexibility has been sought to allow the Proposed Scheme to be delivered within the requirements of contractors delivering it with sufficient scope for value engineering through innovative design and / or construction techniques. This is, for example, to allow for unforesseable technological advancements and efficiencies to be incorporated in the final design. Flexibility is also required to allow for the future connection to the Zero Carbon Humber ("ZCH") cluster. Flexibility is required in relation to Work No. 2 area as shown on the Works Plan (AS-106) to allow for either the onshore carbon pipeline operator's National Grid Carbon Limited's ("NGCL") new carbon dioxide delivery terminal compound to be provided in the Work No. 2 area, or to be located elsewhere outside of the Order Limits, with the Proposed Scheme pipeline running to the edge of the Order Limits. This flexibility is set out in Schedule 1 (Authorised Development) of the Draft DCO (REP9-005; to be superseded by Rev 12 being submitted at Deadline 10AS-109, Rev08 being submitted at Deadline 6).  The design of the Proposed Scheme therefore requires a necessary degree of flexibility to allow for the future selection of the preferred technology in the light of prevailing policy, regulatory and market conditions once a DCO is made. In this respect, the Applicant has adopted the principles of the 'Rochdale Envelope' and has assessed through the Environmental Impact Assessment ('EIA') maximum 'worst case' dimensions and design parameters.
Government Policy on Energy and Energy Infrastructure (Part 2 of EN-1)	Paragraph 2.2.5 – 2.2.7 of EN-1 states:  The UK economy is reliant on fossil fuels, and they are likely to play a significant role for some time to come. Most of our power stations are fuelled by coal and gas. The majority of homes have gas central heating, and on our roads, in the air and on the sea, our transport is almost wholly dependent on oil.	Part 2 of EN-1 outlines the policy context for the development of nationally significant energy infrastructure, reflecting the Government's commitment to meeting key goals relating to carbon emission reductions, energy security and affordability.  Paragraph 2.2.6 of Part 3 of EN-1 states that the UK needs to wean itself off its high carbon energy mix to reduce Greenhouse Gas ('GHG') emissions, amongst other things. The Proposed Scheme will assist in

### Policy Text

However, the UK needs to wean itself off such a high carbon energy mix: to reduce greenhouse gas emissions, and to improve the security, availability and affordability of energy through diversification. Under some of the illustrative 2050 pathways, electricity generation would need to be virtually emission-free, given that we would expect some emissions from industrial and agricultural processes, transport and waste to persist. By 2050, we can expect that fossil fuels will be scarcer, but will still be in demand, and that prices will therefore be far higher. Further, the UK's own oil and gas resources will be depleting and, worldwide, the costs and risks of extracting oil in particular will increase.

Continuation of global emissions, including greenhouse gases like carbon dioxide, at current levels could lead average global temperatures to rise by up to 6°C by the end of this century. This would make extreme weather events like floods and droughts more frequent and increase global instability, conflict, public health-related deaths and migration of people to levels beyond any recent experience. Heat waves, droughts, and floods would affect the UK.

Paragraph 2.2.11 of EN-1 states:

This NPS also sets out how the energy sector can help deliver the Government's climate change objectives by clearly setting out the need for new low carbon energy infrastructure to contribute to climate change mitigation.

Paragraph 2.2.20 of EN-1 states:

It is critical that the UK continues to have secure and reliable supplies of electricity as we make the transition to a low carbon economy. To manage the risks to achieving security of supply we need:

- sufficient electricity capacity (including a greater proportion of low carbon generation) to meet demand at all times. Electricity cannot be stored so demand for it must be simultaneously and continuously met by its supply. This requires a safety margin of spare capacity to accommodate unforeseen fluctuations in supply or demand
- reliable associated supply chains (for example fuel for power stations) to meet demand as it arises;
- a diverse mix of technologies and fuels, so that we do not rely on any one technology or fuel14. Diversity can be achieved through the use of different technologies and multiple supply routes (for example, primary fuels imported from a wide range of countries); and
- there should be effective price signals, so that market participants have sufficient incentives to react in a timely way to minimise imbalances between supply and demand.

Paragraph 2.2.22 of EN-1 states:

Looking further ahead, the 2050 pathways show that the need to electrify large parts of the industrial and domestic heat and transport sectors could double

### Compliance with NPS

reducing GHG emissions in line with paragraph 2.2.6, supporting the Government's commitment to reaching carbon emission reductions.

Paragraph 2.2.7 of EN-1 goes on to emphasise the significant adverse effects which will arise if global emissions continue at their current levels, with paragraph 2.2.8 confirming that to avoid the most dangerous impacts of climate change, "global emissions must start falling as a matter of urgency".

Paragraph 2.2.11 acknowledges that the energy sector can help the Government in delivering their climate change objectives.

Paragraph 2.2.20 of EN-1 states that it is critical that the UK has reliable, secure supplies of electricity as it transitions to a low carbon economy. To manage risks, the UK needs sufficient electric capacity, including a greater quantity of low carbon generation, and a mix of technologies and fuels, amongst other things.

Paragraph 2.2.22 of EN-1 explains that the nearly all consumed electricity will need to be from low carbon sources if the UK is to meet emissions targets. Paragraph 2.2.23 goes on to state that the Government will pursue Carbon Capture and Storage ('CCS') (amongst other technologies), to reduce its dependence on fossil fuels, particularly unabated combustion.

### Summary

The Proposed Scheme provides an opportunity to assist the UK to "to wean itself off its high carbon energy mix to reduce GHG emissions" and aid the Government in meeting its climate change objectives through delivering new low carbon energy infrastructure, in line with paragraphs 2.2.6 and 2.2.7 of EN-1. The response which the Proposed Scheme offers to government strategies is considered in further detail in the Planning Statement (APP-032) and the Needs and Benefits Statement (APP-033).

The Proposed Scheme will add to the mix of technologies sought to reduce carbon emissions and assist in the UK's energy security objectives, whilst overall contributing to the assertion at paragraph 2.2.22 of EN-1 that "all consumed electricity will need to be from low carbon sources if the UK is to meet emissions targets".

Based on the above, the Applicant considers that the Proposed Scheme accords with the relevant policies of Part 2 of EN-1.

Policy	Policy Text	Compliance with NPS
	demand for electricity over the next forty years. It makes sense to switch to electricity where practical, as electricity can be used for a wide range of activities (often with better efficiency than other fuels) and can, to a large extent, be scaled up to meet demand. To meet emissions targets, the electricity being consumed will need to be almost exclusively from low carbon sources. Contrast this with the first quarter of 2011, when around 75% of our electricity was supplied by burning gas and coal.  Paragraph 2.2.23 of EN-1 states:  The UK must therefore reduce over time its dependence on fossil fuels, particularly unabated combustion. The Government plans to do this by improving energy efficiency and pursuing its objectives for renewables, nuclear power and carbon capture and storage. However some fossil fuels will still be needed during the transition to a low carbon economy	
The Need for New Nationally Significant Energy Infrastructure Projects (Part 3 of EN-1)	Paragraphs 3.1.1 to 3.1.4 of EN-1 state:  The UK needs all the types of energy infrastructure covered by this NPS in order to achieve energy security at the same time as dramatically reducing greenhouse gas emissions.  It is for industry to propose new energy infrastructure projects within the strategic framework set by Government. The Government does not consider it appropriate for planning policy to set targets for or limits on different technologies.  The SoS should therefore assess all applications for development consent for the types of infrastructure covered by the energy NPSs on the basis that the Government has demonstrated that there is a need for those types of infrastructure and that the scale and urgency of that need is as described for each of them in this Part.  The SoS should give substantial weight to the contribution which projects would make towards satisfying this need when considering applications for development consent under the Planning Act 2008.  Paragraph 3.2.2 states:  As we move towards 2050 the ways in which we use energy will be transformed. We need to become less dependent on some forms of energy, as new and innovative low carbon technologies and energy efficiency measures are taken up. We also shall become more dependent on others – for example, demand for electricity will increase if we electrify large parts of transport, heating and industry.  Paragraph 3.2.3 of EN-1 states:  This Part of the NPS explains why the Government considers that, without significant amounts of new large-scale energy infrastructure, the objectives of its energy and climate change policy cannot be fulfilled. However, as noted in Section 1.7, it will not be possible to develop the necessary amounts of such	

Policy	Policy Text	Compliance with NPS
	infrastructure without some significant residual adverse impacts. This Part also shows why the Government considers that the need for such infrastructure will often be urgent. The SoS should therefore give substantial weight to considerations of need. 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.	
	Paragraph 3.3.5 of EN-1 states:	
	The UK is choosing to largely decarbonise its power sector by adopting low carbon sources quickly. There are likely to be advantages to the UK of maintaining a diverse range of energy sources so that we are not overly reliant on any one technology (avoiding dependency on a particular fuel or technology type). This is why Government would like industry to bring forward many new low carbon developments (renewables, nuclear and fossil fuel generation with CCS) within the next 10 to 15 years to meet the twin challenge of energy security and climate change as we move towards 2050.	
General Points	Paragraph 4.1.2 of EN-1 states:	Secretary of State Decision Making
(Part 4.1 of EN-1)	Given the level and urgency of need for infrastructure of the types covered by the energy NPSs set out in Part 3 of this NPS, the SoS should start with a presumption in favour of granting consent to applications for energy NSIPs. That presumption applies unless any more specific and relevant policies set out in the relevant NPSs clearly indicate that consent should be refused. The presumption is also subject to the provisions of the Planning Act 2008 referred to at paragraph 1.1.2 of this NPS.	
	Paragraph 4.1.3 – 4.1.4 of EN-1 states:	and the potential adverse impacts of the NSIP, as well as any mitigative measures proposed.
	In considering any proposed development, and in particular when weighing its adverse impacts against its benefits, the SoS should take into account:	Within this context, paragraph 4.1.4 of EN-1 directs the SoS to take into account environmental, social and economic benefits and adverse impacts nationally, regionally and locally.
	<ul> <li>its potential benefits including its contribution to meeting the need for energy infrastructure, job creation and any long-term or wider benefits; and</li> </ul>	Chapter 6 of the Planning Statement (APP-032) provides an assessment of the key benefits and dis- benefits of the Proposed Scheme, demonstrating that the Proposed Scheme would have a number of
	its potential adverse impacts, including any long-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts.	substantial benefits and that these clearly outweigh its dis-benefits. The Needs and Benefits Statement (APP-033) provides a further assessment of the need for, and the benefits of, the Proposed Scheme.
	In this context, the SoS should take into account environmental, social and economic benefits and adverse impacts, at national, regional and local levels. These may be identified in this NPS, the relevant technology-specific NPS, in the application or elsewhere (including in local impact reports).  Paragraph 4.1.5 of EN-1 states:	Whilst paragraph 4.1.5 of EN-1 confirms that matters that the SoS may consider both important and relevant to decision making on energy NSIPs may include local development plan documents, the NPSs as the primary policy documents take precedence in the event of a conflict between the NPSs and other matters. Chapter 5 of the Planning Statement provides an assessment and appraisal of the accordance of the Proposed Scheme with local planning policy, and the Proposed Scheme is assessed against the emerging draft NPSs within Table 2 of this National Policy Statement Compliance Tracker.
	Other matters that the SoS may consider both important and relevant to its decision-making may include Development Plan Documents or other documents in the Local Development Framework. In the event of a conflict	As the Proposed Scheme is considered to accord with the policies contained within EN-1, the other NPSs and other national and local policy, there is no conflict between the NPS(s) and other matters.  **Requirements**
	between these or any other documents and an NPS, the NPS prevails for	

### **Policy Text Policy** Compliance with NPS purposes of SoS decision making given the national significance of the Regarding requirements, paragraph 4.1.7 of EN-1 states the SoS should only impose requirements for infrastructure. development consent that are "necessary, relevant to planning, relevant to the development to be consented, enforceable, precise, and reasonable in all other respects." Paragraph 4.1.7 of EN-1 states: The SoS should only impose requirements in relation to a development consent The Applicant has included a number of requirements within Schedule 2 of the Draft DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10) in that are necessary, relevant to planning, relevant to the development to be respect to the detailed design of the Proposed Scheme, as well as its construction, operation and consented, enforceable, precise, and reasonable in all other respects. The SoS should take into account the guidance in Circular 11/95, as revised, on "The decommissioning, in order to appropriately mitigate and manage adverse effects throughout the lifetime of Use of Conditions in Planning Permissions" or any successor to it. the scheme. Paragraph 4.1.8 of EN-1 states: The draft requirements include: The SoS may take into account any development consent obligations that an Timeframe in which to commence development; applicant agrees with local authorities. These must be relevant to planning, b. Approval of phasing of construction; necessary to make the proposed development acceptable in planning terms, c. Notification to the relevant planning authority at certain stages of development; directly related to the proposed development, fairly and reasonably related in d. Written approval required; scale and kind to the proposed development, and reasonable in all other e. Approval and amendment of details pursuant to the requirements; respects. f. Detailed design of the Proposed Scheme; Paragraph 4.1.9 of EN-1 states: g. Detailed landscaping and biodiversity mitigation and enhancement proposals; In deciding to bring forward a proposal for infrastructure development, the h. Design of external lighting during operation; applicant will have made a judgement on the financial and technical viability of Design of highway accesses during construction; the proposed development, within the market framework and taking account of Surface water drainage design and management; Government interventions. Where the SoS considers, on information provided k. Flood risk mitigation; in an application, that the financial viability and technical feasibility of the Management of contaminated land risk; m. Archaeology; proposal has been properly assessed by the applicant it is unlikely to be of n. The preparation and implementation of a Construction Environmental Management Plan (CEMP); relevance in SoS decision making (any exceptions to this principle are dealt with where they arise in this or other energy NPSs and the reasons why financial o. The preparation and implementation of a Construction Traffic Management Plan (CTMP); viability or technical feasibility is likely to be of relevance explained). p. The preparation and implementation of a Construction Workers Travel Plan (CWTP); q. Control of noise during operation; r. The preparation and implementation of a Decommissioning Environmental Management Plan; s. The preparation and implementation of a Decommissioning Traffic Management Plan; t. Local Liaison Committee; and u. Local Employment Plan. We consider that the proposed requirements are necessary, relevant to planning, relevant to the development to be consented, enforceable, precise, and reasonable in all other respects, in accordance with paragraph 4.1.7 of EN-1. The ES and accompanying documents and other documents submitted to the Examining Authority ('ExA') (including this National Policy Statement Compliance Tracker), provide the justification and necessity for the proposed requirements. The requirements are drafted to provide the relevant controls to ensure that Proposed Scheme is constructed, operates and is decommissioned in accordance with the measures proposed to ensure that impacts arising from the development do not give rise to effects any worse than those set out in the ES. **Development Consent Obligations**

Policy	Policy Text	Compliance with NPS
		Under paragraph 4.1.8 of EN-1, the SoS may also take into account any development consent obligations under section 106 ('S106') of the Town and Country Planning Act 1990 (as amended by section 174 of the PA2008) that an applicant agrees with local authorities. Any such obligations must meet similar tests to requirements in that they must be:
		a. "Relevant to planning;
		b. Necessary to make the proposed development acceptable in planning terms;
		c. Directly related to the proposed development;
		d. Fairly and reasonably related in scale and kind to the proposed development; and
		e. Reasonable in all other respects."
		The Applicant's EIA of the Proposed Scheme has identified some environmental effects that would require mitigation. Mitigation measures have been embedded into the design of the Proposed Scheme or are secured through the requirements in Schedule 2 to the Draft DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10).
		In addition, a development consent obligation agreement <u>has been agreed</u> being progressed with NYC. The sealed S106 Agreement (REP8-025) was submitted into the Examination at Deadline 8 on 13 June 2023. with a Draft S106 Agreement (REP3-016). This The Agreement covers the following obligations:
		Ecological Off-Site Improvement Works and River Habitat provision – this includes new and enhanced woodland and scrub at Arthurs Wood and Fallow Field, providing ecological compensation and mitigation and supporting the delivery of biodiversity net gain ('BNG') for the Proposed Scheme; and
		~ Off-Site River Restoration BNG – this relates to the Black Brook river and floodplain restoration scheme.
		The Applicant considers that the above obligations meet the tests set out under paragraph 4.1.8 of EN-1 (as explained above). The obligations are relevant to planning as they all seek to mitigate adverse impacts arising from the Proposed Scheme or enhance and secure positive impacts of the Proposed Scheme. For example, the proposed ecological enhancements contain compensatory planting to mitigate habitat loss, and the Local Liaison Committee is a measure seeking to address potential impacts on residential amenity. In addition, the Local Employment Plan (REP3-022) seeks to assist in delivering the benefits of the Proposed Scheme (such as job generation and associated economic benefits), so that they directly impact the local economy. For these reasons, the obligations are also necessary to make the Proposed Scheme acceptable in planning terms and therefore directly related to the Proposed Scheme.
		The Applicant considers that the obligations are fairly and reasonably related in scale and kind to the Proposed Scheme, and based on the aforementioned reasons, are therefore appropriate in all other aspects.
		The Applicant is in ongoinghas concluded discussions with the new North Yorkshire Council ('NYC') (formerly SDC and NYCC) regarding the above obligations and expects to enterentered into a S106 Agreement to secure their delivery over the course of the examination on 13 June 2023. NYC was established on 1 April 2023. As such, relating to the DCO Application and negotiation of the S106 Agreement, the new NYC will be responsible for entering into the Agreement with the Applicant, as the Local Authority for North Yorkshire where the Order Limits are located. The S106 agreement entered into makes provision for NYC to take over responsibilities from NYCC and SDC.

Policy	Policy Text	Compliance with NPS
		Financial Viability and Technical Feasibility
		Paragraph 4.1.9 of EN-1 states that "Where the SoS considers, on information provided in an application, that the financial viability and technical feasibility of the proposal has been properly assessed by the applicant it is unlikely to be of relevance in SoS decision making"
		In this case, the Applicant has taken commercial and financial matters into consideration and decided to proceed with the Proposed Scheme. The Applicant currently owns the Drax Power Station, which is situated on part of the land within the Order Limits. The decision to install carbon capture technology at Drax Power Station complements the Applicant's ongoing work to explore more sustainable means and outcomes of energy generation. Four existing biomass units at Drax Power Station are converted pulverised fuel boilers, capable of burning different biomass fuels, and biomass sourced from sustainably managed forests is already used to generate electricity.
		The Proposed Scheme would involve the installation of post-combustion carbon capture technology to capture carbon dioxide from up to two existing 660-megawatt electrical ('MWe') biomass power generating units at the Drax Power Station (Unit 1 and Unit 2). The installation of this technology constitutes an extension to the Existing Drax Power Station (of which biomass Units 1 and 2 form part), and is referred to as post-combustion carbon capture as the carbon dioxide is captured from the flue gas produced during the combustion of biomass in Units 1 and 2. The Proposed Scheme is designed to remove approximately 95% of the carbon dioxide from the flue gas from these two Units. The carbon dioxide captured will undergo processing and compression before being transported via a proposed new pipeline for storage under the southern North Sea. Transport and storage infrastructure will be consented through separate applications submitted by other parties.
		The Hydrogen Low Carbon Pipeline ('HLCP') intends to establish a pipeline network in the region to transport carbon dioxide and hydrogen to facilitate Carbon Capture Use and Storage ('CCUS'), supporting the ambition of the ZCH Partnership to create the world's first net zero industrial cluster.
		National Grid Ventures ('NGV') consulted on potential pipeline route corridors in autumn 2021, and in March 2022 announced the preferred route corridor, which will run from Drax Power Station to the Holderness coast. The preferred route is based on connecting to major industrial emitters and power stations in the Humber region at Drax, Keadby, British Steel, Killingholme and Saltend.
		Most recently, the detailed route was consulted on in Autumn 2022. Anticipated timescales for the delivery of the HLCP are as follows:
		<ul> <li>a. Winter 2022 / early-2023 - Consideration of consultation feedback and finalisation of the proposal;</li> <li>b. Early to mid-2023 - submission of DCO application to PINS;</li> <li>c. 2023 / early-2024 - DCO examination and determination process;</li> <li>d. Autumn 2024 - Construction begins; and</li> </ul>
		e. 2026 – Earliest completion date.
		NGV was is-part of the East Coast Cluster ('ECC') bid, combining Humber and Teesside regions, as recently submitted to the department of Business Energy and Industrial Strategy ('BEIS') as part of the CCUS cluster sequencing consultation. BP, as lead transportation and storage operator for this cluster, have responsibility for the end-to-end full chain process and associated Endurance store offshore. NGV's role to date in the deployment of CCUS at scale in the Humber means that close working with emitters,

Policy	Policy Text	Compliance with NPS
		such as Drax Power Station <a href="https://hexample.com/has-been/es-key">has-been/es-key</a> . The HLCP network is the proposed infrastructure for transporting the carbon captured by the Proposed Scheme to the interface at landfall with the offshore pipelines for onward transportation to the Endurance saline aquifer for storage. NGV's interest relates to the interfaces between the BECCS project and HLCP, which includes the proposed carbon dioxide export connection and associated works.
		The Government's policy objective, which is detailed in the Planning Statement (APP-032) is for the UK to be net zero by 2050 and includes the objective to use CCUS to achieve net zero. The Prime Minister's '10 Point Plan' (HM Government, 2020), committed to deploy CCUS in a minimum of two industrial clusters by the mid-2020s. In October 2021, the Government has identified ECC as one of the clusters to deliver CCUS following a successful bid to BEIS.
		In March 2023 the Department for Energy Security and Net Zero announced the selection of the eight projects to be included within the initial Track 1 of the Cluster Sequencing Programme, and which will proceed to negotiations with the Government for price support through the relevant Business Models.  Whilst the Proposed Scheme was assessed as meeting the minimum Track 1 criteria, the list announced by the Government did not include any CCS projects in the Humber region (see Applicant's Project Updates Arising From Government Publications on Energy Matters in March 2023 (REP5-029) for more details). In addition, in April 2023 it was announced that NGV were in commercial discussions with Northern Endurance Partnership (NEP) partners on the sale of the Humber onshore pipeline proposals.
		Subject to completion of the discussions, NGV will transition the Humber onshore CO <sub>2</sub> system assets to the NEP which will continue to serve carbon capture projects across Teesside and the Humber. As a result of both these developments, the Applicant (i) anticipates construction work will begin in 2026 (as opposed to early 2024, as included in the Applicant's Environmental Statement), and (ii) has sought an extension to the time sought in which to implement the Proposed Scheme from five to seven years following the grant of consent to allow further flexibility for the timeframe in which construction of the Proposed Scheme can commence. These developments since submission do not impact the environmental impacts of the Proposed Scheme, as assessed in the Applicant's Environmental Statement or the Habitat Regulations Assessment.
		Paragraph 4.1.9 of EN-1 requires applicants to have made a judgement as to the financial and technical feasibility of their proposed development, within the market framework and taking account of Government interventions. Where financial and technical feasibility have been properly assessed by the applicant, these are unlikely to be relevant to the SoS's decision-making. Any exceptions to this principle are dealt with where they arise in EN-1 or other energy NPSs and the reasons why financial viability or technical feasibility is likely to be of relevance are explained.
		In this case the Applicant has taken commercial and financial matters into consideration and decided to proceed with the Proposed Scheme, as set out in the Funding Statement and subsequent Addendums (REP6-014REP4-024, AS-064 and AS-115) submitted to support the DCO Application. The Funding Statement demonstrates that the Applicant can fund the construction of the Proposed Scheme and any compulsory acquisitions necessary.
		It is therefore considered that the Proposed Scheme, and its objectives, satisfy the policy set out in paragraph 4.1.9 of EN-1.
		Summary

Policy	Policy Text	Compliance with NPS
		Paragraph 4.1.2 of EN-1 highlights the urgent need for energy infrastructure. The current climate crisis and UK commitment to achieve net zero by 2050 highlights the urgent need for carbon reducing infrastructure, as will be delivered via the Proposed Scheme. CCS was described by the Committee on Climate Change ('CCC') (an independent, statutory body established under the Climate Change Act 2008) as a 'necessity' in order to achieve UK net-zero by 2050.
		Furthermore, the DCO Application demonstrates in the Funding Statement (REP6-014REP4-024) that the Proposed Scheme is financially feasible, in accordance with paragraph 4.1.9 of EN-1.
		When weighed against the benefits of the Proposed Scheme (as detailed further in the Needs and Benefits Statement (APP-033)), which include but are not limited to carbon negative emissions, employment opportunities and ecological enhancements, the Applicant considers that any potential adverse impacts of the Proposed Scheme are clearly outweighed, and suitably mitigated.
		The proceeding assessment of national policy demonstrates that there are no NPS policies which indicate that consent of the Proposed Scheme should be refused, and demonstrates that no considerations referred to in section 104(4) to (8) of the PA2008 apply. A presumption in favour of granting the Proposed Scheme should therefore be taken, in accordance with paragraph 4.1.2 of EN-1.
		The Applicant therefore considers that the Proposed Scheme accords with the relevant policies of Part 4.1 of EN-1.
Environmental Statement (Part 4.2 of EN-1)	Paragraph 4.2.1 of EN-1 states:  All proposals for projects that are subject to the European Environmental Impact Assessment Directive74 must be accompanied by an Environmental Statement (ES) describing the aspects of the environment likely to be significantly affected	Paragraph 4.1.2 of EN-1 states that all proposals subject to the European EIA Directive must be accompanied by an ES which specifically details the aspects of the environment likely to be significantly affected by the project.  Paragraphs 4.2.2 - 4.2.11 of EN-1 provide further guidance on the matters the ES needs to address.
	by the project75. The Directive specifically refers to effects on human beings76, fauna and flora, soil, water, air, climate, the landscape, material assets and cultural heritage, and the interaction between them. The Directive requires an assessment of the likely significant effects of the proposed project on the environment, covering the direct effects and any indirect, secondary, cumulative,	The DCO Application for the Proposed Scheme is accompanied by an ES (APP-037 - APP-055) which has been prepared in accordance with the EIA Regulations 2017, assessing the Likely Significant Effects of the Proposed Scheme taking into account the proposed mitigation measures, and distinguishing the stages of the Proposed Scheme as follows:
	short, medium and long-term, permanent and temporary, positive and negative effects at all stages of the project, and also of the measures envisaged for avoiding or mitigating significant adverse effects.	<ul><li>a. Construction;</li><li>b. Operational; and</li><li>c. Decommissioning.</li></ul>
	Paragraph 4.1.2 of EN-1 states:	The ES has been informed by the EIA Scoping Report (APP-115) which identifies the environmental topics
	l significant assist and assnamic affects of the development, and shows how any t	where there is potential for significant impacts. The EIA Scoping Report was issued to PINS on 18 January 2021 and was consulted upon with the relevant LPAs. An EIA Scoping Opinion (APP-116) was received from PINS, on behalf of the SoS, on 26 February 2021.
		Appendix 4.2 (Scoping Opinion Responses) of the ES (APP-118) demonstrates that the ES is based on the PINS EIA Scoping Opinion (APP-116).
	Paragraph 4.1.3 of EN-1 states:  For the purposes of this NPS and the technology-specific NPSs the ES should cover the environmental, social and economic effects arising from preconstruction, construction, operation and decommissioning of the project	In accordance with EN-1, the submitted ES assesses the likely significant effects of the Proposed Scheme, and states how effects are being avoided and mitigated. The Register of Environmental Actions and Commitments ('REAC') (REP9-019AS-121) submitted with the DCO Application sets out the proposed mitigation measures in detail. The ES distinguishes between the construction and operational phases and

# **Policy Text Policy** Paragraph 4.1.4 of EN-1 states: When considering a proposal the SoS should satisfy itself that likely significant effects, including any significant residual effects taking account of any proposed mitigation measures or any adverse effects of those measures, have been adequately assessed. In doing so the SoS should also examine whether the assessment distinguishes between the project stages and identifies any mitigation measures at those stages... Paragraph 4.1.5 of EN-1 states: When considering cumulative effects, the ES should provide information on how the effects of the applicant's proposal would combine and interact with the effects of other development (including projects for which consent has been sought or granted, as well as those already in existence). [...] Paragraph 4.1.7 – 4.1.8 of EN-1 states: In some instances it may not be possible at the time of the application for development consent for all aspects of the proposal to have been settled in precise detail. Where this is the case, the applicant should explain in its application which elements of the proposal have yet to be finalised, and the reasons why this is the case. Where some details are still to be finalised the ES should set out, to the best of the applicant's knowledge, what the maximum extent of the proposed development may be in terms of site and plant specifications, and assess, on that basis, the effects which the project could have to ensure that the impacts of the project as it may be constructed have been properly assessed. Paragraph 4.1.9 of EN-1 states: Should the SoS determine to grant development consent for an application where details are still to be finalised, it will need to reflect this in appropriate development consent requirements. [...] Paragraph 4.1.11 of EN-1 states: In this NPS and the technology-specific NPSs, the terms 'effects', 'impacts' or 'benefits' should be understood to mean likely significant effects, impacts or benefits.

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decommissioning of the Proposed Scheme, and also assesses the intra and interproject cumulative effects, and is therefore in accordance with the policy contained in paragraphs 4.2.1, 4.2.4 and 4.2.5 of EN-1.

Paragraph 4.2.7 of EN-1 notes that it may not be possible at the time of the application for all aspects of the proposal to have been settled in precise detail and that the ES should set out, to the best of the Applicant's knowledge, what the maximum extent of the proposed development may be. At Chapter 2 (Site and Project Description) of the ES (APP-038), contains an explanation of the works and sets out the parameters for certain buildings for which the final dimensions cannot be determined at this stage. Therefore, the ES assesses the worst case scenario in terms of environmental effects, and the maximum design parameters.

The level of flexibility is controlled by the Draft DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10), in that it requires that the works packages in Schedule 1 of the Draft DCO (which describes the Proposed Scheme authorised by the DCO) can only be constructed within the corresponding areas of the Works Plans (AS-106). It also includes a requirement for the approval of the detailed design of the Proposed Scheme, requiring such detailed design to align with design principles and the maximum parameters included in the Draft DCO.

Paragraph 4.2.7 of EN-1 also states that applicants should explain why there are elements of the proposal which are yet to be finalised. In the case of the Proposed Scheme, a degree of flexibility is required at present to allow for the future connection to the ZCH cluster and to allow for any unforeseen technological advancements and efficiencies which may emerge to be incorporated into the final design of the Proposed Scheme. Flexibility is sought to allow the Proposed Scheme to be delivered within the requirements of contractors delivering it with sufficient scope for value engineering through innovative design and / or construction techniques. In accordance with paragraph 4.2.2 of EN-1, an assessment of the likely significant socio-economic effects of the Proposed Scheme is contained at Chapter 16 (Population, Health and Socio-Economics) of the ES (APP-052).

Further, in accordance with EN-1, the Chapter 18 (Cumulative Effects) of the ES (REP4-035) considers the possible effects of the Proposed Scheme and how they could interact cumulatively with the effects of other planned or consented developments. The effects of the Proposed Scheme are summarised in Chapter 19 (Summary of Significant Effects) of the ES (APP-055).

As noted above, the REAC (AS-121REP9-019) sets out how mitigation is secured (i.e. through various consents and licenses, S106 obligations or requirements in Schedule 2 of the DCO).

### Summary

The above demonstrates that an EIA has been undertaken in accordance with the EIA Regulations 2017, and that the supporting ES submitted with the DCO Application meets the requirements set out in Part 4.1 of EN-1.

The above also explains that an EIA Scoping Report (APP-115) has been submitted to the PINS prior to the submission of the DCO Application, and that the ES has been based on the PINS EIA Scoping Opinion received in response (APP-116).

Not all precise details of the Proposed Scheme are finalised at this stage, however the reasons for this are set out above and measures for how these details is secured are explained, in line with paragraph 4.2.7 of EN-1.

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		The ES considers likely significant effects at all stages of the Proposed Scheme (construction, operational and decommissioning), both in isolation and in terms of cumulative impacts, and as explained above, measures for securing mitigation is also included.  Based on the above, the Applicant considers that the Proposed Scheme accords with the relevant policies of Part 4.2 of EN-1.
Habitats and Species Regulations (Part 4.3 of EN-1)	Paragraph 4.3.1 of EN-1 states:  Prior to granting a development consent order, the SoS must, under the Habitats and Species Regulations79, (which implement the relevant parts of the Habitats Directive and the Birds Directive80 in England and Wales) consider whether the project may have a significant effect on a European site, or on any site to which the same protection is applied as a matter of policy, either alone or in combination with other plans or projects. [] The applicant should seek the advice of Natural England and/or the Countryside Council for Wales, and provide the SoS with such information as it may reasonably require to determine whether an Appropriate Assessment is required. In the event that an Appropriate Assessment is required, the applicant must provide the SoS with such information as may reasonably be required to enable it to conduct the Appropriate Assessment. This should include information on any mitigation measures that are proposed to minimise or avoid likely effects.	Paragraph 4.3.1 of EN-1 states that:  "in their decision-making, the SoS must consider whether a project may have a significant effect on a European Site, or any site to which the same protection is applied as a matter of policy, either alone or in combination with other plans and projects. This consideration must be made under the Conservation of Habitats and Species Regulations 2017. It also requires applicants to seek the advice of Natural England (NE) and provide the SoS with such information as may be reasonably required to determine whether an Appropriate Assessment is required."  Paragraph 4.3.1 also confirms that in the event that an Appropriate Assessment is required, the Applicant must provide the SoS with such information as may reasonably be required to enable it to conduct the Appropriate Assessment. This should include information on any mitigation measures that are proposed to minimise or avoid likely adverse effects.  The DCO Application includes a Habitats Regulations Assessment ('HRA') report (REP9-021REP2-101, Rev03 being submitted at Deadline 6) including HRA Screening Matrices (REP6-023REP2-103) and associated appendices to inform an Appropriate Assessment (including Appendices 7 (REP9-107) and 8 (REP3-009) submitted during Examination). During the Examination, the ExA issued a Report on the Implications for European Sites (REIS') (PD-020) on 14 June 2023. The Applicant submitted a response to the REIS (REP9-025) at Deadline 9 on 06 July 2023.  The HRA (REP9-021) has been informed by an initial screening for likely significant effects (LSE), which identified LSE on the following European Sites identified within a 15 km zone of influence for potential impacts:  a. Lower Derwent Valley SAC;  b. Lower Derwent Valley Ramsar;  d. River Derwent SAC;  e. Humber Estuary Ramsar site; and  h. Thorne Moor SAC.  The HRA report concludes that some likely significant effects have been identified on a number of the above European Sites, and mitigation measures to address each of the identified impact p

Policy	Policy Text	Compliance with NPS
		Construction Phase and Decommissioning
		The likely significant effects identified on European Sites for the construction phase and decommissioning, both alone and in-combination with other Plans and Projects, alongside the proposed mitigation measures are:
		<ul> <li>a. Loss and disturbance of functionally-linked land:         <ol> <li>Hedgerow planting will be carried out in March of whichever calendar year(s) it is completed.</li></ol></li></ul>
		b. Emissions of dust:
		<ul> <li>The implementation of a CEMP developed from the dust management measures listed in the REAC (AS-121REP9-019) which is submitted in conjunction with the ES. The CEMP is secured through a requirement in Schedule 2 of the DCO;</li> </ul>
		c. Increased risk of pollution from increased sediment load:
		i. The implementation of a CEMP and Decommissioning Environmental Management Plan ('DEMP') developed from the REAC and secured via a requirement in the DCO. The CEMP and DEMP will include a series of measures to avoid and manage the risk of increased pollution from sediment loading, including adherence to good practice guidance, implementation of a Construction Phase Surface Water Management Plan, the use of Method Statements for works which may increase sediment loading of drainage within the Order Limits, and procedures for monitoring and inspections;
		d. Increased risk of pollution from accidental releases of water-borne pollutants:
		<ul> <li>i. The implementation of a CEMP and DEMP as above, which include a series of measures to avoid and manage the risk of increased pollution from water-borne pollutants, including adherence to good practice guidance, the use of Method Statements for managing works with potential to generate water-borne pollutants, and procedures for monitoring and inspections;</li> </ul>
		e. Increased risk of visual disturbance:
		<ul> <li>i. The implementation of a CEMP and DEMP developed from the REAC, which will include measures to avoid or minimise potential visual disturbance effects;</li> </ul>
		<ul> <li>ii. The erection of hoardings to reduce visual effects generated from construction traffic, plant and equipment, as well as demolition of existing and construction of built form, which will be developed from the REAC and is secured via the CEMP;</li> </ul>
		iii. The implementation of a detailed lighting strategy within the CEMP (as set out in the REAC), to be substantially in accordance with the Draft Lighting Strategy ( <u>REP6-019APP-184</u> ) submitted with the DCO Application, which includes measures in relation to biodiversity to avoid or minimise potential increases in illumination of functionally-linked land that could be used by European Site qualifying interests;

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		iv. The implementation of a number of measures to be completed specifically in relation to otter, which are set out in the REAC and will be secured via the CEMP and DEMP which are secured via Requirements 14 and 18 of the Draft DCO (REP9-005; to be superseded by Rev 12 being submitted at Deadline 10AS-076).
		Operational Phase
		The likely significant effects identified for the operational phase of the Proposed Scheme, alongside the proposed mitigation measures, are summarised as follows:
		<ul> <li>a. Emissions of treated flue gas to air:</li> <li>i. At the time of the DCO Application, the following operational changes to the Main Stack emissions parameters were applied to reduce the contribution to acid deposition at the identified sensitive habitats arising in the With Proposed Scheme scenario:</li> </ul>
		<ul> <li>Reduce SO2 emissions by 40% compared to the Best Available Technology (BAT) Environmental Assessment Level (EAL), applied to the two BECCS Biomass Units; and</li> </ul>
		~ Increase exit temperature of flue gases from the BECCS Units from 80°C to 100°C.
		<ul> <li>The above measures primarily bring benefits in reducing acidification effects, and also have minor beneficial effects in terms of contribution to nitrogen deposition and NH<sub>3</sub> concentrations arising in the with Proposed Scheme scenario;</li> </ul>
		ii. Since submission of the DCO Application, additional operational emissions abatement mitigation has been identified, for incorporation into the Proposed Scheme, which include:
		<ul> <li>Reduce the annual Emission Limit Value ('ELV') for SO<sub>2</sub> to 45mg/Nm<sup>3</sup> for the BECCS units, to provide additional operational phase mitigation of acid deposition over sensitive ecological receptors.</li> </ul>
		<ul> <li>The mitigation measures (and monitoring of them) will be secured through a variation to the existing Drax Environmental Permit.</li> </ul>
		<ul> <li>b. Accidental releases of water-borne pollutants:</li> <li>iii. A Detailed drainage design, substantially in accordance with the Surface Water Drainage Strategy ('SWDS') at Appendix 12.3 (Existing Drainage Systems and Proposed Surface Water Drainage Strategy) of the ES (REP2-043) will minimise the potential impact of water-borne pollutants. This is secured by a requirement included in Schedule 2 of the Draft DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10).</li> </ul>
		Post-Mitigation (The Proposed Scheme Only)
		When considering the impact of the Proposed Scheme during the construction phase and decommissioning with the above mitigation measures applied, the HRA concludes that the Proposed Scheme (alone) will have no adverse effects on the integrity of any of the European Sites for which likely significant effects were identified in terms of the following:
		<ul> <li>i. Loss and disturbance of functionally linked land;</li> <li>ii. Emissions of dust;</li> <li>iii. Increased risk of pollution from sediment load;</li> <li>iv. Increased risk of pollution from water-borne pollutants; and</li> </ul>

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ľ			v. Increased visual disturbance from plant and personnel.
			When considering the impact of the Proposed Scheme during the operational phase with the above mitigation measures applied, the HRA concludes that the Proposed Scheme (alone) will have no adverse effects on the integrity of any of the European Sites for which likely significant effects were identified in terms of the following:  i. Emissions of treated flue gas to air; and
			ii. Increased risk of pollution from water-borne pollutants.
			Post-Mitigation (In-Combination Effects with Other Plans and Projects)
			In respect of cumulative impact, the HRA identifies that the Proposed Scheme is not predicted to result in any adverse effects on the integrity of any European Sites, as a result of in-combination effects with other plans and projects.
			Summary
			A HRA report informed by the PINS EIA Scoping Opinion (APP-116) and the advice received from Natural England and the EA assessing any potentially significant effects on European Sites accompanies the DCO Application.
			The HRA report concludes that the Proposed Scheme will not give rise to any adverse effects on the integrity of any European Sites assessed, either in isolation or in combination with other projects. This position is agreed with Natural England, as recorded in the <a href="mailto:signed_SoCG">signed_SoCG</a> submitted at Deadline 5-8 on 42 April 13 June 2023 (REP8-019REP5-017).
			The Applicant therefore considers the Proposed Scheme is in accordance with the relevant policies of Part 4.3 of EN-1.
	Alternatives (Part 4.4 of EN-1)	Paragraph 4.4.1 – 4.4.2 of EN-1 states:  As in any planning case, the relevance or otherwise to the decision-making process of the existence (or alleged existence) of alternatives to the proposed development is in the first instance a matter of law, detailed guidance on which falls outside the scope of this NPS. From a policy perspective this NPS does not	Paragraph 4.4.2 states that the NPS does not contain a general requirement to consider alternatives, but that Applicants are obliged to include information about the main alternatives considered within the ES. It also states that specific legislative requirements for the SoS to consider alternatives, and that these should be identified in the ES by the Applicant. It also confirms that "the relevant energy NPSs may impose a policy requirement to consider alternatives."
		contain any general requirement to consider alternatives or to establish whether the proposed project represents the best option.  However:	EN-1 does this in sections 5.3, 5.7 and 5.9 in relation to avoiding significant harm to biodiversity and geological conservation interests, flood risk and development within nationally designated landscapes, respectively.
		<ul> <li>applicants are obliged to include in their ES, as a matter of fact, information about the main alternatives they have studied. This should include an indication of the main reasons for the applicant's choice, taking into account the environmental, social and economic effects and including, where</li> </ul>	The Applicant has considered the reasonable alternatives which could be considered to realistically achieve the objectives for the Proposed Scheme which are set out in the Needs and Benefits Statement (APP-033) (including the location for the above ground infrastructure). The assessment of reasonable alternatives is set out within Chapter 3 (Consideration of Alternatives) of the ES (APP-039).
		relevant, technical and commercial feasibility;   in some circumstances there are specific legislative requirements, notably under the Habitats Directive, for the SoS to consider alternatives. These should also be identified in the ES by the applicant; and	Chapter 3 sets out the main reasons for the Applicant's choice, taking into account environmental, social and economic effects and including, where relevant, technical and commercial feasibility. The Applicant further evidences their assessment of alternatives in the Applicant's Responses to Examining Authority's First Written Questions ('WQ1') (REP2-060), and in the Applicant's Responses to Issues Raised at Deadline 1 (REP2-067).

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	requirement to consider alternatives (as this NPS does in Sections 5.3, 5.7 of and 5.0)	As a result of the conclusions of the HRA documentation and the WFD Screening Report, no consideration of alternatives in the legislative context of those regimes has been required.
		The following alternatives have been considered for the Proposed Scheme:
		<ul> <li>a. Do nothing scenario.</li> <li>b. Alternative development sites.</li> <li>c. Alternative layouts.</li> <li>d. Alternative technologies.</li> <li>e. Alternative construction transport routes.</li> <li>f. Alternative Construction Laydown Areas.</li> </ul>
		This is in accordance with the relevant policy contained within EN-1, as well as regulation 14(2)(d) of the EIA Regulations 2017, which states that an ES should include:
		"A description of the reasonable alternatives studied by the applicant, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment".
		Summary
		In summary, consideration of alternatives has been carried out in the context of alternatives to the Proposed Scheme in Chapter 3 (Consideration of Alternatives) of the ES (APP-039), which can meet the Applicant's objectives which are set out in the Needs and Benefits Statement (APP-033).
		The Applicant therefore considers that the Proposed Scheme accords with the relevant policies of Part 4.4 of EN-1.
Criteria for "Good	Paragraph 4.5.1 of EN-1 states:	Overview
Design" for Energy Infrastructure (Part 4.5 of EN-1 and Part 2.4 of EN-3)	The visual appearance of a building is sometimes considered to be the most important factor in good design. But high quality and inclusive design goes far beyond aesthetic considerations. The functionality of an object — be it a building or other type of infrastructure — including fitness for purpose and sustainability, is equally important. Applying "good design" to energy projects should produce	Based on the relevant policies of Part 4.5 of EN-1 and Part 2 of EN-3, this section demonstrates how the design of the Proposed Scheme has evolved in the lead up to the submission of the DCO Application, sets out the likely landscape and visual impacts of the Proposed Scheme, and explains mitigation measures proposed. This section also explains the approach adopted in relation to both temporary and permanent access to the Site.
	resources and energy used in their construction and operation, matched by an appearance that demonstrates good aesthetic as far as possible. It is acknowledged, however that the nature of much energy infrastructure development will often limit the extent to which it can contribute to the enhancement of the quality of the area.  Paragraph 4.5.3 states:	The Consultation Report (APP-018) and the supporting chapters of the ES set out what consultation has been undertaken in relation to the Proposed Scheme and how the key issues and comments raised have or have not been taken into account, and the reasons for doing so.
		It is noted that this section of the Planning Statement and the Design Framework (APP-195) cover the content that may otherwise be assessed in a separate Design and Access Statement.
		The PPG 'Making an application' (UK Government, 2021) (with respect to applications under the Town and Country Planning Act 1990) states that a Design and Access Statement must:
	In the light of the above, and given the importance which the Planning Act 2008 places on good design and sustainability, the SoS needs to be satisfied that	"a) explain the design principles and concepts that have been applied to the proposed development; and
	energy infrastructure developments are sustainable and, having regard to regulatory and other constraints, are as attractive, durable and adaptable (including taking account of natural hazards such as flooding) as they can be. In so doing, the SoS should satisfy itself that the applicant has taken into account	

# **Policy Text Policy** both functionality (including fitness for purpose and sustainability) and aesthetics (including its contribution to the quality of the area in which it would be located) as far as possible. Whilst the applicant may not have any or very limited choice in the physical appearance of some energy infrastructure, there may be opportunities for the applicant to demonstrate good design in terms of siting relative to existing landscape character, landform and vegetation. [...] Paragraph 4.5.4 of EN-1 states: For the SoS to consider the proposal for a project, applicants should be able to demonstrate in their application documents how the design process was conducted and how the proposed design evolved. Where a number of different designs were considered, applicants should set out the reasons why the favoured choice has been selected. In considering applications the SoS should take into account the ultimate purpose of the infrastructure and bear in mind the operational, safety and security requirements which the design has to satisfy. Paragraph 2.4.2 of EN-3 states: Proposals for renewable energy infrastructure should demonstrate good design in respect of landscape and visual amenity, and in the design of the project to mitigate impacts such as noise and effects on ecology.

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A development's context refers to the particular characteristics of the application site and its wider setting. These will be specific to the circumstances of an individual application and a Design and Access Statement should be tailored accordingly.

Design and Access Statements must also explain the applicant's approach to access and how relevant Local Plan policies have been taken into account. They must detail any consultation undertaken in relation to access issues, and how the outcome of this consultation has informed the proposed development. Applicants must also explain how any specific issues which might affect access to the proposed development have been addressed."

Design and Access Statements are not a requirement for NSIPs under The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 ('APFP Regulations'), and due to the nature of the Proposed Scheme and the Site, a separate Design and Access Statement is not considered to be necessary for this DCO Application. This approach has been agreed with PINS at the pre-application stage. Therefore, the following sections, in addition to the Design Framework (APP-195), cover the contents required by the PGG as set out above.

The Design Framework has been prepared in response to PINS EIA Scoping Opinion (APP-116), which includes a response from NYCC which states:

"Site Design - I would support consideration of the original design intent as set out by AE Weddle's 1966 Landscape and Mitigation Report (para. 10.2.3). Given the scale of the existing Drax site and the significant changes that have taken place since the original report, I would like to see a clear revised design strategy for the site. This strategy should explain how the current application achieves principles of 'good design' in context of the site as a whole, for the overall composition of site structures, massing, layout, colour and materials, aiming to reduce overall massing, visual coalescence and site clutter."

The Design Framework therefore provides a guide for the detailed design of the soft and hard landscaping within the Drax Power Station Site for the Proposed Scheme. The landscaping design principles set out in the Design Framework are included in the REAC (AS-121REP9-019). A requirement in Schedule 2 of the draft DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10) requires the approval of the detailed design of the Proposed Scheme. The detailed design submitted for approval must be in accordance with the "design principles" included in the REAC. There is also an additional requirement requiring that the Proposed Scheme be in accordance with the "design principles" more generally.

The role of the Design Framework and the explanation of how the Applicant has sought to bring forward Good Design (including with the NIC's Design Principles) is also discussed further in the Applicant's Responses to WQ1 (REP2-060), and in the Applicant's Responses to Issues Raised at Deadline 1 (REP2-67) in respect of the Local Impact Report submitted to the ExA by NYC (formerly NYCC) (REP-039).

### Consultation

The details of the Proposed Scheme have been subject to comprehensive consultation with the public, stakeholders and the LPAs. Chapter 9 (Landscape and Visual Amenity) of the ES (APP-045) contains details of the relevant consultation undertaken in support of the preparation of the assessment. The Consultation Summary Table 9.1 in Chapter 9 provides a summary of the consultation responses from statutory consultees to the statutory consultation on the Preliminary Environmental Information Report ('PEIR') (see APP-027 for the Non-Technical Summary of the PEIR) and how comments from those

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		consultees on the landscape and visual impacts of the Proposed Scheme have been addressed by the Applicant. Details of the consultation undertaken are also set out in the Consultation Report (APP-018).
		Study Area Context
		As detailed in Chapter 2 of this Planning Statement, the Site is within and adjacent to the Drax Power Station and is, therefore, largely within an industrialised landscape, although the surrounding environment comprises agricultural land interspersed with small settlements. Chapter 9 (Landscape and Visual Amenity) of the ES (APP-45) reports the outcome of the assessment of likely significant environmental effects arising from the Proposed Scheme on Landscape Character and Visual Amenity.
		It contains a detailed appraisal of the existing landscape character and the design of the 1960's Drax Power Station (design by A E Weddle), which gave consideration to the need to reduce visual coalescence, visual clutter and achieve a simple design and symmetry. The setting and treatment of the buildings and structures was considered to be of utmost importance.
		Part 9.7 of Chapter 9 (Landscape and Visual Amenity) of the ES (APP-045) describes the landscape characterisation at national, county and local level. This includes a detailed description of the existing baseline landscape features and the value of the landscape resource, as well as the level of susceptibility and sensitivity to change. A 3km study area from the Order Limits for any landscape or visual impact was assessed. The study area is shown in Figure 9.4 of the ES (APP-101). This was based on a combination of professional judgement, previous experience on the Drax Repower DCO and an analysis of the height and massing of the Proposed Scheme. Beyond this distance, significant effects are not anticipated.
		The topography of the landscape is relatively flat, with small, isolated areas of high ground to the northwest, north-east and south-west including Hambleton Hough (approximately 40 m AOD and approximately 10 km from the Order Limits) and Brayton Barff (55 m AOD and approximately 7 km from the Order Limits) to the northwest, High Eggborough and Great Heck (approximately 9-10 km from the Order Limits) to the south-west. Barlow Mound to the west of Drax Power Station is a distinct local landmark, formed in the 1970's using residual materials from Drax Power Station.
		Regarding vegetation, the landscape of the study area is characterised by intermittent hedgerow and hedgerow trees and small woodland blocks.
		In planning terms, the Proposed Scheme is industrial by nature and is considered to be appropriate for the context within which it is proposed to be located (i.e. within an established industrial area). However, it is acknowledged that due to the relatively flat topography of the Site and its surrounds, Drax Power Station is visible for several kilometres and, therefore, careful design of the Proposed Scheme is very important.
		The LVIA assesses the following:
		<ul><li>a. The sensitivity of the landscape resource and visual receptors;</li><li>b. The magnitude of change; and</li><li>c. The significance of effect based on a comparison of the sensitivity of the resource / receptor against the magnitude of change.</li></ul>
		As aforementioned in paragraph 2.1.9 of the Planning Statement (APP-032), the Applicant has full planning permission for the demolition of the redundant FGD Plant and associated restoration works at Drax Power Station (2020/0994/FULM). The decommissioning and demolition work of Absorber Units 4, 5 and 6 are scheduled to take place prior to the start of the construction of the Proposed Scheme, whilst the demolition

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		of Absorber Units 1, 2 and 3 will take place following the completion of the Proposed Scheme. The cumulative impact resulting from this consent is therefore taken into account within the landscape assessment. The full methodology is set out in Chapter 9 (Landscape and Visual Amenity) of the ES (APP-045).  In terms of design, the Design Framework (APP-195) sets out the iterative design process undertaken for
		the Proposed Scheme to date in accordance with paragraph 4.5.4 of EN-1. The aim of the Design Framework is to "establish a design framework and strategy to ensure the Scheme responds to the existing site context and historic design guidance, so as to deliver the best possible outcomes in terms of landscape and visual mitigation and integration."
		In summary, the Design Framework sets out the following:
		<ul> <li>a. An overview of the Drax Power Station, including its current functions, historic design guidance, existing consents and details of existing landscaping and colour schemes;</li> <li>b. Details of the Proposed Scheme, including a project description and overview of the Proposed Scheme areas, functions associated with the Proposed Scheme and details relating to architectural form and precedented imagery;</li> <li>c. Design principles applicable to the detailed design of the Proposed Scheme (via the REAC and a DCO Requirement), relating to siting, massing, appearance, landscape, biodiversity, climate change and sustainability; and d. An overview of relevant planning policy and legislation and how the Proposed Scheme complies with these policies.</li> </ul>
		In terms of access, Chapter 5 (Traffic and Transport) of the ES (APP-041) confirms that access to the Drax Power Station Site for any operational related traffic, including Heavy Goods Vehicles (HGV) and AIL, will continue to use the existing access junctions off the A645 and New Road, which can accommodate HGV and non-HGV traffic.
		During the construction phase, two temporary construction site accesses from the public highway will be created to the East Construction Laydown Area and parking areas.
		Access is detailed further in Chapter 5 (Traffic and Transport) of the ES (APP-041).
		Consideration of Alternatives and Development of the Proposed Scheme
		As noted above, Chapter 3 (Consideration of Alternatives) of the ES (APP-039) sets out the alternatives that have been considered before arriving at the Proposed Scheme design, in accordance with paragraph 4.5.4 of EN-1. Given the nature of the Proposed Scheme, i.e. retrofitting post combustion Carbon Capture technology to existing biomass generating units, geographically distant alternative power station sites were not considered viable and alternate sites were therefore not considered further (for reasons set out within Chapter 3 of the ES). In particular and amongst other reasons, the Site has been identified as a suitable location for National Grid Transport and Storage Infrastructure that is to be part of the ZCH project, and the Proposed Scheme, in this location, would form part of the ECC proposals detailed within the Planning Statement (APP-032).
		With regard to alternative layouts considered, Chapter 3 of the ES (APP-039) and Applicant's Responses to Issues Raised at Deadline 1 (REP2-67) demonstrates that robust consideration has been given to the location of the Carbon Capture Plant and associated infrastructure required for the Proposed Scheme

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		(including Solvent Storage and Make-up System and Carbon Capture Wastewater Treatment Plant). It is demonstrated that ultimately, the final design for the Proposed Scheme is the most suitable for its purpose.
		Other alternative design options considered relate to the extent of the Order Limits, alternative routes for transporting AILs to the Site, and location of proposed infrastructure within the Order Limits.
		Extent of Order Limits
		Key areas within the Order Limits (being the Habitat Provision Area, East Construction Laydown Area and the Drax Power Station Site) have been through several design iterations and evolutions to remove land no longer required and therefore reduce impact, where possible. This process and the key design considerations are set out in Chapter 3 (Consideration of Alternatives) of the ES (APP-039), in the Applicant's Responses to WQ1 (REP2-060), and in the Applicant's Responses to Issues Raised at Deadline 1 (REP2-67). Visual impact was also a consideration in Chapter 3's assessment of alternative technologies.
		Alternative Routes for Transporting AlLs to the Site
		In terms of highway related impacts on design, the Applicant's Responses to Issues Raised at Deadline 1 (REP2-67) explains that the Applicant has considered routes for the transportation of AILs to the Site during the construction phase of the Proposed Scheme. Both rail and water were considered for AIL movements and discounted, and paragraph 5.2.27 of Chapter 5 (Traffic and Transport) of the ES (APP-041) states that suitable access already exists via the highway network. As set out in the PCAR (AS-045), and the SoCGs between Drax Power Limited and National Highways (REP8-020;REP4-012 to be superseded by Rev 05) and East Riding of Yorkshire Council (ERYC) (REP8-021;REP3-013 to be superseded by Rev 06 at Deadline 10), both parties acknowledge that AIL movements are necessary and will need to be managed pursuant to the measures in the Outline Construction Traffic Management Plan ('CTMP') (REP2-028).
		The Applicant has considered alternative routes for transporting AILs to the Site and concluded that the identified route is appropriate and this is supported both by NH and ERYC. Therefore, in order to avoid conflict between existing electrical and telecommunication overhead lines and the AILs, there is a need to undertake some works to the lines.
		A Changes Application ('PCA1') to provide a Flood Compensation Area (Proposed Change 01 ('PC-01')) and for works to OHLs necessary to facilitate the delivery of AlLs to the Site (Proposed Change 02 ('PC-02')) was submitted on 5 December 2022 and accepted into the Examination by the ExA on 13 December 2022. Details of PC-01 and PC-02 are available in the Proposed Changes Application Report ('PCAR1') (AS-045).
		The Applicant has identified that the lines the subject of proposed works in PC-02 all oversail the highway and hang below the minimum clearance height necessary for the maximum height of the AIL deliveries, which is around 12m (which may vary slightly depending on very localised ground levels as the vehicle passes underneath).
		The Applicant identified the land required and powers sought to address the conflict with OHL on the basis of specialist's technical advice on a range of potential design solutions that are potentially available to the asset owner based on the specialists' previous experience.
		The land identified in the Order Limits as part of PCA1 provided a 'worst case' option in terms of land required to undertake the works to move the OHL out of the way because it covers a range of potential

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		installation methodologies. The Applicant has discussed alternatives with the respective asset owners regarding potential options for temporarily or permanently moving the lines out of the way to enable the AIL deliveries.
		Since submitting the PCA1, the Applicant has identified amendments to the land required for Work No. 8 of the draft DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10) which have arisen due to the refinement of the detail and scope of the proposed works in discussion with the asset owners. The Applicant subsequently submitted a second Change Application (SCA) which proposed minor changes to the DCO Application, to reduce the overall area of land required to enable works to overhead electricity lines (OHL1 and OHL2) and telecommunication line (TCL1) and alter some of the land powers over compulsory acquisition land ('CA Land') previously sought in relation to Work No. 8.
		In summary, the asset owners for overhead electricity lines OHL1 and OHL2, Northern Powergrid, confirmed that the undergrounding of the lines is not feasible via Horizontal Directional Drilling ('HDD') due to existing constraints and infrastructure. Therefore, the undergrounding of these two lines oversailing the highway will be undertaken via an open cut trench installation method.
		The asset owners to TCL1, BT Openreach, confirmed that the conflict between the telecommunications line and AIL can be resolved by raising the height of the line over the A614 rather than undertaking undergrounding works. Further details on the scope and extent of proposed works to lines is set out in section 2 of the SCAR (AS-126).
		A detailed description of the proposed changes and justification for them are set out in the SCAR (AS-126) submitted with the SCA.
		The Applicant therefore worked with the asset owners to explore alternatives and minimise land take through the refinement of the detail and scope of the proposed works in discussion with the asset owners. The Order Limits were subsequently reduced through the SCA which was accepted into the Examination by the ExA on 26 April 2023.
		Ultimately, the undergrounding of cables will have a beneficial impact on landscape and visual amenity through the removal of visual clutter.
		Location of Proposed Infrastructure Within the Order Limits
		The Applicant's Responses to Issues Raised at Deadline 1 (REP2-67) explains that there was an assessment of relative environmental impacts between the options for the location for BECCS and the additional infrastructure required, and that the layout of the Proposed Scheme was not simply driven by operational efficiency. A south-based solution was considered, but the north based solution chosen could fit within the existing infrastructure (e.g. in relation to water cooling).
		Given that the footprint of the main BECCS plant is on the flue gas desulphurisation plant facility, some piles that exist there will be reused. The north-based solution minimises the pipe run carrying carbon dioxide from the compressor station out to the connection port in the transport and storage system, compared to the south-based solution. Chapter 3 of the ES covers the difference between the northern and southern options, with the likely environmental impacts being less significant for the northern option compared to the southern option, including footprint size, reusing of piles and pipe run length.
		Effects and Mitigation
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		Chapter 9 (Landscape and Visual Amenity) of the ES (APP-045) details the likely significant environmental effects on sensitive receptors as a result of the Proposed Scheme. The sensitive receptors identified are explained at Appendix 9.4 (Sensitive Receptors) of the ES (APP-15) and shown on Figure 9.2 (Visual Receptor Plan) of the ES (APP-099). Sensitive receptors include, but are not limited to, landscape receptors such as Landscape Character Area ('LCA') 6: Derwent Valley and Site Fabric such as vegetation, as well as visual receptors such as residents living in properties with views of land within the study area, people travelling along the public right of way ('PRoW') and recreational users of the River Ouse.
		The preliminary assessment of likely significant effects identified a number of moderate adverse (significant) effects on a number of sensitive visual receptors during the construction phase and decommissioning of the Proposed Scheme. No adverse landscape effects are identified during the construction phase and decommissioning, and no adverse effects are predicted during the operational phase of the Proposed Scheme.
		Design and mitigation measures are proposed to reduce the visual impact on the Proposed Scheme.
		In respect of design, the Proposed Scheme has sought to retain vegetation where possible, by designing out the removal of existing, natural habitats such as those in the north and north-eastern area of the Drax Power Station through changes in Order Limits. This is detailed within the OLBS ( <a href="REP6-017">REP6-017</a> document reference 6.6).
		Other primary mitigative measures include the implementation of a sensitive lighting scheme. This is secured through a requirement in Schedule 2 of the DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10). The requirement states that the
		final lighting scheme should substantially accord with the Draft Lighting Strategy (REP6-019APP-184) submitted with the DCO Application, which include a number of principles to secure this. The lighting design will relate to permanent lighting required for the operation of the Proposed Scheme.
		Consideration has also been given to the materials and colour palette to be implemented. This is detailed in the Design Framework (APP-195), and explained in Chapter 9, where it states that the colour palette has been selected for the exterior of major buildings / structures has been selected based on a combination of historic design guidance, known colours used within the Drax Power Station and observations made during site visits. As aforementioned, the approval of the detailed design of the Proposed Scheme is secured
		through a requirement in Schedule 2 of the DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10). The detailed design submitted for approval must be in accordance with the hard and soft landscaping "design principles" and colour palettes (set out in the Design Framework and included in the REAC (AS-121REP9-019)). There is also an additional requirement relating to the detailed design of the Proposed Scheme.
		In terms of secondary mitigation, mitigative planting is proposed along the eastern boundary of the East Construction Laydown Area for the purpose of visual screening. The intention is to provide additional filtering of views towards the East Construction Laydown for footpath users east of the Drax Power Station Site and for occupiers of nearby residential properties during construction. Details of how the planting will
		be achieved is set out in the OLBS ( <u>REP6-017AS-119</u> ). A number of mitigation measures are also set out in the REAC ( <u>AS-121REP9-019</u> ) and is secured through the requirements in Schedule 2 of the DCO for a CEMP and DEMP. These measures will mitigate visual impact during the construction phase and
		decommissioning and include, but are not limited to, protecting the root zones of retained vegetation, the erection of hoardings around the construction compounds and laydown areas, and returning laydown areas

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		and site compounds to their original use following completion of construction of the Proposed Scheme, and following decommissioning.
		Where vegetation will be removed to facilitate the construction of the Proposed Scheme, mitigation includes compensatory planting such as hedgerows and tree planting. Further details are set out in Chapter 9 (Landscape and Visual Amenity) of the ES (AS-045), the OLBS (REP6-017AS-119), and Figure 1 (Landscape and Biodiversity Mitigation Plan) of the OLBS (APP-181) and the Design Framework (APP-195).
		With the mitigation measures applied, Chapter 9 (Landscape and Visual Amenity) of the ES (AS-045) concludes that whilst the overall visual impact of the Proposed Scheme will be reduced, the effects would remain moderate adverse (significant). All effects will be temporary.
		Balance of Significant Landscape and Visual Effects and Benefits of the Proposed Scheme
		In the context of landscape and visual amenity, there will be significant, temporary, negative visual effects associated with the Proposed Scheme during the construction phase and decommissioning of the development, as set out in Chapter 9 (Landscape and Visual Amenity) of the ES (APP-045) and Chapter 18 (Cumulative Effects) of the ES (REP4-035).
		However, the negative effects must be balanced with the benefits of the Proposed Scheme (in particular the contribution to meeting the UK's net zero target), which are summarised in Section 6.2 of this Planning Statement and in the Needs and Benefits Statement (APP-033).
		It is again noted that the EN-1 acknowledges that " the nature of much energy infrastructure development will often limit the extent to which it can contribute to the enhancement of the quality of the area." The NPS does not set an expectation that development proposals will be concealed from views, nor that they will improve landscape and visual character.
		Accordingly, the priority in design terms is to reduce, rather than prevent, adverse landscape and visual impacts where possible.
		Summary
		In light of the above and as set out in Chapter 9 of the ES (AS-045), it is considered that the Proposed Scheme is sensitively designed and minimises adverse landscape and visual effects, and therefore represents good design.
		In accordance with policies of EN-1, the Proposed Scheme has been subject to a detailed LVIA which was informed by responses from consultees and supporting documents detail how the design of the Proposed Scheme has evolved to reduce impact.
		The Applicant therefore considers the Proposed Scheme is therefore considered to accord with the relevant policies of Part 4.5 of EN-1 and Part 2.4 of EN-3.
Consideration of Combined Heat and Power (CHP) (Part 4.6 of EN-1)	Paragraph 4.6.1 of EN-1 states:  Combined Heat and Power (CHP) is the generation of usable heat and electricity in a single process. []  Paragraph 4.6.6 of EN-1 states:	If this DCO Application were for a new generating station, the Applicant would be required to submit a Combined Heat and Power ('CHP') Statement in accordance with paragraph 4.6.1 of EN-1 and 2006 CHP Guidance (Department of Trade and Industry, 2006) and also the CHP-R Guidance (Environment Agency, 2013). However, the Proposed Scheme relates to the installation of a carbon capture extension to an existing generating plant; it does not relate to the development of a new generating station. The

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		requirement to provide a CHP Statement as part of a DCO Application for an extension to an existing generating station is not explicitly covered in EN-1 policies nor the aforementioned Guidance.
·	must either include CHP or contain evidence that the possibilities for CHP have been fully explored to inform the SoS's consideration of the application.	A 'Requirement for a CHP Statement Assessment' ('the Assessment') was undertaken by the Applicant to aid pre-application discussions with the Environment Agency ('EA') to confirm whether or not a CHP Statement was required to support the DCO Application. The Assessment concluded that from a solely technical perspective, there was no merit in carrying out a CHP assessment. During the pre-application discussions, the EA confirmed that a CHP-Ready Assessment did not need to be undertaken.
		The reasons which led the Applicant to conclude that there was no merit in carrying out a CHP assessment are as follows:
		a. The post-combustion plant design will be optimised to maximise heat recovery and so only low-grade heat would be available, which is not considered suitable for district heating purposes. This means the post-combustion plant extension is not suitable to be CHP from the outset.
		With reference to the CHP Ready ('CHP-R') Guidance (Environment Agency, 2013), there are two criteria against which the proposal is to be assessed prior to conducting the three test Best Available Technique ('BAT') assessment process to demonstrate CHP Readiness. If an applicant can demonstrate that the two criteria are not met, there is no requirement for the plant to demonstrate CHP Readiness.
		The two criteria are shown in Plate 1 below.
		Plate 1 - Extract from the CHP-R Guidance (Environment Agency, 2013)  Is the New Power / EfW Plant required to be CHP or CHP-R?  • No - The applicant / operator should demonstrate that the provision of CHP is not compatable with original operating regime / intention. • Yes - Proceed to Next Step  Are there opportunities for the supply of heat?  • No - The applicant / operator should demonstrate that there are no opportunites for supply of heat. • Yes - Proceed to Next Step
		The two criteria are assessed as follows:  a. The New Power / Energy for Waste ('EfW') Plant is not required to be CHP or CHP-R. As outlined above, during operation of the proposed post combustion plant, all heat supplied to the plant and generated in the plant is recovered and so only a low-grade heat (warm condensate) is available from
		the plant, which is not considered suitable for district heating purposes.  b. There are no opportunities for the supply of heat. As part of the CHP assessment completed as part of the recently made Drax Repower DCO (PINS Reference EN010091), it was determined that there are currently no viable heat loads available within the region which would make it commercially or

Р	olicy	Policy Text	Compliance with NPS
			technically feasible for CHP. An updated search has been undertaken using the BEIS online heat map tool (BEIS, 2022) and it has confirmed the findings of the Drax Repower DCO are still valid. <sup>1</sup>
			Summary
			The Applicant has assessed the feasibility of CHP in accordance with the above paragraph 4.6 of EN-1 and the associated CHP and CHP-R Guidance. The Applicant does not consider CHP to be relevant to the Proposed Scheme. Regardless, the above assessment has demonstrated that the post-combustion plant extension is not suitable to be CHP-R due to the low-grade heat available, additionally, there are no opportunities for the supply of heat.
			As stated above, the EA raised no concerns with this approach during the pre-application engagement. The Proposed Scheme is therefore considered to accord with the relevant policies of Part 4.6 of EN-1.
С	arbon Capture and	Paragraph 4.7.1 – 4.7.4 of EN-1 states:	ccs
	torage (CCS) and	Carbon Capture and Storage (CCS) is an emerging technology that enables carbon dioxide that would otherwise be released to the atmosphere to be	Paragraph 4.7.2 of EN-1 confirms that there are three types of carbon capture technology:
	arbon Capture eadiness (CCR)	captured and permanently stored. It can be applied to any large point source of	a. a. Pre-combustion capture;
(F	Part 4.7 of EN-1)	carbon dioxide, such as fossil fuel power stations or other industrial processes that are high emitters. Carbon capture technologies are able to remove up to	b. b. Post-combustion capture; and c. c. Oxy-fuel combustion.
		90% of the carbon dioxide that would otherwise be released to the atmosphere	The Proposed Scheme will utilise post-combustion capture, which paragraph 4.7.2 defines as follows:
	The chain of CCC has three links; conture of carbon transport and storage I	"Post-combustion capture: this uses solvents to scrub CO2 out of flue gases. The CO2 is then released as a concentrated gas stream by a regeneration process. Post-combustion capture is applicable to pulverised coal generating stations."	
		There are three types of capture technology:	Paragraph 4.7.2 also states: "The chain of CCS has three links: capture of carbon, transport, and storage."
		Pre-combustion capture: this method involves reacting fuel with oxygen or air, and in some cases steam, to produce a gas consisting mainly of carbon monoxide and hydrogen. The carbon monoxide is reacted with more steam in a catalytic shift converter to produce more hydrogen and CO <sub>2</sub> . The CO <sub>2</sub> is then separated and the hydrogen is used as fuel in a combined cycle gas turbine generating station. For coal, this method is based on integrated coal gasification combined cycle (ICGCC) technology.	As set out in paragraph 1.3.1 of the Planning Statement (APP-032), the Proposed Scheme relates to the 'capture of carbon' link. The transport and storage 'links' will be the subject of separate consent applications by third parties, such as by NGCLthe onshore carbon pipeline operator, and include the construction of a pipeline as part of the HLCP project, to accommodate the transportation of carbon dioxide ('transport link') to the Endurance storage site under the North Sea ('storage link'). This is in line with paragraph 4.7.3 of EN-1, which states:
		process. Post-combustion capture is applicable to pulverised coal	"Once carbon dioxide has been captured, it is then compressed and transported, before being permanently stored in deep geological formations, such as depleted oil and gas fields and saline aquifers. In the UK, the majority of locations thought to be best suited to storage of CO2 are located offshore."
		generating stations.  ~ Oxy-fuel combustion: in this process, fuel is burnt in an oxygen/ CO <sub>2</sub> mixture rather than air to produce a flue gas that is predominantly CO <sub>2</sub> . With coal the technology would be deployed with a suitably modified pulverised coal	Paragraph 4.7.4 explains whilst the Government's encouragement and steps to facilitate the demonstration of CCS technology initially focussed on coal-fired power stations as their emissions are substantially higher than other fuels:

<sup>&</sup>lt;sup>1</sup> The heat map tool identifies small industrial heat loads in the neighbouring region of Barlow but the area is specified as the lowest intensity (MWh/km2) i.e. small heat loads scattered across a large area and so not suitable for a CHP Scheme. This has been verified by the Applicant as they understand to be no viable opportunities for supply of heat to industry within close proximity to the facility. Three large industrial heat loads were identified further afield and were investigated as part of the Drax Repower DCO but all three were deemed non-viable. (Due to either high process temperature requirements or the complexity and distance (>6km) required to supply the heat meant unjustifiably high commercial costs). The conclusion that there is no suitable CHP opportunity is only further augmented for heat supply from a post-combustion carbon capture plant as only low grade heat is available.

### **Policy Text** Compliance with NPS **Policy** combustion system, whilst with gas it could be used with a combined cycle "CCS will also be required for other combustion generating stations in future and the Government has therefore extended the demonstration programme to include gas-fired generating stations." system. Once carbon dioxide has been captured, it is then compressed and transported, Paragraphs 4.7.5 to 4.7.9 relate to the requirement for all commercial scale fossil fuelled generating before being permanently stored in deep geological formations, such as stations to be carbon capture ready, and the pipeline infrastructure required to carry carbon dioxide to the depleted oil and gas fields and saline aquifers. In the UK, the majority of associated storage. locations thought to be best suited to storage of CO<sub>2</sub> are located offshore. CCR The Government has taken a number of steps to facilitate and encourage the Paragraphs 4.7.10 to 4.7.17 of EN-1 relate to CCR which is not relevant to this DCO Application, as the demonstration of CCS technology. The demonstration programme described in Proposed Scheme relates to the installation of carbon capture plant and therefore overrides the need to be 3.6.5 focused initially on coal-fired power stations. This is because the emissions from coal generation are substantially higher than from other fuels, including gas; the projected increase in coal use globally creates a greater urgency to tackling emissions from coal; tackling emissions from coal first makes most economic sense because of the greater emissions intensity; and Summary new coal generating stations would contribute to the diversity and security of UK energy supplies as we make the transition to a low carbon mix. However, The Proposed Scheme seeks the installation of post-combustion carbon capture technology, which has CCS will also be required for other combustion generating stations in future and been designed to remove approximately 95% of the carbon dioxide from the flue gas emitted from two of the Government has therefore extended the demonstration programme to the four generating units at Drax Power Station. include gas-fired generating stations. The technology therefore has the potential to exceed the assumed figures set out in paragraph 4.7.1 above. The Proposed Scheme aligns with the Government's encouragement of CCS technology, and therefore accords with paragraph 4.7.4 of EN-1 (notwithstanding that this policy predominantly relates to coal-fired power stations). Based on the above, the Applicant considers that the Proposed Scheme accords with the relevant policies of Part 4.7 of EN-1. Climate Change Paragraph 4.8.1 – 4.8.2 of EN-1 states: An assessment of likely significant environmental effects in relation to the vulnerability of the Proposed Adaptation Scheme to climate change hazards, and an outline of the proposed design and mitigation measures is [...] This part of the NPS sets out how applicants and the SoS should take the provided in Chapter 14 (Climate Change Resilience) of the ES (APP-050). effects of climate change into account when developing and consenting (Part 4.8 of EN-1 and Part 2.3 of ENinfrastructure. While climate change mitigation is essential to minimise the most The climate resilience assessment identifies the following sensitive receptors within the Proposed Scheme: dangerous impacts of climate change, previous global greenhouse gas Carbon Capture Plants (this includes the additional infrastructure associated with the Carbon Capture emissions have already committed us to some degree of continued climate Plants): change for at least the next 30 years. If new energy infrastructure is not b. Existing Infrastructure; sufficiently resilient against the possible impacts of climate change, it will not be c. Road improvements; able to satisfy the energy needs as outlined in Part 3 of this NPS. d. Ancillary works (including, site lighting infrastructure, emergency lighting, security infrastructure e.g., lighting and cameras, fencing); and Climate change is likely to mean that the UK will experience hotter, drier summers and warmer, wetter winters. There is a likelihood of increased flooding, e. Habitat Provision Area. drought, heatwaves and intense rainfall events, as well as rising sea levels. The assessment identifies that the above sensitive receptors have the potential to be affected during the Adaptation is therefore necessary to deal with the potential impacts of these operational phase of the Proposed Scheme by climate change through the following climate variables: changes that are already happening. a. Precipitation: Paragraph 4.8.5 – 4.8.6 of EN-1 states: b. Temperature; New energy infrastructure will typically be a long-term investment and will need c. Wind: to remain operational over many decades, in the face of a changing climate. d. Humidity; and

#### **Policy Text** Compliance with NPS **Policy** Consequently, applicants must consider the impacts of climate change when e. Sea level rise. planning the location, design, build, operation and, where appropriate, Following mitigation, the residual climate resilience effects of the Proposed Scheme were deemed to be decommissioning of new energy infrastructure. The ES should set out how the 'minor adverse' (i.e., not significant) for the following potential effects: proposal will take account of the projected impacts of climate change. While not a. Carbon Capture Plants: required by the EIA Directive, this information will be needed by the SoS. Flooding of the Carbon Capture Plants and supporting infrastructure; The SoS should be satisfied that applicants for new energy infrastructure have ii. Faster rate of deterioration of materials from increase in UV radiation e.g., brittleness, fading; taken into account the potential impacts of climate change using the latest UK iii. Deterioration of material structure and fabric: Climate Projections available at the time the ES was prepared to ensure they b. Existing Structures: have identified appropriate mitigation or adaptation measures. This should cover i. Increased wind loading on Main Stack compromising the structural integrity; the estimated lifetime of the new infrastructure. ii. Faster rate of deterioration of materials from increase in UV radiation e.g., brittleness, fading; iii. Paragraph 2.3.2 of Part 3.2 of EN-3 states: Deterioration of material structure and fabric. Biomass generating stations are likely to be proposed for coastal or estuarine Summary sites where climate change is likely to increase risks from flooding or rising sea To conclude, Chapter 14 (Climate Change Resilience) of the ES (APP-050) has considered the impact of levels, for example. In such cases applicants should, in particular, set out how climate change in the design of the proposed new energy infrastructure, in accordance with paragraph the proposal would be resilient to: 4.8.5 of EN-1. Through this consideration, potential effects are demonstrated to be sufficiently mitigated effects of rising sea levels and increased risk from storm surge; through various adaptive measures, in line with paragraph 4.8.2 and 4.8.5 of EN-1. increased risk of flooding; Chapter 14 (Climate Resilience) of the ES also considers how the Proposed Scheme will be resilient to flooding, drought, the impact of rising temperatures and the effects of rising sea levels, in line with impact of higher temperatures; and paragraph 2.3.2 of EN-3, and the chapter concludes that there will be no adverse effects arising from increased risk of drought affecting river flows. climate change on the operational phase of the Proposed Scheme. Whilst it is noted that the Draft DCO predates the advice within the Environment AgencyEA's 2022 Climate Change Risk Assessment, the design standards for flood risk assessments (which were adopted for use within the Flood Risk Assessment ('FRA') (AS-088 and AS-090) for the Proposed Scheme) have been developed by the Environment Agency EA based upon RCP8.5, which is the high-emissions global warming scenario and would equate to a 3.3°C warming for North Yorkshire. The FRA has a assessed the impacts of RCP8.5 through site specific models. These impacts are suitably mitigated within the FRA (AS-088) for the design life of the Proposed Scheme. The Applicant therefor considers that the Proposed Scheme accords with the relevant policies of Part 4.8 of EN-1 and Part 2.3 of EN-3. **Grid Connection** Paragraph 4.9.1 of EN-1 states: Part 4.9 of EN-1 provides policy in respect of the connection of a proposed generation plant to the grid network. At paragraph 4.9.1, EN-1 notes that the grid connection point of a generating station to the (Part 4.9 of EN-1) The connection of a proposed electricity generation plant to the electricity electricity network is an important consideration for applicants. The NPS highlights that it is for the applicant network is an important consideration for applicants wanting to construct or to ensure that there will be the necessary infrastructure and capacity within an existing or planned extend generation plant. In the market system, it is for the applicant to ensure transmission or distribution network to accommodate the electricity generated. that there will be necessary infrastructure and capacity within an existing or planned transmission or distribution network to accommodate the electricity Paragraph 4.9.1 also emphasises that "The applicant will liaise with National Grid who own and manage generated. The applicant will liaise with National Grid who own and manage the the transmission network in England and Wales or the relevant regional Distribution Network Operator transmission network in England and Wales or the relevant regional Distribution (DNO) to secure a grid connection." This paragraph further notes that it may be the case that an Applicant Network Operator (DNO) to secure a grid connection. It may be the case that the has not yet received or accepted a formal grid connection offer at the time of submitting an application, applicant has not received or accepted a formal offer of a grid connection from although it is likely to have applied for one and discussed it with them. The SoS will want to be satisfied that

there is no obvious reason why a grid connection might not be possible.

the relevant network operator at the time of the application, although it is likely

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	• •	A Grid Connection Statement (APP-036) has been submitted to the ExA to support the DCO Application. The Grid Connection Statement confirms that the Proposed Scheme does not require connection to the National Transmission System ('NTS'). This is because the Proposed Scheme comprises Combined Power Turbines which will be connected through new distribution voltage infrastructure to be constructed near the BECCS plant equipment. The new distribution voltage infrastructure will be installed by the Applicant as part of the DCO Application.
		In addition to the above, an alternate secondary electrical supply from the 132 kV air insulated switchgear would be required to ensure uninterruptable operation of the Proposed Scheme when power from the Combined Power Turbines is not available. The connection would be made at the existing 132 kV air insulated switchgear which is located in the south-eastern part of the existing Drax Power Station Site. To enable this connection, upgrade works would be required to the existing NGET owned substation infrastructure at the 132 kV air insulated switchgear and possibly the adjacent 400 kV substation. This demonstrates that a connection to the existing substation is technically feasible. The Grid Connection Statement states that "At present, the design, installation, operation and maintenance of the works is the responsibility of the Applicant (part of Work No. 1F within the Order)."
		The Applicant has liaised with National Grid ('NG') as required by paragraph 4.9.1 of EN-1, and a SoCG between the Applicant and each of the various NG entities (National Grid Carbon Limited, National Grid ESO, and National Grid Electrical Transmission) ('NGCL', 'NGESO', and 'NGET' respectively) has been prepared to ensure both parties are in agreement of the key matters to facilitate the required upgrade works to enable an increase in import capacity to Drax Power Station. The final signed versions of the SoCGs are submitted at Deadline 10 on 17 July 2023 and show, which shows that matters of principle are mostly agreed, and that it is only detailed matters that remain under discussion (see REP-016; to be superseded
		by Rev 02 at Deadline 10; REP8-017016 to be superseded by Rev 04 at Deadline 10; and REP5-019 to be superseded by Rev 03 at Deadline 10).  As detailed within the SoCG between the Applicant and NGESO, a Modification Application ('Mod App') must be submitted to NGESO to inform the upgrade works required to enable an increase in import capacity to Drax Power Station. The Applicant is working with National Grid to enter into connection agreements and other commercial arrangements via the Mod App to amend the existing Bilateral Connection Agreement ('BCA') between the Applicant and NGESO.
		It is agreed with NGESO that the Mod App will enable NGESO to request that NG Electricity Transmission undertake the required system studies to define the works required to be undertaken at the 132 kV air insulated switchgear and possible works required to be undertaken at the 400 kV substation, both located at the Drax Power Station.
		An outline description of the upgrade works has been included in Schedule 1 of the draft DCO (REP2-008). Work No. 1F (i) covers the potential upgrade to the existing 400 kV NG substation and Work No. 1F (ii) covers the modifications and upgrade to the 132 kV air insulated switchgear including but not limited to circuit breakers, busbar disconnectors, and earth switches. The areas in which these works can be undertaken have been indicated on the Works Plans (AS-106) under the wider Work No. 1F.
		The SoCG with NGESO (REP8-016 to be superseded by Rev 04 at Deadline 10REP-016) confirms that NGESO are considering the Mod App and consider this can be determined in its usual fashion. It is agreed

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		in the SoCG that the Mod App does not need to be determined before the DCO Application and therefore all matters are agreed.currently await further update from the Applicant on progress of the Mod App.
		Based on the above, the Applicant is not aware of any reason why an upgrade to the existing grid import capacity would not be possible, in accordance with paragraph 4.9.1 of EN-1.
		Summary
		The Grid Connection Statement (APP-036) confirms that the required electrical connection upgrade works are technically feasible and that the necessary contractual agreement with NGESO to secure the upgrade works is being secured.
		Signed SoCGs are well developed with between the Applicant and National Grid Carbon Limited_(REP-017) and National Grid Electrical Transmission (REP5-019) are submitted at Deadline 10.
		The Applicant therefore considers that the Proposed Scheme is in accordance with the relevant policies of Part 4.9 of EN-1.
Pollution Control and Other Environmental Regulatory Reg (Part 4.10 of EN	The connection of a proposed electricity generation plant to the electricity network is an important consideration for applicants wanting to construct or extend generation plant. In the market system, it is for the applicant to ensure that there will be necessary infrastructure and capacity within an existing or	pollution control regulation under the pollution control framework or other consenting and licensing regimes. A number of other consents and licences, including a variation to the existing Environmental Permit ('EP') for the Drax Power Station, will or may be required to build and operate the Proposed Scheme, and are set out in the Other Consents and Licences report (REP5-009REP8-010).  In respect of the Environmental Permit, submission of an application for a staged variation to the existing Environmental Permit (EPR/VP3530LS), for the Drax Power Station was submitted to the EA on 22 August 2022. On 3 April 2023 the Applicant submitted additional information to the EA following their request for further information to support the process of achieving duly made status for the application to vary the Environmental Permit. The variation to the application was duly made on 18 May 2023. The EA will now consider the application for a variation to the Environmental Permit as set out above. Determination of the application is not expected before March 2024.  For the reasons set out in the Planning Statement (APP-032), the Applicant considers that it can be shown that the Proposed Scheme is an acceptable use of land.  Paragraph 4.10.3 of EN-1 goes on to state that in considering an application for development consent, the SoS should focus on whether the development itself an acceptable use of the land is, and on the impacts of
	public health and safety, and amenity, for example by attaching conditions to allow developments which would otherwise not be environmentally acceptable to proceed, and preventing harmful development which cannot be made acceptable even through conditions. Pollution control is concerned with preventing pollution through the use of measures to prohibit or limit the releases of substances to the environment from different sources to the lowest practicable level. It also ensures that ambient air and water quality meet standards that guard against impacts to the environment or human health.  Paragraph 4.10.3 of EN-1 states:	Paragraph 4.10.3 of EN-1 also states that the SoS:  "should work on the assumption that the relevant pollution control regime and other environmental regulatory regimes, including those on land drainage, water abstraction and biodiversity, will be properly applied and enforced by the relevant regulator".  Paragraph 4.10.7 of EN-1 states that the SoS:  "should be satisfied that development consent can be granted taking full account of environmental impacts. Working in close cooperation with EA and/or the pollution control authority, and other relevant
	In considering an application for development consent, the SoS should focus on whether the development itself is an acceptable use of the land, and on the	bodies, such as the MMO, Natural England, the Countryside Council for Wales, Drainage Boards, and

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impacts of that use, rather than the control of processes, emissions or discharges themselves. The SoS should work on the assumption that the relevant pollution control regime and other environmental regulatory regimes, including those on land drainage, water abstraction and biodiversity, will be properly applied and enforced by the relevant regulator. It should act to complement but not seek to duplicate them.

Paragraphs 4.10.5 – 4.10.6 of EN-1 state:

Many projects covered by this NPS will be subject to the Environmental Permitting (EP) regime, which also incorporates operational waste management requirements for certain activities. When a developer applies for an Environmental Permit, the relevant regulator (usually EA but sometimes the local authority) requires that the application demonstrates that processes are in place to meet all relevant EP requirements. In considering the impacts of the project, the SoS may wish to consult the regulator on any management plans that would be included in an Environmental Permit application. 4.10.6 Applicants are advised to make early contact with relevant regulators, including EA and the MMO, to discuss their requirements for environmental permits and other consents. This will help ensure that applications take account of all relevant environmental considerations and that the relevant regulators are able to provide timely advice and assurance to the SoS. Wherever possible, applicants are encouraged to submit applications for Environmental Permits and other necessary consents at the same time as applying to the SoS for development consent.

### Paragraph 4.10.7 of EN-1 states:

The SoS should be satisfied that development consent can be granted taking full account of environmental impacts. Working in close cooperation with EA and/or the pollution control authority, and other relevant bodies, such as the MMO, Natural England, the Countryside Council for Wales, Drainage Boards, and water and sewerage undertakers, the SoS should be satisfied, before consenting any potentially polluting developments, that:

- the relevant pollution control authority is satisfied that potential releases can be adequately regulated under the pollution control framework; and
- the effects of existing sources of pollution in and around the site are not such that the cumulative effects of pollution when the proposed development is added would make that development unacceptable, particularly in relation to statutory environmental quality limits

### Paragraph 4.10.8 of EN-1 states:

The SoS should not refuse consent on the basis of pollution impacts unless it has good reason to believe that any relevant necessary operational pollution control permits or licences or other consents will not subsequently be granted.

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water and sewerage undertakers, the SoS should be satisfied before consenting any potentially polluting developments, that:

- The relevant pollution control authority is satisfied that potential releases can be adequately regulated under the pollution control framework; and
- The effects of existing sources of pollution in and around the site are not such that the cumulative effects of pollution when the proposed development is added would make that development unacceptable particularly in relation to statutory environmental quality limits."

Regarding the first bullet point of paragraph 4.10.7 of EN-1, consultation has been undertaken with the relevant pollution control authorities as is detailed in further in this Table below, in the Consultation Report (APP-018), the PINS EIA Scoping Opinion (APP-116), and also within each relevant chapter of the ES.

In respect of the second bullet point of paragraph 4.10.7, the ES demonstrates that there are no existing sources of pollution in and around the Order Limits which would make the development unacceptable when considered cumulatively alongside the Proposed Scheme. In addition, the CEMP which is secured via a requirement in Schedule 2 of the DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10), seeks to control emissions and pollution during construction.

Importantly paragraph 4.10.8 of EN-1 states that the SoS should not refuse consent on the basis of pollution impacts unless it has good reason to believe that any relevant necessary operational pollution control permits or licences, or other consents, will not subsequently be granted.

The Applicant is not aware of any reason which would prevent the relevant permits, licences, or other consents from subsequently being granted.

### Summary

Through consultation with the relevant pollution control authorities, the Applicant has sought to ensure that potential effects can be adequately regulated under the pollution control framework in accordance with paragraph 4.10.7 of EN-1.

The Applicant notes that the Proposed Scheme will require a series of other consents and licenses and has submitted an Other Consents and Licenses report (REP5-009REP8-010) which sets out in detail what other consents are likely to be required during the construction and operational phases, and decommissioning of the Proposed Scheme.

The Applicant is not aware of any reasons why any permits, consents or licenses would not be granted, where required. The Applicant has submitted all <u>outstanding-required</u> documentation to the <u>Environment AgencyEA</u> associated with the application to vary the Environmental Permit. The variation to the application was duly made on 18 May 2023. The EA will now consider the application for a variation to the <u>Environmental Permit as set out above. Determination of the application is not expected before March 2024.</u> and has responded to further minor requests and clarifications associated with the documentation submitted to the Environment Agency at the end of March 2023.

The Applicant understands that the Environment Agency has all the information that has been requested, and is in a position to make a decision on duly made status. The Applicant remains confident that the target date of determination of March 2024 is reasonable and achievable.

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		Based on the above, the Applicant considers that the Proposed Scheme accords with the relevant policies of Part 4.10 of EN-1.
Safety	Paragraph 4.11.1 of EN-1 states:	Chapter 17 (Major Accidents and Disasters) of the ES (APP-053) addresses the potential vulnerability of
(Part 4.11 of EN-1)	HSE is responsible for enforcing a range of occupational health and safety legislation some of which is relevant to the construction, operation and decommissioning of energy infrastructure. Applicants should consult with the Health and Safety Executive (HSE) on matters relating to safety.  Paragraphs 4.11.2 – 4.11.3 of EN-1 state:  Some technologies, for example the use of salt caverns for underground gas storage, will be regulated by specific health and safety legislation. The application of these regulations is set out in the technology-specific NPSs where relevant.  Some energy infrastructure will be subject to the Control of Major Accident Hazards (COMAH) Regulations 1999. These Regulations aim to prevent major accidents involving dangerous substances and limit the consequences to people and the environment of any that do occur. COMAH regulations apply throughout the life cycle of the facility, i.e. from the design and build stage through to decommissioning. They are enforced by the Competent Authority comprising HSE and the EA acting jointly in England and Wales (and by the HSE and Scottish Environment Protection Agency acting jointly in Scotland). The same principles apply here as for those set out in the previous section on pollution control and other environmental permitting regimes.  Paragraph 4.11.4 of EN-1 states:  Applicants seeking to develop infrastructure subject to the COMAH regulations should make early contact with the Competent Authority. If a safety report is required it is important to discuss with the Competent Authority the type of information that should be provided at the design and development stage, and what form this should take. This will enable the Competent Authority to review as much information as possible before construction begins, in order to assess whether the inherent features of the design are sufficient to prevent, control and mitigate major accidents. The SoS should be satisfied that an assessment has been done where required and that the Competent Authority has assessed	Chapter 17 (Magnia Accidents and Disasters) of the Es (APP-1-03) addresses the potential with the Proposed Scheme to the risk of major accidents and/or disasters ("MA&D") as required by the EIA Regulations 2017.  In accordance with the relevant policies of EN-1, the Applicant has consulted with the HSE on matters relating to safety, and, as set out in part 17.3 of Chapter 17 (MA&D) of the ES (APP-053), and in the Consultation Report (APP-018) submitted alongside the DCO Application. No objection has been raised and matters raised in HSE's Section 42 Consultation Comments have been addressed.  Chapter 17 of the ES confirms that the Proposed Scheme is considered to be potentially vulnerable to the following risk events:  Construction Phase and Decommissioning  a. Fluvial flooding;  b. Major Accident Hazard (MAH) Chemical Sites;  c. Dam breaches;  d. Transport accidents - road; and  e. Flood defence failure.  Operational Phase  a. Fluvial flooding;  b. MAH Chemical Sites;  c. Dam breaches;  d. Air pollution accidents; and  e. Flood defence failure.  The above potential MA&D Events are assessed to potentially impact upon the BECCS Plant, Carbon Dioxide Processing and Compression Plant. Both sections of plant are located within the Drax Power Station Site. The assessment is set out at Appendix 17.2 (Environmental Statement Risk Record) of the ES (APP-172).  The Risk Event types to which the Proposed Scheme is not considered to be vulnerable, are shown in the Long List of potential major accident(s) and / or disaster(s) events provided in Appendix 17.1 (Major Accidents and Disasters Long List) of the ES (APP-171).  The assessment at Appendix 17.2 (Risk Record) of the ES (APP-172) identifies two MA&D Events which the Proposed Scheme may be vulnerable to during the construction phase and decommissioning, and three MA&D assessment adopts a different assessment approach from other topic chapters whereby all

mitigation measures are collectively considered at the same time to determine whether potential MA&D

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		events to which the Proposed Scheme may be vulnerable are managed to be as low as reasonably practical ('ALARP').
		Therefore, Chapter 17 (MA&D) of the ES (APP-053) confirms that based on the assumptions and mitigation measures (presented in Appendix 17.2 of the ES) as put forward in other relevant ES chapters, it is considered that the identified potential construction, operational and decommissioning phase major accident(s) and / or disaster(s) events would all be managed to be ALARP.
		Therefore, the assessment concludes that there is no likely requirement for secondary mitigation measures, as based on the information currently available in other relevant ES chapters, it is deemed that the risks are anticipated to be ALARP.
		Summary
		The above demonstrates that the Applicant has taken all relevant matters into account to provide appropriate safety provisions.
		The Applicant therefore considers it has been sufficiently demonstrated that the Proposed Scheme accords with the relevant policies of Part 4.11 of EN-1.
Hazardous Substances (Part 4.12 of EN-1)	Paragraph 4.12.1 of EN-1 states:  All establishments wishing to hold stocks of certain hazardous substances above a threshold need Hazardous Substances consent. Applicants should consult the HSE at pre-application stage93 if the project is likely to need hazardous substances consent. Where hazardous substances consent is applied for, the SoS will consider whether to make an order directing that hazardous substances consent shall be deemed to be granted alongside making an order granting development consent94. The SoS should consult HSE about this.	Paragraph 4.12.1 of EN-1 states that all establishments wishing to hold stocks of certain hazardous substances above a certain threshold require Hazardous Substances Consent (HSC). EN-1 goes on to state that applicants should consult the HSE at the pre-application stage if a project is likely to need such consent. As stated in above, HSE has been consulted on the Proposed Scheme. The Consultation Report (APP-018) sets out the details of HSE's consultation response and how the Applicant has responded to it, as does Chapter 17 (MA&D) of the ES (APP-053).  As set out in the Other Consents and Licences report (REP5-009REP8-010), HSC may be required for storage of chemicals/hazardous materials in relation to the BECCS units. Chapter 17 of the ES details that the Applicant confirmed to HSE that an application for HSC will be submitted, if required.  Nevertheless, embedded mitigation for the Proposed Scheme will be set out in a CEMP, which will be submitted to SDC for approval prior to construction works commencing. The approved CEMP would be implemented during the construction phase and would detail measures for the prevention of impacts to human health and the environment from contamination and the control of hazardous substances. A requirement in Schedule 2 of the Draft DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10) secures the preparation and implementation of a CEMP, to be submitted to and approved by SDC, prior to the commencement of development.
		Summary  The Applicant considers that the Proposed Scheme accords with Part 4.12 of EN-1 with regard to hazardous substances, as the Applicant has undertaken the relevant pre-application consultation required by EN-1 and taken all relevant matters into account to provide appropriate hazardous substance storage and precaution.
		The Applicant therefore considers the Proposed Scheme is in accordance with the relevant policies of Part 4.12 of EN-1.

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Health	Energy production has the potential to impact on the health and well-being ("health") of the population. Access to energy is clearly beneficial to society and to our health as a whole. However, the production, distribution and use of energy may have negative impacts on some people's health.  Paragraph 4.13.2 of EN-1 states:  As described in the relevant sections of this NPS and in the technology specific NPSs, where the proposed project has an effect on human beings, the ES should assess these effects for each element of the project, identifying any adverse health impacts, and identifying measures to avoid, reduce or compensate for these impacts as appropriate. The impacts of more than one development may affect people simultaneously, so the applicant and the SoS should consider the cumulative impact on health.	Paragraph 4.13.1 of EN-1 states that "Energy production has the potential to impact on the health and well-
(Part 4.13 of EN-1)		being ("health") of the population."  Paragraph 4.13.2 goes on to state that proposals which have effects on human beings should have said effects assessed by the ES for each element of the project, identifying any adverse health impacts and measures to avoid, reduce or compensate the impacts as appropriate.
		Paragraph 4.13.2 also states that cumulative impacts of health should be considered, as the impacts of more than one development could affect people simultaneously.
		Paragraph 4.13.4 states:
		"The direct impacts on health may include increased traffic, air or water pollution, dust, odour, hazardous waste and substances, noise, exposure to radiation, and increases in pests."
		The health of construction workers, operational workers, local residents and users of adjacent land has been considered and appropriately assessed on a topic-by-topic basis within the ES chapters as
	New energy infrastructure may also affect the composition, size and proximity of the local population, and in doing so have indirect health impacts, for example if it in some way affects access to key public services, transport or the use of open space for recreation and physical activity.	appropriate (in particular Chapters 6 (Air Quality) (APP-042), 7 (Noise and Vibration) (APP-043), 11 (Ground Conditions) (APP-047), 16 (Population, Health and Socio-Economics) (APP-052) and 18 (Cumulative Effects) (REP4-035)).
		Chapter 6 (Air Quality) of the ES (APP-042) as updated by Air Quality Technical Note 2 (REP2-065) and Air Quality Technical Note 3 (REP8-030) confirms that the construction phase and decommissioning of the Proposed Scheme will have no significant effect on local air quality subject to the implementation of mitigation measures detailed in Appendix 6.2 (Construction and Decommissioning Dust Assessment) of the ES (APP-126). These mitigation measures would be included in the CEMP, which is secured by a requirement in Schedule 2 of the Draft DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10). The assessment also confirms that the operational phase of the Proposed Scheme will have no significant effect on local air quality with respect to human health, neither in isolation nor cumulatively.
		Section 16 of the Applicant's Relevant Representations Response Document (PDA-002) and Table 5.1 of its Response to Issues raised at Deadline 1 (REP2-067) goes on to explain how the Applicant has considered the health impacts of the use of amines and that no significant effects are expected to arise from their use.
		With regard to noise, Chapter 7 (Noise and Vibration) of the ES (APP-043) assesses that no significant environmental effects for noise or vibrations have been identified for the Proposed Scheme on nearby sensitive receptors with regard to construction, operational and decommissioning works or traffic. Any noise arising from the construction phase would be temporary, and suitably mitigated through the CEMP which is secured by a requirement in Schedule 2 of the Draft DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10). As a result, no design, mitigation or enhancement measures are proposed.
		Chapter 11 (Ground Conditions) of the ES (APP-047) sets out the mitigation measures which are secured through the CEMP, which will be implemented to mitigate risks to human health. This includes specific measures such as appropriate stockpile segregation, locations and containment measures and requirements for construction workers to wear PPE, amongst others.

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		Cumulative Impact
		Construction phase and decommissioning
		Chapter 18 (Cumulative Effects) of the ES (REP4-035) assesses the intra-project effects of the Proposed Scheme, and inter-project effects of the Proposed Scheme in combination with other projects which are identified within Appendix 18.2 (Short List of Other Developments) of the ES (REP4-004).
		Chapter 18 (Cumulative Effects) of the ES (REP4-035) confirms the Proposed Scheme, in combination with other projects, has the potential for temporary, moderate adverse (significant) effects during the construction phase due to construction noise combined with changes in landscape and air quality impacts. Ultimately, these impacts are temporary, and Chapter 18 considers that the implementation of mitigation measures in the CEMP and visual screening will reduce the effects.
		In terms of intra-project effects, Chapter 18 of the ES confirms that the Proposed Scheme has the potential for temporary, moderate adverse (significant) effects on health during the construction phase and decommissioning. The identified impact is a potential result of construction noise combined with changes in landscape and visual amenity, and air quality impacts. Ultimately, these impacts are temporary, and Chapter 18 assesses that the implementation of mitigation measures in the CEMP, and visual screening, will reduce the effects.
		The assessment of inter-project combined effects has identified the potential for moderate adverse effects arising in-combination with other short-listed developments (ID3, 6, 8, 10, 75,102, 103 and 104). The effects relevant to Health policy are in relation to Landscape and Visual Amenity up to the District level. These adverse residual effects occur during construction and are temporary and are no greater than for the Proposed Scheme on its own. No additional mitigation measures are therefore proposed.
		In addition, the assessment of inter-project combined effects has identified moderate adverse (significant) effects on nearby sensitive noise receptors during construction in relation to development ID7, 75, 99 and 100. Construction noise assessments have not been provided for these developments and a worst case has therefore been assumed. When assessed cumulatively with the Proposed Scheme (which has not significant noise effects during construction) it is considered that there could be a moderate adverse (significant) residual cumulative effect. It is however reasonable to assume that the developers for these projects and the LPA (via planning conditions) will ensure that mitigation is implemented to reduce construction noise levels to a level that does not generate a significant adverse effect, in which case the magnitude of the effect would reduce.
		The assessment of inter-project combined effects also identified beneficial moderate significant socio- economic effects relating to direct and indirect job creation. This is the same level of effect (moderate beneficial) as the Proposed Scheme on its own. For these reasons they do not require mitigation.
		Chapter 16 (Population, Health and Socio-economics) of the ES (APP-052) concludes that there may also be a temporary slight adverse cumulative effect on increased demand for accommodation and community facilities, and access to development land and businesses during the construction phase between the relevant other developments and the Proposed Scheme. However, this would not be significant.
		As such, combined with the benefits of local employment opportunities in the area generated by the Proposed Scheme, which are set out in detail within Chapter 16 of the ES (APP-052) and below within this Table, the overall combined effect for the Proposed Scheme on health for the construction phase would be

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		positive, and the slight, temporary adverse effects identified for the construction phase of the Proposed Scheme are considered by the Applicant to be outweighed by the positive cumulative impacts of sustainable job generation.
		Information on sustainable job generation is set out in further detail further below in this Table and Chapter 16 of the ES.
		Summary
		The above assessment demonstrates that the Applicant has taken all applicable matters into account to provide appropriate mitigation for potential impacts to human health and wellbeing, as set out in the relevant chapters of the ES noted above. Cumulative impacts have also been considered, in accordance with paragraph 4.13.2.
		The Proposed Scheme is therefore considered by the Applicant to accord with the relevant policies of Part 4.13 of EN-1.
Common Law Nuisance and Statutory Nuisance (Part 4.14 of EN-1)	Paragraph 4.14.2 states:  It is very important that, at the application stage of an energy NSIP, possible sources of nuisance under section 79(1) of the 1990 Act and how they may be mitigated or limited are considered by the SoS so that appropriate requirements can be included in any subsequent order granting development consent. (See	In line with APFP Regulation 5(2)(f), paragraph 4.14.2 of EN-1 states that it is very important that, at the application stage of an energy NSIP, possible sources of nuisance under section 79(1) of the Environmental Protection Act 1990 ('EPA'), and how they may be mitigated or limited, are considered by the SoS so that appropriate requirements can be included in any subsequent order granting development consent.
	Section 5.6 on Dust, odour, artificial light etc. and Section 5.11 on Noise and vibration.)	The Applicant has prepared and submitted a Statutory Nuisance Statement (APP-034) in order to satisfy the requirements of APFP Regulation 5(2)(f) and paragraph 4.14.2 of EN-1. This Statement considers whether the Proposed Scheme could cause a statutory nuisance.
		The only matter addressed by the ES which has been assessed as likely to be significant for the Proposed Scheme and which may have a bearing on the EPA is visual amenity. However, it is demonstrated in Section 3 of the Statutory Nuisance Statement (APP-034) that the Proposed Scheme would have no significant visual amenity effects that would constitute 'nuisance' effects following the implementation of the identified secondary mitigation measures.
		Other potential nuisance aspects have been considered in Section 4 of the Statutory Nuisance Statement and through embedded mitigation no statutory nuisance effects are considered likely to occur.
		As noted above, the operation of the Proposed Scheme would be regulated by the EA through a variation to the existing Environmental Permit.
		Summary
		Based on the reasons set out above, the Applicant considers that the Proposed Scheme is in accordance with Part 4.14 of EN-1, as the Applicant has taken all applicable matters into account to limit nuisance and provide appropriate mitigation where necessary. The Applicant therefore considers the Proposed Scheme to be in accordance with the relevant policies of Part 4.14 of EN-1.
Security Considerations (Part 4.15 of EN-1)	Paragraph 4.15.1 of EN-1 states:  National security considerations apply across all national infrastructure sectors.  Overall responsibility for security of the energy sector lies with DECC. It works closely with Government security agencies including the Centre for the Protection of National Infrastructure (CPNI) to reduce the vulnerability of the	Paragraph 4.15.1 of EN-1 explains that national security considerations apply across all national infrastructure sectors. Overall responsibility for security of the energy sector lies with BEIS. Paragraph 4.15.2 of EN-1 notes that Government policy is to ensure that, where possible, proportionate protective security measures are designed into new infrastructure at an early stage in the project development. Where

	Policy	Policy Text	Compliance with NPS
			applications for development consent for infrastructure relate to potentially critical infrastructure, there may be national security considerations.
		regulator for the UK's civil nuclear industry.	Paragraph 4.15.4 states:
		Paragraph 4.15.2 of EN-1 states:  Government policy is to ensure that, where possible, proportionate protective security measures are designed into new infrastructure projects at an early stage in the project development. Where applications for development consent for	"The applicant should only include sufficient information in the application as is necessary to enable the [Secretary of State] to examine the development consent issues and make a properly informed decision on the application."
		infrastructure covered by this NPS relate to potentially 'critical' infrastructure, there may be national security considerations.  Paragraph 4.15.4 of EN-1 states:	The Proposed Scheme would largely be located within the Drax Power Station Site, which is already subject to security management such as gate house control at the entrance to Drax Power Station, access control to buildings, remote monitoring (CCTV) and manned monitoring (patrolling and visibility.
		The applicant should only include sufficient information in the application as is necessary to enable the SoS to examine the development consent issues and make a properly informed decision on the application.	The Design Framework (APP-195) sets out other security measures which will be implemented at the Drax Power Station Site, including lighting. A Draft Lighting Strategy (REP6-019APP-184) is submitted with the DCO application and has been prepared to provide a framework for the final lighting design for the Proposed Scheme for the operational phases. The production of the final Lighting Strategy to be approved by the Local Authority is secured by a requirement in Schedule 2 of the DCO (AS-109, Rev08 being submitted at Deadlin'e 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10).
			Summary
			The above assessment demonstrates that sufficient information regarding security is provided at this stage, and that detailed measures are secured through requirements within Schedule 2 of the DCO.
			The Applicant therefore considers that the Proposed Scheme is in accordance with the relevant policies of Part 4.15 of EN-1.
	Air Quality and	Paragraphs 5.2.6 and 5.2.7 of EN-1 state:	<u>Air Quality</u>
	Emissions	Where the project is likely to have adverse effects on air quality the applicant	Introduction
	(Part 5.2 of EN-1 and Part 2.5.37- 2.5.45 of EN-3)	should undertake an assessment of the impacts of the proposed project as part of the Environmental Statement (ES). The ES should describe:	In accordance with paragraphs 5.2.6 and 5.2.7 of EN-1, Chapter 6 (Air Quality) of the ES (APP-042) as updated by Air Quality Technical Note 2 (REP2-065) and Air Quality Technical Note 3 (REP8-030) reports the outcome of the assessment of likely significant environmental effects arising from the Proposed Scheme on air quality. It includes identification of potential impacts on air quality as a result of the Proposed Scheme, details the design, mitigation and enhancement measures that have been identified, reports the assessment of the significant effects of the Proposed Scheme and details the monitoring that should be carried out for
		<ul> <li>The predicted absolute emission levels of the proposed project, after mitigation methods have been applied;</li> </ul>	the Proposed Scheme. It also sets out the air quality baseline and relative changes in concentrations as a result of the Proposed Scheme, as well as the absolute emission levels of the Proposed Scheme with primary
		<ul> <li>Existing air quality levels and the relative change in air quality from existing levels; and</li> </ul>	mitigation in place.  In accordance with paragraphs 5.2.6 and 5.2.7 of EN-1, the ES describes any significant air emissions, their
		<ul> <li>Any potential eutrophication impacts.</li> <li>Paragraph 5.2.9 of EN-1 states:</li> </ul>	mitigation and any residual effects and distinguishes between the Proposed Scheme Stages (construction, operational and decommissioning), and takes account of any significant emissions from any road traffic generated by the Proposed Scheme. The ES confirms that emissions from construction traffic are expected
		The SoS should generally give air quality considerations substantial weight where a project would lead to a deterioration in air quality in an area or leads to a new area where air quality breaches any national air quality limits. However, air quality considerations will also be important where substantial changes in air quality levels are expected, even if this does not lead to any breaches of national air quality limits	to have no significant effect on local air quality both within and outside of the Selby AQMA. In addition, operational phase vehicle trips generated by the Proposed Scheme, as derived by the Transport Assessment (see Table 6.5 of APP-042), the maximum generated LDV flows (28 AADT) and HDV flows (20 AADT) on any road link are predicted to be below the respective IAQM / EPUK screening criteria for both within and outside of an AQMA. As such, the change in traffic arising from the construction and operational phases will have no effect on local air quality. The impact of potential emissions from construction and operational road

#### **Policy Text Policy** Paragraph 5.2.10 of EN-1 states: In all cases the SoS must take account of any relevant statutory air quality limits. Where a project is likely to lead to a breach of such limits the developers should work with the relevant authorities to secure appropriate mitigation measures to allow the proposal to proceed. In the event that a project will lead to noncompliance with a statutory limit the SoS should refuse consent. Paragraph 5.2.11 of EN-1 states: The SoS should consider whether mitigation measures are needed both for operational and construction emissions over and above any which may form part of the project application. A construction management plan may help codify mitigation at this stage. The policies at Part 2.5.37-2.5.45 of EN-3 relate to air quality and emissions considerations specific to biomass/ waste combustion plant. Paragraph 2.5.40 of EN-3 states: The applicant's EIA should include an assessment of the air emissions resulting from the proposed infrastructure and demonstrate compliance with the relevant regulations (see Section 5.2 of EN-1). Paragraph 2.5.42 of EN-3 states: The pollutants of concern arising from the combustion of waste and biomass include NOx 14, Sox 15, particulates and CO2. Paragraph 2.5.44 of EN-3 states: ... where a proposed biomass combustion generating station meets the requirements of LCPD and will not exceed the local air quality standards, the SoS should not regard the proposed biomass infrastructure as having adverse impacts on health. Paragraph 2.5.45 of EN-3 states: Abatement technologies should be those set out in the relevant sector guidance notes as produced by the EA. The EA will determine if the technology selected

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traffic has therefore been scoped out of the air quality assessment, as agreed with PINS in the Scoping Opinion dated 26 February 2021 (APP-116), provided that appropriate evidence could be provided, as is presented in the relevant chapters of the ES.

#### **Construction Phase and Decommissioning**

The Proposed Scheme has the potential to affect air quality as a result of uncontrolled emissions of fugitive dust, including PM<sub>10</sub>, generated by construction phase and decommissioning phase activities associated with the Proposed Scheme with the potential to cause dust soiling of properties and / or impact human health at identified sensitive receptor locations within the construction phase assessment study area (REP2-024). If the emissions of dust and particulate matter are transported beyond the Order Limits, the Proposed Scheme could have an adverse impact on local air quality.

Larger dust particles fall out of the atmosphere quickly after initial release, and therefore tend to settle in proximity to the source of emission. Dust, therefore, is unlikely to cause long-term or widespread changes to local air quality. However, its deposition on property and cars can cause 'soiling' and discolouration, which may be perceived as amenity loss or damage caused, thus resulting in nuisance complaints. These impacts are, however, temporary.

The construction phase dust risk assessment therefore focusses on levels of the smaller particles of dust (not exceeding 10 µm in aerodynamic diameter), which are known as particulate matter (PM<sub>10</sub>). These are assessed with respect to human receptors. The dust and PM<sub>10</sub> sources include demolition, earthworks, construction and trackout. The potential dust emission magnitude from each of these sources is classed as 'large' (for a variety of reasons set out in Chapter 6 of the ES (APP-042) as updated by Air Quality Technical Note 2 (REP2-065) and Air Quality Technical Note 3 (REP8-030)).

Works associated with the Flood Compensation Area (FCA) solution also have the potential to generate fugitive dust emissions during the construction phase. However, given that there will be no high sensitivity receptors within 350m of the FCA Order Limits, (as defined by Institute of Air Quality Management guidance), any impact can be suitably addressed through mitigative measures. Whilst some non-road mobile machinery would be required to excavate and move material within the site, emissions from these would be intermittent and short-term and, given the absence of high sensitivity receptors within 350 m of the FCA Order Limits, there would be no change to impacts on local air quality. All excavated material would be reused within the FCA Order Limits and would not need to be transported off site. Whilst some non-road mobile machinery would be required to excavate and move material within the site, emissions from these would be intermittent and short-term, and, given the absence of high sensitivity receptors within 350 m of the FCA Order Limits, there would be no change to impacts on local air quality.

The findings of the dust risk assessment have informed the proposed mitigation measures which are detailed in the REAC (AS-121REP9-019). Mitigation measures include, but are not limited to, a requirement for a CEMP which is secured by Schedule 2 (Requirements) of the DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10). An Outline CTMP at Appendix 5.1 of the ES (REP2-029) and Framework CWTP at Appendix 5.2 of the ES (REP2-030) have been prepared to manage the impacts associated with construction worker traffic HDV movements, and Abnormal Indivisible Loads (AIL). These plans will also be secured by a requirement in Schedule 2 of the DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10).

To summarise the construction phase and decommissioning impact, with the application of the mitigation measures detailed in Appendix 6.2 (Construction and Decommissioning Dust Assessment) of the ES (APP-

equipment selection in its determination process.

for the waste/ biomass combustion generating station is considered Best

Available Technique (BAT) and therefore the SoS does not need to consider

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		126) and included in the REAC for the Proposed Scheme (AS-121REP9-019), construction phase and decommissioning activities will have no significant effect on local air quality.
		When assessed against the relevant policies of EN-1 and EN-3, the Proposed Scheme is considered to be acceptable with regard to air quality effects during the construction phase and decommissioning.
		Operational Phase
		The Proposed Scheme has the potential to affect air quality during the operational phase as a result of the following:
		<ul> <li>Emissions to air from the operation of the Proposed Scheme with the potential to impact human health and / or nitrogen-sensitive and acid-sensitive habitats at identified sensitive receptors within the Operation Phase Assessment Study Area (APP-069); and</li> </ul>
		Cumulative emissions to air from the operation of the Proposed Scheme and from other relevant projects with the potential to impact human health and / or nitrogen-sensitive and acid-sensitive habitats at identified sensitive receptors within the Operation Phase Study Area (cumulative impacts are set out in Chapter 18 (Cumulative Effects) of the ES (REP4-035)).
		Chapter 6 (Air Quality) of the ES (APP-042) as updated by Air Quality Technical Note 2 (REP2-065) and Air Quality Technical Note 3 (REP8-030) concludes that emissions in the With Proposed Scheme scenario will not result in significant air quality effects at human receptors.
		With regard to with internationally and nationally designated habitat sites, when considering the operation of BECCS on units 1 and 2 running at full load and units 3 and 4 running at mid-merit the Air Quality Technical Note 2 assesses that:
		<ul> <li>Emissions of NO<sub>x</sub>, NH<sub>3</sub>, and SO<sub>2</sub> during operation of the in the with Proposed Scheme scenario alone will not result in any significant air quality effects at the assessed ecological receptors;</li> </ul>
		<ul> <li>Contributions to nitrogen deposition associated with emissions in the with Proposed Scheme scenario alone will not result in significant air quality effects at the assessed ecological receptors;</li> </ul>
		Without mitigation, acid deposition rates at assessed sensitive habitats within the Lower Derwent SAC, Thorne Moor SAC and SSSI, and SSSI designations at Breighton Meadows, Derwent Ings, and Barn Hill Meadows are above 1% of the respective critical load with regard to the modelled Process Contribution ('PC') in the with Proposed Scheme scenario. The background levels of acid deposition at the relevant sensitive habitats within these designated sites already exceed their respective critical loads, therefore the associated Proposed Scheme Predicted Environmental Concentration ('PEC') screening criterion will be exceeded. Significant effects relating to acid deposition at the aforementioned designated sites therefore cannot be screened out when considering the impacts of emissions from the Proposed Scheme alone; and
		Acid deposition rates at all other international, national, and local designated sites assessed are below the 1% criterion and, therefore, emissions in the with Proposed Scheme scenario alone will not result in significant air quality effects at those sites.
		To reduce potential impacts relating to acid deposition, mitigation in the form of operational changes to the to the Main Stack emissions parameters were applied, within the tolerance of engineering and operational constraints, to the 'With Proposed Scheme' scenario (the assessment presents concentrations for both the Baseline and With Proposed Scheme and Other Projects scenarios).
		The operational changes include:
	•	

Policy Text	Compliance with NPS
	~ Reduce the annual ELV for SO <sub>2</sub> to 45mg/Nm <sup>3</sup> for the BECCS units, to provide additional operational phase mitigation of acid deposition over sensitive ecological receptors; and
	~ Increase exit temperature of flue gases from the CCS Units from 80°C to 103°C.
	The purpose of the above mitigation measures is to increase buoyancy in the flue gases leaving the Ma Stack, thereby improving dispersion of all pollutants, and to reduce the concentration of SO <sub>2</sub> being emitte thus mitigating the with Proposed Scheme scenario contribution to acid deposition at the identified sensitive habitats.
	The proposed mitigation is demonstrated to reduce the maximum impacts of the Proposed Scheme alone below the 1% significance screening criterion at all assessed designated sites. No significant effects of ecological receptors in respect of air quality are therefore generated by the Proposed Scheme.
	In summary, the operational phase of the proposed scheme is not anticipated to have any likely significal effects on ecological receptors.
	Section 16 of the Applicant's Relevant Representations Response Document (PDA-002) and Table 5.1 of the Applicant's Response to Issues raised at Deadline 1 (REP2-067) goes on to explain how the Applicant has considered the human air quality impacts in relation to the use of amines and that no significant effect are expected to arise from their use.
	Cumulative Effects
	For air quality, the cumulative impact of intra and inter-project effects are reported in Chapter 18 (Cumulative Effects) of the ES (REP4-035), and informed by the following:
	<ul> <li>Chapter 6 (Air Quality) of the ES (APP-042);</li> <li>Air Quality Technical Note 2 (REP2-065);</li> <li>Air Quality Technical Note 3 (REP8-030);</li> </ul>
	Appendix 6.4 (Operation Phase Air Quality Assessment Results Tables: Human Receptors) of the ES (REP2-032);
	<ul> <li>Appendix 6.5 (Operational Phase Air Quality Results Tables: Ecological Receptors) of the ES (<u>REP9-017REP2-034</u>);</li> </ul>
	<ul> <li>Habitat Regulations Assessment (<u>REP9-021REP2-101, Rev03 being submitted at Deadline 6</u>); and</li> <li>Appendix 18.5 (Cumulative Effects Assessment Matrix) of the ES (REP4-002)</li> </ul>
	There are no significant adverse effects on human or ecological health identified as a result of intra-project environmental impacts of the Proposed Scheme.
	The assessment of inter-project combined effects has identified the potential for moderate adverse effects arising in-combination with other short-listed developments (ID 3, 6, 8 and 10). These effects include those on ecological receptors up to the District level. These adverse residual effects occur during construction and are temporary and are no greater than for the Proposed Scheme on its own. No additional mitigation measures are therefore proposed by the Applicant.
	During operation, a minor magnitude effect for Barn Hill Meadows SSSI that is significant at a National scale has been identified as an inter-project impact. Short List ID92 drives a significant proportion of the total cumulative impact (~50%). The Affected Road Network for ID92 includes roads within 200m of this designated site. Whilst there is considered to be a high degree of confidence that per-vehicle tailpipe

emissions will continue to reduce in future years, impacts from traffic arising from ID92 alone may remain

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		near the predicted 1.8% of critical load for a number of years. A significant effect has not been identified by the applicant for ID92, therefore the application for ID92 proposes no mitigation (to date). The application for ID92 is still awaiting decision. It has been assumed that if mitigation measures are implemented by ID92, the Air Quality impacts would reduce, or other measures to ameliorate the air quality effects of ID 92 would be implemented. However it will be the responsibility of the applicant for ID92 and of the LPA to address this.
		GHG Emissions
		Introduction
		Chapter 15 of the ES (APP-051) (and expanded upon further in Appendix 1 to the Applicant's Summary of Oral Submissions at ISH2 (REP-028) reports the outcome of the assessment of likely significant environmental effects arising from the Proposed Scheme on climate, specifically greenhouse gas (GHG) emissions. This accords with both the EN-1 policies set out above, and the EIA Regulations 2017, which state "The EIA must identify, describe and assessthe direct and indirect significant effects of the proposed development onclimate" (Regulation 5(2))." The Applicant has also explained its approach to cumulative assessment in its response to the ExA's WQ1 CC.1.2 (REP2-060) and its response to Climate Emergency Planning and Policy's ('CEPP') Written Representation (REP2-075). The Applicant's response to CEPP's representation is submitted at Deadline 3 (Applicant document reference 8.10.2 Rev 01).
		Construction and Operational Phases
		The impact on climate assessment presented in Chapter 15 identifies that the GHG emissions from the construction phase of the Proposed Scheme are likely to have moderate, significant adverse effects. During operation, however, the Proposed Scheme would result in a reduction in emissions from the fifth carbon budget (2028-2032) in comparison to the baseline scenario, due to the sequestration of operational emissions.
		No intra and inter-project adverse cumulative effects are anticipated to arise from the Proposed Scheme as a result of GHG emissions.
		Proposed Scheme Lifecycle
		The lifecycle of the Proposed Scheme has also been considered, and Chapter 15 concludes that the lifecycle emissions for the Proposed Scheme are considered to have a significant beneficial effect as the sequestered emissions during operation occur over a longer timeframe and are greater than the construction phase adverse emissions, resulting in a net reduction in emissions in comparison to the baseline scenario.
		Mitigation
		Nevertheless, mitigation in the form of detailed design optimisation to reflect the carbon reduction hierarchy outlined in PAS 2080 (BSI, 2016) are included, thus secured, in the REAC ( <u>REP9-019AS_092</u> ), and are also secured via the detailed design requirement in Schedule 2 of the DCO ( <u>AS-109, Rev08 being submitted at Deadline 6REP9-005</u> ; to be superseded by Rev 12 being submitted at Deadline 10).
		Other mitigative measures will be implemented during the construction phase. These measures are set out in the REAC and will be included within a CEMP which is secured through a requirement in Schedule 2 of the DCO. The CEMP will include a variety of measures, such as the use of efficient construction processes aligning with the carbon hierarchy outlined in PAS 2080 (BSI, 2016), and the implementation of a Site Waste Management Plan ('SWMP') and Materials Management Plan ('MMP').

Policy	Policy Text
Biodiversity and Geological Conservation (Part 5.3 of EN-1)	Paragraph 5.3.3 of EN-1 states:  Where the development is subject to EIA the applicant should ensure that the ES clearly sets out any effects on internationally, nationally and locally designated sites of ecological or geological conservation importance, on protected species and on habitats and other species identified as being of principal importance for the conservation of biodiversity. The applicant should provide environmental information proportionate to the infrastructure where EIA is not required to help the SoS consider thoroughly the potential effects of a proposed project.
	Paragraph 5.3.4 of EN-1 states:  The applicant should show how the project has taken advantage of opportunities to conserve and enhance biodiversity and geological conservation interests.
	Paragraphs 5.3.6 to 5.3.11 of EN-1 state:
	In having regard to the aim of the Government's biodiversity strategy the SoS should take account of the context of the challenge of climate change: failure to address this challenge will result in significant adverse impacts to biodiversity. The policy set out in the following sections recognises the need to protect the most important biodiversity and geological conservation interests. The benefits of nationally significant low carbon energy infrastructure development may include benefits for biodiversity and geological conservation interests and these benefits may outweigh harm to these interests. The SoS may take account of any such net benefit in cases where it can be demonstrated.
	As a general principle, and subject to the specific policies below, development should aim to avoid significant harm to biodiversity and geological conservation interests, including through mitigation and consideration of reasonable

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#### Summary

The assessment of likely significant effect on air quality arising from the Proposed Scheme has been undertaken in line with paragraphs 5.2.6 and 5.2.7 of EN-1, and when assessed against the relevant policies of EN-1 and EN-3. The Applicant considers the Proposed Scheme is acceptable with regard to air quality effects during all phases of development. The Proposed Scheme therefore accords with Part 5.2 of EN-1 and Part 2.5.37-2.5.45 of EN-3policies of EN-1 and EN-3.

Further information on ecological effects can be found below and in Chapter 8 (Ecology) of the ES (APP-044). The findings of the Habitats Regulations Assessment ('HRA') Report (<u>REP9-021APP-185</u>) submitted with the Application and accordance with NPS policy relating to biodiversity impacts are also considered below.

With regard to GHG emissions, Chapter 15 concludes that the proposed mitigation measures will reduce any adverse effects during the construction phase of the Proposed Scheme, however, the impact of the mitigation measures are not quantifiable at this stage, as such, the residual effects of the Proposed Scheme remain unchanged, and therefore are assessed to be moderate, significant adverse in respect of GHG emissions. As aforementioned, during operation, the Proposed Scheme is assessed to have a significant beneficial effect.

#### Introduction

Chapters 8 (Ecology) of the ES (APP-044) and 11 (Ground Conditions) of the ES (APP-047) report the outcome of assessments undertaken of likely significant effects on biodiversity and geodiversity arising from the Proposed Scheme. A HRA report (<u>REP9-021REP2-101, Rev03 being submitted at Deadline 6</u>) has also been prepared to provide information to enable an appropriate assessment under the Conservation of Habitats and Species Regulations 2017 (as amended) (the Habitats Regulations) of the Proposed Scheme.

Chapter 11 (Ground Conditions) of the ES (APP-047) reports the outcome of the assessment of likely significant environmental effects arising from the Proposed Scheme on Ground Conditions. In terms of geological conservation, Chapter 11 concludes that there are no RIGS within the study area presented at Figure 11.1 (Ground Conditions Study Areas and Superficial Geology) of the ES (APP-108). Therefore, there would be no effects associated with geological conservation as a result of the Proposed Scheme. The below assessment therefore focusses on biodiversity conservation impact only.

In terms of primary mitigation, Chapter 3 (Consideration of Alternatives) of the ES (APP-039) demonstrates how alternate layouts were considered to minimise detrimental impacts on, and offer opportunities to, biodiversity. Consequently, refinements were made to the Order Limits, which minimised impact relating to trees and the River Ouse.

#### Construction Phase and Decommissioning

Chapter 8 (Ecology) of the ES (APP-044) and Appendix 4 (Ecology Survey Technical Note) of the PCAR (AS-052) identifies the following likely significant effects for ecology associated with the construction phase and decommissioning of the Proposed Scheme, prior to mitigation:

 Permanent or temporary removal or disturbance of habitats within the Order Limits (i.e. within the Drax Power Station Site and East Construction Laydown Area) and within the Off-Site Habitat Provision Area;

alternatives (as set out in Section 4.4 above); where significant harm cannot be avoided, then appropriate compensation measures should be sought.

In taking decisions, the SoS should ensure that appropriate weight is attached to designated sites of international, national and local importance; protected species; habitats and other species of principal importance for the conservation of biodiversity; and to biodiversity and geological interests within the wider environment.

The most important sites for biodiversity are those identified through international conventions and European Directives. The Habitats Regulations provide statutory protection for these sites but do not provide statutory protection for potential Special Protection Areas (pSPAs) before they have been classified as a Special Protection Area. For the purposes of considering development proposals affecting them, as a matter of policy the Government wishes pSPAs to be considered in the same way as if they had already been classified. Listed Ramsar sites should, also as a matter of policy, receive the same protection.

Many SSSIs are also designated as sites of international importance and will be protected accordingly. Those that are not, or those features of SSSIs not covered by an international designation, should be given a high degree of protection. All National Nature Reserves are notified as SSSIs.

Where a proposed development on land within or outside an SSSI is likely to have an adverse effect on an SSSI (either individually or in combination with other developments), development consent should not normally be granted. Where an adverse effect, after mitigation, on the site's notified special interest features is likely, an exception should only be made where the benefits (including need) of the development at this site, clearly outweigh both the impacts that it is likely to have on the features of the site that make it of special scientific interest and any broader impacts on the national network of SSSIs. The SoS should use requirements and/or planning obligations to mitigate the harmful aspects of the development and, where possible, to ensure the conservation and enhancement of the site's biodiversity or geological interest.

Paragraph 5.3.13 of EN-1 states:

Sites of regional and local biodiversity and geological interest, which include Regionally Important Geological Sites, Local Nature Reserves and Local Sites, have a fundamental role to play in meeting overall national biodiversity targets; contributing to the quality of life and the well-being of the community; and in supporting research and education. The SoS should give due consideration to such regional or local designations. However, given the need for new infrastructure, these designations should not be used in themselves to refuse development consent.

Paragraph 5.3.15 of EN-1 states:

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- Habitat loss and disturbance for roosting, foraging and commuting bats, breeding and wintering birds, reptiles, great crested newts, terrestrial invertebrate, green-winged orchid;
- Potential to lead to infringement of the legislation protecting badgers and their setts (Protection of Badgers Act (1992);
- Potential intermittent disturbance to breeding birds in the wider woodland habitats of the FCA;
- ~ Potential impact pathway affecting the local otter population via water drainage; and
- ~ Potential spread of Himalayan balsam and Cotoneaster sp.

To mitigate and compensate for the potential impacts on ecological receptors, a series of ecological surveys and assessment would be required prior to construction taking place. This would include walkovers to re-confirm the ecological baseline to ensure construction phase mitigation remains appropriate.

Additionally, precautionary working methods, ecological supervision including toolbox talks, sensitive site and vegetation clearance strategies and associated method statements, would be required during the construction phase and would be included in the CEMP for the Proposed Scheme.

These measures to minimise and mitigate the impacts of construction and decommissioning are recorded in greater detail in the REAC (AS-121REP9-019), and are secured via a DCO requirement for land within the Order Limits, and via a S106 agreement for measures relating to land outside of the Order Limits (see <a href="Draft-sealed">Draft-sealed</a> S106 Agreement (REP3-016REP8-025)).

In addition, the Proposed Scheme will achieve 10% biodiversity net gain through the measures set out in the Outline Landscape and Biodiversity Strategy ('OLBS') (REP6-017AS-119) (including the provision of the Habitat Provision Area and Off-Site Habitat Provision Area) and through the delivery of river enhancements through the Bowers Mills Black Brook Habitat and Restoration Project, in collaboration with Calder and Colne Rivers Trust.

As it is located outside of the Order Limits, these latter works are to be secured via a S106 Agreement (REP8-025) and includes works to:

- a. Remove the right bank retaining wall and re-profile the bank to restore floodplain connectivity;
- b. Expand the footprint and improve the quality of existing floodplain wetland habitat;
- c. Divert and improve the field boundary ditch to feed floodplain wetlands; and
- d. Remove a weir to restore sediment flow and habitat connectivity within the river.

Further details of these works are set out in Appendix C to the BNG Report (REP3-010, Rev\_03 being submitted at Deadline 6).

The Applicant has entered into a is in the process of drafting appropriate wording for the S106 agreement with NYC to secure the delivery of the Calder and Colne Rivers Trust's proposed habitat enhancement and restoration measures and their allocation to the Proposed Scheme's BNG requirements. A final BNG Assessment calculation would be completed as part of the finalisation of the detailed design and detailed Landscape and Biodiversity Strategies. Precise timing of this will be agreed between the Applicant and NYC in accordance with subject to the proposed S106 Agreement. This updated calculation will be based on more accurate information for losses and gains of biodiversity units.

With the implementation of mitigation and enhancement measures, the Proposed Scheme is assessed to have the following likely residual significant effects at construction phase and decommissioning:

Development proposals provide many opportunities for building-in beneficial biodiversity or geological features as part of good design. When considering proposals, the SoS should maximise such opportunities in and around developments, using requirements or planning obligations where appropriate.

Paragraph 5.3.17 of EN-1 states:

Other species and habitats have been identified as being of principal importance for the conservation of biodiversity in England and Wales and thereby requiring conservation action. The SoS should ensure that these species and habitats are protected from the adverse effects of development by using requirements or planning obligations. The SoS should refuse consent where harm to the habitats or species and their habitats would result, unless the benefits (including need) of the development outweigh that harm. In this context the SoS should give substantial weight to any such harm to the detriment of biodiversity features of national or regional importance which it considers may result from a proposed development.

Paragraph 5.3.18 of EN-1 states:

The applicant should include appropriate mitigation measures as an integral part of the proposed development. In particular, the applicant should demonstrate that:

- During construction, they will seek to ensure that activities will be confined to the minimum areas required for the works;
- During construction and operation best practice will be followed to ensure that risk of disturbance or damage to species or habitats is minimised, including as a consequence of transport access arrangements;
- Habitats will, where practicable, be restored after construction works have finished; and
- Opportunities will be taken to enhance existing habitats and, where practicable, to create new habitats of value within the site landscaping proposals.

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- A minor adverse effect in the short term on habitats and bats at a Local scale whilst planting matures and establishes during this period, and compensation measures have reached their target condition;
- A minor adverse effect on breeding and wintering birds at a District scale in the short term;
- A minor adverse, significant at a District scale in the short term prior to compensation measures reaching their target condition on terrestrial invertebrates; and
- A minor adverse, significant impact at a County scale in the short term on vascular plants until successful colonisation of the green-winged orchid receptor site.

In terms of mitigation proposed through design, no additional measures over and above the primary mitigation measures outlined in Chapter 2 (Site and Project Description) of the ES (APP-038) would be required.

In respect of other mitigation measures, proposed actions and commitments are set out in the REAC (AS-121REP9-019) and include a requirement (set out in Schedule 2 of the DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10)) for a CEMP with the following measures identified to be included:

- Existing mature vegetation would be avoided and retained wherever possible, as identified on their the following figures of the Outline Landscape and Biodiversity StrategyOLBS (REP6-017AS-119):
  - Figure 1 (Landscape and Biodiversity Mitigation Plan) (APP-181);
  - Figure 2 (Off-site Habitats Provision Area) (APP-182);
  - · Figure 4 (OHL Landscape and Biodiversity Plan) (AS-125); and
  - Outline Landscape and Biodiversity Strategy Volume 2 Figure 1: Landscape and Biodiversity Mitigation Plan (APP-181) and Figure 2: Off-site Habitats Provision Area (APP-182);
- Construction compounds and laydown and demolition areas would be surrounded by hoardings to reduce visual effects due to the presence of construction traffic, plant and equipment, as well as demolition of existing and construction of built form; and
- Upon completion, laydown areas and site compounds would be returned to their original use.

With mitigation accounted for, there will be no significant effects on Statutory Designated Sites of International and National Importance during the construction phase and decommissioning.

Construction noise is not anticipated to have any likely significant effects on ecological receptors. This is detailed further in Chapter 7 (Noise and Vibration) of the ES (APP-043).

#### **Operational Phase**

The likely significant effects for ecology associated with the operational phase are identified as:

Impact on bats as a result of artificial lighting associated with operation of the Proposed Scheme which could deter light-sensitive species of bat from using habitats that are newly illuminated including those habitats that are adjacent to newly illuminated areas.

Relating to the potential impact on bats as a result of external lighting during all phases of the Proposed Scheme, a Draft Lighting Strategy (<u>REP6-019APP-184</u>) has been prepared which explains that impact on bats will be mitigated through a sensitive lighting design. This will be prepared at the detailed design phase for the Proposed Scheme, as secured by a Requirement. This will include a written scheme for the temporary

Policy	Policy Text	Compliance with NPS
		external lighting to be installed for the purposes of construction, , to be approved by the relevant LPA as part of the CEMP (as identified in the REAC and thus secured through requirement 14 of the DCO) and a written scheme for the permanent external lighting to be installed for the purposes of operation to be approved by the LPA, pursuant to DCO requirement 8.
		To mitigate the above-mentioned habitat loss for all relevant ecological receptors, the provision of compensatory habitats is proposed in an Off-Site Habitat Provision Area outside the Order Limits, referred to as Arthur's Wood and Fallow Field, located to the west of the Drax Power Station, and also within the Order Limits at the Habitat Provision Area to the north of the Drax Power Station and an area of farmland to the north of the East Construction Laydown Area. Indicative landscaping and habitat creation and enhancement proposals for these areas are provided in the OLBS (REP6-017AS-119) as displayed on Figures 1 and 2 of the OLBS (APP-181 and APP-182), with a detailed strategy to be brought forward at detailed design stage in accordance with the outline strategy, as secured by a DCO requirement. Please refer to the OLBS for details of the long-term management and maintenance of these new habitat and landscape areas.
		As aforementioned above, based on air quality modelling and information presented in the HRA report (REP9-021REP2-101, Rev03 being submitted at Deadline 6), Chapter 8 (Ecology) of the ES (APP-044) and Chapter 6 (Air Quality) of the ES (APP-042) as updated by Air Quality Technical Note 2 (REP2-065) and informed by the Air Quality Technical Note 3 (REP8-030) and given the minimal magnitude of the predicted impacts, when mitigation is applied, effects on internationally and nationally designated sites are predicted to be negligible and not significant with respect to air quality, and would not lead to any perceptible changes in the condition of locally designated sites.
		Operational Phase
		In regard to the operational phase of development, the Proposed Scheme is assessed to have the following likely residual significant effects with the implementation of mitigation and enhancement measures applied:
		~ A minor, positive effect on habitats at a Local scale in the long term;
		<ul> <li>A minor, positive residual effect significant at a Local scale in the long term for bats and breeding and wintering birds;</li> </ul>
		~ A minor, positive effect at a District scale in the long term for terrestrial invertebrates.
		There will be no significant effects on Statutory Designated Sites of International and National Importance in the operational phase.
		Cumulative Impact
		In respect of cumulative impact, Chapter 18 (Cumulative Effects) of the ES (REP4-035) presents an assessment of intra-project combined effects and inter-project cumulative effects for the Proposed Scheme in relation to ecology.
		At the construction phase and decommissioning, it is concluded that provided each cumulative project applies appropriate mitigation measures via a CEMP (or similar), including other specific mitigation measures, it is predicted that there would be no significant cumulative effects on important ecological features.
		At the operational phase of the Proposed Scheme, for Barn Hill Meadows SSSI, a minor magnitude effect that is significant at a National scale has been identified with the Proposed Scheme and other plans and

Policy	Policy Text	Compliance with NPS
		projects. Short List ID92 drives a significant proportion (~50%) of the total cumulative impact. The Affected Road Network for Short List ID92 includes roads within 200m of this designated site. Whilst there is considered to be a high degree of confidence that per-vehicle tailpipe emissions will continue to reduce in future years, impacts from traffic arising from Short List ID92 alone may remain near the predicted 1.8% of critical load for a number of years.
		A significant effect has not been identified by the applicant for Short List ID92 therefore no mitigation (to date) has been identified in the Short List ID92 application materials. The application for Short List ID92 is still awaiting decision. It has been assumed that if mitigation measures are implemented by Short List ID92, the Air Quality impacts would reduce, or other measures to ameliorate the air quality effects of Short List ID92 would be implemented. However it will be the responsibility of the applicant for Short List ID92 and of the LPA to address this. This site continues to be discussed with Natural England, with the The final position to be set out in the final signed SoCG with that Natural England (REP8-019) submitted at Deadll8 on 13 June 2023 party.
		Habitat loss and operational lighting as part of the Scotland to England Green Link 2 Project (planning reference: 2021/0450/SCP) could disturb and displace important ecological features assessed as part of the Proposed Scheme. The lighting strategy for the Proposed Scheme, which is secured as a requirement in the DCO, and a sensitive lighting design, which will likely be required in accordance with planning policy, as part of 2021/0450/SCP, would ensure disturbance and displacement to important ecological features is minimised.
		The HRA report ( <u>REP9-021REP2-101</u> , Rev03 being submitted at Deadline 6) confirms that with mitigation measures applied, the Proposed Scheme would not have an adverse effect on the integrity of any of the European Sites assessed, either on its own or in-combination with other plans and projects.
		Summary
		In accordance with paragraph 5.3.3 of EN-1, the ES clearly sets out any effects on internationally, nationally and locally designated sites of ecological or geological conservation importance, on protected species and on habitats and other species identified as being of principal importance for the conservation of biodiversity. In accordance with paragraphs 5.3.4 and 5.3.1.8 of EN-1, the ES has also clearly demonstrated how the project has sought to conserve and enhance biodiversity interests (through the consideration of alternatives and the proposed mitigation measures).
		Based on the above assessment and the information presented in Chapter 6 (Air Quality) of the ES (document APP-042) as updated by Air Quality Technical Note 2 (REP2-065) and informed by the Air Quality Technical Note 3 (REP8-030), Chapter 8 (Ecology) of the ES (APP-044), Chapter 18 (Cumulative Effects) of the ES (REP2-023), Chapter 11 (Ground Conditions) of the ES (APP-047) and the HRA (REP9-021REP2-101, Rev03 being submitted at Deadline 6), the Applicant considers the Proposed Scheme to accord with the relevant policies of Part 5.3 of EN-1.
Civil and Military Aviation and Defence Interests (Part 5.4 of EN-1)	Paragraph 5.4.1 of EN-1 states:  Civil and military aerodromes, aviation technical sites, and other types of defence interests (both onshore and offshore) can be affected by new energy development.  Paragraph 5.4.2 of EN-1 states:	No civil and military aviation and defence interests are expected to be affected by the Proposed Scheme, as is not anticipated that the Proposed Scheme will result in scale and massing changes to the Drax Power Station.

Policy	Policy Text	Compliance with NPS
	UK airspace is important for both civilian and military aviation interests. It is essential that the safety of UK aerodromes, aircraft and airspace is not adversely affected by new energy infrastructure.	However, it is possible that lighting or other undetermined factors may affect aviation operations within the region. Therefore, the Consultation Report (APP-018) details that consultation with the following local airfields has been undertaken to seek views on aviation lighting and the potential for navigational hazard:
	Paragraph 5.4.10 of EN-1 states:	~ Leeds Bradford Airport;
	Where the proposed development may have an effect on civil or military aviation and/or other defence assets an assessment of potential effects should be set out in the ES (see Section 4.2).  Paragraph 5.4.11 of EN-1 states:  The applicant should consult the MoD, CAA, NATS and any aerodrome – licensed or otherwise – likely to be affected by the proposed development in preparing an assessment of the proposal on aviation or other defence interests.  Paragraph 5.4.13 of EN-1 states:  If any relevant changes are made to proposals during the pre-application and determination period, it is the responsibility of the applicant to ensure that the relevant aviation and defence consultees are informed as soon as reasonably possible.  Paragraph 5.4.14 of EN-1 states:  The SoS should be satisfied that the effects on civil and military aerodromes, aviation technical sites and other defence assets have been addressed by the applicant and that any necessary assessment of the proposal on aviation or defence interests has been carried out. In particular, it should be satisfied that the proposal has been designed to minimise adverse impacts on the operation and safety of aerodromes and that reasonable mitigation is carried out. It may also be appropriate to expect operators of the aerodrome to consider making reasonable changes to operational procedures. []  Paragraph 5.4.16 of EN-1 states:  There are statutory requirements concerning lighting to tall structures. Where lighting is requested on structures that goes beyond statutory requirements by any of the relevant aviation and defence consultees, the SoS should satisfy itself of the necessity of such lighting taking into account the case put forward by the consultees. The effect of such lighting on the landscape and ecology may be a relevant consideration.	<ul> <li>Sherburn-in-Elmet Airfield;</li> <li>Full Sutton Airfield;</li> <li>The Real Aeroplane Company;</li> <li>Burn Gliding Club;</li> <li>Doncaster Sheffield Airport;</li> <li>Humberside Airport; and</li> <li>Sandtoff Airfield.</li> <li>Steps have been taken to consult with parties who may be impacted by the Proposed Scheme, in accordance with paragraph 5.4.11 of EN-1, however, no responses were received from the airports and airfields.</li> <li>Also, in line with paragraph 5.4.11 of EN-1, statutory consultation was undertaken with NATS, MoD and CAA.</li> <li>The Defence Infrastructure Organisation ('DIO'), on behalf of MoD, confirm in their consultation response presented in the Scoping Opinion in Appendix 1.2 of the ES (APP-116) that MoD has no safeguarding objections relating to the Proposed Scheme. Further, CAA also raise no objections to the Proposed Scheme, nor do NATS. No changes relevant to aviation and defence consultees have been made during preapplication further to the initial statutory consultation undertaken with these parties</li> <li>As no civil and military aviation and defence interests are expected to be affected, it is considered that the Proposed Scheme fully accords with the policy requirements set out in section 5.4 of EN-1.</li> </ul>
Flood Biols	Develope F 7.4 of EN 4 states	Intro direction
Flood Risk	Paragraph 5.7.4 of EN-1 states:	Introduction  Chapter 12 (Mater Environment) of the ES (ADD 040) and its associated appendices associated appendices associated.
(Part 5.7 of EN-1)	Applications for energy projects of 1 hectare or greater in Flood Zone 1 in England or Zone A in Wales and all proposals for energy projects located in Flood Zones 2 and 3 in England or Zones B and C in Wales should be accompanied by a flood risk assessment (FRA). An FRA will also be required	flood risk, as well as water quality, groundwater, Water Framework Directive compliance and drainage.

#### **Policy Text Policy** where an energy project less than 1 hectare may be subject to sources of flooding other than rivers and the sea (for example surface water), or where the EA, Internal Drainage Board or other body have indicated that there may be drainage problems. This should identify and assess the risks of all forms of flooding to and from the project and demonstrate how these flood risks will be managed, taking climate change into account. Paragraph 5.7.5 of EN-1 states: The minimum requirements for FRAs are that they should: Be proportionate to the risk and appropriate to the scale, nature and location of the project; ~ Consider the risk of flooding arising from the project in addition to the risk of flooding to the project; ~ Take the impacts of climate change into account, clearly stating the development lifetime over which the assessment has been made: ~ Be undertaken by competent people, as early as possible in the process of preparing the proposal; Consider both the potential adverse and beneficial effects of flood risk management infrastructure, including raised defences, flow channels, flood storage areas and other artificial features, together with the consequences of their failure: Consider the vulnerability of those using the site, including arrangements for safe access:

## and sewers.

- Consider and quantify the different types of flooding (whether from natural and human sources and including joint and cumulative effects) and identify flood risk reduction measures, so that assessments are fit for the purpose of the decisions being made;
- Consider the effects of a range of flooding events including extreme events on people, property, the natural and historic environment and river and coastal processes;
- ~ Include the assessment of the remaining (known as 'residual') risk after risk reduction measures have been taken into account and demonstrate that this is acceptable for the particular project;
- Consider how the ability of water to soak into the ground may change with development, along with how the proposed layout of the project may affect drainage systems;
- Consider if there is a need to be safe and remain operational during a worst case flood event over the development's lifetime; and
- Be supported by appropriate data and information, including historical information on previous events.

#### Compliance with NPS

A Flood Risk Assessment ('FRA') has been undertaken and is presented at Appendix 12.1 of the ES (REP2-039 and REP2-041). The FRA has been undertaken in accordance with requirements of paragraph 5.7.5 of EN-1. The preparation of the FRA has involved significant consultation with relevant Statutory Authorities including the EA, NYC and Selby Area IDB in line with paragraphs 5.7.7 to 5.7.10 of EN-1.

The FRA report summarises baseline flood risk information and identifies flood risk to the Proposed Scheme during the construction phase and the lifetime of the design, in addition to assessing potential risk beyond the design life of the Proposed Scheme. It also sets out potential flood risk to other areas caused by the Proposed Scheme. The assessment undertaken informs mitigation measures to be implemented.

The EA's Flood Map for Planning shows that the land within the Order Limits lies partially within Flood Zone 1, and partially in Flood Zone 3 but benefiting from the existing flood defences. Flood Zone 1 corresponds to land having a less than 1 in 1000 (0.1%) annual exceedance probability ('AEP') of river or tidal flooding. Flood Zone 3 is defined as a land with a 1 in 100 (1%) or greater chance of flooding each year from rivers; or with a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

Of the land within the Order Limits located in Flood Zone 3, the majority lies in Flood Zone 3a, and a lesser area lies in Flood Zone 3b (considered to be a functional floodplain) and extends to the banks of the River Ouse. The River Ouse is tidally influenced at the location of the Proposed Scheme. The risk of flooding in this area from the River Ouse is therefore a combination of fluvial and tidal flooding. The EA have confirmed that the Proposed Scheme and its surroundings are protected up to the present day 1 in 200 year event by the flood defences located along the banks of the River Ouse. There is however residual risk associated with a breach of the flood defences. A breach of the existing flood defences is unlikely to happen as they are regularly inspected and maintained by the EA.

The Proposed Scheme is assessed to be at low risk of flooding from surface water, ground water, reservoirs

#### **Construction Phase**

During the construction phase, the most likely potential significant flood risk identified is associated with a breach in the existing flood defences, which could impact the northern and southern ends of East Construction Laydown Area. Construction workers, as well as construction material and plant would be vulnerable to this impact. As such, the potential impact is mitigated by the following measures:

- ~ Appointed contractor would sign up to the Environment AgencyEA's flood warning service to receive up to date flood information and warnings;
- No works would be carried out within the northern and southern ends of East Construction Laydown Area when there is a risk of breach of the existing flood defences (a significant flood event);
- No stockpiles, no hazardous materials and / or site cabins, plant and equipment would be placed in the northern and southern ends of East Construction Laydown Area; and
- Method Statement would be provided developed detailing the procedures for securing the Site and plant equipment for a flood event (breach of the defences), in particular with reference to safe working practises, harmful substances and fuels.

These mitigation measures are contained in the REAC and is secured within the CEMP (via a requirement in Schedule 2 to the DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10)).

# **Policy Text Policy** Paragraphs 5.7.7 to 5.7.10 of EN-1 state:

Applicants for projects which may be affected by, or may add to, flood risk should arrange pre-application discussions with the EA, and, where relevant, other bodies such as Internal Drainage Boards, sewerage undertakers, navigation authorities, highways authorities and reservoir owners and operators. Such discussions should identify the likelihood and possible extent and nature of the flood risk, help scope the FRA, and identify the information that will be required by the SoS to reach a decision on the application when it is submitted. The SoS should advise applicants to undertake these steps where they appear necessary but have not yet been addressed.

If the EA has concerns about the proposal on flood risk grounds, the applicant should discuss these concerns with the EA and take all reasonable steps to agree ways in which the proposal might be amended, or additional information provided, which would satisfy the Environment Agency's concerns.

In determining an application for development consent, the SoS should be satisfied that where relevant:

- ~ The application is supported by an appropriate FRA;
- ~ The Sequential Test has been applied as part of site selection;
- ~ A sequential approach has been applied at the site level to minimise risk by directing the most vulnerable uses to areas of lowest flood risk;
- ~ The proposal is in line with any relevant national and local flood risk management strategy;
- Priority has been given to the use of sustainable drainage systems (SuDs) (as required in the next paragraph on National Standards); and
- ~ In flood risk areas the project is appropriately flood resilient and resistant, including safe access and escape routes where required, and that any residual risk can be safely managed over the lifetime of the development.

For construction work which has drainage implications, approval for the project's drainage system will form part of the development consent issued by the SoS The SoS will therefore need to be satisfied that the proposed drainage system complies with any National Standards published by Ministers under Paragraph 5(1) of Schedule 3 to the Flood and Water Management Act 2010. In addition, the development consent order, or any associated planning obligations, will need to make provision for the adoption and maintenance of any SuDS, including any necessary access rights to property. The SoS should be satisfied that the most appropriate body is being given the responsibility for maintaining any SuDS, taking into account the nature and security of the infrastructure on the proposed site. The responsible body could include, for example, the applicant, the landowner, the relevant local authority, or another body, such as an Internal Drainage Board.

Paragraphs 5.7.12 to 5.7.18 of EN-1 state:

#### Compliance with NPS

#### Operational Phase

Hydraulic modelling of the River Ouse was undertaken to assess the risk of flooding to the Proposed Scheme during its design life (25 years). The methodology was agreed with the EA prior to being undertaken. The Hydraulic modelling is presented at Appendix K of the FRA (REP2-039). During the design flood event (FT2) scenario, breach flooding is predicted to impact land within the Order Limits and the proposed infrastructure, including the Electrical Switch Room Building, the eastern unit of Solvent Regeneration System, the Carbon Dioxide Processing and Compression Plant, the Carbon Capture Wastewater Treatment Plant, the Solvent Storage and Make-up System and the Carbon Dioxide Delivery Terminal Compound.

Consequently, the risk of flooding to the operational phase of the Proposed Scheme is mitigated through design. The sensitive infrastructure will be set and retained at 800mm above the design flood levels and this is secured by the DCO Requirement requiring the Proposed Scheme to be carried out in accordance with the FRA. This provides sufficient mitigation for the sensitivity scenario and the breach event and is necessary as the Proposed Scheme is 'Essential Infrastructure' and must therefore remain open should a flood event occur, in accordance with paragraph 5.7.24 of EN-1.

A sensitivity assessment was also undertaken to assess the impacts of increases in climate change beyond that required under standard Environment AgencyEA guidance or an extension to the design life of the Proposed Scheme. Should the design life be extended beyond the 25 year period, it has been agreed with the Environment AgencyEA that the Applicant would manage the risk by ensuring the Operational Management Plan / Emergency Operational Management Plan for the site is implemented in a timely manner to ensure a safe shut down and evacuation of the areas of the Proposed Scheme that would be at risk of flooding.

In any event, a shutdown of the Proposed Scheme would be required, in this scenario, given that it is an extension to the Existing Power Station, parts of which would be at risk of flooding during these events, thus preventing the operation of the Proposed Scheme.

If, after 20 years of the Proposed Scheme's operating life, it is considered likely that the Proposed Scheme would continue to operate post its currently anticipated 25 year design life, then the Applicant will initiate discussions should commence with the Environment AgencyEA to provide appropriate time for the Environment AgencyEA to agree any design interventions are required, and approve details of those interventions if they are required, such detail to-include an implementation and retention timetable, to facilitate the on-going operation of the Proposed Scheme along with the Existing Power Station. If any design interventions are required, they must be implemented and retained in accordance with the approved details. This is set out in the Flood Risk Assessment, compliance which is secured by DCO Requirement in Schedule 2 of the Draft DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10).

With regard to risk to human health, the FRA confirms that the Drax Power Station has sufficient management plans in place to safely operate or shut down and evacuate Drax Power Station should this be required, which is considered sufficient.

An increased built footprint at the Drax Power Station Site as a result of the Proposed Scheme will result in a minor loss of floodplain. An overall floodplain storage volume of 880sqm will be displaced by the Proposed Scheme and ensure this loss have no significant adverse impact in terms of flood risk, it will be mitigated through the creation of the FCA to create additional floodplain. It has been agreed with the Environment

The SoS should not consent development in Flood Zone 2 in England or Zone B in Wales unless it is satisfied that the sequential test requirements have been met. It should not consent development in Flood Zone 3 or Zone C unless it is satisfied that the Sequential and Exception Test requirements have been met. The technology-specific NPSs set out some exceptions to the application of the sequential test. However, when seeking development consent on a site allocated in a development plan through the application of the Sequential Test, informed by a strategic flood risk assessment, applicants need not apply the Sequential Test, but should apply the sequential approach to locating development within the site.

Preference should be given to locating projects in Flood Zone 1 in England or Zone A in Wales. If there is no reasonably available site in Flood Zone 1 or Zone A, then projects can be located in Flood Zone 2 or Zone B. If there is no reasonably available site in Flood Zones 1 or 2 or Zones A & B, then nationally significant energy infrastructure projects can be located in Flood

Zone 3 or Zone C subject to the Exception Test. Consideration of alternative sites should take account of the policy on alternatives set out in Section 4.4 above.

If, following application of the sequential test, it is not possible, consistent with wider sustainability objectives, for the project to be located in zones of lower probability of flooding than Flood Zone 3 or Zone C, the Exception Test can be applied. The test provides a method of managing flood risk while still allowing necessary development to occur.

The Exception Test is only appropriate for use where the sequential test alone cannot deliver an acceptable site, taking into account the need for energy infrastructure to remain operational during floods. It may also be appropriate to use it whereas a result of the alternative site(s) at lower risk of flooding being subject to national designations such as landscape, heritage and nature conservation designations, for example Areas of Outstanding Natural Beauty (AONBs), Sites of Special Scientific Interest (SSSIs) and World Heritage Sites (WHS) it would not be appropriate to require the development to be located on the alternative site(s).

All three elements of the test will have to be passed for development to be consented. For the Exception Test to be passed:

- It must be demonstrated that the project provides wider sustainability benefits to the community that outweigh flood risk;
- The project should be on developable, previously developed land or, if it is not on previously developed land, that there are no reasonable alternative sites on developable previously developed land subject to any exceptions set out in the technology-specific NPSs; and
- A FRA must demonstrate that the project will be safe, without increasing flood risk elsewhere subject to the exception below and, where possible, will reduce flood risk overall.

#### Compliance with NPS

Agency EA (during a meeting on 23 August 2022), that floodplain compensation would be provided on a volume-for-volume basis as the floodplain is relatively flat within the Order Limits.

The FCA will be maintained by Drax Power Ltd throughout the lifetime of the Proposed Scheme to ensure the FCA remains suitable for the proposed use, as set out in the FRA which is secured by DCO Requirement. The delivery of the FCA is therefore secured via a requirement in Schedule 2 of the DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10). The FCA will ensure that the Proposed Scheme will not result in a loss of floodplain and there will be no displacement of flood waters elsewhere, as such no increase in flood risk offsite is expected.

#### Surface Water Runoff

Surface water runoff will remain being collected across Drax Power Station Site, outside of the Proposed Scheme area, by a network of surface water drains. In the Order Limits land subject to Work Nos. 1D and 2 (and 3 if required) shown on the Works Plans (AS-106), a new surface water drainage system will be installed.

The new drains will be directed to a new sump and pump arrangement which, under normal operating conditions, will direct these waters to the existing "northern cooling water reservoir", at which point they will be utilised as cooling water (i.e. not discharged to the River Ouse, as is the current scenario), thus reducing the volume of water which needs to be abstracted from the River Ouse (which currently occurs under an abstraction licence). This is a far more sustainable solution. It is currently envisaged that the runoff from the other parts of Drax Power Station Site will be connected to the existing cooling water system, subject to detailed design which is secured through a Requirement in the Draft DCO.

Appendix 12.3 (Existing Drainage Systems and Proposed Surface Water Drainage Strategy) of the ES (REP2-043) assesses that the additional surface water runoff that will be generated as a result in the change in impermeable areas as part of the BECCS scheme will be collected (via new surface water drainage infrastructure), stored and used within the cooling water process, with no increase in discharge off site.

Furthermore, the Proposed Scheme may result in a decrease in surface water runoff from the wider Drax Power Station Site, especially for the more frequent events. This is because it is expected that the change in impermeable areas as part of the Proposed Scheme will be collected via new surface water drainage infrastructure, stored and used within the cooling water process, with no increase in discharge off site, and run-off from other areas of the Drax Power Station will also be connected, where feasible. This is detailed in the surface water drainage strategy which has been produced for the Proposed Scheme in line with paragraph 5.7.18 and is provided in Appendix 12.3 (Existing Drainage Systems and Surface Water Drainage Strategy) of the ES (REP2-043); and is secured pursuant to a DCO Requirement.

#### The Sequential Test

In accordance with paragraphs 5.7.12 to 5.7.18 of EN-1, the requirements of the Sequential and Exception Tests have been met.

The FRA deems the Sequential Test to be passed based on the following:

- The Proposed Scheme is directly connected to existing infrastructure and therefore cannot be located outside of the Drax Power Station. The Sequential Test area has therefore been limited to the Drax Power Station. This approach has been agreed in principle with SDC in May 2021;
- The Proposed Scheme cannot feasibly be located in lower flood zone areas at the Drax Power Station as the need for the Proposed Scheme is to enhance the existing Drax Power Station; and
- The location of the Proposed Scheme was selected following consideration of functionality, ability to connect to existing infrastructure and availability of space, and cannot, therefore, be relocated. The

#### **Policy Policy Text** Compliance with NPS To satisfactorily manage flood risk, arrangements are required to manage chosen layout and location is detailed further in Chapter 3 (Consideration of Alternatives) of the ES surface water and the impact of the natural water cycle on people and property. (APP-039). Paragraphs 5.7.20 to 5.7.25 of EN-1 state: Based on the above, the Sequential Test is therefore satisfied. Site layout and surface water drainage systems should cope with events that The Exception Test exceed the design capacity of the system, so that excess water can be safely The FRA considers all three parts of the Exception Test can be satisfied, in accordance with paragraph 5.7.17 stored on or conveyed from the site without adverse impacts. of EN-1, for the following reasons: The surface water drainage arrangements for any project should be such that The Proposed Scheme provides wider sustainability benefits to the community that outweigh flood the volumes and peak flow rates of surface water leaving the site are no greater risk as it consists of carbon capture and storage and provides a sustainable approach to the than the rates prior to the proposed project, unless specific off-site arrangements are made and result in the same net effect. production of energy, helping the Government achieve its Net Zero objectives, for which there is a recognised urgent need. The Proposed Scheme will also create employment opportunities and It may be necessary to provide surface water storage and infiltration to limit and habitat creation and enhancement, as the Applicant will deliver 10% BNG as part of the Proposed reduce both the peak rate of discharge from the site and the total volume Scheme through on-site provision and off-site provision secured through S106 Agreements. This is discharged from the site. There may be circumstances where it is appropriate for detailed further in the Needs and Benefits Statement. Such benefits in particular those relating to the infiltration facilities or attenuation storage to be provided outside the project site, decarbonisation of the energy sector outweigh the minimal flood risk to the Proposed Scheme. The if necessary, through the use of a planning obligation. benefits of the Proposed Scheme are detailed further in the Needs and Benefits Statement (APP-The sequential approach should be applied to the layout and design of the 033); project. More vulnerable uses should be located on parts of the site at lower The permanent infrastructure to be constructed within the Drax Power Station Site is developable, probability and residual risk of flooding. Applicants should seek opportunities to use open space for multiple purposes such as amenity, wildlife habitat and flood previously developed land; and storage uses. Opportunities should be taken to lower flood risk by reducing the ~ The supporting FRA demonstrates the following: built footprint of previously developed sites and using SuDS. ■ The Proposed Scheme has been demonstrated to be safe for its lifetime (25 years) through the Essential energy infrastructure which has to be located in flood risk areas should sensitive infrastructure being set and retained 800mm above the design flood levels, enabling the be designed to remain operational when floods occur. In addition, any energy Proposed Scheme to remain operational in the unlikely event of a breach of the flood defences: • The Proposed Scheme accounts for the vulnerability of its users, with appropriate management projects proposed in Flood Zone 3b the Functional Floodplain (where water has plans and procedures already in place, as a result of the existing nature of the Drax Power Station to flow or be stored in times of flood), or Zone C2 in Wales, should only be operations; and permitted if the development will not result in a net loss of floodplain storage, and • The Proposed Scheme, with mitigation measures applied, will not increase flood risk within or will not impede water flows. outside of the Order Limits. The receipt of and response to warnings of floods is an essential element in the Based on the above, the requirements of the Exception Test are considered to be satisfied, in line with management of the residual risk of flooding. Flood Warning and evacuation paragraph 5.7.16 of EN-1. plans should be in place for those areas at an identified risk of flooding. The applicant should take advice from the emergency services when producing an Cumulative Impact evacuation plan for a manned energy project as part of the FRA. Any emergency With regard to cumulative effects, Chapter 18 (Cumulative Assessment) of the ES (REP4-035) does not planning documents, flood warning and evacuation procedures that are required identify any adverse impact on flood risk as a result of intra or inter-project cumulative effects. should be identified in the FRA. Summary Based on the above and the assessments set out in the supporting documents submitted with the DCO Application, it is considered that the Proposed Scheme is in accordance with the relevant policies contained in Part 5.7 of EN-1. The Applicant therefore considers the Prosed Scheme is acceptable with regard to flood risk. Historic Introduction Paragraphs 5.8.8 to 5.8.15 of EN-1 state: **Environment** As part of the ES (see Section 4.2) the applicant should provide a description of In accordance with paragraph 5.8.8 and 5.8.9 of EN-1, Chapter 10 (Heritage) of the ES (APP-046) provides the significance of the heritage assets affected by the proposed development a description and assessment of the significance of heritage assets ('HA') and their settings affected by the

#### Policy

#### **Policy Text**

# (Part 5.8 of EN-1 and 2.5.34 of EN-3)

and the contribution of their setting to that significance. The level of detail should be proportionate to the importance of the heritage assets and no more than is sufficient to understand the potential impact of the proposal on the significance of the heritage asset. As a minimum the applicant should have consulted the relevant Historic Environment Record (or, where the development is in English or Welsh waters, English Heritage or Cadw) and assessed the heritage assets themselves using expertise where necessary according to the proposed development's impact.

Where a development site includes, or the available evidence suggests it has the potential to include, heritage assets with an archaeological interest, the applicant should carry out appropriate desk-based assessment and, where such desk-based research is insufficient to properly assess the interest, a field evaluation. Where proposed development will affect the setting of a heritage asset, representative visualisations may be necessary to explain the impact.

The applicant should ensure that the extent of the impact of the proposed development on the significance of any heritage assets affected can be adequately understood from the application and supporting documents.

In considering applications, the SoS should seek to identify and assess the particular significance of any heritage asset that may be affected by the proposed development, including by development affecting the setting of a heritage asset, taking account of:

- ~ Evidence provided with the application;
- ~ Any designation records;
- ~ The Historic Environment Record, and similar sources of information;
- ~ The heritage assets themselves;
- ~ The outcome of consultations with interested parties; and
- Where appropriate and when the need to understand the significance of the heritage asset demands it, expert advice.

In considering the impact of a proposed development on any heritage assets, the SoS should take into account the particular nature of the significance of the heritage assets and the value that they hold for this and future generations. This understanding should be used to avoid or minimise conflict between conservation of that significance and proposals for development.

The SoS should take into account the desirability of sustaining and, where appropriate, enhancing the significance of heritage assets, the contribution of their settings and the positive contribution they can make to sustainable communities and economic vitality. The SoS should take into account the desirability of new development making a positive contribution to the character and local distinctiveness of the historic environment. The consideration of design should include scale, height, massing, alignment, materials and use. The SoS should have regard to any relevant local authority development plans or local

#### Compliance with NPS

Proposed Scheme. The Chapter then assesses the impacts of the Proposed Scheme on the identified HAs. Consultation has been undertaken with Historic England ('HE'), NYC (formerly NYCC and SDC) which has informed the assessment. Responses from the Applicant and consultees are detailed in Chapter 10. Discussions between the Applicant and HE, NYC and SDC) are detailed within the SoCGs prepared between the Applicant and the aforementioned parties (AS-033 and REP8-017REP5-015).

As agreed with HE and NYC, a 10 km study area around the Order Limits has been applied for the assessment of medium to high value designated HAs only. Therefore, only Grade I and II\* Listed Buildings were considered in the 10 km study area. A smaller 1 km study area around the Order Limits has been assessed for HAs of low value. The study area is defined in Figure 10.1 (Designated Heritage Assets) of the ES (APP-105).

Also agreed with HE and NYC, a 500m study area has been applied for non-designated HAs and to establish the known historic environment context and the potential for previously unknown buried archaeological remains. This was considered acceptable due to the extensive archaeological work previously carried out within the Order Limits, including a geophysical survey and trial trench evaluation.

The only HAs identified and scoped into the assessment are currently unknown buried HAs within the Order Limits and in the Habitat provision Area and the Off-site Habitat Provision Area, whose sensitivity / value is unknown, and Drax Augustinian Priory (1016857) located outside of the Order Limits, (identified to be of high value).

#### Construction Phase and Decommissioning

The likely significant effects on HAs are only identified in association with the construction phase and decommissioning, and are only identified to potentially impact unknown buried HAs. Likely significant effects could arise from groundworks in the ECLA and from any form of landscaping in the Habitat provision Area and the Off-site Habitat Provision Area.

In respect of the Proposed Changes accepted by the ExA, the Proposed Works in the area would require ground-breaking activities, which have the potential to disturb any buried archaeological remains however, the presence of such remains is considered unlikely based on previous archaeological investigations in the area.

The first and second Change Applications works include the undergrounding of overhead lines. It is not anticipated that Open Cut Construction across highways would have significant effect on unknown buried archaeological remains due to previous truncation / removal during the construction of the road. Any Open Cut Construction outside the highway area is considered to be relatively localised and therefore no significant effects on archaeological remains are anticipated.

As the value / sensitivity of the buried HAs is unknown, this has the potential to range from negligible to high, depending on their Archaeological Interest. There is the potential for moderate adverse impacts on unknown buried HAs located within the Habitat Provision Area and East Laydown Area within the undisturbed ground, and outside the areas of previous investigation, within the Order Limits. This would result in potential effects ranging from negligible to moderate (depending on the value of the HA).

impact report on the proposed development in respect of the factors set out in footnote 122.

There should be a presumption in favour of the conservation of designated heritage assets and the more significant the designated heritage asset, the greater the presumption in favour of its conservation should be. Once lost heritage assets cannot be replaced and their loss has a cultural, environmental, economic and social impact. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. Loss affecting any designated heritage asset should require clear and convincing justification. [...]

Any harmful impact on the significance of a designated heritage asset should be weighed against the public benefit of development, recognising that the greater the harm to the significance of the heritage asset the greater the justification will be needed for any loss. Where the application will lead to substantial harm to or total loss of significance of a designated heritage asset the SoS should refuse consent unless it can be demonstrated that the substantial harm to or loss of significance is necessary in order to deliver substantial public benefits that outweigh that loss or harm.

Paragraphs 5.8.17 to 5.8.22 of EN-1 state:

Where loss of significance of any heritage asset is justified on the merits of the new development, the SoS should consider imposing a condition on the consent or requiring the applicant to enter into an obligation that will prevent the loss occurring until it is reasonably certain that the relevant part of the development is to proceed.

When considering applications for development affecting the setting of a designated heritage asset, the SoS should treat favourably applications that preserve those elements of the setting that make a positive contribution to, or better reveal the significance of, the asset. When considering applications that do not do this, the SoS should weigh any negative effects against the wider benefits of the application. The greater the negative impact on the significance of the designated heritage asset, the greater the benefits that will be needed to justify approval.

A documentary record of our past is not as valuable as retaining the heritage asset and therefore the ability to record evidence of the asset should not be a factor in deciding whether consent should be given.

Where the loss of the whole or a material part of a heritage asset's significance is justified, the SoS should require the developer to record and advance understanding of the significance of the heritage asset before it is lost. The extent of the requirement should be proportionate to the nature and level of the asset's significance. Developers should be required to publish this evidence and deposit copies of the reports with the relevant Historic Environment Record. They should also be required to deposit the archive generated in a local museum or other public depository willing to receive it.

#### Compliance with NPS

#### Mitigation

To avoid the above impacts through design, any planting in the Habitat Provision Area (i.e., an area identified as of 'high potential') would avoid the boundary of the Drax Augustinian Priory (NHLE1016857). This is secured pursuant to Requirement 6 of the DCO, by reference to item H1 of the REAC (AS-121REP9-019).

In respect of mitigation, a suitable watching brief will be agreed by the Applicant with the LPA for any major ground disturbance works to ensure no archaeological remains are removed without record. In addition, any archaeological work will be undertaken in consultation with the relevant Archaeological Advisor. These measures will be secured through a Written Scheme of Investigation ('WSI'). The WSI is included in the REAC and is secured by a requirement in the DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10).

An Archaeological Clerk of Works (ACoW) will oversee all heritage aspects for the Proposed Scheme, and their role and responsibilities will be included in the CEMP, which is secured as a requirement in Schedule 2 of the DCO.

Chapter 10 acknowledges that additional targeted site-based archaeological investigation may be required. The scope and form will be agreed with the LPA archaeological officers. Dependant on the results of this investigation, further mitigation may be required. This is secured as part of the aforementioned DCO requirement.

Additionally, it is confirmed that should impacts occur on currently unknown but nationally important Below-Ground HAs related to Drax Augustinian Priory (1016857), preservation in-situ would be explored, where practicable. This would be confirmed through the WSI process.

With mitigation applied, thus and discovered buried HAs being subject to preservation in-situ or preservation by recording and reporting, likely significant effects on HAs would result in effects ranging from negligible to moderate adverse (significant) depending on the value of the asset.

#### **Operational Phase**

There will be no impact on HAs during the operational phase. Any potential impact is identified in the construction phase and decommissioning only.

#### Cumulative Impact

No specific cumulative effects are anticipated for cultural HAs during construction and operation of the Proposed Scheme.

#### Summary

Under paragraph 5.8.15 of EN-1, any harm has to be weighed against the public benefit associated with the Proposed Scheme. In particular, paragraph 2.5.34 of EN-3 states the SoS should take consider the positive role that large-scale renewable projects play in mitigating climate change, delivering energy security and the urgency of meeting the national targets for renewable energy supply and emissions reductions. The public benefits are summarised in Section 6.2 of this Planning Statement and explained in detail within the Needs and Benefits Statement (APP-033). The benefits of the Proposed Scheme are numerous and include:

- Delivering a significant contribution to meeting the UK's net zero by 2050 target;
- ~ Potential to ensure the generation of renewable power to millions of UK homes and businesses;

#### Where appropriate, the SoS should impose requirements on a consent that such work is carried out in a timely manner in accordance with a written scheme of investigation that meets the requirements of this Section and has been agreed in writing with the relevant Local Authority (where the development is in English waters, the Marine Management Organisation and English Heritage, or where it is in Welsh waters, the MMO and Cadw) and that the completion of the exercise is properly secured. Where the SoS considers there to be a high probability that a development site may include as yet undiscovered heritage assets with archaeological interest, the SoS should consider requirements to ensure that appropriate procedures are in place for the identification and treatment of such assets discovered during construction. Paragraph 2.5.34 of EN-3 states: In considering the impact on the historic environment as set out in Section 5.8 of EN-1 and whether it is satisfied that the substantial public benefits would outweigh any loss or harm to the significance of a designated heritage asset, the SoS should take into account the positive role that large-scale renewable projects play in the mitigation of climate change, the delivery of energy security and the urgency of meeting the national targets for renewable energy supply and emissions reductions. Paragraphs 5.9.5 to 5.9.8 of EN-1 state: Landscape and Visual The applicant should carry out a landscape and visual assessment and report it in the ES. (See Section 4.2) A number of guides have been produced to assist (Part 5.9 of EN-1 in addressing landscape issues. The landscape and visual assessment should and Part 2.5.46 include reference to any landscape character assessment and associated 2.5.58 of EN-3) studies as a means of assessing landscape impacts relevant to the proposed project. The applicant's assessment should also take account of any relevant policies based on these assessments in local development documents in England and local development plans in Wales. The applicant's assessment should include the effects during construction of the project and the effects of the completed development and its operation on landscape components and landscape character. The assessment should include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and

#### **Compliance with NPS**

- Delivering a significant contribution to UK industrial decarbonisation.
- Connecting to and acting as an important enabler of the ZHC cluster;
- ~ Helping to deliver Government policies and commitments on CCS;
- Comprising the efficient use of a brownfield site and infrastructure that is already used in relation to energy infrastructure; and
- Job generation (see Chapter 16 (Population, Health and Socio-economics) of the ES (APP-052) for details).

In light of these benefits, the potential adverse effects on unknown buried HAs is considered to be acceptable. Unknown HAs have the potential to range from negligible to high value. Should any HAs be identified, as set out above, Chapter 10 concludes that the Proposed Scheme could have adverse effects ranging from negligible to moderate adverse (significant). Any adverse effect could harm the significance of the HA. However, as the Proposed Scheme will be progressed in line with a WSI (to be secured through a requirement in the DCO), with preservation though record undertaken via a watching brief, in consultation with an Archaeological Adviser and under the responsibility of an ACoW, the Applicant considers that all possible appropriate procedures will be put in place for the suitable identification and treatment of any assets discovered, in line with paragraph 5.8.22 of EN-1. As such, the Applicant seeks to ensure the significance of a discovered HA is not substantially harmed.

Based on the above, the Applicant considers that the Proposed Scheme will result in 'less than substantial harm' on the significance of any HA which may be identified during the construction phase and decommissioning.

When considering the planning balance and weighing the benefits of the Proposed Scheme (set out above) alongside the potential less that significant harm to unknown HAs, the Applicant considers that the benefits of the Proposed Scheme, especially in light of the current climate crisis and UK's need to lower carbon emission and decarbonise the industrial sector, greatly outweigh any harm which may occur.

Overall, the Proposed Scheme is considered to be in accordance with the policies contained within Part 5.8 of EN-1 and are therefore considered acceptable by the Applicant with regard to the effect of the Proposed Scheme on heritage.

#### Introduction

In accordance with paragraphs 5.9.5 to 5.9.7 of EN-1 and 2.5.48 of EN-3, the Applicant has undertaken a landscape and visual impact assessment ('LVIA') at Chapter 9 (Landscape and Visual Amenity) of the ES (APP-045). The assessment considers likely effects during all stages of the Proposed Scheme on the landscape character and visual amenity of sensitive receptors, as well as considering relevant local planning policies, which are also assessed in this Appendix, below.

Paragraphs 5.9.8 and 5.9.18 of EN-1 acknowledge that all proposed nationally significant energy infrastructure is likely to have visual effects for many receptors around proposed sites, therefore, there is no expectation that all proposed energy NSIPs will be completely concealed from views.

In accordance with paragraph 5.8.17 of EN-1, the Proposed Scheme has been designed to protect the landscape and views where possible for the sensitive receptors identified. The design measures implemented are set out in the Design Framework (APP-195) which sets out the iterative design process undertaken and provides a framework for the principles of the detailed design of the proposed Scheme, which are set out in

**Policy** 

**Policy Text** 

#### **Policy Policy Text** potential impacts on views and visual amenity. This should include light pollution effects, including on local amenity, and nature conservation. Landscape effects depend on the existing character of the local landscape, its current quality, how highly it is valued and its capacity to accommodate change. All of these factors need to be considered in judging the impact of a project on landscape. Virtually all nationally significant energy infrastructure projects will have effects on the landscape. Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate. Paragraph 5.9.15 of EN-1 states: The scale of such projects means that they will often be visible within many miles of the site of the proposed infrastructure. The SoS should judge whether any adverse impact on the landscape would be so damaging that it is not offset by the benefits (including need) of the project. Paragraph 5.9.16 of EN-1 states: In reaching a judgment, the SoS should consider whether any adverse impact is temporary, such as during construction, and/or whether any adverse impact on the landscape will be capable of being reversed in a timescale that the SoS considers reasonable. Paragraph 5.9.17 of EN-1 states: The SoS should consider whether the project has been designed carefully, taking account of environmental effects on the landscape and siting, operational and other relevant constraints, to minimise harm to the landscape, including by reasonable mitigation. Paragraph 5.9.18 of EN-1 states: All proposed energy infrastructure is likely to have visual effects for many receptors around proposed sites. The SoS will have to judge whether the visual effects on sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the project. Coastal areas are particularly vulnerable to visual intrusion because of the potential high visibility of development on the foreshore, on the skyline and affecting views along stretches of undeveloped coast. Paragraph 2.5.48 of EN-3 states: The SoS should be satisfied that the design of the proposed generating station is of appropriate quality and minimises adverse effects on the landscape character and quality.

#### Compliance with NPS

the REAC (AS-121REP9-019) and secured through a requirement in the DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10).

The role of the Design Framework and its role in the design process moving forward is also discussed further in the Applicant's responses to WQ1 DLV 1.4.1 to 1.4.6 (REP2-060) and in response to the LIR (REP2-67).

Design measures include, but are not limited to:

- The sensitive location and design of lighting to reduce impacts on habitats and species. This will be finalised in line with the Draft Lighting Strategy (<u>REP6-019APP-184</u>) and is secured by a requirement in the DCO;
- Careful consideration of materiality and colour; and
- Vegetation Enhancement.

#### Construction Phase and Decommissioning

There are no significant effects identified for landscape during construction phase and decommissioning. With regard to visual impact, moderate adverse (significant) effects are anticipated for on the following identified sensitive receptors:

- Residents living in properties with western facing views (Pear Tree Avenue, Wren Hall Lane, Carr Lane and Main Road);
- ~ Residents living in properties with eastern facing views (Camela Lane / Clay Lane);
- Residents in properties with north-east facing views from the settlement of Camblesforth;
- ~ People travelling along PRoW with close proximity eastern facing views; and
- People travelling along PRoW with south western facing views.

Construction impacts on the above identified receptors will be mitigated through both primary and secondary mitigation measures. In terms of primary mitigation, the design of the Proposed Scheme has been carefully considered by the Applicant and will be delivered in accordance with the design principles set out in the Design Framework, which are also included in the REAC. The detailed design requirement in Schedule 2 of the DCO states that the design of the Proposed Scheme must be in accordance with the design principles captured in the REAC. These principles include the consideration of colour palette, which has been selected for the exterior of major buildings / structures has based on a combination of historic design guidance, known colours used within the Drax Power Station Site and observations made during site visits.

Additional measures are set out in the REAC, and will be delivered through a CEMP and DEMP, both to be secured through a requirement in Schedule 2 to the DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10). Mitigation measures include, but are not limited to:

Retaining existing vegetation wherever possible and protection of said vegetation roots (as detailed within the OLBS (REP6-017AS-119) and identified on Figure 3 of the OLBS (APP-183). Existing landscape areas and vegetation that have been identified for retention as detailed within the OLBS (REP6-017) paras 3.3.7, 3.3.8, and OLBS Figure 3 (Existing Retained Vegetation) (APP-183); and;

Paragraph 2.5.48 of EN-3 states:

An assessment of the landscape and visual effects of the proposed infrastructure

should be undertaken in accordance with the policy set out in 5.9 of EN-1.

# **Policy Text Policy** Paragraph 2.5.50 to 2.5.52 of EN-3 state: Good design that contributes positively to the character and quality of the area will go some way to mitigate adverse landscape/visual effects. Development proposals should consider the design of the generating station, including the materials to be used in the context of the local landscape. Mitigation is achieved primarily through aesthetic aspects of site layout and building design including size and external finish and colour of the generating station to minimise intrusive appearance in the landscape as far as engineering requirements permit. The precise architectural treatment will need to be sitespecific. The SoS should expect applicants to seek to landscape waste/biomass combustion generating station sites to visually enclose them at low level as seen from surrounding external viewpoints. This makes the scale of the generating station less apparent, and helps conceal its lower level, smaller scale features. Earth bunds and mounds, tree planting or both may be used for softening the visual intrusion and may also help to attenuate noise from site activities.

#### Compliance with NPS

- No works (including temporary) would be carried out within the canopy of the spread of existing retained trees; and
- Construction compounds and laydown and demolition areas to be screened by hoardings to reduce visual effects resulting from construction traffic, plant and equipment, as well as demolition of existing and construction of built form, and these areas will be returned to their original use following completion of construction of the Proposed Scheme.

The likely significant visual effects identified will be reduces through application of the proposed mitigation measures, however the effects will still remain moderate adverse (significant). All effects will be temporary.

#### **Operational Phase**

There are no likely significant adverse effects identified for landscape and visual impact arising from the Proposed Scheme, in fact, the undergrounding of OHLs that currently cross over the A645 and A614 would result in a negligible beneficial effect, following construction.

Chapter 9 (Landscape and Visual Amenity) of the ES (APP-045) also identifies indirect (not significant) benefits to landscape character and visual amenity arising from the Proposed Scheme through the various landscape enhancements / planting proposed in the ECLA, Habitat Provision Area and Off-site Habitat Provision Area (as detailed in the OLBS (REP6-017AS-119)).

Mitigation measures for the operational phase are secured pursuant to Requirement 6 of the DCO (which by reference to item D1 of the REAC secures the principles and palettes set out in the Design Framework) and Requirement 8 (in respect of lighting).

#### **Cumulative Effects**

The assessment of intra-project combined effects has considered the potential for moderate adverse effects (significant) for Residents living in properties off Pear Tree Avenue, Wren Hall Lane, Carr Lane, Main Road, Camela Lane, Clay Lane, and Camblesforth during the construction phase. These effects are mainly associated with the changes in views and landscape alterations during the construction phase. The effects are expected to be no greater than that above (i.e. moderate adverse (significant), temporary and short term). Cumulative impact is explained in detail in Chapter 18 (Cumulative Effects) of the ES (REP4-035).

No significant intra-project effects have been identified during the operational phase.

In respect of inter-project effects, Chapter 18 moderate adverse effects arising in-combination with other short-listed developments have been identified in relation to landscape and visual amenity during the construction phase. These adverse residual effects occur during construction and are temporary and are no greater than for the Proposed Scheme on its own. No additional mitigation measures are therefore proposed.

No significant adverse effects have been identified during the operational phase.

#### Summary

In summary, following mitigation, there would be some moderate adverse (significant) visual effects during the construction phase and decommissioning of the Proposed Scheme, as set out in Chapter 9, as a result of the Proposed Scheme. Paragraph 5.9.8 of EN-1 states that:

"Virtually all nationally significant energy infrastructure projects will have effects on the landscape. Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to

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Land use including open space, Green infrastructure and Green Belt (Part 5.10 of EN-1 and Part 2.5.36 of EN-3)	Paragraph 5.10.5 of EN-1 states:  The ES (see Section 4.2) should identify existing and proposed land uses near the project, any effects of replacing an existing development or use of the site with the proposed project or preventing a development or use on a neighbouring site from continuing. Applicants should also assess any effects of precluding a new development or use proposed in the development plan.  Paragraph 5.10.6 of EN-1 states:  Applicants will need to consult the local community on their proposals to build on open space, sports or recreational buildings and land. Taking account of the consultations, applicants should consider providing new or additional open space including green infrastructure, sport or recreation facilities, to substitute for any losses as a result of their proposal. Applicants should use any up-to-date local authority assessment or, if there is none, provide an independent assessment to show whether the existing open space, sports and recreational buildings and land is surplus to requirements.  Paragraph 5.10.8 of EN-1 states:  Applicants should seek to minimise impacts on the best and most versatile agricultural land (defined as land in grades 1, 2 and 3a of the Agricultural Land Classification) and preferably use land in areas of poorer quality (grades 3b, 4 and 5) except where this would be inconsistent with other sustainability considerations. Applicants should also identify any effects and seek to minimise impacts on soil quality taking into account any mitigation measures proposed. For developments on previously developed land, applicants should ensure that they have considered the risk posed by land contamination.  Paragraph 5.10.9 of EN-1 states:  Applicants should safeguard any mineral resources on the proposed site as far as possible, taking into account the long-term potential of the land use after any future decommissioning has taken place.  Paragraph 5.10.14 of EN-1 states:	~

#### Compliance with NPS

siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate."

Therefore, it is acknowledged that due to their nature, NSIPs are likely to have a landscape and / or visual mpact, and having regard to paragraph 5.9.15 of EN-1, on balance it is not considered that the predicted adverse impact on visual amenity would be so damaging that it would not be offset by the benefits (including need) of the Proposed Scheme, given that the urgent need to address the impact of climate change and achieve net zero by 2050 in the UK. The Applicant therefore considers that the Proposed Scheme is acceptable in respect of landscape and visual impact, and that it complies with the relevant policies of Part 5.9 of EN-1 and Part 2.5.46 – 2.5.58 of EN-3.

#### Existing and Proposed Land Uses

n accordance with paragraph 5.10.5 of EN-1, the Chapter 2 (Site and Project Description) of the ES (APP-038) details the existing and proposed land uses within and around the Order Limits. Within the Order Limits are the following:

- Drax Power Station Site this area comprises land located within the existing Drax Power Station.
- Construction Laydown Areas these include the following:
  - East Construction Laydown Area, which is predominantly arable fields and hedgerow; and
  - The Drax Power Station Site Construction Laydown Areas, which are several parcels of land within the Drax Power Station Site;
- Habitat Provision Area this area consists of mainly arable fields and hedgerows;
- Floodplain Compensation Area ('FCA') this area comprises land required to mitigate against the minor loss of floodplain due to construction of the Proposed Scheme within the Drax Power Station Site. The FCA comprises primarily species-poor semi-improved grassland with intermittent scattered and dense scrub along the north, west and eastern field boundaries; and
- OHL Areas these areas comprise existing electrical and telecommunications OHL which will be diverted
  to facilitate the delivery of AILs to the Site. These areas are set within an urban setting.

#### Drax Power Station Site

Land within the existing Drax Power Station will remain in industrial use throughout the construction and operational phases of the Proposed Scheme.

#### East Construction Laydown Area

The East Construction Laydown Area will be used as a temporary construction compound and will be used for laydown of plant, equipment and materials, light fabrication, storage of topsoil from the area and as an overflow car park during construction. This area will be reinstated to arable use following completion of the construction period. A Soil Handling Management Plan is secured through the CEMP, and will secure the Applicant's commitment to return the land to the same agricultural capability as before construction. Impact on agricultural land and associated mitigation is set out further in Table B.3 of Appendix B of the Planning Statement (APP-032), which comprises an assessment of the Joint Minerals and Waste Plan Policy D12 (protection of agricultural land and soils). In summary, Chapter 11 (Ground Conditions) of the ES (APP-047) confirms the potential impact to agricultural land from construction activities is limited to the East Construction Laydown Area, which includes 8.5 ha of Grade 2 Best and Most Versatile ('BMV') and Subgrade 3b (non

# **Policy Text Policy** determines that the benefits of the project (including need), outweigh the potential loss of such facilities, taking into account any positive proposals made by the applicant to provide new, improved or compensatory land or facilities. The loss of playing fields should only be allowed where applicants can demonstrate that they will be replaced with facilities of equivalent or better quantity or quality in a suitable location. Paragraph 5.10.15 of EN-1 states: The IPC should ensure that applicants do not site their scheme on the best and most versatile agricultural land without justification. It should give little weight to the loss of poorer quality agricultural land (in grades 3b, 4 and 5), except in areas (such as uplands) where particular agricultural practices may themselves contribute to the quality and character of the environment or the local economy. Paragraph 2.5.36 of EN-3 states: As most renewable energy resources can only be developed where the resource exists and where economically feasible, the SoS should not use a sequential approach in the consideration of renewable energy projects (for example, by giving priority to the re-use of previously developed land for renewable technology developments).

#### Compliance with NPS

BMV) agricultural land. During the construction phase, agricultural soils could be degraded through compaction and erosion.

Mitigation measures will therefore be applied via the CEMP, such as the preparation and implementation of a Soil Handling Management Plan. As stated above, the CEMP is secured via a requirement in Schedule 2 of the DCO. The Soil Handling Management Plan will describe best practice methods to reduce impacts to soil during handling, include details on stripping methods, stockpiling requirements, appropriate management (including weather conditions during handling, seeding of stockpiles, stockpile heights etc) and reinstatement. On completion of construction of the Proposed Scheme, the arable land would be reinstated. The western hedgerow would be reinstated and enhanced to a species-rich hedgerow including a more diverse ground flora. The hedgerow would be managed to ensure it remains at an appropriate width and structural diversity to enable a good condition hedgerow. Additional hedgerow and tree planting would be completed along the eastern boundary of the East Construction Laydown Area, to provide ecological and landscape benefits to the existing vegetation. this is set out in the OLBS (REP6-017AS-119), which is secured by DCO requirement.

With implemented mitigation, Chapter 11 concludes that there is likely to be a direct, temporary, medium to long-term slight adverse effect (not significant) on agricultural land. The Applicant considers the Proposed Scheme therefore accords with paragraph 5.10.8 of EN-1.

In terms of justifying the use of BMV land, the Applicant has considered alternate locations for the East Construction Laydown Areas which is detailed in Chapter 3 (Consideration of Alternatives) of the ES (APP-039). However, no viable alternatives to the proposed Drax Power Station Site Construction Laydown Areas were identified due to a lack of available space on the Drax Power Station Site above and beyond that already proposed in Figure 2.3 (Construction Laydown Plan) (APP-061).

The locations of specific construction laydown plot areas on the Drax Power Station Site were chosen based on their current or due to their close proximity to the BECCS construction area, which reduces construction traffic movements around the site.

The East Construction Laydown Area outside the Drax Power Station Site has the advantage of being in ownership of the Applicant. Although located outside of the Drax Power Station Site, it is still in close proximity to the BECCS construction area, enabling access and transport to and from the site with minimal environmental impacts. The large area provides sufficient space for laydown of plant, equipment and materials, light fabrication, storage of topsoil from the area and as an overflow car park during construction. Through an iterative design process this area has been refined to remove areas which are not required.

Based on the justification provided above, the Applicant considers the Proposed Scheme to be in accordance with paragraph 5.10.15 of EN-1.

#### Habitat Provision Area

The Habitat Provision Area will be used to provide environmental mitigation and compensation as outlined in the OLBS (<u>REP6-017AS-119</u>), including hedgerow planting, pond creation and wetland planting. The land use in this area would therefore change. The latter two means of mitigation and enhancements are proposed as the relevant part of the Habitat Provision Area is seasonally waterlogged.

The Off-Site Habitat Provision Area comprises two areas outside of the Order Limits, referred to as Arthur's Wood (northern section) and Fallow Field (southern section) that have been identified for the provision of ecological mitigation and compensation. These areas are collectively referred to as the Off-Site Habitat

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			Provision Area and displayed within the blue line on Figure 1.3 (Off-Site Habitat Provision Area) of the ES (APP-058). The land uses in these areas will not change, but the land will be enhanced. Proposals for Arthur's Wood include enhancement of the existing woodland through removal of invasive non-native species and coppicing. Fallow Field proposals include allowing scrub to succeed to woodland, enhancing existing scrub and hedgerow to species rich, enhancing grassland to species rich and creating hedgerow. Further details are set out in the OLBS (REP6-017AS-119) and the Draft sealed S106 Agreement (REP3-016REP8-025).
			Floodplain Compensation Area ('FCA')
			The FCA is located on land to the north of the existing Drax Power Station Site and this land is required to mitigate against the minor loss of floodplain due to construction of the Proposed Scheme within the Drax Power Station Site. The land comprises primarily species-poor semi-improved grassland with intermittent scattered and dense scrub along the north, west and eastern field boundaries.
			The works to create the FCA will be temporary in nature and, after the works have been completed and the ground level has been permanently lowered, the ground cover will be reinstated as grassland.
			The OLBS ( <u>REP6-017AS-119</u> ) confirms that the Draft DCO ( <u>AS-109</u> , <u>Rev08 being submitted at Deadline 6REP9-005</u> ; to be superseded by Rev 12 being submitted at Deadline 10) includes a requirement in Schedule 2 that, prior to commencement of construction works for elements of the Proposed Scheme, a detailed Landscape and Biodiversity Strategy must be produced. This must also be submitted to and approved by NYC. This requirement will support delivery of the measures set out in the OLBS, and ensure they are delivered as part of the Proposed Scheme, including the reinstatement of the grassland FCA.
			Overhead Line Areas
			There are two OHL areas located to the south-east of the Existing Drax Power Station Site which are required to carry out works to divert existing OHL in respect of two electrical lines (OHL1 and OHL2) and the telecommunications line (TCL1) which cross the access route to the site at A614 (Rawcliffe Road) and the A645, to allow for the delivery of AILs to the Site. This involves land that is outside of the current Order Limits and is not in the Applicant's ownership. These areas are required for the implementation of Work No. 8 and are set within an urban setting.
			The most western area referred to as OHL1 and TCL1 in the PCAR (AS-052) comprises hard standing and agricultural habitats. Other habitats such as scrub, broadleaved woodland, hedgerow and a standing water ditch are also present. The second area, further to the east and referred to as OHL2 in the PCAR comprises hard standing habitats, improved and ephemeral grassland and a dry ditch.
			OHL2 area comprises ALC Grade 2 (BMV) land which may be impacted by the proposed works. The works are short term and temporary (estimated at 10 days of work per OHL) with the land proposed to remain in agricultural use with no loss of BMV. A Soil Handling Management Plan will be produced (as committed to in the REAC (AS-121REP9-019) and secured as a requirement in the Draft DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10)) which will detail clear guidance on the methods of recovering, storing and reinstating the soils whilst minimising a loss in quality and function during construction.
			Open Cut Construction activities may result in the potential for adverse impacts on soils, however these works along with new access roads and compounds required for construction would be temporary and the area would be reinstated once works are completed in line with the Soil Handling Management Plan.

Policy	Policy Text	Compliance with NPS
		Therefore it is not anticipated that there would be any significant effects on agricultural soils or soil function as a result of the proposed Changes.
		Outside of Order Limits
		Outside of the Order Limits, the land use is predominantly agricultural, with the main recreational use being PRoWs. Chapter 16 (Population, Health and Socio-Economics) of the ES (APP-052) describes existing land uses surrounding the Order Limits include private properties, community facilities, businesses, and agricultural land, none of which would be affected in terms of their use of land as a result of the Proposed Scheme.
		Public Rights of Way
		With regard to land use effects covered by part 5.10 of EN-1, Chapter 5 (Traffic and Transport) of the ES (APP-041) includes an assessment of likely significant effects of the Proposed Scheme on PRoW used for recreational purposes. There are eight PRoW located within or adjacent to the Order Limits, shown on Figure 5.2 (Public Rights of Way Network) of the ES (APP-063) and Access and Rights of Way Plans (AS-107). Non-motorised users of the PRoW and non-designated public routes (including pedestrians, cyclists, equestrians and vulnerable groups) are identified in Chapter 5 as sensitive receptors in respect of the effect of the Proposed Scheme on traffic and transport.
		Construction plant and equipment located in works areas adjacent to the PRoWs may have a temporary impact on the amenity value of the paths. However, the impact will be short term, and mitigation measures set out above, which are contained in the REAC (AS-121REP9-019) and will be included in the CEMP (which is secured by a requirement in the DCO) are considered to mitigate impact sufficiently. Chapter 5 therefore concludes that the Proposed Scheme will have no significant effects on PRoW users.
		PRoW AIRMF03 is located adjacent to the Order Limits for Work No.8. It sits just outside the Order Limits. Any works for the OHL will be fenced off to ensure the safety of all users of PRoW AIRMF03, however, given the proximity of the PRoW to the fencing, and the lack of any delineating features to guide the public along the definitive route of the PRoW, powers for temporary closure of a short section of the PRoW have been included in the DCO, to ensure interference with the fencing is avoided. The Applicant will seek to avoid diverting the footpath if at all possible. The position, and details of the management measures put in place, will be set out in the CTMP which is secured as a requirement in the DCO.
		It is also proposed to temporarily close path 35.6/6/1 which runs through the Off-site Habitat Provision Area for approximately two weeks, however Chapter 5 concludes that this will not have a significant adverse effect, and Chapter 16 (Population, Health and Socio-Economics) of the ES (APP-052) further confirms that there is unlikely to be a significant effect from the Proposed Scheme in relation to community land and assets such as PRoWs, leisure uses or tourism in the local area, and that these elements have therefore been scoped out of the ES. This was agreed within the Scoping Opinion received by PINS presented at Appendix 1.2 of the ES (APP-116).
		The PCAR (AS-45) confirms that a PRoW (AIRMF03) runs east west to the north of the OHL1 and may be affected during the construction phase at the point where PRoW (AIRMF03) crosses the A645. Short duration, temporary closure of PRoW (AIRMF03) may be required during the construction phase at this location thus temporary powers for the closure of the PRoW are included in the DCO. Closure may have a

Policy	Policy Text	Compliance with NPS
		short duration impact on pedestrian delay, pedestrian amenity and fear and intimidation. However, the short length and short duration of diversions are not assessed to result in any significant effects.
		Contamination
		In accordance with paragraph 5.10.8 of EN-1, the Applicant has taken contamination risks into account, given that the majority of the Proposed Scheme is located on previously developed land. Potential contamination risk is assessed in Chapter 11 (Ground Conditions) of the ES (APP-047).
		Mineral Resources
		With regard to paragraph 5.10.9 of EN-1, land in the Order Limits is located within various Minerals Safeguarding Areas and buffer zones to the Safeguarding Areas in the Adopted Joint Minerals and Waste Plan (2022), in addition to a Coalfield Consultation Area. The relevant local planning policies are assessed in the Planning Statement (APP-032).
		However, the built infrastructure to be developed by the Proposed Scheme is located on previously developed land within the Drax Power Station only. Mineral resources are therefore already inaccessible, and the Proposed Scheme will have no impact on this. The Proposed Scheme is therefore considered acceptable by the Applicant in respect of paragraph 5.10.9 of EN-1.
		Open Space
		There is no designated Open Space within the Order Limits.
		Summary
		Overall, the Applicant considers that the Proposed Scheme is acceptable with regard to effects associated with land use including open space, green infrastructure and Green Belt.
		The above assessment of policy compliance demonstrates that the ES identifies existing and proposed land uses near the project, any effects of replacing an existing development or use of the site with the proposed project or preventing a development or use on a neighbouring site from continuing, in line with paragraph 5.10.5 of EN-1. It also confirms that consultation on the Proposed Scheme was undertaken with the local community in accordance with paragraph 5.10.6 of EN-1, and that the Applicant has sought to minimise impact on BMV land, as per paragraph 5.10.8 of EN-1. Any mineral resources will be safeguarded as required by paragraph 5.10.9 of EN-1, and no development will take place on open space land that will involve a loss of that land, as per paragraph 5.10.14 of EN-1.
		The Applicant therefore considers that the Proposed Scheme complies with the relevant policies of Part 5.10 of EN-1.
Noise and	Paragraphs 5.11.4 to 5.11.6 of EN-1 state:	Introduction
Vibrations (Part 5.11 of EN-1)	Where noise impacts are likely to arise from the proposed development, the applicant should include the following in the noise assessment:	Chapter 7 (Noise and Vibration) of the ES (APP-043) reports the outcome of the assessment of lift significant environmental effects arising from the Proposed Scheme on noise and vibration during construction and operational phases of the Proposed Scheme. The assessment of noise and vibration impacts has been undertaken in accordance with the requirements set out in 5.11.4 to 5.11.6 of EN-1 the relevant British Standards.
	<ul> <li>A description of the noise generating aspects of the development proposal leading to noise impacts, including the identification of any distinctive tonal, impulsive or low frequency characteristics of the noise;</li> </ul>	

#### **Policy Text Policy** Identification of noise sensitive premises and noise sensitive areas that may be affected: The characteristics of the existing noise environment; A prediction of how the noise environment will change with the proposed development; In the shorter term such as during the construction period; In the longer term during the operating life of the infrastructure at particular times of the day, evening and night as appropriate; An assessment of the effect of predicted changes in the noise environment on any noise sensitive premises and noise sensitive areas; and Measures to be employed in mitigating noise. The nature and extent of the noise assessment should be proportionate to the likely noise impact. The noise impact of ancillary activities associated with the development, such as increased road and rail traffic movements, or other forms of transportation, should also be considered. Operational noise, with respect to human receptors, should be assessed using the principles of the relevant British Standards and other guidance. Further information on assessment of particular noise sources may be contained in the technology-specific NPSs. In particular, for renewables (EN-3) and electricity networks (EN-5) there is assessment guidance for specific features of those technologies. For the prediction, assessment and management of construction noise, reference should be made to any relevant British Standards and other guidance which also give examples of mitigation strategies. Paragraph 5.11.8 of EN-1 States: The project should demonstrate good design through selection of the quietest cost-effective plant available; containment of noise within buildings wherever possible; optimisation of plant layout to minimise noise emissions; and, where possible, the use of landscaping, bunds or noise barriers to reduce noise transmission. Paragraph 5.11.9 of EN-1 states: The SoS should not grant development consent unless it is satisfied that the proposals will meet the following aims: Avoid significant adverse impacts on health and quality of life from noise; Mitigate and minimise other adverse impacts on health and quality of life from noise; and Where possible, contribute to improvements to health and quality of life

through the effective management and control of noise.

#### Compliance with NPS

The impact of noise and vibration as a result of the Proposed Scheme on sensitive ecological receptors identified have been set out above and are assessed within Chapter 8 (Ecology) of the ES (APP-044). The below assessment therefore focusses on impact on local residents only.

#### Construction Phase and Decommissioning

During the construction phase and decommissioning, the Proposed Scheme is identified to have the potential to affect noise and vibration as a result of the following:

- The likely noise effects arising from the Proposed Scheme construction phase and decommissioning traffic; and
- Likely noise and vibration effects arising from the construction phase and decommissioning activities.

The PCAR (AS-045) identifies that the predicted noise levels due to works associated with OHL1 may exceed the Significant Observed Adverse Effect Level (SOAEL) at the nearest sensitive receptors with a magnitude of impact of moderate adverse for short periods of time. However, the duration of the activities will not be longer than 10 days, with the duration of noisy works anticipated to be less and therefore, the effects are not significant in accordance with paragraph 7.5.60 of Chapter 7 (Noise and Vibration) of the ES (APP-043), which states:

"Construction noise effects may be considered significant where it is determined that a moderate or major magnitude of impact will occur for a duration longer than:

- a. 10 or more days or nights in any 15 consecutive days or nights; or
- b. A total number of days exceeding 40 in any 6 consecutive months".

The ES assessment concludes that the noise and vibration effects throughout the construction phase and decommissioning would not be significant on local residents.

#### Operational Phase

During the operational phase, the Proposed Scheme is identified to have the potential to affect noise and vibration as a result of the following:

- ~ Likely noise effects arising from the Proposed Scheme operational traffic; and
- Likely noise effects arising from the operation of the post combustion carbon capture technology included in the Proposed Scheme.

However, the assessment concludes that the effect would be not significant on local residents. Indeed, Appendix 7.5 (Road Traffic Noise Assessment) of the ES (REP2-036) demonstrates that the overall road traffic noise levels will not change by more than 1dB during construction and operation, which is classified as a negligible impact, therefore a not significant effect.

#### Mitigation

No significant effects have been identified for the Proposed Scheme following the noise and vibrations assessment undertaken.

Notwithstanding this, good design is demonstrated by the Applicant, in accordance with paragraph 5.11.8 of EN-1.

Policy	Policy Text	Compliance with NPS
		Furthermore, Chapter 7 (Noise and Vibration) of the ES (APP-043) sets out the methodology of the assessment undertaken and explains that the assessment considers that in the construction stage Best Practicable Means (BPM) as primary mitigation which will be described and committed through the REAC (AS-121REP9-019), and is secured as a requirement to Schedule 2 of the DCO. For example, these measures include using only plant conforming with, or that is better than, relevant national or international standards and directives, and using site hoardings and screens, where necessary, to provide acoustic screening at the earliest opportunity.
		Operational noise resulting from the Proposed Scheme's post combustion carbon capture technology will comply with the DCO requirement on operational noise. This will be achieved through mitigation defined during detailed design which will ensure that the noise limits set out in Requirement 17 are met.
		Cumulative Impact
		Chapter 18 (Cumulative Effects) of the ES (REP4-035) assesses that the intra-project combined moderate adverse effects (significant) for Residents living in properties off Pear Tree Avenue, Wren Hall Lane, Carr Lane, Main Road, Camela Lane, Clay Lane, and Camblesforth during the construction phase. These effects are mainly associated with the changes in views and landscape alterations and increased noise during the construction phase. The effects identified will be temporary, and no worse than those described in Chapter 7 (Noise and Vibration) of the ES (APP-043).
		No significant intra-project cumulative effects have been identified during the operational phase.
		In respect of inter-project effects, Chapter 18 assesses that there it is considered that there could be a moderate adverse (significant) residual cumulative effect on noise sensitive receptors during construction. However, the Applicant considers that it is reasonable to assume that the developers for these projects and the relevant local planning authority will ensure that mitigation is implemented to reduce construction noise levels to a level that does not generate a significant adverse effect(via planning conditions), in which case the magnitude of the effect would reduce.
		No significant inter-project effects have been identified during the operational phase with regard to noise and vibration.
		Summary
		The Proposed Scheme therefore avoids significant adverse impacts on health and quality of life from noise and would mitigate and minimise other adverse impacts on health and quality of life from noise through the commitments in the REAC. The Proposed Scheme will ensure the effective management and control of noise, which may contribute to improvements to health and quality of life compared to if such measures were not employed.
		The above information contained in Chapter 7 (Noise and Vibration) of the ES (APP-043) and the PCAR (AS-045) demonstrates that the Proposed Scheme has been assessed in accordance with the criteria set out in paragraphs 5.11.4 to 5.11.6 of EN-1, and that the Proposed Scheme meets the aims set out in paragraph 5.11.9 of EN-1 and is therefore acceptable in terms of noise and vibration effects.
Socio-economics	Paragraph 5.12.2 of EN-1 states:	Introduction
(Part 5.12 of EN-1)		Chapter 16 (Population, Health and Socio-economics) of the ES (APP-052) contains an assessment of likely significant environmental effects arising from the Proposed Scheme on population, health and socio-economics in accordance with paragraph 5.12.2 of EN-1. It also details the existing socio-economic

### **Policy Text Policy** Where the project is likely to have socio-economic impacts at local or regional levels, the applicant should undertake and include in their application an assessment of these impacts as part of the ES (see Section 4.2). Paragraph 5.12.3 of EN-1 states: This assessment should consider all relevant socio-economic impacts, which may include: ~ The creation of jobs and training opportunities; ~ The provision of additional local services and improvements to local infrastructure, including the provision of educational and visitor facilities; Effects on tourism; The impact of a changing influx of workers during the different construction, operation and decommissioning phases of the energy infrastructure. This could change the local population dynamics and could alter the demand for services and facilities in the settlements nearest to the construction work (including community facilities and physical infrastructure such as energy, water, transport and waste). There could also be effects on social cohesion depending on how populations and service provision change as a result of the development; and Cumulative effects – if development consent were to be granted to for a

# number of projects within a region and these were developed in a similar timeframe, there could be some short-term negative effects, for example a potential shortage of construction workers to meet the needs of other industries and major projects within the region.

#### Paragraph 5.12.4 of EN-1 states:

Applicants should describe the existing socio-economic conditions in the areas surrounding the proposed development and should also refer to how the development's socio-economic impacts correlate with local planning policies.

#### Paragraph 5.12.6 of EN-1 states:

The SoS should have regard to the potential socio-economic impacts of new energy infrastructure identified by the applicant and from any other sources that the SoS considers to be both relevant and important to its decision.

#### Paragraph 5.12.9 of EN-1 states:

The SoS should consider whether mitigation measures are necessary to mitigate any adverse socio-economic impacts of the development. For example, high quality design can improve the visual and environmental experience for visitors and the local community alike.

#### Compliance with NPS

conditions in the areas surrounding the Order Limits in accordance with paragraph 5.12.4 of EN-1. The assessment has been undertaken in accordance with the requirements of paragraphs 5.12.3 to 5.12.4 of EN-1.

#### **Construction Phase and Decommissioning**

The following sensitive receptors are identified in respect of population, health and socio-economic impact:

- Local economic receptors (i.e., working age individuals within the study area, local businesses who may
  provide services or accommodation, either through supply chain linkages or accommodation to
  construction employees, and development land); and
- Community receptors (i.e., community land and assets).

The assessment undertaken identifies that the likely significant effects of the Proposed Scheme on the identified sensitive receptors are the generation of direct, indirect, and induced employment opportunities. This represents a beneficial economic effect as a result of the Proposed Scheme. No mitigation measures are therefore proposed.

The Proposed Scheme could generate an annual average of 4,000 direct jobs, 1,600 indirect jobs and 2,500 induced jobs (Vivid Economics Limited, 2021). Whilst the employment opportunities are temporary during the construction phase and decommissioning, they will provide local and regional benefits.

Enhancement opportunities have also been identified, which include the Applicant promoting the use of local suppliers and contractors, and through the provision of training opportunities through partnerships with key local stakeholders. A Local Employment Plan is secured as a requirement of the DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10). This Local Employment Plan will be based on the principles of the Outline Local Employment Plan (REP3-022).

Due to the level of deprivation present in some areas, the sensitivity of the receptors identified is considered to be medium. The magnitude of impact is considered to be moderate at local level due to the number of construction jobs generated relative to the size of the SDC and ERYC economy.

Therefore, there is likely to be a direct, temporary, medium-term moderate beneficial (significant) residual effect on the local economy.

In terms of impact on community receptors, the works for TCL1 and OHL2 take place on the perimeter of agricultural land, and the works for OHL1 take place within existing agricultural land used for arable farming. However, given access for arable use is likely to be infrequent (on a monthly basis), no farming activities would be restricted. Furthermore, the existing accesses to properties and land would be maintained or reinstated to their current condition, and the land subject to undergrounding would be restored, so it is not anticipated there would be any significant effects generated by the Proposed Scheme.

For all works, where construction vehicles require access via existing accesses to properties and land, it is proposed that if any damage is caused to existing accesses arising from the works, that appropriate repairs are undertaken to maintain the condition of the access road/track to the same as it was prior to the commencement of works. This is included in the REAC (AS-121REP9-019) to be included in a CEMP that is secured via a requirement in Schedule 2 of the DCO.

Permanent rights within agricultural land for both the OHLs and TCL1 for the purposes of retention, maintenance, repair or replacement would be minimal and represent a similar portion of land to that occupied

Policy	Policy Text	Compliance with NPS
		by existing Poles. It is not anticipated to restrict farming activities within the agricultural land holdings, or give rise to any permanent effects for the farm businesses.
		PRoW AIRMF03 is located adjacent to the Order Limits for the Work No.8. It sits just outside the Order Limits. Any works for the OHL will be fenced off to ensure the safety of all users of PRoW AIRMF03, however, given the proximity of the PRoW to the fencing, and the lack of any delineating features to guide the public along the definitive route of the PRoW, powers for a temporary closure of a short section of the PRoW have been included in the DCO, to ensure interference with the fencing is avoided. The Applicant will seek to avoid diverting the footpath if at all possible. The position, and details of the management measures put in place, will be set out in the CTMP which is secured as a requirement in the DCO.
		The PCAR also identifies that the site boundary for Short List ID44 (see Appendix 18.2 (Short List of Other Developments) (REP4-004)) overlaps with the proposed Order Limits for OHL2. Although Short List ID44 is an employment development, it does not fall within an employment development allocation as per the East Riding of Yorkshire Local Plan (2016). Due to this, and because of the nature of the proposed works to OHLs, it is not anticipated that there will be any significant effects on allocated development land.
		Operational Phase
		There are no significant operational phase effects on socio-economics identified as a result of the Proposed Scheme.
		Cumulative Impact
		A likely beneficial cumulative effect associated with direct, indirect, and induced employment opportunities has been identified for during the construction and operational phases between the relevant other developments and the Proposed Scheme including the adjacent Barlow Ash Mound proposal, the nearby developments of an energy storage facility at Land off New Road and a battery storage facility at Land off Hales Lane, and the larger Scotland to England Green Link 2 Project. There is also potential for a temporary slight adverse cumulative effect resulting from an increased demand for accommodation and community facilities, and access to development land and businesses during the construction phase between the relevant other developments and the Proposed Scheme. This will not be significant.
		A detailed assessment of inter-project cumulative effects for the Proposed Scheme is presented in Chapter 18 (Cumulative Effects) of the ES (REP4-035), as well as Appendix 18.4 (Justification of Scoping In / Out of Stages 3 and 4 of the Assessment) of the ES (REP4-003) and Appendix 18.5 (Cumulative Assessment Matrix) of the ES (REP4-002), as required by paragraph 5.12.6 of EN-1.
		Summary
		The assessment of socio-economic effects of the Proposed Scheme has been undertaken in accordance with the relevant policies of Part 5.12 of EN-1. Overall, the Proposed Scheme will have a positive impact in terms of socio-economics and is therefore considered by the Applicant to be acceptable.
Traffic and	Paragraph 5.13.2 of EN-1 states:	Introduction
Transport (Part 5.13 of EN-1)	The consideration and mitigation of transport impacts is an essential part of Government's wider policy objectives for sustainable development as set out in	A preliminary assessment of the Proposed Scheme identified potential significant transport implications. Therefore, in accordance with paragraph 5.13.3 of EN-1, a transport assessment has been undertaken.
	Section 2.2 of this NPS.  Paragraph 5.13.3 of EN-1 states:	Chapter 5 (Traffic and Transport) of the ES (APP-041) as updated by the Highways Technical Note (REP2-063) reports the outcome of the assessment of likely significant environmental effects arising from the
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If a project is likely to have significant transport implications, the applicant's ES (see Section 4.2) should include a transport assessment, using the NATA/WebTAG methodology stipulated in Department for Transport guidance, or any successor to such methodology. Applicants should consult the Highways Agency and Highways Authorities as appropriate on the assessment and mitigation.

#### Paragraph 5.13.4 of EN-1 states:

Where appropriate, the applicant should prepare a travel plan including demand management measures to mitigate transport impacts. The applicant should also provide details of proposed measures to improve access by public transport, walking and cycling, to reduce the need for parking associated with the proposal and to mitigate transport impacts.

#### Paragraph 5.13.6 of EN-1 states:

A new energy NSIP may give rise to substantial impacts on the surrounding transport infrastructure and the SoS should therefore ensure that the applicant has sought to mitigate these impacts, including during the construction phase of the development. Where the proposed mitigation measures are insufficient to reduce the impact on the transport infrastructure to acceptable levels, the SoS should consider requirements to mitigate adverse impacts on transport networks arising from the development, as set out below. Applicants may also be willing to enter into planning obligations for funding infrastructure and otherwise mitigating adverse impacts.

#### Paragraph 5.13.8 states:

Where mitigation is needed, possible demand management measures must be considered and if feasible and operationally reasonable, required, before considering requirements for the provision of new inland transport infrastructure to deal with remaining transport impacts.

#### Paragraph 5.13.10 of EN-1 states:

Water-borne or rail transport is preferred over road transport at all stages of the project, where cost-effective.

#### Paragraph 5.13.11 of EN-1 states:

The SoS may attach requirements to a consent where there is likely to be substantial HGV traffic that:

- Control numbers of HGV movements to and from the site in a specified period during its construction and possibly on the routing of such movements:
- Make sufficient provision for HGV parking, either on the site or at dedicated facilities elsewhere, to avoid 'overspill' parking on public roads,

#### Compliance with NPS

Proposed Scheme on Traffic and Transport. The assessment has been undertaken in accordance with paragraphs 5.13.3 and 5.13.4 of EN-1.

Identified sensitive receptors are shown at Figure 5.1 (Study Area (Traffic and Transport)) of the ES (APP-062) and include:

- Motorised users of the surrounding highway network within the study area as shown on Figure 5.1 of the ES, including vehicle drivers and public transport users;
- Non-motorised users of the surrounding highway network within the study area as shown on Figure 5.2 (Public Rights of Way Network) of the ES (APP-063), PRoW and non-designated public routes, including pedestrians, cyclists and equestrians (and vulnerable groups); and
- Residents within the settlements of Camblesforth, Drax and Carlton in respect of the links that pass through these villages, change in traffic flows, and assessment of the effects.

To note, in accordance with paragraph 5.13.10 of EN-1, water-borne transport (utilising the River Ouse and the existing Drax Jetty) was considered as a sustainable transport mode for AlLs and other materials in the iterative design process. This was discussed during statutory consultation with the relevant stakeholders. The Applicant used the DfT policy guidance "Water Preferred Policy Guidelines for the movement of abnormal indivisible loads" when preparing their Application.

Chapter 5 considers this guidance and confirms that transport of AIL was discussed during pre-application discussions with National Highways, NYC and ERYC. This is described in further detail in Section 3.6 of Chapter 3 (Consideration of Alternatives) of the ES (APP-039). The outcome of the consultation was Agreement in Principle to transporting AIL by using the 'Road Option' and approval of the proposed strategy was confirmed 20 April 2021. It was agreed that the substantial infrastructure works, and construction required, and the associated impact, including financial considerations of the jetty option, outweighed the benefit. As such, this method of transportation was not progressed.

#### Construction Phase and Decommissioning

Chapter 5 explains that the assessment demonstrates there will be a temporary increase in traffic flows within the study area during the construction phase and decommissioning as a result of the Proposed Scheme. The change in traffic flows is then considered with regard to severance, pedestrian amenity and fear and intimidation. Impact on driver delay, PRoWs, highway safety and AILs is also assessed. Some potential significant effects are identified on the aforementioned considerations; therefore mitigation is proposed through the following measures which accord with paragraph 5.13.4 of EN-1:

- Preparation and implementation of a CTMP to set out management measures to mitigate transport impacts (as mentioned above). This is included in the REAC (AS-121REP9-019) and is secured by a requirement in the DCO. It will be informed by the Outline CTMP presented at Appendix 5.1 of the ES (REP2-029); and
- Preparation and implementation of a CWTP to maintain and manage the method of arrival of construction workers. This is included in the REAC and is secured by a requirement in the DCO. It will be informed by the Framework CWTP presented at Appendix 5.2 of the ES (REP2-030).

The assessment concludes that the temporary construction impacts can be effectively mitigated through enhanced management of the construction traffic, with robust monitoring and reporting measures included in the Outline CTMP and Framework CWTP are secured through a DCO Requirement. This would include

Policy	Policy Text	Compliance with NPS
	prolonged queuing on approach roads and uncontrolled on-street HGV parking in normal operating conditions; and  Ensure satisfactory arrangements for reasonably foreseeable abnormal disruption, in consultation with network providers and the responsible police force.	working with National Highways, NYCC (now NYC), and ERYC. Therefore, with the above mitigation measures applied, all residual effects for the construction phase and decommissioning on traffic and transport as a result of the Proposed Scheme in isolation are predicted to be neutral or slight (not significant).
		Operational Phase
		Chapter 5 (Traffic and Transport) of the ES (APP-041) states that very low traffic flows will result from the operational phase of the Proposed Scheme commencing 2027 and the workforce required to operate the Proposed Scheme will result in an overall net-reduction of circa 180 people in the workforce (compared to the Drax Power Station Site workforce at the time of baseline traffic flow data collection in 2018). Vehicle numbers generated will be significantly lower than the construction phase. Chapter 5 considers the overall effects of the operational phase of the Proposed Scheme to be negligible (not significant).
		No mitigation measures are therefore proposed in respect of the operational phase of the Proposed Scheme.
		Cumulative Impact
		Chapter 5 concludes that there could be significant cumulative effects relating to highway safety and driver delay at Junction 4 (M62 Junction 36) if all other committed developments are built out and the junction is not upgraded. A more realistic assessment of cumulative assessments presented in the Highways Technical Note (REP2-063) illustrates that there would be an overall reduction of traffic at Junction 36 and an improvement future baseline prior to any improvement options. However, the 2026 Do Minimum scenario still indicated some arms would operate over capacity with the 2026 Do Something scenario illustrating that the impact of the Proposed Scheme on the operation of the junction would be negligible.
		As set out in the Applicant's responses to WQ1 (REP2-060), the CTMP and CWTP will be able to be adapted to account for changes in surrounding traffic flows during the construction phase (e.g. if there is an unexpected clash between outage dates and the Proposed Scheme construction).
		Summary
		The above assessment demonstrates the assessment of impact, and proposed mitigation measures for the Proposed Scheme comply with the relevant policies of Part 5.13 of EN-1.
		The Proposed Scheme alone will not result in traffic and transport related significant effects during the construction and operational phases, nor decommissioning, and is therefore considered by the Applicant to be acceptable.
		However, the cumulative impacts of the Proposed Scheme with other projects must be investigated further in partnership with ERYC and National Highways to ensure impact on highway safety and driver delay can be suitably mitigated during the construction phase and decommissioning.
Waste Managemer	t Paragraph 5.14.6 of EN-1 states:	Introduction
(Part 5.14 of EN-1 and Part 2.5.64 - 2.5.83 of EN-3)	The applicant should set out the arrangements that are proposed for managing any waste produced and prepare a Site Waste Management Plan. The arrangements described and Management Plan should include information on the proposed waste recovery and disposal system for all waste generated by the development, and an assessment of the impact of the waste arising from development on the capacity of waste management facilities to deal with other waste arising in the area for at least five years of operation. The applicant	Chapter 13 (Materials and Waste) of the ES (APP-049) reports the outcome of an assessment of likely significant environmental effects arising from the Proposed Scheme on materials and waste. The assessment has been undertaken in accordance with the relevant policies of EN-1 and EN-3, and considers both hazardous and non-hazardous waste. Assessment of the Proposed Scheme against relevant local waste policies (mentioned in paragraph 2.5.69 of EN-3) is set out in Table B.1 of Appendix B of the Planning Statement (APP-032). In line with paragraph 2.5.68 of EN-3, Chapter 13 confirms an

## **Policy Text Policy** should seek to minimise the volume of waste produced and the volume of waste sent for disposal unless it can be demonstrated that this is the best overall environmental outcome. Paragraph 5.14.7 of EN-1 states: The SoS should consider the extent to which the applicant has proposed an effective system for managing hazardous and non-hazardous waste arising from the construction, operation and decommissioning of the proposed development. It should be satisfied that: ~ Any such waste will be properly managed, both on-site and off-site;

- The waste from the proposed facility can be dealt with appropriately by the waste infrastructure which is, or is likely to be, available. Such waste arisings should not have an adverse effect on the capacity of existing waste management facilities to deal with other waste arisings in the area; and
- Adequate steps have been taken to minimise the volume of waste arisings and of the volume of waste arisings sent to disposal, except where that is the best overall environmental outcome.

#### Paragraph 5.14.9 states:

Where the project will be subject to the EP regime, waste management arrangements during operations will be covered by the permit and the considerations set out in Section 4.10 will apply.

Paragraph 2.5.66 to 2.5.69 of EN-3 state:

An assessment of the proposed waste combustion generating station should be undertaken that examines the conformity of the scheme with the waste hierarchy and the effect of the scheme on the relevant waste plan or plans where a proposal is likely to involve more than one local authority.

The application should set out the extent to which the generating station and capacity proposed contributes to the recovery targets set out in relevant strategies and plans, taking into account existing capacity.

It may be appropriate for assessments to refer to the Annual Monitoring Reports published by relevant waste authorities which provide an updated figure of existing waste management capacity and future waste management capacity requirements.

The results of the assessment of the conformity with the waste hierarchy and the effect on relevant waste plans should be presented in a separate document to accompany the application to the SoS.

#### Compliance with NPS

Annual Monitoring Report published by Kirklees Council was a data source used in the preparation of the Chapter (Yorkshire and Humber Aggregates Working Party, 2018).

In accordance with paragraph 2.5.69 of EN-3, the assessment of the Proposed Scheme's conformity with the waste hierarchy and the effect on relevant waste plans is assessed in Table B.3 of Appendix B of the Planning Statement (APP-032).

Chapter 13 explains that embedded mitigation has been applied to the Proposed Scheme upfront through design to avoid and mitigate adverse impacts from material resources consumption, and the generation and disposal of waste. 55,600 tonnes of aggregate imported to site for temporary piling platforms will be retained for reuse as structural fill. In addition, earthworks arisings generated (cut) will be reused during construction (approximately 365,850 tonnes, albeit this may alter subject to the suitability of the resource for reuse once excavated and chemically / geotechnically tested).

The assessment identifies that the Proposed Scheme has the potential to affect materials and waste as a result of consumption of natural and non-renewable resources during the construction phase and decommissioning, and as a result of a reduction in landfill capacity during the constriction, operational and decommissioning phases.

Sensitive receptors in respect of materials and waste are therefore identified as:

- Material resources (i.e., consumption impacts on materials' immediate and long-term availability, and results in depletion of natural resources)'; and
- Landfill void capacity (i.e., reductions in regional and national infrastructure result in unsustainable use and loss of resources, and temporary or permanent degradation of the natural environment).

#### Construction Phase and Decommissioning

Chapter 13 explains that there will be no significant effects as a result of material resource consumption, therefore additional mitigation measures are not required.

Significant effects were, however, identified relating to waste consumption. Mitigation measures are therefore set out in the REAC (AS-121REP9-019) to minimise the effects of waste generation and disposal to a point where they are no longer significant. Mitigation measures include:

- The preparation and implementation of a Site Waste Management Plan ('SWMP') to manage and monitor site waste effectively, with the overall objective to reduce waste and potential harm to the environment during construction; and
- The preparation and implementation of a Materials Management Plan ('MMP') to monitor the maximum reuse of both natural soils and Made Ground (contaminated or otherwise).

The abovementioned management plans are included in the CEMP which is secured as a requirement to the DCO.

#### Operational Phase

There are no significant effects resulting from operational waste, therefore the Applicant considers no mitigation measures are required.

#### **Cumulative Impact**

Policy	Policy Text	Compliance with NPS
		Chapter 13 (Materials and Waste) of the ES (APP-049) explains that there is potential for the Proposed Scheme in conjunction with other projects to result in cumulative environmental impacts and effects with regard to the depletion of natural resources and the generation of waste. These are detailed in Chapter 18 (Cumulative Effects) of the ES (REP4-035) and Appendices 18.3 (Intra-Project Effects Screening Matrix) and 18.4 (Justification of Scoping In / Out of Stages 3 and 4 of the Assessment) of the ES (APP-175 and REP4-003 respectively).
		However, with the implementation of the below measures set out in Chapter 13, the cumulative effects of resource consumption and waste generated from the Proposed Scheme and other proposed developments would not – within a regional context – be expected to result in significant adverse cumulative effects. The specific measures include:
		~ Good and best practice measures for sustainable resource management; and
		<ul> <li>NYC as the local Waste Planning Authority will continue to plan for effective waste management and to ensure sufficient capacity during the planning period.</li> </ul>
		The assessment acknowledges that materials and waste data from other proposed developments becoming available in future may result in further testing being undertaken to assess cumulative impact.
		Summary
		Overall, the Proposed Scheme at all stages will not have an adverse effect with regard to minerals and waste and is therefore considered by the Applicant to be acceptable.
Water Quality and	Paragraph 5.15.2 states:	Introduction
Resources (Part 5.15 of EN-1 and Part 2.5.84 -	Where the project is likely to have effects on the water environment, the applicant should undertake an assessment of the existing status of, and impacts of the proposed project on, water quality, water resources and physical characteristics of the water environment as part of the ES or equivalent. (See Section 4.2.).	The Proposed Scheme has the potential to impact water resources during the construction phase and decommissioning as a result of water quality of surface water and groundwater resources, and during the operational phase as a result of water quality of surface water resources.
2.5.87 of EN-3)		Chapter 12 (Water Environment) of the ES (APP-048) and its associated appendices therefore assesses the likely significant environmental effects resulting from the Proposed Scheme on the water environment,
	5.15.3 states:	including flood risk, as well as water quality, groundwater, Water Framework Directive compliance and
	The ES should in particular describe:	drainage.  Flood risk has been assessed separately above in this NPS Compliance Tracker Table and is therefore not
	<ul> <li>The existing quality of waters affected by the proposed project and the impacts of the proposed project on water quality, noting any relevant existing discharges, proposed new discharges and proposed changes to discharges;</li> <li>Existing water resources affected by the proposed project and the impacts of the proposed project on water resources, noting any relevant existing abstraction rates, proposed new abstraction rates and proposed changes to abstraction rates (including any impact on or use of mains supplies and reference to Catchment Abstraction Management Strategies);</li> </ul>	considered below.
		The assessment presented at Chapter 12 meets the requirements of paragraph 5.15.3 of EN1.
		In accordance with paragraph 5.15.6 of EN-1, Chapter 12 confirms that relevant River Basin Management
		Plan/s have been used during the preparation of the Chapter. In respect of meeting the requirements of the Water Framework Directive ('WFD') (including Article 4.7); a WFD screening exercise was undertaken, and the WFD Screening Note is presented at Appendix 12.2 of the ES (APP-161). The WFD Screening Note concludes that a full WFD assessment is not required for the Proposed Scheme. One water body was screened in for assessment (Ouse from R Wharfe to Upper Humber (GB104027064270)), however all
	<ul> <li>Existing physical characteristics of the water environment (including quantity and dynamics of flow) affected by the proposed project and any impact of physical modifications to these characteristics; and</li> </ul>	activities have been screened out and therefore further consideration of that waterbody is not required.

#### **Policy Text Policy** Any impacts of the proposed project on water bodies or protected areas under the Water Framework Directive and source protection zones (SPZs) around potable groundwater abstractions. Paragraph 5.15.6 of EN-1 states: The SoS should satisfy itself that a proposal has regard to the River Basin Management Plans and meets the requirements of the Water Framework Directive (including Article 4.7) and its daughter directives, including those on priority substances and groundwater. The specific objectives for particular river basins are set out in River Basin Management Plans. The SoS should also consider the interactions of the proposed project with other plans such as Water Resources Management Plans and Shoreline/Estuary Management Plans. Paragraph 5.15.9 of EN-1 states: The risk of impacts on the water environment can be reduced through careful design to facilitate adherence to good pollution control practice. For example, designated areas for storage and unloading, with appropriate drainage facilities, should be clearly marked. Paragraph 2.5.84 of EN-3 states: The design of water-cooling systems for EfW and biomass generating stations will have additional impacts on water quality, abstraction and discharge. These may include: Discharging water at a higher temperature than the receiving water, affecting the biodiversity of aquatic flora and fauna; Use of resources may reduce the flow of watercourses, affecting the rate at which sediment is deposited, conditions for aquatic flora and potentially affecting migratory fish species (e.g., salmon); ~ Fish impingement and/or entrainment – i.e., being taken into the cooling system during abstraction; and Discharging water containing chemical anti-fouling treatment of water for use in cooling systems may have adverse impacts on aquatic biodiversity. Paragraph 2.5.85 of EN-3 states: Where the project is likely to have effects on water quality or resources the applicant should undertake an assessment as required in EN-1, Section 5.15. The assessment should particularly demonstrate that appropriate measures will be put in place to avoid or minimise adverse impacts of abstraction and discharge of cooling water. Paragraph 2.5.86 of EN-3 states: The SoS should be satisfied that the applicant has demonstrated measures to

minimise adverse impacts on water quality and resources as described above

#### Compliance with NPS

#### Construction Phase and Decommissioning

The identified preliminary likely significant effects for water environment associated with the construction phase and decommissioning include:

- ~ Increased risk of pollution from increased sediment load;
- Increased Risk of Pollution to Surface Water Features from Accidental Spillages of Oil, Hydrocarbons and Hazardous Substances and increased turbidity of groundwater;
- Chemical and Physical Alteration of the Sherwood Sandstone Principal Aquifer;
- Chemical and Physical Alteration of the Secondary A Aquifers;
- Pollution of the Groundwater abstractions for Non-Potable Use; and
- Pollution or Recharge Alteration of the Public Water Supply Abstractions (Yorkshire Water)s (SPZ 3 protection at Site).

As such, a number of mitigation measures are proposed, which Chapter 12 explains need to be incorporated into the detailed design of the Proposed Scheme to facilitate adherence to good pollution control practice and mitigate adverse effects.

Mitigation measures include, but are not limited to:

- Implementation of the measures set out in the Appendix 12.3 (Existing Drainage Systems and Proposed Surface Water Drainage Strategy) of the ES (REP2-043). This is secured by a requirement to the DCO;
- The drilling contractors will monitor the drilling fluid pressures and observe for pressure drops. A
  drilling fluid that is approved to discharge to the water environment will be used;
- Construction compounds and new access roads will not be hard surfaced so that runoff is not increased;
- During any trench excavation works, should dewatering be required due to groundwater inflow, any
  water which is pumped out to be discharged to a nearby surface water course will undergo settlement
  treatment for reducing turbidity prior to being discharged; and
- Preparation and implementation of a CEMP and DEMP which is secured as a requirement in the DCO. As set out in previous sections above, measures to be contained in these documents are set out in the REAC (AS-121REP9-019) and includes a watercourse pollution prevention plan to be approved by the EA.

The mitigative measures set out above, and others detailed in the REAC, are secured through a requirement in Schedule 2 of the DCO, as set out in the REAC.

With the inclusion of the proposed mitigation measures set out in Chapter 13 and the REAC, it is concluded that the construction phase and decommissioning of the Proposed Scheme could have the following residual impacts on the water environment:

 A temporary, indirect, short term slight adverse effect on three water features as a result of increased sediment load;

and in EN-1.

Policy	Policy Text	Compliance with NPS
	Paragraph 2.5.86 of EN-3 states:  In addition to the mitigation measures set out in EN-1, design of the cooling	<ul> <li>A temporary, indirect, short term slight adverse effect on six water features as a result of by accidental spillage and leakage of oil, hydrocarbons and hazardous substances;</li> </ul>
	system should include intake and outfall locations that avoid or minimise adverse impacts. There should also be specific measures to minimise fish	<ul> <li>A temporary, direct, short term, slight adverse effect on the Sherwood Sandstone Principal aquifer as a result of the spillage and subsequent infiltration of pollutants;</li> </ul>
	impingement and/or entrainment and the discharge of excessive heat to receiving waters.	<ul> <li>A temporary, direct, short term, slight adverse effect on the Secondary A aquifers as a result of spillage of pollutants; and</li> </ul>
		<ul> <li>A temporary, indirect, short term, slight adverse effect on public water supply abstractions (Yorkshire Water) as a result of any pollution spilled on site that would migrate into the Sherwood Sandstone Principal aquifer.</li> </ul>
		As stated above, all potential effects are temporary and not significant.
		Operational Phase
		There will be no significant effects from the Proposed Scheme on the water environment arising during the operational phase. Consequently, no phase specific mitigation measures are required.
		Cumulative Impact
		No significant cumulative effects have been identified when considering impact on the water environment from the Proposed Scheme and other relevant projects.
		Summary
		In summary, the Proposed Scheme will result in non-significant adverse effects on the water environment during the construction phase and decommissioning which cannot be sufficiently mitigated. However, the effects identified will be temporary, and will therefore not have any long term impact. Adverse effects will be reduced as far as practicable by the mitigation measures proposed. The Applicant therefore considers the Proposed Scheme to be acceptable in terms of impact on water quality and resources, and that the above assessment demonstrates the Proposed Scheme complies with the relevant policies of Part 5.15 of EN-1 and Part 2.5.84 - 2.5.87 of EN-3.

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# 3. DRAFT NATIONAL POLICY STATEMENTS

Compliance with the draft NPS statements EN-1 and EN-3 published in March 2023 are assessed below. The adopted and emerging EN-1 and EN-3 policies have been compared, and the proposed policy changes of policies relevant to the DCO Application are assessed below. The assessment considers both the 'assessment principles' and 'generic impacts' policies in draft EN-1. The technology-specific information parts of EN-3 have also been assessed below and the relevant part of the NPS is referenced. Where the proposed changes are either negligible or not relevant to the DCO Application, the assessment of compliance with the adopted NPS policy set out in Chapter 4 of the Planning Statement (APP-032) or in Table 1 of this National Policy Statement Tracker remains relevant. Tracked changes in the left hand column show the changes from the existing adopted NPSs to the Draft NPSs for ease of comparison.

**Table 2 - Draft National Policy Statement Compliance Tracker** 

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
EN-1 - Assessment Princ	iples	
General points-Policies and Considerations (Part 4.1 of EN-1)	4.1.1 The statutory framework for deciding applications for development consent under the Planning Act is summarised in Section 1.1 of this NPS. This Part of the NPSpart of EN-1, Assessment Principles, sets out certainthe general policies in accordance with which for the submission and assessment of applications relating to energy infrastructure are to be decided that do not relate only to .	The proposed changes to the policy text highlights the importance of the Government's net zero commitment and efforts to fight climate change at proposed paragraph 4.1.2. The Proposed Scheme is designed to remove approximately 95% of the carbon dioxide from the flue gas from biomass Units 1 and 2, resulting in overall negative emissions of greenhouse gases. The Proposed Scheme therefore supports this aim.
	4.1.2 The Energy White Paper <sup>88</sup> and British Energy Security Strategy <sup>89</sup> emphasises the importance of the government's net zero commitment and efforts to fight climate change, as well as the need for newto maintain a secure and reliable energy infrastructure (covered in Part 3) orsystem. The Levelling Up White Paper <sup>90</sup> calls on the Government to particular physical impacts of its construction or operation (covered in Part 5 and the technology-specific NPSs). 4.1.2 ensure investment in the transition to Net Zero benefits less well-performing parts of the UK, reducing emissions, facilitating	the list of considerations for the SoS when weighing the benefits and the disbenefits of development in the planning balance, in addition to the proposal's potential to mitigate any
	economic development and the creation of jobs.  4.1.3 Given the level and urgency of need for infrastructure of the types covered by the energy NPSs set out in Part 3 of this NPS, the IPC shouldSecretary of State will start with a presumption in favour of granting consent to applications for energy NSIPs. That presumption applies unless any more specific and relevant policies set out in the relevant NPSs clearly indicate that consent should be refused.  4.1.4 The presumption is also subject to the provisions of the Planning Act 2008 referred to at paragraph 1.1.24 of this NPS.  Weighing impacts and benefits	As detailed in Table 1 above, the Applicant will achieve a minimum of 10% biodiversity net gain to mitigate against habitat loss resulting from the Proposed Scheme. This is to be secured through development consent obligation agreements. Other mitigation measures proposed are substantial, to mitigate adverse impacts to make the Proposed Scheme acceptable. Where some residual impacts do remain (as detailed in this document and in the ES), the Applicant considers these to be outweighed by the benefit of the Proposed Scheme, as set out across the Planning Statement (APP-032) and in the Needs and Benefits Statement (APP-033). In particular, that the Proposed Scheme will result in a net reduction in GHG emissions and will therefore assist the Government in meeting their target of net zero by 2050.
	<ul> <li>4.1.35 In considering any proposed development, and in particular when weighing its adverse impacts against its benefits, the IPCSecretary of State should take into account:</li> <li>its potential benefits including its contribution to meeting the need for energy infrastructure, job creation, reduction of geographical disparities, environmental enhancements, and any long-term or wider benefits; and</li> </ul>	Table 1 above, and Appendix B of the Planning Statement (APP-032) assess the proposal against the existing NPSs and other adopted policy which the SoS may consider important and relevant in accordance with proposed paragraph 4.1.5, namely the NPPF and local planning policy. The Planning Statement also addresses other important and relevant document, namely government strategies and support for CCUS and BECCS.  Proposed new paragraph 4.1.8 has been added to acknowledge that compulsory acquisition of land, or rights over land, may be required for applicants to suitably mitigate their proposed scheme. The Proposed Scheme will require compulsory acquisition of permanent and temporary rights over land, and the submitted Statement of Reasons

## Policy Emerging Policy Text Detailing Changes

- its potential adverse impacts, including <u>on the environment, and including</u> any longterm and cumulative adverse impacts, as well as any measures to avoid, reduce, <u>mitigate</u> or compensate for any adverse impacts, following the mitigation hierarchy
- in addition, in exercising functions in relation to Wales, the Secretary of State should act in accordance with duties placed upon public authorities, including Ministers of the Crown, by Section 6 of the Environment (Wales) Act 2016<sup>91</sup> and seek to maintain and enhance biodiversity, and in so doing promote the resilience of ecosystems, so far as consistent with the proper exercise of the Secretary of State's functions
- 4.1.46 In this context, the IPCSecretary of State should take into account environmental, social and economic benefits and adverse impacts, at national, regional and local levels. These may be identified in this NPS, the relevant technology-specific NPS, in the application or elsewhere (including in local impact reports)-, marine plans, and other material considerations as outlined in Section 1.1).
- 4.1.57 Where this NPS or the relevant technology specific NPSs require an applicant to mitigate a particular impact as far as possible, but the Secretary of State considers that there would still be residual adverse effects after the implementation of such mitigation measures, the Secretary of State should weight those residual effects against the benefits of the proposed development.

#### Land rights

- 4.1.8 Where the use of land at a specific location is required to facilitate the development by providing for mitigation, landscape enhancement and biodiversity net gain, an applicant may, as part of its application to the Secretary of State, seek the compulsory acquisition of that land, or rights over that land.
- 4.1.9 The Secretary of State will consider any such application under the usual compulsory acquisition principles, taking into account the content of the NPSs.

#### Other documents

- <u>4.1.10</u> The policy set out in this NPS and the technology-specific energy NPSs is, for the most part, intended to makeprovide greater clarity around existing policy and practice of the Secretary of State in consentingconsidering applications for nationally significant energy infrastructure clearer and more transparent, rather than to change the underlying policies against which applications are assessed, (or therefore the "benchmark" for what is, or is not, an acceptable nationally significant energy development).
- 4.1.11 The energy NPSs have taken account of the National Planning Policy

  Framework (NPPF), the Planning Practice Guidance (PPG) for England, and Planning

  Policy Wales and Technical Advice Notes (TANs) for Wales, where appropriate. 92
- 4.1.12 Other matters that the IPCSecretary of State may consider both important and relevant to itstheir decision-making may include Development Plan Documents or other documents in the Local Development Framework.

#### Assessment of Changes of Relevance

(REP9-010) explains why it is necessary, proportionate and justifiable for the Application to seek these powers of compulsory acquisition, and why there is a compelling case in the public interest for the Applicant to be granted these powers.

Proposed paragraph 4.1.9 of EN-1 explains the benefits of early engagement with key stakeholders, and strongly encourages this take place. The Applicant undertook early engagement with key stakeholders, as set out in the Consultation Report (APP-018) and the respective chapters of the ES.

New paragraph 4.1.19 encourages early engagement with key stakeholders, particularly where a HRA will be undertaken (paragraph 4.1.20). The Applicant undertook this engagement as recorded in the HRA report [REP2-104](REP9-021).

The DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10) includes a number of requirements, and Section 4.4 of the Planning Statement (APP-032) demonstrates how they meet these tests. Similarly, a Development Consent Obligation is intended to be entered into, further to the Draft S106 Agreement (REP3-016REP8-025).

Together these documents ensure that all of the mitigation measures identified in the ES are secured.

In response to new paragraph 4.1.13, as set out in the Planning Statement (APP-032) and its Addendum (REP2-019), the Proposed Scheme is not in conflict with the relevant Development Plan documents.

Based on the above, the Applicant considers the Proposed Scheme accords with Part 4.1 of draft EN-1.

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	4.1.13 Where the project conflicts with a proposal in a draft Development Plan, the Secretary of State should take account of the stage which the Development Plan document in England or Local Development Plan in Wales has reached in deciding what weight to give to the plan for the purposes of determining the planning	
	significance of what is replaced, prevented, or precluded.  4.1.14 The closer the Development Plan document in England or Local Development Plan in Wales is to being adopted by the LPA, the greater weight which can be	
	attached to it.  4.1.15 In the event of a conflict between these or any other documents and an NPS, the NPS prevails for purposes of IPC decision making given the national significance of	
	the infrastructure. The energy NPSs have taken account of relevant Planning Policy Statements (PPSs) and older-style Planning Policy Guidance Notes (PPGs) in England and Technical Advice Notes (TANs) in Wales where appropriate. 4.1.6 The Marine and Coastal Access Act 2009 provides for the preparation of a Marine Policy Statement	
	(MPS) and a number of marine plans. The IPC must have regard to the MPS and applicable marine plans in taking any decision which relates to the exercise of any function capable of affecting the whole or any part of the UK marine area. In the event of a conflict between any of these marine planning documents and an NPS, the NPS prevails for purposes the purpose of IPCSecretary of State decision making given the national significance of the infrastructure.	
	Development consent	
	4.1.716 The IPCSecretary of State should only impose requirements <sup>72</sup> requirements <sup>93</sup> in relation to a development consent that are necessary, relevant to planning, relevant to the development to be consented, enforceable, precise, and reasonable in all other respects.	
	4.1.17 The IPCSecretary of State should take into account consider the guidance in Circular 11/95, as revised, on "The the NPPF, the PPG: Use of Planning Conditions in Planning Permissions", and TANs, or any successor to it.documents, where appropriate.	
	4.1.818 The IPCSecretary of State may take into account consider any development consent obligations obligations that an applicant agrees with local authorities. These must be relevant to planning, necessary to make the proposed development acceptable in planning terms, directly related to the proposed development, fairly and reasonably related in scale and kind to the proposed development, and reasonable in all other respects. 4.1.9	
	Early engagement  4.1.19 Early engagement both before and at the formal pre-application stage between the applicant and key stakeholders, including public regulators, Statutory Consultees (including Statutory Nature Conservation Bodies (SNCBs)), and those likely to have an	

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Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	interest in a proposed energy infrastructure application, is strongly encouraged in line with the Government's pre-application guidance.   4.1.20 This is particularly so in the case of HRA matters covered in paragraphs 5.4.25 to 5.4.31 below, which explain the onus is on the applicant to submit sufficient information to enable the Secretary of State to conduct an Appropriate Assessment if required. This means that only applications which are fully prepared and comprehensive can be accepted for examination, enabling them to be properly assessed by the Examining Authority and leading to a clear recommendation report to the Secretary of State.  Financial and technical viability  4.1.21 In deciding to bring forward a proposal for infrastructure development, the applicant will have made a judgement on the financial and technical viability of the proposed development, within the market framework and taking account of Governmentgovernment interventions.  4.1.22 Where the IPCSecretary of State considers, on information provided in an application, that the financial viability and technical feasibility of the proposal has been properly assessed by the applicant, it is unlikely to be of relevance in IPCSecretary of State decision making (any exceptions to this principle are dealt with where they arise in this or other energy NPSs and the reasons why financial viability or technical feasibility is likely to be of relevance explained).  **Rea See https://www.gov.uk/government/publications/energy-white-paper-powering-our-net-zero-tuture  **See https://www.gov.uk/government/publications/energy-white-paper-powering-our-net-zero-tuture  **See https://www.gov.uk/government/publications/energy-white-paper-powering-our-net-zero-tuture  **See https://www.gov.uk/government/publications/energy-white-paper-powering-our-net-zero-tuture  **See https://www.gov.uk/government/publications/energy-white-paper-powering-our-net-zero-tuture  **Paper See https://www.gov.uk/government/publications/energy-white-paper-powering-our-net-zero-tuture	
Environmental Stateme Principles (Part 4.2 of EN-1)	4.2.1 All proposals for projects that are subject to the European The government has	Following the UK's departure from the EU, an informative is proposed at the start of part 4.2 of EN-1 to confirm that until new legislation is made to replace the EU generated EIA, current legislation will continue to apply.  Of most relevance to the DCO Application, proposed paragraph 4.2.4 proposes the inclusion of 'biodiversity net gain' as a way to demonstrate how any likely significant negative effects would be avoided, reduced, or mitigated. Proposed new paragraph 4.2.20 also states the SoS should seek to maintain and enhance biodiversity. As detailed in Table

# **Policy Emerging Policy Text Detailing Changes** 4.2.1 All proposals for projects that are subject to the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) must be accompanied by an Environmental Statement (ES) describing the aspects of the environment likely to be significantly affected by the project.96 4.2.2 The Directive Regulations specifically refers refer to effects on population, human beings<sup>76</sup>, fauna and flora health, biodiversity, land, soil, water, air, climate, the landscape, material assets and cultural heritage, and the interaction between them. 4.2.3 The Directive requires Regulations require an assessment of the likely significant effects of the proposed project on the environment, covering the direct effects and any indirect, secondary, cumulative, transboundary, short, medium, and long-term, permanent and temporary, positive and negative effects at all stages of the project, and also of the measures envisaged for avoiding or mitigating significant adverse effects. 97 4.2.24 To consider the potential effects, including benefits, of a proposal for a project, the IPC will find it helpful if the applicant setsmust set out information on the likely significant environmental, social and economic effects of the development, and showshow how any likely significant negative effects would be avoided or, reduced, mitigated- or compensated for, following the mitigation hierarchy. This information could include matters such as employment, equality, biodiversity net gain, community cohesion, health and well-being. 4.2.35 For the purposes of this NPS and the technology-specific NPSs the ES should cover the environmental, social and economic effects arising from pre-construction,

# construction, operation and decommissioning of the project. In some circumstances (for example, gas pipe-lines) it may be appropriate to assess effects arising from commissioning infrastructure once it is completed but before it comes into operation. Details of this and any other additional assessments 4.2.6 Where the NPSs use the term 'environment' they are set out where necessary in sections on individual impacts in this NPS and in the technology-specific

NPSs.referring to both the natural and historic environments.

4.2.7 In the absence of any additional information on additional assessments, the principles set out in this Section will apply to all assessments. 4.2.4 When considering a proposal the IPC should satisfy itself that likely significant effects, including any significant residual effects taking account of any proposed mitigation measures or any adverse effects of those measures, have been adequately assessed. In doing so the IPC should also examine whether the assessment distinguishes between the project stages and identifies any mitigation measures at those stages. The IPC should request further information where necessary to ensure compliance with the EIA Directive. 4.2.5 When considering cumulative effects, the ES should provide information on how the effects of the applicant's proposal would combine and interact with the effects of other development (including projects for which consent has been sought or granted, as well as those already in existence)<sup>77</sup>. The IPC may also have other evidence before it, for example from appraisals of sustainability of relevant NPSs or development plans, on such effects and potential interactions. Any such information may assist the IPC in reaching decisions on proposals and on mitigation measures that may be required. 4.2.6 The IPC should consider how the accumulation of, and interrelationship between,

#### Assessment of Changes of Relevance

1 above, the Applicant will achieve a minimum of 10% BNG. This is to be secured through development consent obligation agreements.

Proposed paragraph 4.2.3 also proposes the inclusion text requiring the ES to consider 'transboundary' effects. The ES submitted with the DCO Application addresses transboundary effects across all chapters and the assessments undertaken as part of this ES have determined that no transboundary impacts are likely to be experienced as a result of the Proposed Scheme as confirmed in Chapter 4 (EIA Methodology) of the ES (APP-040).

Proposed new paragraph 4.2.6 confirms that both the natural and historic environments are encompassed within the definition of 'environment' when used within the NPSs. As detailed in Table 1 above, impacts of the Proposed Scheme on both natural and historic assets are assessed within the ES submitted with the DCO Application.

Proposed new paragraph 4.2.9 states that the NPS does not contain a requirement to consider alternatives or to demonstrate that the development is a best option from a policy perspective. Further, proposed paragraph 4.2.22 states that "only alternatives that can meet the objectives of the proposed development need to be considered", given the urgency for new energy infrastructure.

Nevertheless, the Applicant considers alternatives at Chapter 3 (Consideration of Alternatives) of the ES (APP-039) and demonstrates that the Order Limits are the only suitable location to deliver the Proposed Scheme; and that the Scheme proposals are the most efficient and effective use of infrastructure capacity to deliver the scale of decarbonisation benefits sought; and are the best way of meeting the scheme objectives of capturing carbon at Drax Power Station. Alternatives considered are detailed in Table 1 above.

Proposed new paragraph 4.2.10 confirms that the application must be supported by information proportionate to its scale.

As per proposed paragraph 4.2.11 and 4.1.12, there are some details still to be finalised for which flexibility is sought. The ES therefore sets out what the likely worst-case environmental, social and economic effects of the proposed development may be to the best of the applicant's knowledge and assesses on that basis to ensure that the impacts of the project as it may be constructed have been properly assessed. This is discussed in further detail in the first row of Table 1 above.

Proposed new paragraph 4.2.19 states the SoS should consider the impact of the accumulation of effects of a proposed scheme. Chapter 18 (Cumulative Effects) of the ES (REP4-035) set out the intra and inter-project effects of the Proposed Scheme. Cumulative impact is set out in detail in Table 1 above.

Nothing in the Proposed Scheme would prevent the Secretary of State from meeting its duties under the Environment Act 2021, and the Scheme will meet the BNG requirements (not yet in force) set out in that Act.

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	offects might affect the environment, economy or community as a whole, even though they may be acceptable when considered on an individual basis with mitigation measures in place. 4.2.7 In some instances  4.2.8 In this NPS and the technology specific NPSs, when used in relation to environmental matters the terms 'effects, 'impacts' or 'benefits' should be understood to mean likely significant effects, likely significant impacts, or likely significant benefits.  4.2.9 As in any planning case, the relevance or otherwise to the decision making process of the existence (or alleged existence) of alternatives to the proposed development is, in the first instance, a matter of law. This NPS does not contain any general requirement to consider alternatives or to establish whether the proposed project represents the best option from a policy perspective. Although there are specific requirements in relation to compulsory acquisition and HRA sites.  **Applicant assessment**  4.2.10 The applicant must provide information proportionate to the scale of the project, ensuring the information is sufficient to meet the requirements of the EIA Regulations. **9  4.2.11 In some instances, it may not be possible at the time of the application for development consent for all aspects of the proposal to have been settled in precise detail. Where this is the case, the applicant should explain in its application which elements of the proposal have yet to be finalised, and the reasons why this is the case.  4.2.812 Where some details are still to be finalised, the ES should-set-out, to the best of the applicant's knowledge, whatassess the maximum extent-likely worst-case environmental, social and economic effects of the proposed development may be in terms of site and plant specifications, and assess, on that basis, the effects which the project could have to ensure that the impacts of the project as it may be constructed have been proporal and economic effects of the project as it may be constructed have been proposal and at a later stage	The Applicant therefore considers the Proposed Scheme complies with draft policies of Part 4.2 of EN-1.
	proposed project in cases where the EIA <u>Directive doesRegulations do</u> not apply and an ES is not therefore required, the applicant should instead provide information proportionate to the scale of the project on the likely significant environmental, social, and economic effects.	
	4.2.14 References to an Environmental StatementES in this NPS and the technology specific NPSs should be taken as including a statement which provides this information, even if the EIA Directive doesRegulations do not apply. 4.2.11 In this NPS and the technology-specific NPSs, the terms 'effects', 'impacts' or 'benefits' should be	

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	understood to mean likely significant effects, impacts or benefits and where the NPSs	
	requires specific information to be provided in the ES. Such information should still be provided in this statement.	
	4.2.15 Applicants are obliged to include in their ES, information about the reasonable	
	<u>alternatives they have studied. This should include an indication of the main reasons</u> for the applicant's choice, taking into account the environmental, social and economic	
	effects and including, where relevant, technical and commercial feasibility.	
	4.2.16 In some circumstances, the NPSs may impose a policy requirement to consider alternatives.	
	4.2.17 Where there is a policy or legal requirement to consider alternatives, the	
	applicant should describe the alternatives considered in compliance with these	
	requirements.	
	Secretary of State decision making	
	4.2.18 The Secretary of State should consider the worst-case impacts in its	
	consideration of the application and consent, providing some flexibility in the consent to	
	account for uncertainties in specific project details.	
	4.2.19 The Secretary of State should consider how the accumulation of, and	
	interrelationship between, effects might affect the environment, economy, or	
	community as a whole, even though they may be acceptable when considered on an	
	individual basis with mitigation measures in place.	
	4.2.20 In addition, in exercising functions in relation to Wales, the Secretary of State	
	should consider Section 6 of the Environment (Wales) Act 2016 and seek to maintain	
	and enhance biodiversity, and in so doing promote the resilience of ecosystems, so far as consistent with the proper exercise of the Secretary of State's functions.	
	4.2.21 Given the level and urgency of need for new energy infrastructure, the Secretary	
	of State should, subject to any relevant legal requirements (e.g. under the Habitats Regulations) which indicate otherwise, be guided by the following principles when	
	deciding what weight should be given to alternatives:	
	<ul> <li>the consideration of alternatives in order to comply with policy requirements should be carried out in a proportionate manner</li> </ul>	
	only alternatives that can meet the objectives of the proposed development need to	
	be considered	
	4.2.22 The Secretary of State should be guided in considering alternative proposals by	
	whether there is a realistic prospect of the alternative delivering the same infrastructure	
	capacity (including energy security, climate change, and other environmental benefits)	
	in the same timescale as the proposed development.	
	4.2.23 The Secretary of State should not refuse an application for development on one	
	site simply because fewer adverse impacts would result from developing similar	
	infrastructure on another suitable site, and it should have regard as appropriate to the	

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	possibility that all suitable sites for energy infrastructure of the type proposed may be	
	needed for future proposals.	
	4.2.24 Alternatives not among the main alternatives studied by the applicant (as	
	reflected in the ES) should only be considered to the extent that the Secretary of State	
	thinks they are both important and relevant to the decision.	
	4.2.25 As the Secretary of State must assess an application in accordance with the	
	relevant NPS (subject to the exceptions set out in section 104 of the Planning Act	
	2008), if the Secretary of State concludes that a decision to grant consent to a	
	hypothetical alternative proposal would not be in accordance with the policies set out in	
	the relevant NPS, the existence of that alternative is unlikely to be important and	
	relevant to the Secretary of State's decision.	
	4.2.26 Alternative proposals which mean the necessary development could not	
	proceed, for example because the alternative proposals are not commercially viable or	
	alternative proposals for sites would not be physically suitable, can be excluded on the	
	grounds that they are not important and relevant to the Secretary of State's decision.	
	4.2.27 Alternative proposals which are vague or inchoate can be excluded on the	
	grounds that they are not important and relevant to the Secretary of State's decision.	
	4.2.28 It is intended that potential alternatives to a proposed development should,	
	wherever possible, be identified before an application is made to the Secretary of State	
	(so as to allow appropriate consultation and the development of a suitable evidence	
	base in relation to any alternatives which are particularly relevant). Therefore, where an alternative is first put forward by a third party after an application has been made, the	
	Secretary of State may place the onus on the person proposing the alternative to	
	provide the evidence for its suitability as such and the Secretary of State should not	
	necessarily expect the applicant to have assessed it.	
	4.2.29 Through the Environment Act 2021 the Government has set 13 legally binding targets for England covering the areas of: biodiversity; air quality; water; resource	
	efficiency and waste reduction; tree and woodland cover; and Marine Protected Areas.	
	The Secretary of State must consider duties under the Environment Act 2021 in	
	relation to environmental targets and have regard to the policies set out in the	
	Government's Environmental Improvement Plan for improving the natural environment.	
	74 Council Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the	
	environment, amended by Directives 97/11/EC and 2003/35/ EC. In respect of energy NSIPs, Annex 1 of the	
	directive applies to thermal power stations, nuclear power stations, waste-disposal installations for the incineration, chemical treatment or land fill of toxic and dangerous wastes. Under Annex 2 it applies to industrial installations for	
	the production of electricity, steam and hot water (i.e. CHP), industrial installations for carrying gas, steam and hot	
	water; transmission of electrical energy by overhead cables, surface storage of natural gas, underground storage of	
	combustible gases and installations for hydroelectric energy production.	
	The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (SI 2009/2263). 2017	
	<sup>76</sup> The effects on human beings includes effects on health.	
	For guidance on the assessment of cumulative effects, see, for example, Circular 02/99, Environmental impact	
	assessment, or Guidelines for the Assessment of Indirect and PINS Advice Note 17 regarding Cumulative Impacts as well as Impact Interactions (http://ec.europa.eu/environment/eia/eia-studies-and-reports/guidel.pdf). Effects	
	Total and impact intolections (http://oc.odiopa.od/ontilionintolectoid stadios and toportorgalastipar).	

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	Assessment (August 2019) See <a href="https://infrastructure.planninginspectorate.gov.uk/wpcontent/uploads/2015/12/Advice-note-17V4.pdf">https://infrastructure.planninginspectorate.gov.uk/wpcontent/uploads/2015/12/Advice-note-17V4.pdf</a> 7898 See https://www.gov.uk/guidance/environmental-impact-assessment  99 Case law-(for example, beginning with R v Rochdale MBC Ex. Parte C p. Tew 1999) provides a legal principle[2000] Env.L.R.1 establishes that indicative sketches and layouts cannot providewhile it is not necessary or possible in every case to specify the basis for determining applications for EIA-precise details of development. The "Rochdale Envelope" is a series of maximum extents of a project for which, the significant effects are established. The detailed design of the project can then vary within this 'envelope' without renderinginformation contained in the ES inadequate, should be sufficient to fully assess the project's impact on the environment and establish clearly defined worst case parameters for the assessment. This is sometimes known as 'the Rochdale Envelope'.	
Habitats and Species RegulationsHealth (Part 4.3 of EN-1	4.133.1 Energy productioninfrastructure has the potential to impact on the health and well-being ("health") of the population. Access to energy is clearly beneficial to society and to our health as a whole. However, the construction of energy infrastructure and the production, distribution and use of energy may have negative impacts on some people's health.  4.13.24.3.2 The direct impacts on health may include	Proposed paragraph 4.3.3 states new energy infrastructure can impact the composition and size of the local population and access to services, resulting in health impacts. Chapter 16 (Population, Health and Socio-Economics) of the ES (APP-052) assesses the impact of the Proposed Scheme on health and concludes that there are no residual impacts in respect of health (noting that there are some identified, both adverse and positive, for socio-economics).
	<ul> <li>increased traffic,</li> <li>air or water pollution,</li> <li>dust, odour,</li> </ul>	Proposed paragraph 4.3.6 proposes the inclusion of text requiring applicants to take opportunities to mitigate indirect impacts on health, through local improvements to health and wellbeing.
	<ul> <li>hazardous waste and substances,</li> <li>noise,</li> <li>exposure to radiation, and</li> <li>increases in pests.</li> </ul> 4.3.3 New energy infrastructure may also affect the composition and size of the local	As set out in the updated DCO (having previously formed part of the draft S106 Agreement), the Applicant will secure a Local Employment Plan which includes the use of local suppliers and contractors and developing opportunities for local people to access training opportunities. This will have a direct, positive effect on wellbeing. The Plan will be based on the principles of the Outline Local Employment Plan (REP3-022).
	population, and in doing so have indirect health impacts, for example if it in some way affects access to key public services, transport, or the use of open space for recreation and physical activity.	The Proposed Scheme could have a positive effect on health through the Construction Workers Travel Plan ('CWTP') which is secured as a requirement in the DCO and will be based on the principles set out in the Framework CWTP (REP2-030).
	Applicant assessment  4.3.4 As described in the relevant sections of this NPS and in the technology specific NPSs, where the proposed project has an effect on <a href="https://humans.nih.google.com/human-beingshumans">human-beingshumans</a> , the ES should assess these effects for each element of the project, identifying any <a href="potential">potential</a> adverse health impacts, and identifying measures to avoid, reduce or compensate for	The final Travel Plan will include the review and implementation of construction worker travel surveys, with monitoring of travel patterns. There will also be a review of the maintenance of agreed walk / cycle routes and additional travel initiatives / incentives would be developed where appropriate following feedback and monitoring. This can encourage cycling and walking to improve health.
	these impacts as appropriate.  4.3.5 The impacts of more than one development may affect people simultaneously, so the applicant and the IPC should consider the cumulative impact on health. 4.13.3 The direct impacts on health may include increased traffic, air or water pollution, dust,	In line with proposed paragraph 4.3.2, the ES considers the cumulative impact on health where appropriate, with modelled results demonstrating that cumulative emissions from the Proposed Scheme and other projects, including Keadby 2, would have no significant effects on local air quality with respect to human health during operation.
	odour, hazardous waste and substances, noise, exposure to radiation, and increases in pests.the ES where appropriate.  4.3.6 13.4 New energy infrastructure may also affect the composition, size and proximity of the local population, and in doing so have Opportunities should be taken to	Section 16 of the Applicant's Relevant Representations Response Document (PDA-002) and Table 5.1 of its Response to Issues raised at Deadline 1 (REP2-067) goes on to explain how the Applicant has considered the health impacts of the use of amines and that no significant effects are expected to arise from their use.
	<u>mitigate</u> indirect health impacts, for example if it in some way affects access <u>by</u> promoting local improvements to key public services, transport or the use of open	The Applicant therefore considers the Proposed Scheme is acceptable in respect of the proposed updates to Part 4.3 of draft EN-1.

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	space for recreation and physical activity. 4.13.5encourage health and wellbeing, this includes potential impacts on vulnerable groups within society, i.e. those groups which may be differentially impacted by a development compared to wider society as a whole.  Secretary of State decision making  4.3.7 Generally, those aspects of energy infrastructure which are most likely to have a significantly detrimental impact on health are subject to separate regulation (for example for air pollution) which will constitute effective mitigation of them, so that it is unlikely that health concerns will either by themselves constitute a reason to refused consents or require specific mitigation under the Planning Act 2008.  4.3.8 However, the IPCnot all potential sources of health impacts will be mitigated in this way and the Secretary of State may want to take account of health concerns when setting requirements relating to a range of impacts such as noise.	
Alternatives-Marine Considerations (Part 4.4 of EN-1)	4.4.1 The Marine Policy Statement is the framework for preparing Marine Plans and taking decisions affecting the marine environment, as per section 44 of the Marine and Coastal Access Act 2009. Marine plans apply in the 'marine area', which is the area from mean high water springs to the seaward limit of the Exclusive Economic Zone (EEZ). The 'marine area' also includes the waters of any estuary, river or channel, so far as the tide flows at mean high water spring tide.  4.4.2 Marine plans set out marine specific aspects of many of the assessment principles in Part 4 and 5 of this NPS. 100 Individual Marine Plans 101 should be consulted to understand marine relevant specific considerations.  4.4.3 The cross-government Marine Spatial Prioritisation Programme will review how marine plans and the wider planning regime, legislation and guidance may need to evolve to ensure a more holistic approach to the use of the seas is taken and to maximise co-location possibilities.  4.4.4 In Wales, the Welsh National Marine Plan 102 sets out Welsh Ministers' expectations that nationally significant infrastructure projects contribute to the well-being of Welsh communities and the sustainable management of natural resources and should seek to deliver lasting legacy benefits for the local community, the economy and the environment.  4.4.5 Defra are producing guidance to help applicants and regulators understand how to use the mitigation hierarchy for environmental impacts on Marine Protected Areas (MPAs), including strategic approaches. 103  4.4.6 Applications for energy infrastructure that falls outside the scope of the Planning Act 2008 or the Electricity Act 1989 may require a marine licence. A deemed marine licence can also be granted as part of the DCO and is developed in consultation with regulators and statutory advisors. A Marine Licence is primarily concerned with the need to protect the environment and human health and to prevent interference with other legitimate uses of the sea. Marine Licences may be required for th	The inclusion of policy relating to Marine Considerations is proposed in the draft EN-1. Of relevance to this DCO Application, proposed paragraph 4.4.1 explains that the 'marine area' includes the waters of any river "so far as the tide flows at mean high water spring tide". This is therefore relevant is respect of the River Ouse to the north.  However, no works are proposed at the River Ouse, and Chapter 12 (Water Environment) of the ES (APP-048) concludes that no significant adverse effects are predicted on the River Ouse as a result of the Proposed Scheme. A 30m offset from the River Ouse has been implemented to avoid impacts to habitats related with the watercourse.  The Applicant therefore considers that no further assessment is required in respect of Part 4.4 of draft EN-1.

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	associated development and activity such as cabling, dredging and offshore substations. Further information on marine licencing is provided in section 1.2 and 4.11.11 of this NPS and section 2.3.16 to 2.3.22 of EN-3.  4.4.7 Applicants are encouraged to approach the marine licensing regulator (MMO in	
	England and Natural Resources Wales in Wales) in pre-application, to ensure that they are aware of any needs for additional marine licenses alongside their DCO application.	
	<u>Applicant assessment</u>	
	4.4.8 Applicants for a development consent order must take account of any relevant  Marine Plans and are expected to complete a Marine Plan assessment as part of their  project development, using this information to support an application for development  consent.	
	4.4.9 Applicants are encouraged to refer to Marine Plans at an early stage, such as in preapplication, to inform project planning, for example to avoid less favourable locations as a result of other uses or environmental constraints. Secretary of State decision making	
	4.4.10 Section 104(2)(aa) of the Planning Act 2008 requires the Secretary of State to have regard to any appropriate marine policy documents when making a decision on an application for a development consent order where an NPS has effect. This will include any Marine Plan which is in effect for the relevant area, or areas where the project crosses the boundary between plan areas.	
	4.4.11 In making a decision, the Secretary of State is responsible for determining how the Marine Plan informs the decision-making process. For example, the Secretary of State will determine if and how proposals meet the high-level marine objectives, plan vision, and all relevant policies.	
	4.4.12 In the event of a conflict between an NPS and any marine planning documents, the NPS prevails for purposes of decision making.  100 For example, criteria for 'good design' for energy infrastructure (Section 4.6) and climate change adaptation (Section 4.9). Plan policies cover a wide range of topics in Part 5 of this NPS, including landscape and visual	
	(Section 5.10), noise and vibration (Section 5.12) and water quality (Section 5.16).  101 The Welsh National Marine Plan and/or any applicable English regional marine plans  102 See https://gov.wales/marine-planning	
	103 See glossary for mitigation hierarchy definition  104 Where a decision is made under s105 of the Planning Act, section 58(3) of the Marine and Coastal Access Act 2009 will similarly require the Secretary of State to have regard to the marine plan.	
Criteria for "good design" for energy infrastructureEnvironmental and Biodiversity Net Gain (Part 4.5 of EN-1)	<ul> <li>4.5.1 Environmental net gain is an approach to development that aims to leave the natural environment in a measurably better state than beforehand. Projects should therefore not only mitigate harms, following the mitigation hierarchy, but also consider whether there are opportunities for enhancements.</li> <li>4.5.2 Biodiversity net gain is an essential component of environmental net gain.</li> </ul>	Proposed new Section 4.5 relates to environmental matters and BNG. Proposed paragraph 4.5.1 states development should not only mitigate harm, but consider opportunities for biodiversity enhancement. As detailed in Table 1 above, the Proposed Scheme comprises a number of works which will not only mitigate harm but also enhance biodiversity by providing a minimum of 10% BNG.
	Projects in England should consider and seek to incorporate improvements in natural	

# **Policy Emerging Policy Text Detailing Changes** capital, ecosystem services and the benefits they deliver when planning how to deliver biodiversity net gain. 4.5.3 Currently environmental net gain only applies to terrestrial and intertidal components of projects. Principles for Marine Net Gain are currently in development by Defra who will provide guidance in due course. There are provisions in the Environment Act 2021 to allow marine net gain to be made mandatory in the future. 105 Applicant assessment 4.5.4 Energy NSIP proposals, whether onshore or offshore, should seek opportunities to contribute to and enhance the natural environment by providing net gains for biodiversity, or the wider environment where possible. 4.5.5 In England applicants for onshore elements of any development are encouraged to use the most current version of the Defra biodiversity metric 106 to calculate their biodiversity baseline and present planned biodiversity net gain outcomes. This calculation data should be presented in full as part of their application. 4.5.6 Where possible, this data should be shared with the Local Authority and Natural England for discussion at the pre-application stage as it can help to highlight biodiversity and wider environmental issues which may later cause delays if not addressed. 4.5.7 In Wales, applicants should consider the guidance set out in Section 6.4 of Planning Policy Wales and the relevant policies in the Wales National Marine Plan<sup>107</sup>. 4.5.8 Biodiversity net gain should be applied after compliance with the mitigation hierarchy and does not change or replace existing environmental obligations. 4.5.9 Biodiversity net gain can be delivered onsite or wholly or partially off-site. Any offsite delivery of biodiversity net gain should also be set out within the application for development consent. 4.5.10 When delivering biodiversity net gain off-site, developments should do this in a manner that best contributes to the achievement of relevant wider strategic outcomes, for example by increasing habitat connectivity or enhancing other ecosystem service outcomes. Reference should be made to relevant national or local plans and strategies to inform off-site biodiversity net gain delivery. If published, the relevant strategy is the Local Nature Recovery Strategy (LNRS). If an LNRS has not been published, the relevant consenting body or planning authority may specify alternative plans, policies or strategies to use. 4.5.11 In addition to delivering biodiversity net gain, developments may also deliver wider environmental gains and benefits to communities relevant to the local area, and to national policy priorities, such as · reductions in GHG emissions. reduced flood risk,

improvements to air or water quality,

climate adaptation.

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Proposed paragraph 4.15.2 confirms that BNG is an essential component of environmental net gain, which applicants are encouraged to address through looking for opportunities for enhancement, not just mitigating direct harms.

However, proposed paragraph 4.5.17 confirms that achieving BNG is not an obligation for NSIPs, albeit it is encouraged, where possible. Notwithstanding this, proposed footnote no. 59 references the amendment to the Environment Bill (2021) and explains the SoS may not grant development consent "unless satisfied that a biodiversity gain objective is met in relation to the development to which the application relates. The biodiversity gain objective will be set out in a biodiversity gain statement." The Government recently consulted on what this could look like in practice.

The BNG Assessment submitted, further to paragraphs 4.5.13 and 4.5.18 (REP3-010, Rev03 being submitted at Deadline 6) confirms the Proposed Scheme can demonstrate a 10%+ net gain in area-based and linear hedgerow units. The 10% net gain for river and stream units will be achieved through the Bowers Mills Black Brook Habitat and Restoration Project, in collaboration with Calder and Colne Rivers Trust, as set out in Table 1 above, and details provided in the Deadline 3 BNG Assessment (REP3-010, Rev03 being submitted at Deadline 6).

In addition, the OLBS (<u>REP6-017AS-119</u>) outlines the mitigation measures required to safeguard biodiversity during construction, including compensatory measures to offset predicted losses of habitats as a result. The measures aim to ensure impacts are minimised as far as practicably possible. It also outlines enhancement measures for existing landscape and biodiversity features and how they would be managed and maintained, including the creation of new habitats that would provide additional opportunities for biodiversity whilst enhancing the landscape character.

Proposed paragraph 4.5.4 suggests developments may also consider delivering wider environmental gains, examples of which are set out at draft paragraph 4.5.11. The ES confirms that the Proposed Scheme will result in a net reduction in GHG emissions and may also result in a betterment in surface water drainage. Both benefits are listed as 'wider gains' in paragraph 4.5.11. Resource consumption will also be bettered through utilising rainwater for cooling, as opposed to water from the River Ouse.

Whilst the Applicant has not submitted an environmental net gain statement, further to paragraph 4.5.13, through the 10% BNG secured, the GHG emissions reductions inherent to the Proposed Scheme, and the design and GHG measures set out in the REAC, the Applicant considers that it has sought to achieve net gain wherever this has been possible.

Overall, the Applicant therefore considers that the Proposed Scheme meets the requirements of Part 4.5 of draft EN-1.

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	landscape enhancement, or	
	<ul> <li>increased access to natural greenspace including trees and woodlands.</li> </ul>	
	The scope of potential gains will be dependent on the type, scale, and location of	
	specific projects. Applicants should look for a holistic approach to delivering wider	
	environmental gains and benefits through the use of nature-based solutions and Green	
	<u>Infrastructure.</u>	
	4.5.12 The Environment Act 2021 mandated the preparation of Local Nature Recovery	
	Strategies (LNRSs) across England. They are a new system of spatial strategies for	
	nature recovery and will play a major role in providing detail on the best locations to	
	create, enhance and restore nature and deliver wider environmental benefits. LNRSs	
	will also agree priorities for nature recovery and map the most valuable existing areas	
	for nature. They will be critical in delivering new government targets for species	
	abundance and habitat creation commitments, as well as other pressing environmental	
	outcomes for water and flood risk, carbon and tree planting and woodland creations.	
	LNRSs will also drive the creation of a Nature Recovery Network (NRN), a major	
	commitment in the government's 25 Year Environment Plan.	
	4.5.13 Applications for development consent should be accompanied by a statement	
	demonstrating how opportunities for delivering wider environmental net gains have	
	been considered, and where appropriate, incorporated into proposals as part of good	
	design (including any relevant operational aspects) of the project.	
	4.5.14 Applicants should make use of available guidance and tools for measuring	
	natural capital assets and ecosystem services, such as the Natural Capital	
	Committee's 'How to Do it: natural capital workbook' Defra's guidance on Enabling a	
	Natural Capital Approach (ENCA) <sup>109</sup> , and other tools that aim to enable wider benefits	
	for people and nature. 110	
	4.5.15 Where environmental net gain considerations have featured as part of the	
	strategic options appraisal process to select a project, applicants should reference that	
	information to supplement the site-specific details.	
	4.5.16 Opportunities for environmental, social, and economic enhancements,	
	protection and mitigation measures are identified in a number of sections in Part 5 of	
	this NPS, which provides guidance on the impacts of new energy infrastructure.	
	Secretary of State decision making	
	4.5.17 Although achieving biodiversity net gain is not currently an obligation on	
	applicants, Schedule 15 of the Environment Act 2021 <sup>111</sup> contains provisions which,	
	when commenced, mean the Secretary of State may not grant an application for	
	Development Consent Order unless satisfied that a biodiversity gain objective is met in	
	relation to the onshore <sup>112</sup> development in England to which the application relates.	
	4.5.18 The biodiversity gain objective will be set out in a biodiversity gain statement (as	
	defined under the Environment Act 2021). Normally these statements would be	
	included within an NPS, but the Act allows for the statement to be published separately	

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Criteria for "Good Design" for Energy Infrastructure Consideration of Combined Heat and Power (CHP) (Part 4.6 of EN-1)	where a review of an NPS has begun before the provisions are commenced, as is the case with these energy NPSs.  4.5.19 Under the provision of the Environment Act 2021, any such separate biodiversity statement will be regarded as contained within these NPSs. The Act also contains the power to extend this requirement to offshore development.  **See https://www.legislation.gov.uk/ukpga/2021/30/enacted**  **The Biodiversity Metric can be found at http://publications.naturalengland.org.uk/publication/5950908674228224  **W See https://www.gov.uk/government/publications/natural-capital-committee-natural-capital-workbook**  **See https://www.gov.uk/government/publications/natural-capital-porpadh-enca**  **See https://www.gov.uk/government/publications/natural-capital-porpadh-enca**  **See https://www.gov.uk/guidance/enabling-a-natural-capital-approach-enca**  **See https://www.gov.uk/guidance/enabling-a-natural-capital-approach-enca**  **See https://www.gov.uk/guidance/enabling-a-natural-capital-approach-enca**  **See https://www.gov.uk/guidance/enabling-a-natural-capital-approach-enca**  **See https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted**  **See https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted**  **The Environment Act 2021 also allows for an extension to offshore development in the future.*  4.56.1 The visual appearance of a building, structure, or piece of infrastructure, and how it relates to the landscape it sits within, is sometimes considered to be the most important factor in good design. But high quality and inclusive design goes far beyond aesthetic considerations. The functionality of an object - be it a building or other type of infrastructure - including fitness for purpose and sustainability, is equally important.  4.6.2 Applying "good design" to energy projects should produce sustainable infrastructure - sensitive to place, including impacts on heritage, efficient in the use of natural resources, including land-use, and energy used in their construction and operation, matche	In accordance with proposed paragraph 4.6.2, the Design Framework (APP-195) establishes the hard and soft landscaping design principles and palettes for the Proposed Scheme and will act as a guideline for the detailed design stage. The Design Framework details how the design of the Proposed Scheme has been considered since the early stages of the project lifecycle, as per draft paragraph 4.6.4. It also discusses the operational, safety and security requirements which the design has to take into account while also considering landscape and environmental impacts.  The design principles and palettes set out in the Design Framework are included in the REAC (AS-124REP9-019). A requirement in Schedule 2 to the DCO contains provisions to control and approve the detailed design of the Proposed Scheme, to ensure that visual impacts would be minimised where possible. The detailed design requirements require the detailed design submitted for approval to accord with those design principles set out in the Design Framework and REAC. These details, for example, would include appropriate colours and textures of the infrastructure identified in the REAC.  The Design Framework demonstrates how achieving 'good design' has been a consideration of the Proposed Scheme from conception. This is also demonstrated through the pre-application consultation undertaken with relevant stakeholders, as set out in the Consultation Report (APP-018). Further discussion on this is contained within the Applicant's responses to WQ1 DLV 1.4.1 to 1.4.6 (REP2-060) and in response to the LIR (REP2-67), and in its Deadline 5 submissions responding to Deadline 4 comments and updating the REAC and OLBS.  As per proposed paragraph 4.6.1, these design principles are to be applied to all structures and infrastructure as well as buildings.  In line with proposed paragraph 4.6.3, the Applicant has assessed visual impacts on the landscape, including any potential amenity benefits, and visual impacts on the landscape

#### **Policy Emerging Policy Text Detailing Changes Assessment of Changes of Relevance** 4.6.4 Given the benefits of "good design" in mitigating the adverse impacts of a project as per paragraph 4.6.3. These impacts are explained in Table 1 above and in Chapter 9 applicants should consider how "good design" can be applied to a project during the (Landscape and Visual Amenity) of the ES (APP-045). early stages of the project lifecycle. Proposed paragraph 4.6.6 also states "Applicants should also, so far as is possible, seek Applicant assessment to embed opportunities for nature inclusive design within the design process." 4.6.5 To ensure good design is embedded within the project development, a project Given the energy infrastructure related nature of the Proposed Scheme and that it will board level design champion could be appointed, and a representative design panel comprise an extension to existing energy infrastructure, on previously developed land; used to maximise the value provided by the infrastructure. Design principles 113 should opportunities for 'nature inclusive design' are restricted. However, ecological be established from the outset of the project to guide the development from conception enhancements are proposed, as explained in the OLBS (REP6-017AS-119). As explained to operation. above, 10% BNG for all habitat types will also be delivered by the Applicant. 4.6.6 Whilst the applicant may not have any or very limited choice in the physical Proposed paragraph 4.6.10 states the SoS should be satisfied energy infrastructure appearance of some energy infrastructure, there may be opportunities for the applicant developments are sustainable and as attractive, durable, and adaptable (including taking to demonstrate good design in terms of siting relative to existing landscape character, account of natural hazards such as flooding) as they can be. In this case, the Design landformland form and vegetation. Furthermore, the design and sensitive use of Framework, and Table 1 above, demonstrate that the Proposed Scheme has been materials in any associated development such as electricity substations will assist in designed to complement the existing energy infrastructure at the Existing Drax Power ensuring that such development contributes to the quality of the area. 4.5.4 For the IPC Station, and be adaptable to climate change impacts over the lifetime of the Proposed to consider the proposal for a project, applicants should be able to Applicants should Scheme, as per paragraph 4.6.10. also, so far as is possible, seek to embed opportunities for nature inclusive design within the design process. Based on the above, the Applicant considers the Proposed Scheme accords overall with the additional text proposed for Part 4.6 of draft EN-1. 4.6.7 Applicants must demonstrate in their application documents how the design process was conducted and how the proposed design evolved. Where a number of different designs were considered, applicants should set out the reasons why the favoured choice has been selected. In considering applications the IPC should take into account the ultimate purpose of the infrastructure and bear in mind the operational. safety and security requirements which the design has to satisfy. 4.5.5 Applicants and the IPC 4.6.8 Applicants should consider taking independent professional advice on the design aspects of a proposal. In particular, the Design Council CABE can be asked to provide design review for nationally significant infrastructure projects and applicants are encouraged to use this service82. 4.5.6 Further advice on what the IPC should expect applicants to demonstrate by way of good design is provided in the technology-specific NPSs where relevant.service. 114 Applicants should also consider any design guidance developed by the local planning authority. 4.6.9 Further advice on what applicants should demonstrate by way of good design is provided in the technology specific NPSs where relevant. Secretary of State decision making 4.6.10 In the light of the above and given the importance which the Planning Act 2008 places on good design and sustainability, the Secretary of State needs to be satisfied that energy infrastructure developments are sustainable and, having regard to regulatory and other constraints, are as attractive, durable, and adaptable (including taking account of natural hazards such as flooding) as they can be. 4.6.11 In doing so, the Secretary of State should be satisfied that the applicant has considered both functionality (including fitness for purpose and sustainability) and

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	aesthetics (including its contribution to the quality of the area in which it would be located, any potential amenity benefits, and visual impacts on the landscape or seascape) as far as possible.	
	4.6.12 In considering applications, the Secretary of State should take into account the ultimate purpose of the infrastructure and bear in mind the operational, safety and security requirements which the design has to satisfy. Many of the wider impacts of a development, such as landscape and environmental impacts, will be important factors in the design process.	
	4.6.13 The Secretary of State should consider such impacts under the relevant policies in this NPS. Assessment of impacts must be for the stated design life of the scheme rather than a shorter time period.	
	4.6.14 The Secretary of State should consider taking independent professional advice on the design aspects of a proposal. In particular, the Design Council can be asked to provide design review for nationally significant infrastructure projects. 115	
	4.6.15 Further advice on what the Secretary of State should expect applicants to demonstrate by way of good design is provided in the technology specific NPSs where relevant.	
	113 Design principles should take into account any national guidance on infrastructure design, this could include for example the Design Principles for National Infrastructure published by the National Infrastructure Commission, the National Design Guide and National Model Design Code, as well as any local design policies and standards. See <a href="https://nic.org.uk/studies-reports/design-principles-for-national-infrastructure">https://nic.org.uk/studies-reports/design-principles-for-national-infrastructure</a> ; See <a href="https://www.gov.uk/government/publications/national-model-design-code">https://www.gov.uk/government/publications/national-model-design-code</a>	
	114 The Chief Planner's 2011 Letter about design and planning can be found here: See https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/8009/110520- Letter to Chief Planning Officers- Design and Planning.pdf Further information on the Design Council can be found here: See https://www.designcouncil.org.uk/	
	115 The Chief Planner's 2011 Letter about design and planning can be found here: See  https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/8009/110520- Letter_to_Chief_Planning_OfficersDesign_and_Planning.pdf Further information on the Design Council can be found here: See https://www.designcouncil.org.uk/	
Consideration of Combineration and Power (CHP)	4.67.1 Combined Heat and Power (CHP) is the generation of usable heat and electricity in a single process. A CHP station may either supply steam direct to	Specific mention of BECCS technology is proposed at paragraph 4.7.3 where it states CHP is technically feasible.
Carbon Capture and Storage (CCS) and Carb Capture Readiness (CCI	customers or capture waste heat for low-pressure steam, hot water, or space heating purposes after it has been used to drive electricity generating turbines. The heat can	The other policy changes proposed do not impact the assessment of adopted EN-1 CHP policy. Therefore, the assessment provided in Table 1 above, which demonstrates that CHP is not suitable for the Proposed Scheme, remains relevant.
(Part 4.7 of EN-1	4.67.2 In conventional thermal generating stations, the heat that is raised to drive electricity generation is subsequently emitted to the environment as waste. Supplying steam direct to industrial customers or using lower grade heat, such as in district heating networks, can reduce the amount of fuel otherwise needed to generate the same amount of heat and power separately.	The Applicant therefore considers the Proposed Scheme to be in accordance with Part 4.7 of draft EN-1.

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,	4.7.3 CHP is technically feasible for allmany types of thermal generating stations, including nuclear, energy from waste EfW, BECCS and biomass hydrogen, although the majority of CHP plants in the UK are fuelled by gas.	
	4.6.37.4 Using less fuel to generate the same amount of heat and power, reduces emissions, particularly CO2 The Governmentgovernment has therefore committed to promoting Good Quality CHP, which denotes CHP that has been certified as highly efficient under the CHP Quality Assurance programme. In accordance with the EU Cogeneration Directive, schemes 116 Schemes need to achieve at least 10% primary energy savings compared to the separate generation of heata specified quality index and power efficiency in order to qualify for Governmentgovernment support associated with the programme.	
	4.6.47.5 In 20092020, there was 5.6-GW.1GW of Good Quality CHPCHP <sup>117</sup> in the UK, providing over-7%.7 per cent of electricityelectricity <sup>118</sup> and saving an estimated 9.5 MtCO266 Megatonnes CO <sub>2</sub> per annumannum <sup>119</sup> . There is a recognised cost-effective potential for a further 10 GW of Good Quality CHP, estimated to continue to offer a further saving of 175 MtCO <sub>2</sub> by 201583. 4.6.5 provide benefits due to efficiencies inherent in cogeneration.	
	4.7.6 To be economically viable as a CHP plant, a generating station needs to be located <u>sufficiently</u> close to industrial, <u>non-domestic</u> or domestic customers with heat demands. The distance will vary according to the size <u>and type</u> of the generating station and the nature of the heat demand.	
	4.7.7 For industrial purposes, customers are likely to be intensive heat users such as chemical plants, refineries, or paper mills. CHP can also be used to provide lower grade heat for light industrial users such as commercial greenhouses, or more commonly for hot water and space heating, including supply through district heating networks. A 2009 report for DECC84 on district heating networks suggested that, for example, a district heating network using waste heat from a generating station would be cost-effective where there was a demand for 200 MWth of heat within 15 km. Additionally, the provision of CHP is most likely to be cost-effective and practical where it is included as part of the initial design and is part of a mixed-use development. For example, retrofitting a district heating network to an existing housing estate may not be efficient.	
	Applicant assessment	
	4.6.67.8 Under guidelines Guidance issued by DECC (then the then Department for Trade and Industry (DTI) in 200685,2006,120 will apply to any application to develop a thermal generating station under Section 36 of the Electricity Planning Act 19892008.  Applications for thermal stations must either include CHP proposals or contain evidence demonstrating that the possibilities for CHP have been fully explored to inform the IPC's Secretary of State's consideration of the application. This should be	
	through an audit trail of dialogue between the applicant and prospective customers.  The same principle applies to any thermal power station which is the subject of an application for development consent under the Planning Act 2008. The IPC should	

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	have regard to DECC's guidance, or any successor to it, when considering the CHP aspects of applications for thermal generating stations.	
	4.6.74.7.9 In developing proposals for new thermal generating stations, developers applicants should consider the both the current and future opportunities for CHP from the very earliest pointstart, and it should be adopted as a criterion when considering locations for a project.	
	4.7.10 Given how important liaison with potential customers for heat is, applicants should not only consult those potential customers they have identified themselves but also bodies such as the Homes and Communities Agency (HCA), Local Enterprise Partnerships (LEPs) and Local Authorities and obtain, obtaining their advice on opportunities for CHP. Further advice is contained in the 2006 DECC guidelines DTI guidance and applicants should also consider relevant information in regional and local energy planning and heat demand mapping.	
	4.6.87.11 Where the applicant is not be able to reach an agreement with a potential customer, they should provide evidence demonstrating the reasons for this, and why it will not be reasonably possible to reach an agreement during the lifetime of the thermal	
	4.7.12 Utilisation of useful heat that displaces conventional heat generation from fossil fuel sources is to be encouraged where, as will often be the case, it is more efficient than the alternative electricity/heat generation mix. To encourage proper consideration of CHP, and substantial additional positive weight should therefore will be given by the IPC to applications incorporating CHP. If the an applicant is putting forward a proposal is for thermal generation without CHP, the applicant they should:	
	<ul> <li>explain why CHP is not economically or practically feasible; for example if there is a more energy efficient means of satisfying a nearby domestic heat demand;</li> <li>provide details of any potential future heat requirements in the area that have been considered and the reasons the station could not meet; and them;</li> <li>detail the provisions in the proposed scheme for ensuring any potential heat demand in the future can be exploited. 4.6.9; and</li> <li>provide an audit trail of dialogue between the applicant, prospective customers, the local area energy teams in local government and district heating energy supply companies.</li> </ul>	
	4.7.13 CHP may require additional space than for a non-CHP generating station. It is possible that this might conflict with space required for a generating station to be Carbon Capture ReadyCCR, as set out in Section 4.78. The material provided by applicants should therefore explain how the development can both be ready to provide CHP in the future, and also be Carbon Capture ReadyCCR, or set out any constraints (for example space restrictions) which would prevent this.	
	Secretary of State decision making  4.6.104.7.14 Guidance issued by the then DTI in 2006, 122 will apply to any application to develop a thermal generating station under the Planning Act 2008. The Secretary of	

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	State should have regard to the 2006 guidance, or any successor to it, when	
	considering the CHP aspects of applications for thermal generating stations.	
	4.7.15 Given the importance which government attaches to CHP, if an application does	
	not demonstrate that CHP has been adequately considered the Examining Authority	
	should seek further information from the applicant.	
	4.7.16 The Secretary of State should not give development consent unless satisfied	
	that the applicant has provided appropriate evidence that CHP is included or that the	
	opportunities for CHP have been fully explored.	
	4.7.17 If the IPCSecretary of State (or the Examining Authority during the examination	
	stage) is not satisfied with the evidence that has been provided, itthe Secretary of State	
	(or the Examining Authority during the examination stage) may wish to investigate this	
	with one or more of the bodies such as the HCA, LEPs and Local Authorities.	
	4.6.117.18 Furthermore, if the IPC, Secretary of State (or the Examining Authority	
	during the examination stage), when considering an application for a thermal	
	generating station, identifies a potential heat customer that is not explored in the	
	application (for instance, on the advice of the HCA or Local Authorities), itthe Secretary	
	of State (or the Examining Authority during the examination stage) should request that	
	the applicant pursues this. Should the applicant not be able to reach an agreement with	
	a potential customer, it should provide evidence demonstrating why it was not possible.	
	4.6.124.7.19 The IPCSecretary of State may also be aware of potential developments	
	(for example from the applicant or a third party) which could utilise heat from the plant	
	in the future, for example planned housing, and which is due to be built within a	
	timeframe that would make the supply of heat cost-effective. If so, the IPC Where it may	
	be reasonably possible for the applicant to reach agreement with a potential heat	
	customer during the lifetime of the station, the Secretary of State may wish to impose	
	requirements to ensure that the generating station is CHP-ready unless the IPC is and	
	designed in order to allow heat supply at a later date.	
	4.7.20 If satisfied that the applicant has demonstrated that the need to comply with the	
	requirement to be Carbon Capture ReadyCCR will preclude any provision for CHP, the	
	Secretary of State will not impose requirements to ensure that the generating station is	
	CHP-ready.	
	83 http://www.defra.gov.uk/environment/climatechange/uk/energy/chp/pdf/potential-report.pdf	
	<sup>84</sup> "The Potential and Costs of District Heating Networks", Pöyry and Faber Maunsell, April 2009.	
	85116 See https://www.gov.uk/guidance/combined-heat-power-quality-assurance-programme 117 Such ratings are achieved by examining data for fuel used, power generated, heat supplied, and hours run. To be confirmed as Good	
	Quality CHP: Existing systems must achieve a QI of 100, and a power efficiency of 20%. New systems must achieve	
	a QI of 105. 118 Good quality CHP capacity and total generation from CHP: from table 5.15 of Digest of United	
	Kingdom Energy Statistics (DUKES) 2021: Combined Heat and Power (CHP) generation and capacity overview, available at. Total electricity generated: from table 5.6 of Digest of United Kingdom Energy Statistics (DUKES) 2021:	
	Electricity fuel use, generation and supply, available at.	
	119 From table 7.11 of Digest of United Kingdom Energy Statistics (DUKES) 2021: CHP - savings of carbon dioxide	
	emissions, available at.	

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Climata abanga	120 Guidance on background information to accompany notifications under Section 14(1) of the Energy Act 1976 and applications under Section 36 of the Electricity Act 1989.  121 Guidance on background information to accompany notifications under Section 14(1) of the Energy Act 1976 and applications under Section 36 of the Electricity Act 1989.  122 Guidance on background information to accompany notifications under Section 14(1) of the Energy Act 1976 and applications under Section 36 of the Electricity Act 1989.  123 Guidance on background information to accompany notifications under Section 14(1) of the Energy Act 1976 and applications under Section 36 of the Electricity Act 1989.	The earliest and storage policies at part 4.9 of draft EN 4 are undeted to
Climate change adaptationCarbon Capture and Storage (CCS) (Part 4.8 of EN-1)	CCS 4.78.1 Carbon Capture and Storage (CCS) is an emerginga technology that enables carbon dioxide that would otherwise be released to the atmosphere to be captured and permanently stored. It can be applied to any large point source of carbon dioxide, such as fossil fuelthermal generating power stations or other industrial processes that are high emitters. Carbon capture technologies are able to remove up to 90% 4.8.2 Examples of the carbon dioxide that would otherwise be released to the atmosphere and offers the opportunity for fossil fuels to continue to be an important	The carbon capture and storage policies at part 4.8 of draft EN-1 are updated to emphasise the Government's support for CCS, with paragraph 4.8.3 confirming CCS technologies offer opportunities to decarbonise the electricity system by providing a reliable low carbon generation capacity and security of supply. Draft paragraph 4.8.6 states CCS technology has not deployed to date due to commercial barriers and not technical ones, but that business models may evolve to support delivery of their technology. Paragraph 4.8.5 emphasises the Government's ambitions for CCS, which the Proposed Scheme will help deliver.
	<ul> <li>element of a secure and diverse low carbon energy mix. 4.7.2 The chain of CCS has three links: capture of carbon, transport, and storage. There are three types of capture technology are:</li> <li>Pre-combustion capture: this method involves reacting fuel with oxygen or air, and in some cases steam, to produce a gas consisting mainly of carbon monoxide and hydrogen. The carbon monoxide is reacted with more steam in a catalytic shift converter to produce more hydrogen and CO2 The CO2 is then separated, and the hydrogen is used as fuel in a combined cycle gas turbine generating station. For coal, this method is based on integrated coal gasification combined cycle (ICGCC) technology.</li> <li>Post-combustion capture: this uses solvents or other methods to scrub CO2 out of flue gases. The CO2 is then released as a concentrated gas stream by a regeneration process. Post-combustion capture is applicable to pulverised coal</li> </ul>	Proposed paragraph 4.8.3 states minimum carbon capture rates may be required. The Applicant can confirm that the Proposed Scheme has been designed to remove approximately 95% of the carbon dioxide from the flue gas emitted from two of the four energy generation from biomass units; and will be secured through the environmental permit.  Additional text proposed at paragraph 4.8.13 onwards generally provides guidance for DCO applications for generating stations with CCS, not just CCS development as per the Proposed Scheme.  As per proposed paragraph 4.8.22, additional consents will be required to deliver the Proposed Scheme, which are set out in Other Consents and Licenses document (REP5-009REP8-010). The EA has recognised carbon capture as a technology and as such has issued best available techniques guidance.
	<ul> <li>Oxy-fuel combustion: in this process, fuel is burnt in an oxygen/CO2 mixture rather than air to produce a flue gas that is predominantly CO2. For gas-fired plants the technology could be used with a combined cycle system. Other oxy-fuel combustion power CCS plants are being developed using novel non-combined cycle systems.</li> <li>4.8.3 Carbon capture rates achieved will depend on the application and a minimum capture rate may be required.</li> <li>4.8.4 Carbon capture technologies offer the opportunity to decarbonise the electricity system whilst maintaining security of supply, providing reliable low carbon generation</li> </ul>	UK CCS clusters are mentioned in proposed paragraphs 4.8.5 and 4.8.20, where the latter also acknowledges that "development consent applications for power CCS projects may not include an application for consent for the full CCS chain (including the onward transportation and storage of CO2)", as per the Proposed Scheme, which seeks consent for the 'carbon capture link' only. Details of how the captured carbon dioxide is intended to be transported and stored is explained in Section 1.3 of the Planning Statement (APP-032), in line with proposed paragraph 4.8.21. Details of how cumulative impacts will be assessed and whether any necessary consents, permits and licences have been obtained for the transport and storage links are not yet known.

4.8.5 The government has made its ambitions for CCS clear - committing to providing

funding to support the establishment of CCS in at least four industrial clusters by 2030

and supporting, using consumer subsidies, at least one privately financed gas CCS

power station in the mid-2020s. 123 In October 2021, the government published its Net Zero Strategy 124 which reaffirmed the importance of deploying CCUS to reaching our

the DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by

Rev 12 being submitted at Deadline 10) and Works Plans (AS-106) set out the parameters

of the Proposed Scheme and how the Applicant has sought to mitigate the visual impacts

of the operational requirements of the carbon capture equipment.

#### **Policy Emerging Policy Text Detailing Changes Assessment of Changes of Relevance** 2050 net zero target and also outlines our ambition to capture 20-30Mt of CO2 per year In relation to paragraph 4.8.16, the Applicant has explained the technical feasibility of its by 2030. proposals in its Response to Relevant Representations (PDA-002) and response to Deadline 1 submissions (REP2-067); and will ultimately be subject to controls and 4.8.6 The barriers to CCS deployment to date have been commercial rather than monitoring within the permit. technical, and the business models, which may evolve over time, aim to support the deployment of the technology. In relation to paragraph 4.8.19, the Applicant has set out throughout the Examination how it has undertaken its air quality assessments with reference to the latest research position in 4.8.7 Part 3 of this NPS sets out the need for CCS and the role power CCS could play respect of amines, see in particular with the signed SoCG with the Environment AgencyEA in our electricity system in more detail. (most recent version submitted at Deadline 5 (REP8-018REP5-016)) and its responses to 4.8.8 Gas-fired power CCS stations may still emit residual CO2 and so will be required Deadline 4 submissions (REP5-028). to comply with any Emissions Performance Standards (EPS) that might be applicable, Proposed paragraph 4.8.22 – 4.8.27 goes on to provide advice relating to carbon dioxide but this is not part of the development consent process. transport pipelines and storage. As explained at Section 1.3 of the Planning Statement, the 4.8.9 To ensure that no foreseeable barriers exist to retrofitting CCS equipment on transport and storage 'links' will be the subject of separate consent applications by third combustion generating stations, all applications for new combustion plant which are of parties, such as the onshore carbon pipeline operatorby NGCL, and include the generating capacity at or over 300MW and of a type covered by The Carbon Capture construction of a pipeline as part of the HLCP project, to accommodate the transportation Readiness (Electricity Generating Stations) Regulations 2013<sup>125</sup> should demonstrate of carbon dioxide ('transport link') to the Endurance storage site under the North Sea that the plant is "Carbon Capture Ready" (CCR) before consent may be given. ('storage link'). These updates demonstrate the Government's recognition of the need for 4.8.10 In the Energy White Paper<sup>126</sup>, published in December 2020, government such infrastructure and its support for their delivery. committed to consult on an expansion to CCR requirements. As part of this expansion, Further to the above, the assessment of the adopted relevant policy still stands, and we intend to rename Carbon Capture Readiness to Decarbonisation Readiness. addresses the remaining proposed paragraphs of Part 4.8 of draft EN-1. This is presented 4.8.11 A call for evidence<sup>127</sup> was held in Summer 2021 to gather initial views and at Table 1 above. evidence. A consultation is due to be held early in 2023. Based on the above, the Applicant considers the Proposed Scheme accords with the 4.8.12 If, as expected, that consultation leads to changes in the relevant legal or policy proposed text of Part 4.8 of draft EN-1. framework then those new requirements will apply and supersede the existing CCR requirements. In the meantime, CCR policy remains as set out in the section above. Applicant assessment 4.8.13 The carbon capture plant required for a new build power CCS plant can be included as associated development <sup>128</sup> in the application for development consent for the relevant thermal generating station and will then be considered as part of that application. 4.8.14 The environmental impacts of a gas-fired power CCS station should be similar to an unabated gas-fired power station, and so the assessment principles for the generating station covered in EN-2 should be similarly applied. 4.8.15 As set out in Section 2.4 of EN-2, the main structures of thermal generating stations could be large, and so may have landscape and visual impacts. Carbon capture facilities could also be significant in size - they may require additional space to the generating facility which will need to be included within the design and EIA. For example, the main direct contact cooler, CO<sub>2</sub> absorber column and regenerator towers in post-combustion plants can be tall, but the overall size will be dependent on the technology and design.

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	4.8.16 As set out in Section 2.4 of EN-2, there will be noise and vibration impacts	
	associated with the generating station. The carbon capture plant will also have noise	
	and vibration impacts. Applications for development consent for generating stations	
	with CCS should provide evidence that shows:	
	(a) technically feasible plans for the CO2 capture plant; and	
	(b) an ES that addresses impacts arising from the project and documentation to ensure	
	compliance with all other existing policy, including that any of the plant's capacity which	
	is not to be fitted with carbon capture at the outset meets the requirements for Carbon	
	Capture Readiness (CCR).	
	4.8.17 An Environmental Permit (EP) will also be required from the Environment	
	Agency (EA) or Natural Resources Wales (NRW) which incorporates conditions for	
	operation of the carbon capture and storage installation.	
	4.8.18 There are several different capture techniques which might have slightly	
	different environmental impacts and considerations, which should be set out in the	
	application. For example, some capture technologies may require hazardous	
	substances consent for solvents required during the capture process, such as	
	nitrosamines, and fall under Control of Major Accident Hazards (COMAH) <sup>129</sup> solvents	
	such as nitrosamines. Best Available Techniques (BAT) guidance, 130 assessment tool	
	Horizontal 1 <sup>131</sup> and Environmental Assessment Levels <sup>132</sup> should be used when	
	understanding impacts from capture solvents such as nitrosamines.	
	4.8.19 Another example is the use of amine-based solvents in some types of post-	
	combustion carbon capture which can create degradation products with potential	
	impacts on air quality. The ES should reflect the latest research in areas such as amine	
	degradation where understanding is still developing.	
	4.8.20 The chain of CCS has three links: capture of carbon, transport, and storage.	
	Due to the approach of deploying CCS in clusters in the UK with shared transport and	
	storage infrastructure, it is likely that development consent applications for power CCS	
	projects may not include an application for consent for the full CCS chain (including the	
	onward transportation and storage of CO <sub>2</sub> ).	
	4.8.21 However, development consent applications for power CCS projects should	
	include details of how the captured CO <sub>2</sub> is intended to be transported and stored, how	
	cumulative impacts will be assessed and whether any necessary consents, permits and	
	licences have been obtained.	
	4.8.22 Applicants gaining consent for CCS infrastructure will need a range of consents	
	from different bodies. One method for transporting captured carbon dioxide is through	
	pipelines. These will be located both onshore and offshore With coal the technology	
	would be deployed with a suitably modified pulverised coal combustion system, whilst	
	with gas it could be used with a combined cycle system. 4.7.3 Once carbon dioxide has	
	been captured, it is then compressed and transported, before beingOnshore pipelines	
	over 16.093 kilometres in length classify as NSIPs and require a development consent	
	order. There are currently no cross-country carbon dioxide pipelines in the UK and	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	considerable investment in pipelines will be required for the wider deployment of CCS.	
	This initial investment could form the basis of more extensive carbon dioxide pipeline	
	networks, which are likely to require greater capacity pipelines.	
	4.8.23 Applicants are expected to take into account foreseeable future demand when	
	considering the size and route of their investments. Applicants may therefore propose	
	pipelines with a greater capacity than demand at the time of consenting might suggest.	
	Existing legislation (The Offshore Petroleum Production and Pipelines (Assessment of	
	Environmental Effects) Regulations 1999 <sup>133</sup> ) already provides powers to require	
	modification of pipelines where this would reduce the need for additional pipelines to be	
	constructed in the future.	
	4.8.24 Another method for transporting carbon dioxide is by ship. Ports would enable	
	the transfer of carbon dioxide from onshore infrastructure onto ships. Ports and	
	associated infrastructure that process at least 5Mt of material (including CO <sub>2</sub> ) per year	
	would qualify as NSIP Projects and require a development consent order from the	
	Department for Transport. Such applications would be considered under the National	
	Policy Statement for Ports <sup>134</sup> , but the need for CCS infrastructure set out in this NPS is	
	likely to be a relevant consideration. Port development falling outside of NSIP Projects	
	would likely require a marine licence (see para 4.4.6) and local planning consent.	
	4.8.25 CO <sub>2</sub> can be permanently stored in deep geological formations, such as depleted	
	oil and gas fields and saline aquifers. In the UK, the majority of locations thought to be	
	best suited to storage of CO2 are located offshore. 4.7.4 The Government has taken a	
	number of steps to facilitate and encourage the demonstration of CCS technology. The	
	demonstration programme described in 3.6.5 focused initially on coal-fired power	
	stations. This is because the emissions from coal generation are substantially higher	
	than from other fuels, including gas; the projected increase in coal use globally creates	
	a greater urgency to tackling emissions from coal; tackling emissions from coal first	
	makes most economic sense because of the greater emissions intensity; and new coal	
	generating stations would contribute to the diversity and security of UK energy supplies	
	as we make the transition to a low carbon mix. However, CCS will also be required for	
	other combustion generating stations in future and the Government has therefore	
	extended the demonstration programme to include gas-fired generating stations. 4.7.5	
	All commercial scale fossil fuelled generating stations have to be carbon capture ready	
	(see CCR Section below). In addition to satisfying the CCR criteria, to reduce CO2 emissions new coal-fired generating stations, or significant extensions to existing	
	stations, in England or Wales must have CCS on at least 300 MW net of the proposed	
	generating capacity and secure arrangements for the transport and permanent storage	
	of carbon dioxide. Coal-fired generating stations of less than 300 MW net capacity	
	should show that the proposed generating station will be able to capture CO2 from their	
	full capacity. Operators of fossil fuel generating stations will also be required to comply	
	with any Emission Performance Standards (EPS) that might be applicable, but this is	
	not part of the consents process. 4.7.6 Given this requirement to fit a technology which	
	is at a relatively early stage of development, and therefore very costly, it is unlikely that	
	any coal-fired plants will be built in the foreseeable future without financial support for	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	CCS demonstration. However it is possible that developers may wish to submit	
	applications in advance of securing funding. Any decision on a planning application for	
	a new coal-fired generating station should be made independently of any decision on	
	allocation of funding for CCS demonstration. This may mean, therefore, that planning	
	consent could be given to more applications than will be able to secure financial	
	support for CCS demonstration. 4.7.7 The most likely method for transporting the	
	captured carbon dioxide is through pipelines. The UK has an estimated offshore CO2	
	storage capacity of 78Gt/CO <sub>2</sub> <sup>135</sup> enough to store the equivalent of current total UK	
	annual emissions for over 200 years.	
	4.8.26 The development of an offshore CO <sub>2</sub> storage industry will play a key role in	
	helping to ensure the transition to a net zero economy. Establishing an offshore	
	storage industry could also make the UK a global leader in storage services as	
	countries eager to meet emissions targets pursue carbon capture. Efficiently	
	maximising our offshore CO <sub>2</sub> storage capacity offers the best opportunity to realise our	
	ambitions for CO <sub>2</sub> storage as set out in the Ten Point Plan. 136 Government do not	
	currently envisage an onshore CO <sub>2</sub> storage industry developing against this backdrop.	
	4.8.27 Offshore CO <sub>2</sub> transport and storage infrastructure is not covered by this NPS, is	
	subject to a separate permitting and licensing regime, and will require an applicant to	
	secure a Carbon Dioxide Appraisal and Storage Licence and a Storage Permit; a	
	Carbon Storage Lease and a Seabed Lease; offshore pipelines require a Pipeline	
	Works Authorisation and notification in accordance with Pipelines Safety Regulations.	
	Offshore CO <sub>2</sub> transport and storage proposals will need to be supported by an EIA. A	
	suite of environmental approvals will also be required for the construction,	
	development, and the operational phase.	
	4.8.28 In order to assure the Secretary of State that a proposed development is CCR,	
	applicants must These will be located both onshore and offshore. There are currently no	
	carbon dioxide pipelines in the UK and considerable future investment in pipelines will	
	be required for the purpose of the demonstration programme. If CCS is deployed more widely, it is likely that these initial investments could form the basis of a wider carbon	
	dioxide pipeline network, which is likely to require greater capacity pipelines. In	
	considering applications the IPC should therefore take into account that the	
	Government wants developers to bear in mind foreseeable future demand when	
	considering the size and route of their investments and may therefore propose	
	pipelines with a greater capacity than necessary for the project alone. Existing	
	legislation already provides powers to require modification of pipelines where this	
	would reduce the need for additional pipelines to be constructed in the future. 4.7.8 To	
	construct a coal power station with the full CCS chain, applicants will need a range of	
	consents from different bodies. These include a CO2 storage licence and (if	
	appropriate) consent for both on and offshore pipeline construction. An environmental	
	permit will be required from the Environment Agency (EA) which incorporates	
	conditions for operation of the CCS chain. 4.7.9 Further information on the CCS	
	obligations to be imposed on new coal-fired power stations will be available in guidance	
	issued by DECC86. The IPC must follow this CCS guidance, or any successor to it,	

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	when considering applications for combustion generating stations. CCR 4.7.10 To	
	ensure that no foreseeable barriers exist to retrofitting carbon capture and storage	
	(CCS) equipment on combustion generating stations, all applications for new	
	combustion plant which are of generating capacity at or over 300 MW87 and of a type	
	covered by the EU's Large Combustion Plant Directive (LCPD)88 should demonstrate	
	that the plant is "Carbon Capture Ready" (CCR) before consent may be given. The IPC	
	must not grant consent unless this is the case. In order to assure the IPC that a	
	proposed development is CCR, applicants will need to demonstrate that their proposal	
	complies with guidance issued by the Secretary of State in November 2009 <sup>89</sup> 137 or any successor to it. The guidance requires:	
	that sufficient space is available on or near the site to accommodate carbon capture equipment in the future;	
	the technical feasibility of retrofitting their chosen carbon capture technology;	
	that a suitable area of deep geological storage offshore exists for the storage of	
	<ul> <li>captured CO2 from the proposed combustion station;</li> <li>the technical feasibility of transporting the captured CO2 to the proposed storage</li> </ul>	
	<ul> <li>area; and</li> <li>the economic feasibility within the combustion station's lifetime of the full CCS chain, covering retrofitting, transport and storage.</li> </ul>	
	4.7.118.29 Government envisages that the technical feasibility study for retrofitting	
	CCS equipment will take the form of a written report and accompanying plant designs which:	
	<ul> <li>make clear which capture technology is currently considered most appropriate for retrofit in the future to the power station; and</li> </ul>	
	<ul> <li>provide sufficient detail to enable the EA or NRW to advise the Secretary of State</li> </ul>	
	on whether the applicant has sufficiently demonstrated there are no currently known technical barriers to subsequent retrofit of the declared capture technology.	
	4.7.128.30 The assessment of technological feasibility could be against either:	
	an appropriate reference document; or	
	<ul> <li>by the provision of sufficient technical detail by the applicant in their submitted plans and discussions with the advisory body.</li> </ul>	
	4.7.138.31 Applicants should conduct a single economic assessment which	
	encompasses retrofitting of capture equipment, CO2 transport and the storage of CO2.	
	Applicants should provide evidence of reasonable scenarios, taking into account the	
	cost of the capture technology and transport option chosen for the technical CCR	
	assessments and the estimated costs of CO2 storage, which make operational CCS economically feasible for the proposed development.	
	4.7.148.32 The preparation of an economic assessment will involve a wide range of	
	assumptions on each of a number of factors, and Government recognises	
	the inherent uncertainties about each of these factors. There can be no guarantee that	
	an assessment which is carried out now will predict with complete accuracy either in	

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	what circumstances it will be feasible to fit CCS to a proposed power station or when those circumstances will arise, but it can indicate the circumstances which would need to be the case to allow operational CCS to be economically feasible during the lifetime of the proposed new station.	
	4.7.158.33 A model assessment structure is suggested in DECC's-CCR guidanceguidance <sup>138</sup> , although this is not the only way which the assessment could be addressed. It is the responsibility of applicants to Applicants must justify the capture, transport and storage options chosen for their proposed development. 4.7.16 The IPC should consult EA on the technical and economic feasibility assessments. The IPC should also have regard to advice from EA as to the suitability of the space set aside on or near the site for CCS equipment. If the IPC, having considered these assessments and other available information including comments by EA, concludes that it will not be technically and economically feasible to retrofit CCS to a proposed plant during its expected lifetime, then the proposed development cannot be judged to be CCR and therefore cannot receive consent.  4.7.174.8.34 If granted consent, operators of the power station will be required to:	
	<ul> <li>retain control over sufficient additional space on or near the site on which to install the carbon capture equipment and the ability to use it for that purpose;</li> <li>submit update reports on the technical aspects of its CCR status to the Secretary of State for <a href="DECCDESNZ">DECCDESNZ</a>. These reports will be required within <a href="3three">3three</a> months of the commercial operation date of the power station (so avoiding any burden on the operator with an unimplemented consent) and every two years thereafter. Should CCS equipment be retrofitted to the full capacity of the plant, the obligation to provide such reports will lapse.</li> </ul>	
	Secretary of State decision making	
	4.8.35 CCS infrastructure will need a range of consents from different bodies. The Secretary of State should have regard to advice from these bodies and consider specifically advice from the EA or NRW as to the technical feasibility of the proposed carbon capture technology.	
	4.8.36 A number of considerations relevant for gas-fired power CCS stations should be similar to an unabated gas-fired power station. The Secretary of State should apply the assessment principles for the generating station covered in EN-2.	
	<ul> <li>4.8.37 In considering CCR the Secretary of State should consult the EA or NRW on the applicants technical and economic feasibility assessments.</li> <li>4.8.38 The Secretary of State should also have regard to advice from the EA or NRW</li> </ul>	
	as to the suitability of the space set aside on or near the site for CCS equipment.  4.8.39 If the Secretary of State, having considered these assessments and other available information including comments by EA or NRW, concludes that it will not be technically and economically feasible to retrofit CCS to a proposed plant during its	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	expected lifetime, then the proposed development cannot be judged to be CCR and therefore cannot receive consent.  123 See https://www.gov.uk/government/publications/the-ten-point-plan-for-a-green-industrial-revolution 124 See https://www.gov.uk/government/publications/net-zero-strategy 125 See https://www.gov.uk/government/publications/net-zero-strategy 126 See https://www.gov.uk/government/publications/energy-white-paper-powering-our-net-zero-future 127 See https://www.gov.uk/government/publications/decarbonisation-readiness-call-for-evidence-on-theexpansion-of-the-2009-carbon-capture-readiness-requirements 128 It is for the Secretary of State to decide on a case-by-case basis whether or not development should be treated as associated development.  ** Draft Guidance was issued for consultation in November 2009.  ** The-threshold set for this CCR requirement-is-capacity measured in-MW-electricity (MWe) for combustion-plants which are covered by the LCPD, consistent with the requirements of Article 9a of the LCPD, as inserted by Article 33 of the EU Directive on the Geological Storage of Carbon Dioxide (2009/31/EC). This article requires applicante to early out CCR assessments, and it requires Members State authorities (in this case, the IPC) to ensure that suitable space for the capture equipment-is set acide. The pelicy-set out here represents the implementation of Article 9a as regards Great Britain, but it also goes beyond what the Directive requires, as explained in DECC guidance.  **2-9001/80/EC. Energy-from-waste plants are not covered by the LCPD.  **3-12 See https://www.gov.uk/government/collections/risk-assessments-for-specific-activities-environmental-permits  **13 See https://www.gov.uk/government/collections/risk-assessment-for-your-environmental-permits/environmental-standards-for-air-emissions  **133 See https://www.gov.uk/government/publications/carbon-capture-best-available-techniqust-leroniqus-bat  **135 Energy Technologies Institute: Taking stock of UK CO2 storage (2017): See https://www.dov.	
Grid connectionClimate Change Adaption (Part 4 of EN-1	4.89.1 Part 2 of this NPS covers the Government's energy and climate change strategy, including policies for mitigating climate change. This part of the NPS sets out how applicants and the IPC should take the effects of climate change into account when developing and consenting infrastructure. While climate Climate change mitigation is essential to minimise the most dangerous impacts of climate change, however previous global greenhouse gasGHG emissions have already committed us to some degree of continued climate change for at least the next 30 years. If new energy infrastructure is not sufficiently resilient against the possible impacts of climate change, it will not be able to satisfy the energy needs as outlined in Part 3 of this NPS.	The majority of the Climate Change Adaption text will remain unchanged and is assessed against the Proposed Scheme in Table 1 above. Key changes emphasise the impact of accelerated, alternating weather patterns resulting from climate change.  Proposed paragraph 4.9.5 requires applicants to consider whether nature-based solutions could provide a basis for climate change adaption. As set out in Table 1 above, the SWDS (REP2-043) has been designed to utilise surface water runoff in the existing water-cooling system. This will reduce the water abstracted from the River Ouse and uses a natural resource to mitigate climate change impacts, in line with EN-1. This integrated approach complies with proposed paragraph 4.9.6.

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4.89.2 Climate change is likely to mean that already altering the UKUK's weather patterns and this will experience continue to accelerate depending on global carbon emissions. This means it is likely there will be more extreme weather events, such as heavy rainfall and very hot days which will be more intense and more frequent. As well as climatic and seasonal changes such as hotter, drier summers and warmer, wetter winters. There, there is also a likelihood of increased flooding, drought, heatwaves, and intense rainfall events, as well as rising sea levels, increased storms and coastal change. Adaptation is therefore necessary to deal with the potential impacts of these changes that are already happening.

4.89.3 To support planning decisions, the Government produces a set of UK Climate ProjectionsProjections<sup>139</sup> and is developinghas developed a statutory National Adaptation Programme90Programme<sup>140</sup>. In addition, the Government's Adaptation Reporting Power<sup>91141</sup> will ensure that reporting authorities (a defined list of public bodies and statutory undertakers, including energy utilities) assess the risks to their organisation presented by climate change. The IPC may take into account energy utilities' reports to the Secretary of State when considering adaptation measures proposed by an applicant for new energy infrastructure.

4.8.44.9.4 The generic impacts advice in this NPS and the technology specific advice on impacts in the other energy NPSs provide additional information on climate change adaptation and should be read alongside this section. Section 5.6 on coastal change and Section 5.8 on flood risk in particular provide relevant guidance for consideration.

#### Applicant assessment

4.9.5 In certain circumstances, measures implemented to ensure a scheme can adapt to climate change may give rise to additional impacts, for example as a result of protecting against flood risk, there may be consequential impacts on coastal change (see Section 5.5). 4.8.56). In preparing measures to support climate change adaptation applicants should take reasonable steps to maximise the use of nature-based solutions alongside other conventional techniques.

4.9.6 Integrated approaches, such as looking across the water cycle, considering coordinated management of water storage, supply, demand, wastewater, and flood risk can provide further benefits to address multiple infrastructure needs, as well as carbon sequestration benefits.

4.9.7 In addition to avoiding further GHG emissions when compared with more traditional adaptation approaches, nature-based solutions can also result in biodiversity benefits and net gain, as well as increasing absorption of carbon dioxide from the atmosphere (see also Section 5.11 on the role of green infrastructure and Section 4.5 on environmental and biodiversity net gain).

4.9.8 New energy infrastructure will typically be a long-term investment and will need to remain operational over many decades, in the face of a changing climate.

Consequently, applicants must consider the <u>direct (e.g. site flooding, limited water</u>

## Assessment of Changes of Relevance

Section 4.11 of the Planning Statement (APP-032) and Chapter 14 (Climate Resilience) of the ES (APP-040) demonstrate that the Proposed Scheme has been assessed against a range of climate change scenarios, as per proposed paragraph 4.9.10, and that it will have high level of climate resilience built-in from the outset, in line with proposed paragraph 4.9.11. Various design measures (and how they are secured) for climate resilience are set out in the REAC (AS-121REP9-019).

Proposed paragraph 4.9.11 proposes text requiring applicants to demonstrate "how proposals can be adapted over their predicted lifetimes to remain resilient to a credible maximum climate change scenario". The Proposed Scheme is anticipated to operate for at least 25 years. At the end of the 25-year period, the facility may have some residual life remaining and an investment decision would be made as to whether the operational life of the Proposed Scheme would be extended. If it is not appropriate to continue operation, the Proposed Scheme would be decommissioned.

If, after 20 years of the Proposed Scheme's operating life, it is considered likely that the Proposed Scheme would continue to operate post its currently anticipated 25 year design life, then the Applicant will initiate discussions should commence with the Environment AgencyEA to provide appropriate time for the Environment AgencyEA to agree any design interventions are required, and approve details of those interventions if they are required, such detail to-include an implementation and retention timetable, to facilitate the on-going operation of the Proposed Scheme along with the Existing Power Station. If any design interventions are required, they must be implemented and retained in accordance with the approved details. This is set out in the Flood Risk Assessment and Requirement 11 in Schedule 2 of the Draft DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10).

Chapter 14 (Climate Change Resilience) of the ES (APP-050) demonstrates that a credible maximum climate change scenario has been applied to assessments undertaken in respect of climate change impact, in accordance with proposed paragraph 4.9.12.

The above is further discussed in the assessment against the adopted relevant EN-1 policy which is set out in Table 1 above.

Based on the above assessment and that contained in Table 1, the Applicant considers the Proposed Scheme meets the requirements of Part 4.9 of draft EN-1.

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	availability, storms, heatwave and wildfire threats to infrastructure and operations) and	
	indirect (e.g. access roads or other critical dependencies impacted by flooding, storms,	
	heatwaves or wildfires) impacts of climate change when planning the location, design,	
	build, operation and, where appropriate, decommissioning of new energy infrastructure.	
	4.9.9 The ES should set out how the proposal will take account of the projected	
	impacts of climate change. While not required by, using government guidance and	
	industry standard benchmarks such as the Climate Change Allowances for Flood Risk	
	Assessments, 142 Climate Impacts Tool, 143 and British Standards for climate change	
	adaptation, 144 in accordance with the EIA Directive, this Regulations. This information	
	will be needed by the IPC. 4.8.6 The IPC should be satisfied that applicants for new	
	energy infrastructure have taken into account the potential Secretary of State.	
	4.9.10 Applicants should assess the impacts of climate change using the latest UK	
	Climate Projectionson and from their proposed energy project across a range of	
	climate change scenarios, in line with appropriate expert advice and guidance available	
	at the time.	
	4.9.11 Applicants should demonstrate that proposals have a high level of climate	
	resilience built-in from the ES was prepared to ensure they have identified appropriate	
	mitigation or adaptation measures. This should cover the estimated lifetime of the new	
	infrastructure. Should a new set of UK Climate Projections become available after the	
	preparation of the ES, the IPCoutset and should consider whether they needalso	
	demonstrate how proposals can be adapted over their predicted lifetimes to remain	
	resilient to request further information from the applicant. 4.8.7 Applicants should apply	
	as a minimum, the emissionsa credible maximum climate change scenario that the	
	Independent Committee on Climate Change suggests the world is currently most	
	closely following – and the 10%, 50% and 90% estimate ranges. These results should	
	be considered alongside relevant research which is based on the climate change	
	projections. 4.8.8 The IPC	
	4.9.12 Where energy infrastructure has safety critical elements (for example parts of	
	new gas-fired power stations or some electricity sub-stations), the applicant should	
	apply a credible maximum climate change scenario. It is appropriate to take a risk-	
	averse approach with elements of infrastructure which are critical to the safety of its	
	operation.	
	Secretary of State decision making	
	4.9.13 The Secretary of State should be satisfied that applicants for new energy	
	infrastructure have taken into account the potential impacts of climate change using the	
	Intest UK Climate Projections 145 and associated research and expert guidance (such as	
	the EA's Climate Change Allowances for Flood Risk Assessments 146 or the Welsh	
	Government's Climate change allowances and flood consequence assessments 147)	
	available at the time the ES was prepared to ensure they have identified appropriate	
	mitigation or adaptation measures. This should cover the estimated lifetime of the new	
	infrastructure, including any decommissioning period.	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	4.9.14 Should a new set of UK Climate Projections or associated research become available after the preparation of the ES, the Secretary of State (or the Examining Authority during the examination stage) should consider whether they need to request further information from the applicant.	
	4.9.15 The Secretary of State should be satisfied that there are not features of the design of new energy infrastructure critical to its operation which may be seriously affected by more radical changes to the climate beyond that projected in the latest set of UK climate projections, taking account of the latest credible scientific evidence on, for example, sea level rise (for example by referring to additional maximum credible scenarios – i.e. from the Intergovernmental Panel on Climate Change or EA) and that necessary action can be taken to ensure the operation of the infrastructure over its estimated lifetime. 4.8.9 Where energy infrastructure has safety critical elements (for example parts of new fossil fuel power stations or some electricity sub-stations), the applicant should apply the high emissions scenario (high impact, low likelihood) to	
	those elements. Although the likelihood of this scenario is thought to be low, it is appropriate to take a more risk-averse approach with elements of infrastructure which are critical to the safety of its operation.  4.8.104.9.16 If any adaptation measures give rise to consequential impacts (for example on flooding, water resources or coastal change) the IPCSecretary of State should consider the impact of the latter in relation to the application as a whole and the impacts guidance set out in Part 5 of this NPS.	
	4.8.119.17 Any adaptation measures should be based on the latest set of UK Climate Projections 148, the Government's latest UK Climate Change Risk Assessment 149, when available 92150 and in consultation with the EA.EA's Climate Change Allowances for Flood Risk Assessments 151 or the Welsh Government's Climate change allowances and flood consequence assessments 152.	
	4.8.129.18 The Secretary of State may take into account energy utilities' reports to the Secretary of State when considering adaptation measures proposed by an applicant for new energy infrastructure.	
	4.9.19 Adaptation measures canshould be required to be implemented at the time of construction where necessary and appropriate to do so. However, where they are necessary to deal with the impact of climate change, and that measure would have an adverse effect on other aspects of the project and/or surrounding environment (for example coastal processes), the IPCSecretary of State may consider requiring the applicant to ensure that the adaptation measure could be implemented should the need arise, rather than at the outset of the development (for example increasing height of existing, or requiring new, sea walls). 4.8.13 The generic impacts advice in this NPS and the technology specific advice on impacts in the other NPSs provide additional information on climate change adaptation.	
	99139 The UKCP18 key results can be found here: See https://www.metoffice.gov.uk/research/approach/collaboration/ukcp/key-results	
ı	140 s.58 of the Climate Change Act 2008.	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
Pollution control and other environmental regulatory regimes-Network Connection (Part 4.10 of EN-1)	8911 6.82 of the Climate Change Act 2008. See https://www.gov.uk/government/publications/climate-changesecond-national-adaptation-programme-2018-to-2023  1º See https://www.gov.uk/gudance/flood-risk-assessments-climate-change-allowances or See https://www.gov.uk/gudance/flood-risk-assessments-climate-change-allowances and-flood-consequence-assessments-cl-03-16  1º See https://www.gov.uk/government/publications/climate-impacts-tool  1º See https://www.gov.uk/government/publications/climate-impacts-tool  1º See https://www.metoffice.gov.uk/research/approach/collaboration/ukcp  1º See https://www.metoffice.gov.uk/research/approach/collaboration/ukcp  1º See https://www.gov.uk/government/publications/climate-impacts-tool  1º See https://www.gov.uk/government/publications/climate-change-allowances-and-flood-consequence-assessments-climate-change-allowances-and-flood-consequence-assessments-thange-allowances-and-flood-consequence-assessment-2022  1º See https://www.gov.uk/government/publications/uk-climate-change-risk-assessment-2022  1º See https://www.gov.uk/government/publications-uk-climate-change-risk-assessment-2022  1º See https://www.gov.uk/government/publications-uk-climate-change-risk-assessment-2022  1º See https://www.gov.uk/government/publications-risk-dependent-government/publication-government/publication-government/publication-government/publication-government/publication-government/	Proposed policy changes emphasise the Government's aim to achieve net zero at proposed paragraph 4.10.3.  A Grid Connection Statement (APP-036) submitted with the Application confirms that the Proposed Scheme does not require connection to the National Transmission System ('NTS'), however upgrade works will be required to the existing NGESO 132 kV air insulated switchgear and possibly (and as such the DCO provides powers to do so) to the adjacent NGESO 400 kV substation to enable an increase in import capacity to Drax Power Station. As set out in the table above, the Applicant must submit a Mod App to NGESO, to amend the existing BCA between the Applicant and NGESO to inform the upgrade works required to enable an increase in import capacity to Drax Power Station. The Mod App will enable NGESO to request that NG Electricity Transmission undertake the required system studies to define the upgrade works required.  NGET will also be undertaking new installation and upgrade works for a separate project at and around the Drax Power Station Site which is the Scotland to England Green Link ('SEGL2') project. National Grid has submitted a planning application (ref: 2022/0711/EIA) to Selby District Council and a planning application (application reference 22/01990/STPLFE) to ERYC for the delivery of the SEGL2 project.  In the SoCG between the Applicant and NGET, it is agreed that the Applicant will work together with NGET on the interactions of the project with NGET infrastructure and with the SEGL2 project (and other future projects/works), and commits to working together to make sure Drax BECCS and other projects at the Existing Power Station can co-exist with NGET projects, subject to NGET's agreeance to undertake a similar approach.

# **Policy Emerging Policy Text Detailing Changes** 4.9.210.7 The Planning Act 2008 aims to create a holistic planning regime so that the cumulative effect of different elements of the same project can be considered together. Co-ordinated applications typically bring economic efficiencies and reduced environmental impact. The Government government therefore envisages that wherever reasonably possible, applications for new generating stations and related infrastructure should be contained in a single application to the **IPCSecretary of State** or in separate applications submitted in tandem which have been prepared in an integrated way-However this, as outlined in EN-5. This is particularly encouraged to ensure development of more co-ordinated transmission overall. 4.10.8 On some occasions it may not always be possible, nor the best course in terms of delivery of the project in a timely way, as to coordinate applications. For example, different aspects elements of a project may have different lead-in times and be undertaken by different legal entities subject to different commercial and regulatory frameworks (for example grid companies operate within OFGEM controls). So the level of information available on the different elements may vary. In some cases applicant(s)) making it inefficient from a delivery perspective to submit one application. Applicants may therefore decide to put in an application that seeks consent only submit separate applications for one each element but contains some information on the second. Where this is the case, the applicant should include information on the other elements<sup>154</sup> and explain the reasons for the separate application—confirming that there are no obvious reasons for why other elements are likely to be refused. 4.10.9.3 If this option is pursued, the applicant(s) accept accepts the implicit risks involved in doing so, and must ensure they provide sufficient information to comply with the EIA Directive Regulations including the indirect, secondary, and cumulative effects, which will encompass information on grid connections. The IPC must 4.10.10 It is recognised that this may be the situation for some new offshore transmission projects, where applications for consent may be brought forward separate to (though planned with) the applications for associated wind farms<sup>155</sup> as outlined in EN-5. Secretary of State decision making 4.10.11 The Secretary of State should consider guidance contained within EN-5. 4.10.12 The Secretary of State should be satisfied that there are no obvious reasons why appropriate network connection arrangements are/will be in place for a given project regardless of whether one or multiple (linked) applications are submitted. 4.10.13 Where the necessary approvals for the other element are likely to be refused. The fact that the IPC Secretary of State has decided to grant consent for one project this should not in any way fetter its the Secretary of State's ability to take subsequent

decisions on any related projects. 4.9.4 Further guidance on

154 It is acknowledged that different levels of information may be available at different times and as such applicants

<sup>153</sup> Although it is likely to have applied for one and discussed it with them.

should take a proportionate approach to what information should be included

#### Assessment of Changes of Relevance

#### Summary

In summary, as the Proposed Scheme does not require a new grid connection, no further assessment is required than that provided in Table 1 above, which relates to the adopted EN-1 policy.

The Applicant therefore considers the Proposed Scheme is acceptable in respect of Part 4.10 of draft EN-1.

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	155 The transition to more co-ordinated transmission is led by two temporal workstreams under the Offshore Transmission Network Review (OTNR). Co-ordinated transmission projects are being brought forward as pathfinders as part of the considerations for 'early opportunities' workstream. For other offshore wind projects, their connection to a transmission network will form part of the IPC is contained in EN-5. holistic network design under the 'pathway to 2030' workstream.	
Pollution Control and Other Environmental Regulatory Regimes Safety (Part 4.11 of EN-1)	4.1011.1 Issues relating to discharges or emissions from a proposed project, and which affect air quality, water quality, hand quality and thelead to other direct or indirect impacts on terrestrial, freshwater, marine-environment, onshore, and offshore environments, or which include noise and vibration may be subject to separate regulation under the pollution control framework/framework/56 or other consenting and licensing regimes., for example local planning consent or marine licences (see para 4.104.6 for more information).  4.11.2 The planning and pollution control systems are separate but complementary. The planning system controls the development and use of land in the public interest. It plays a key role in protecting and improving the natural environment, public health and safety, and amenity, for example by attaching conditions to allow developments which would otherwise not be environmentally acceptable to proceed, and preventing harmful development which cannot be made acceptable even through conditions. Pollution control is concerned with preventing pollution through the use of measures to prohibit or limit the releases of substances to the environment from different sources to the lowest practicable level. It also ensures that ambient air-and, water, and land quality meet standards that guard against impacts to the environment or human health.  4.1011.3 In-considering an application for development consent, Pollution from industrial sources in England and Wales is controlled through the IPC should focus Environmental Permitting (England and Wales) Regulations 2016 (EPR157. The EPR requires industrial facilities to have an EP and meet limits on whether the development itself is an acceptable use of the land, and on the impacts of that use, rather than the control of processes, allowable emissions or discharges themselves. The IPC should work on the assumption that the relevant pollution control regime and other environmental regulatory regimes, including those on land drainageto operate.  4.11.4 Larg	The proposed changes to EN-1 regarding 'pollution control and other environmental regulatory regimes' are generally not significant and therefore do not change the Applicants initial assessment (relating to the adopted EN-1 policy) set out in Table 1 above. Regarding proposed paragraph 4.11.4, where relevant, chapters in the ES have undertaken their assessments using Best Available Techniques (BAT), for example, the air quality assessment presented at Chapter 6 (Air Quality) (APP-042) as updated by Air Quality Technical Note 2 (REP2-065) and informed by the Air Quality Technical Note 3 (REP8-030).  In light of the submissions of Interested Parties, the Applicant also notes paragraphs 4.11.9 and 4.11.10, and its emphasis that the Secretary of State should assume that the environmental regulatory regime will fulfil its functions – in the case of the Proposed Scheme, that the human health and ecological impacts arising from emissions, will be able to be controlled through the permit variation that has been applied for.  In respect of the Environmental Permit, submission of an application for a staged variation to the existing Environmental Permit (EPR/VP3530LS), for the Drax Power Station was submitted to the EA on 22 August 2022. On 3 April 2023 the Applicant submitted additional information to the EA following their request for further information to support the process of achieving duly made status for the application to vary the Environmental Permit. The variation to the application was duly made on 18 May 2023. The EA will now consider the application for a variation to the Environmental Permit as set out above. Determination of the application is not expected before March 2024. The Applicant has submitted all outstanding documentation to the Environment Agency as as the end of March 2023. The Applicant remains confident that the Environment Agency has all the information that has been requested, and is in a position to make a decision on duly made status. The Applicant remains confident that the Larget date

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	relevant marine licence and plans in advance of consulting the MMO will advise on what conditions should apply to the deemed marine licence. The IPC and MMO should cooperate closely to ensure that energy NSIPs are licensed in accordance with environmental legislation, including European directives. for England or the relevant policy teams at the Welsh government.	
	4.10.511.6 Many projects covered by this NPS will be subject to the Environmental Permitting (EP) regime, which also incorporates operational waste management requirements for certain activities. When a developeran applicant applies for an Environmental PermitEP, the relevant regulator (usually EA or NRW but sometimes the local authority) requires that the application demonstrates that processes are in place to meet all relevant EP requirements. In considering the impacts of the project, the IPC may wish to consult the regulator on any management plans that would be included in an Environmental Permit application. 159	
	4.10.611.7 Applicants are advised to should make early contact with relevant regulators, including EA or NRW and the MMO, to discuss their requirements for environmental permits EPs and other consents. This will help Early contact with relevant regulators is strongly encouraged to ensure that applications take account of all relevant environmental considerations and that the relevant regulators are able to provide timely advice and assurance to the IPC. Wherever possible, applicants are encouraged to submit applications for Environmental Permits and other necessary consents at the same time as applying to the IPC for development consent. 4.10.7 The IPC Secretary of State.	
	4.11.8 Wherever possible, applicants should submit applications for EPs and other necessary consents at the same time as applying to the Secretary of State for development consent.	
	Secretary of State decision making  4.11.9 In considering an application for development consent the Secretary of State should focus on whether the development itself is an acceptable use of the land or sea, and the impact of that use, rather than the control of processes, emissions or discharges themselves. 160	
	4.11.10 The Secretary of State should work on the assumption that the relevant pollution control regime and other environmental regulatory regimes, including those on land drainage, water abstraction and biodiversity, will be properly applied and enforced by the relevant regulator. The Secretary of State should act to complement but not seek to duplicate them.	
	4.11.11 The Secretary of State's consent may include a deemed marine licence and the MMO will advise on what conditions should apply to the deemed marine licence.  4.11.12 The Secretary of State and MMO should cooperate closely to ensure that	
	energy NSIPs are licensed in accordance with environmental legislation.	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	4.11.13 In considering the impacts of the project, the Secretary of State may wish to consult the regulator on any management plans that would be included in an EP application.	
	4.11.14 The Secretary of State should be satisfied that development consent can be granted taking full account of environmental impacts.	
	4.11.15 Working in close cooperation with EA or NRW and/or the pollution control authority, and other relevant bodies, such as the MMO, Natural England, the Countryside Council for Walesthe SNCB, Drainage Boards, and water and sewerage undertakers, the IPCSecretary of State should be satisfied, before consenting any potentially polluting developments, that:	
	<ul> <li>the relevant pollution control authority is satisfied that potential releases can be adequately regulated under the pollution control framework; and</li> <li>the effects of existing sources of pollution in and around the site are not such that the cumulative effects of pollution when the proposed development is added would make that development unacceptable, particularly in relation to statutory environmental quality limits.</li> </ul>	
	4.10.811.16 The IPCSecretary of State should not refuse consent on the basis of pollution impacts unless it hasthere is good reason to believe that any relevant necessary operational pollution control permits or licences or other consents will not subsequently be granted. On this basis, it is reasonable for the Secretary of State to consider residual amenity issues only when considering whether the development itself is an acceptable use of the land or sea, and on the impacts of that use.	
	Applicant assessment	
	4.11.17 Applicants must consult the Hazardous Substances Authority and the HSE at pre-application stage if the project is likely to need hazardous substances consent.	
	4.11.18 HSE sets a consultation distance around every site with hazardous substances consent and notifies the relevant local planning authorities. The applicant should therefore consult the local planning authority at preapplication stage to identify whether its proposed site is within the consultation distance of any site with hazardous substances consent and, if so, should consult the HSE for its advice on locating the	
	<u>particular development on that site.</u> 156 See https://www.gov.uk/government/publications/integrated-pollution-prevention-and-control-developing-andsetting-of-best-available-techniques-bat-provisional-common-framework	
	See https://www.legislation.gov.uk/uksi/2016/1154/contents/made      See https://www.gov.uk/government/publications/integrated-pollution-prevention-and-control-developing-	
	andsetting-of-best-available-techniques-bat-provisional-common-framework  159 See https://www.gov.uk/government/publications/environmental-permitting-guidance-core-guidance2	
	160 See paragraph 188 of section 15 of the NPPF	
Hazardous SubstancesSafety	4.4112.1 The Health and Safety Executive (HSE) is responsible for enforcing a range of occupational health and safety legislation some of which is relevant to the	The changes proposed to EN-1 policy on 'safety' are minor and therefore the Applicant's assessment of the adopted policy presented in Table 1 above remains relevant.

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
(Part 4.12 of EN-1)	construction, operation and decommissioning of energy infrastructure. Applicants should consult with the Health and Safety Executive (HSE) on matters relating to safety.  4.114.12.2 Some technologies, for example the use of salt caverns for underground gas storage, will be regulated by specific health and safety legislation. The application of these regulations is set out in the technology specific NPSs where relevant.  4.112.3 Some energy infrastructure will be subject to the Control of Major Accident Hazards (COMAH) Regulations 1999-2015. 161 These Regulations aim to prevent major accidents involving dangerous substances and limit the consequences to people and the environment of any that do occur. COMAH regulations apply throughout the life cycle of the facility, i.e. from the design and build stage through to decommissioning. They are enforced by the Competent Authority comprising HSE or ONR (Office for Nuclear Regulation, for nuclear) and the EA acting jointly in England and Wales (and by the HSE and NRW acting jointly in Wales, and the HSE and Scottish Environment Protection Agency (SEPA) acting jointly in Scotland).  4.12.4 The same principles apply here as for those set out in the previous section on	
	pollution control and other environmental permitting regimes. 4.11.4  Applicant assessment  4.12.5 Applicants should consult with the HSE on matters relating to safety.  4.12.6 Applicants seeking to develop infrastructure subject to the COMAH regulations should make early contact with the Competent Authority.	
	4.12.7 If a safety report is required it is important to discuss with the Competent Authority the type of information that should be provided at the design and development stage, and what form this should take. This will enable the Competent Authority to review as much information as possible before construction begins, in order to assess whether the inherent features of the design are sufficient to prevent, control and mitigate major accidents.  Secretary of State decision making  4.12.8 The IPCSecretary of State should be satisfied that ana safety assessment has been done, where required, and that the Competent Authority has assessed that it	
	meets the safety objectives described above.  161 See https://www.hse.gov.uk/comah/background/comah15.htm#main	
Health-Hazardous Substances (Part 4.13 of EN-1)	4.1213.1 All establishments wishing to hold stocks of certain hazardous substances above a threshold need 'Hazardous Substances Consent.' 162 consent. Applicants should consult the HSE at pre-application stage93 if the project is likely to need hazardous substances consent. Where hazardous substances consent is applied for, the IPC will consider whether to make an order directing that hazardous substances consent shall be deemed to be granted alongside making an order granting development consent94. The IPC should consult HSE about this.	The changes proposed to EN-1 policy on 'hazardous substances' are minor and therefore the Applicant's assessment of the adopted policy presented in Table 1 above remain relevant.

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	4.1213.2 HSE will assess the risks based on the development consent application.  Where HSE does not advise against the IPCSecretary of State granting the consent, it will also recommend whether the consent should be granted subject to any requirements. 4.12.3 HSE sets a consultation distance around every site with	
	Secretary of State decision making	
	4.13.3 Where hazardous substances consent and notifies the relevant local planning authorities. The applicant should therefore consult the local planning authority at preapplication stage to identify applied for, the Secretary of State will consider whether its proposed site is within the consultation distance of any site with to make an order directing that hazardous substances consent and, if so, should consult the HSE for its advice on locating the particular shall be deemed to be granted alongside making an order granting development on that site consent. 163 The Secretary of State should consult HSE about this.  93162 Further information is available at the HSE's website: http://www.hse.gov.uk/landuseplanning/nsip-applications.htmHSE: Land use planning - Hazardous substances consent  94163 Hazardous substances consent can also be applied for subsequent to a DCO application. However, the guidance in 4.4213.1 still applies i.e. the application applicant should consult with HSE at the pre-application stage	
Common Law Nuisance and Statutory Nuisance (Part 4.14 of EN-1)	<ul> <li>4.14.1 Section 158 of the Planning Act 2008 confers statutory authority for carrying out development consented to by, or doing anything else authorised by, a development consent order.</li> <li>4.14.2 Such authority is conferred only for the purpose of providing a defence in any civil or criminal proceedings for nuisance. This would include a defence for proceedings for nuisance under Part III of the Environmental Protection Act 1990 (EPA) (statutory nuisance)<sup>164</sup> but only to the extent that the nuisance is the inevitable consequence of</li> </ul>	The changes proposed to EN-1 policy on 'Common Law Nuisance and Statutory Nuisance' are minor and therefore the Applicant's assessment of the adopted policy presented in Table 1 above and at Section 4.17 of the Planning Statement (APP-032) remains relevant.
	what has been authorised.  4.14.3 The defence does not extinguish the local authority's duties under Part III of the EPA 1990 to inspect its area and take reasonable steps to investigate complaints of statutory nuisance and to serve an abatement notice where satisfied of its existence, likely occurrence or recurrence.	
	4.14.4 The defence is not intended to extend to proceedings where the matter is "prejudicial to health" and not a nuisance.	
	Secretary of State decision making	
	4.14.2 It is very important that, at 5 At the application stage of an energy NSIP, possible sources of nuisance under section 79(1) of the EPA 1990 Act and how they may be mitigated or limited are should be considered by the IPC Secretary of State so that appropriate requirements can be included in any subsequent order granting development consent. (See (see Section 5.67 on Dust, odour, artificial light etc. and Section 5.4112 on Noise and vibration.)).	
	4.14.36 The IPCSecretary of State should note that the defence of statutory authority is subject to any contrary provision made by the IPCSecretary of State in any particular	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	case in a development consent order (section 158(3)).) of the Planning Act 2008). Therefore, subject to Section 5.67 and Section 5.12, the IPCSecretary of State can disapply the defence of statutory authority, in whole or in part, in any particular case, but in so doing should have regard to whether any particular nuisance is an inevitable consequence of the development.  164 See https://www.legislation.gov.uk/ukpga/1990/43/part/III	
Security Considerations (Part 4.15 of EN-1)	4.15.1 National security considerations apply across all national infrastructure sectors. Overall-responsibility for security of the energy sector-lies with DECC. It  4.15.2 DESNZ works closely with Gevernmentgovernment security agencies including the Centre for the Protection of National Infrastructure (CPNI) to reduce and the vulnerability of National Cyber Security Centre (NCSC) to provide advice to the most 'critical' infrastructure assets in the sector-teon terrorism and other national security threats. The Office for Civil Nuclear Security (OCNS) is the security regulator for, as well as on risk mitigation.  4.45.24.15.3 In the UK's civil nuclear industry, security is also independently regulated by the Office for Nuclear Regulation (ONR).  4.15.4 Government policy is to ensure that, where possible, proportionate protective security measures are designed into new infrastructure projects at an early stage in the project development. Where applications for development consent for infrastructure covered by this NPS relate to potentially 'critical' infrastructure, there may be national security considerations.  4.15.3 DECC5 DESNZ will be notified at pre-application stage about every likely future application for energy NSIPs, so that any national security implications can be identified.  Applicant assessment  4.15.6 Where national security implications have been identified, the applicant should consult with relevant security experts from CPNI, OCNSONR (for civil nuclear) and DECC/or DESNZ to ensure that physical, procedural and personnel security measures have been adequately considered in the design process and that adequate consideration has been given to the management of security risks. If CPNI, OCNS and/or DECC  4.15.7 The applicant should only include sufficient information in the application as is necessary to enable the Secretary of State to examine the development consent issues have been adequately addressed in the project when the application is submitted to the IPCSecretary of State, it will provi	The changes proposed to Part 4.15 of EN-1 are not relevant to the DCO Application. Therefore, the assessment of the adopted EN-1 text in Table 1 above remains relevant for the emerging policy with regard to 'security considerations'.

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	include sufficient information in the application as is necessary to enable the IPC to examine the development consent issues and make a properly informed decision on the application.	
	4.15.54.15.9 In exceptional cases, where examination of an application would involve public disclosure of information about defence or national security which would not be in the national interest, the Secretary of State can intervene and examine a part or the whole of the application. In that case, the Secretary of State may appoint an examiner to consider evidence in closed session, and the Secretary of State would be the decision maker for the application.examination of that evidence may take place in a closed session as set out under Examination Procedure Rules 165.  4.15.10 The SoS must also consider duties under other legislation including duties under the Environment Act 2021 in relation to environmental targets and the Government's Environmental Improvement Plan.	
Air Quality and Emissions (Part 5.2 of EN-1)	Introduction  5.2.1 Infrastructure Energy infrastructure development can have adverse effects on air quality. The construction, operation and decommissioning phases can involve emissions to air which could lead to adverse impacts on health, on protected species and habitats, <sup>167</sup> or on the wider countryside. Impacts on protected and species and habitats are covered in Section 5.3. Air emissions include particulate matter (for example dust) up to a diameter of ten microns (PM10) as well as gases such as sulphur dioxide, carbon monoxide and nitrogen oxides (NOx).  5.2.2 Levels for pollutants in ambient air are set out in the Air Quality Standards Regulations 2010 <sup>168</sup> and reiterated in the Air Quality Strategy which in turn embodies EU legal requirements. <sup>169</sup> In addition, two new air quality targets — one for annual mean concentrations of PM2.5 and one further long-term target — have been set under the Environment Act 2021. The Secretary of State for the Environment Food and Rural Affairs is required to make available up to date information on air quality to any relevant interested party <sup>95</sup> . 5.2.2 CO <sub>2</sub> emissions are a significant adverse impact from some	Proposed paragraph 5.2.2 states new air quality targets have been set under the Environment Act 2021, which include an annual mean target for concentrations of PM2.5 and a long-term target.  The Air Quality Technical Note 2 (REP2-065) and associated Appendix 6.4 (Operation Phase Air Quality Assessment Results Tables: Human Receptors) (REP2-032) and Appendix 6.5 (Operational Phase Air Quality Results Tables: Ecological Receptors) (REP9-017REP2-034), capture the latest design information and received since the August 2022 Permit Variation Application, represent no material change to the conclusions of the May 2022 Chapter 6 (Air Quality) of the ES (APP-042) in relation to human health.  The impacts of the Proposed Scheme on annual mean and hourly mean NO2 concentrations remain within the Drax Bioenergy with Carbon Capture and Storage Air Quality Technical Note 2 Environment AgencyEA screening criteria for insignificance, namely 1% and 10% of the air quality assessment levels (40µg/m3 and 200µg/m3 respectively).  The conclusions with respect to ecological receptors, which reflect the beneficial impacts of
	types of energy infrastructure which cannot be totally avoided (even with full deployment of CCS technology). However, given the characteristics of these and other technologies, as noted in Part 3 of this NPS, and the range of non-planning policies aimed at decarbonising electricity generation such as EU ETS (see Section 2.2 above), Government has determined that CO <sub>2</sub> emissions are not reasons to prohibit the consenting of projects which use these technologies or to impose more restrictions on them in the planning policy framework than are set out in the energy NPSs (e.g. the CCR and, for coal, CCS requirements). Any ES on air emissions will include an assessment of CO <sub>2</sub> emissions, but the policies set out in Section 2, including the EU ETS, apply to these emissions. The IPC does not, therefore need to assess individual applications in terms of carbon emissions against carbon budgets and this section does	the reduction in SO <sub>2</sub> emissions (and acid deposition), are set out in the HRA (REP9- 021REP2-101, Rev03 being submitted at Deadline 6). The HRA concludes that the Proposed Scheme would not have an adverse effect on the integrity of any of the European Sites assessed. Proposed paragraph 5.2.6 therefore does not apply. Other changes proposed to Part 4.15 of EN-1 do not change the assessment of the adopted EN-1 text in Table 1 above, remains relevant for the emerging policy with regard to 'air quality and emissions'. The Proposed Scheme would not lead to a breach of statutory air quality targets, including those set by the Environment Act 2021. The Applicant therefore considers the Proposed Scheme accords with Part 5.2 of draft EN-

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Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	not address CO <sub>2</sub> emissions or any Emissions Performance Standard that may apply to plant.party. <sup>170</sup>	
	5.2.3 A particular effect of air emissions from some energy infrastructure may be eutrophication, which is the excessive enrichment of nutrients in the environment. Eutrophication from air pollution results mainly from emissions of NOx and ammonia. The main emissions from energy infrastructure are from generating stations. Eutrophication can affect plant growth and functioning, altering the competitive balance of species and thereby damaging biodiversity. In aquatic ecosystems it can cause changes to algal composition and lead to algal blooms, which remove oxygen from the water, adversely affecting plants and fish. The effects on ecosystems can be short-term or irreversible, and can have a large impact on ecosystem services such as pollination, aesthetic services and water supply.	
	5.2.4 Emissions from combustion plants are generally released through exhaust stacks. Design of exhaust stacks, particularly height, is the primary driver for the delivery of optimal dispersion of emissions and is often determined by statutory requirements. The optimal stack height is dependent upon the local terrain and meteorological conditions, in combination with the emission characteristics of the plant. The EA or NRW will require the exhaust stack height of a thermal combustion generating plant, including fossil fuel generating stations and waste or biomass plant, to be optimised in relation to impact on air quality. The IPCSecretary of State need not,	
	therefore, be concerned with the exhaust stack height optimisation process in relation to air emissions, though the impact of stack heights on landscape and visual amenity will be a consideration (see Section 5.910).	
	5.2.5 Impacts of thermal combustion generating stations with respect to air emissions are set out in the technology-specific NPSs. Applicant's assessment 5.2.6 specific NPSs.	
	5.2.6 Proximity to emission sources can have significant impacts on sensitive receptor sites for air quality, such as education or healthcare sites, residential use or sensitive or protected ecosystems. Projects near a sensitive receptor site for air quality should only be proposed in exceptional circumstances if no viable alternative site is available. In these instances, substantial mitigation of any expected emissions will be required (see para 5.2.10 below).	
	Applicant assessment	
	5.2.7 Where the project is likely to have adverse effects on air quality the applicant should undertake an assessment of the impacts of the proposed project as part of the Environmental Statement (ES).	
	5.2.78 The ES should describe:	
	<ul> <li>existing air quality levels and the relative change in air quality from existing levels;</li> <li>any significant air emissions, their mitigation and any residual effects distinguishing between the project stages and taking account of any significant emissions from any road traffic generated by the project;</li> </ul>	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	the predicted absolute emission levels of the proposed project, after mitigation  methods have been applied; and	
	<ul> <li>methods have been applied; and</li> <li>any potential eutrophication impacts.</li> </ul>	
	5.2.9 Defra publishes future national projections of air quality based on estimates of	
	future levels of emissions, traffic, and vehicle fleet. Projections are updated as the	
	evidence base changes and the applicant should ensure these are current at the point	
	of an application. The applicant's assessment should be consistent with this but may	
	include more detailed modelling to demonstrate local impacts.	
	5.2.10 Where a proposed development is likely to lead to a breach of the air quality	
	thresholds or affect the ability of a non-compliant area to achieve compliance within the	
	timescales set out in the most recent relevant air quality plan at the time of the	
	decision, the applicant should work with the relevant authorities to secure appropriate	
	mitigation measures to ensure that those thresholds are not breached.	
	5.2.11 The Secretary of State should consider whether mitigation measures are	
	needed both for operational and construction emissions over and above any which may	
	form part of the project application. A construction management plan may help codify	
	mitigation at this stage. • existing air quality levels and the relative change in air quality	
	from existing levels; and • any potential eutrophication impacts. IPC decision making	
	5.2.8In doing so the Secretary of State should have regard to the Air Quality	
	Strategy <sup>171</sup> or any successor to it and should consider relevant advice within Local Air Quality Management guidance. <sup>172</sup>	
	5.2.12 The mitigations identified in Section 5.14 on traffic and transport impacts will	
	help mitigate the effects of air emissions from transport.	
	Secretary of State decision making	
	5.2.13 Many activities involving air emissions are subject to pollution control. The	
	considerations set out in Section 4.1011 on the interface between planning and	
	pollution control therefore apply. 5.2.9 The IPC The SoS must also consider duties	
	under other legislation including duties under the Environment Act 2021 in relation to	
	environmental targets and have regard to policies set out in the Government's Environmental Improvement Plan.	
	5.2.14 The Secretary of State should generally give air quality considerations	
	substantial weight where a project would lead to a deterioration in air quality in an area,	
	or leads to a new area where air quality breaches any national air quality limits-or	
	statutory air quality objectives. However, air quality considerations will also be important where substantial changes in air quality levels are expected, even if this does	
	not lead to any breaches of national air quality limits, or statutory air quality objectives.	
	5.2.1015 The Secretary of State should give air quality considerations substantial	
	weight where a project is proposed near a sensitive receptor site, such as an education	
	or healthcare facility, residential use or a sensitive or protected habitat.	

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	5.2.16 Where a project is proposed near to a sensitive receptor site for air quality, if the applicant cannot provide justification for this location, and a suitable mitigation plan, the Secretary of State should refuse consent.  5.2.17 In all cases, the IPCSecretary of State must take account of any relevant statutory air quality limits. Where a project is likely to lead to a breach of such limits the developers should work with the relevant authorities to secure appropriate mitigation measures to allow the proposal to proceed. In the event that and statutory air quality objectives. If a project will lead to non-compliance with a statutory limit the IPC-should refuse consent. Mitigation 5.2.11 The IPCSecretary of State should refuse consent whether mitigation measures are needed both for operational and construction emissions over and above any which may form part of the project application. A construction management plan may help codify mitigation at this stage. 5.2.12 In doing so the IPC may refer to the conditions and advice in the Air Quality Strategy <sup>96</sup> or any successor to it. 5.2.13 The mitigations identified in Section 5.13 on traffic and transport impacts will help mitigate the effects of air emissions from transport.  85167 Impacts on protected species and habitats are covered in Section 5.4.  168 See https://www.legislation.gov.uk/uksi/2010/1001/contents/made  169 See https://www.defra.gov.uk/government/publications/the-air-quality-strategy-for-england-scotland-wales-andnorthem-ireland-volume-1  170 Air Quality Standards Regulations 2010, No.2010/1001.  86121. http://www.defra.gov.uk/environment/quality/sir/airquality/strategy/index.htm See https://www.gov.uk/government/publications/the-air-quality-strategy-for-england-scotland-wales-andnorthem-ireland-volume-1  172 See https://laqm.defra.gov.uk/supporting-guidance.html	
5.3-Greenhouse Gas Emissions  (Part 5.3 of EN-1)5.4 Biodiversity and Geological Conservation	<ul> <li>5.3.1 Significant levels of energy infrastructure development are vital to ensure the decarbonisation of the UK economy. The construction, operation and decommissioning of that energy infrastructure will in itself, lead to GHG emissions.</li> <li>5.3.2 In considering this section, applicants should also have regard to Part 2 of this NPS, which explains the current policy on climate change and how this NPS interacts with that policy, and Section 4.9 of this NPS, which deals with climate change adaptation.</li> <li>5.3.3 As discussed in Part 2, energy infrastructure plays a vital role in decarbonisation. While all steps should be taken to reduce and mitigate climate change impacts, it is accepted that there will be residual emissions from energy infrastructure, particularly during the economy wide transition to net zero, and potentially beyond.</li> <li>Applicant assessment</li> <li>5.3.4 All proposals for energy infrastructure projects should include a GHG assessment as part of their ES (See Section 4.2). This should include:</li> <li>A whole life GHG assessment showing construction, operational and decommissioning GHG impacts.</li> </ul>	Part 5.3 of draft EN-1 is a new chapter proposed to highlight the importance, and Government aim, to decarbonise the UK economy.  The Proposed Scheme has been designed to remove approximately 95% of carbon dioxide emissions from the flue gas emitted from two of the four generating units at the Drax Power Station. The Proposed Scheme will result in the power station achieving negative carbon emissions in terms of the process of generating electricity from biomass, once the carbon capture plant is operational.  It is considered by the Application that the overall goal of Part 5.3 of draft EN-1 is met as a result of the beneficial impact on GHGs as a result of the Proposed Scheme.  Chapter 15 (Greenhouse Gases) of the ES (APP-051) reports the assessment undertaken of the net impact of the Proposed Scheme's GHG emissions (or avoided emissions) over the lifetime of the Proposed Scheme (25 years) meet the requirements of proposed paragraph 5.3.4 (excluding those which do not apply) which include:  A whole life carbon assessment showing construction, operational and decommissioning carbon impacts - Chapter 15 (Greenhouse Gases) of the ES (AP-051) conducts a whole life carbon assessment save that decommissioning

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- An explanation of the steps that have been taken to drive down the climate change impacts at each of those stages.
- Measurement of embodied GHG impact from the construction stage.
- How reduction in energy demand and consumption during operation has been prioritised in comparison with other measures.
- How operational emissions have been reduced as much as possible through the application of best available technology for that type of technology.
- Calculation of operational energy consumption and associated carbon emissions.
- Whether and how any residual GHG emissions will be (voluntarily) offset or removed using a recognised framework.
- Where there are residual emissions, the level of emissions and the impact of those on national and international efforts to limit climate change, both alone and where relevant in combination with other developments at a regional or national level, or sector level, if sectoral targets are developed.

#### **Mitigation**

**Policy** 

- 5.3.5 A GHG assessment should be used to drive down GHG emissions at every stage of the proposed development and ensure that emissions are minimised as far as possible for the type of technology, taking into account the overall objectives of ensuring our supply of energy always remains secure, reliable and affordable, as we transition to net zero.
- <u>5.3.6 Applicants should look for opportunities within the proposed development to embed nature-based or technological solutions to mitigate or offset the emissions of construction and decommissioning.</u>
- 5.3.7 Steps taken to minimise and offset emissions should be set out in a GHG
  Reduction Strategy, secured under the development consent order. The GHG
  Reduction Strategy should consider the creation and preservation of carbon stores and sinks including through woodland creation, peatland restoration and through other natural habitats. Secretary of State decision making
- 5.3.8 The Secretary of State must be satisfied that the applicant has as far as possible assessed the GHG emissions of all stages of the development.
- 5.3.9 The Secretary of State should be content that the applicant has taken all reasonable steps to reduce the GHG emissions of the construction and decommissioning stage of the development.
- 5.3.10 The Secretary of State should give appropriate weight to projects that embed nature-based or technological processes to mitigate or offset the emissions of construction and decommissioning within the proposed development. However, in light of the vital role energy infrastructure plays in the process of economy wide decarbonisation, the Secretary of State must accept that there are likely to be some residual emissions from construction and decommissioning of energy infrastructure.
- 5.3.11 Operational GHG emissions are a significant adverse impact from some types of energy infrastructure which cannot be totally avoided (even with full deployment of

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- impacts are not considered due to the Proposed Scheme's 25 year design life and uncertainties around deconstruction techniques at the Proposed Scheme's end of life).
- An explanation of the steps that have been taken to drive down the climate change impacts at each of those stages the CEMP will include measures to seek to ensure a caron reduction in the construction stage. This will focus upon the use of efficient construction processes such as design for manufacture and assembly aligning with the carbon hierarchy outlined in PAS 2080. This will include re-using site arisings; using low carbon solutions (technologies, materials and products) to minimise resource consumption; and using construction techniques that reduce resource consumption. In terms of the detailed design, this will reflect the carbon hierarchy and include feasible measures to reduce embodied carbon as part of the design, as outlined in PAS 2080, where reasonably practicable. This will include potential for re-using or refurbishing existing assets; and use of low carbon solutions (technologies, materials and products) to minimise resource consumption. 'These measures are secured pursuant to a Requirement in the DCO and therefore a separate GHG Reduction Strategy is not required, as per proposed paragraph 5.3.7.
- Measurement of embodied carbon impact from the construction stage embodied carbon from the construction phase is assessed (i.e. the materials required, production and transport of those materials etc).
- How reduction in energy demand and consumption during operation has been prioritised in comparison with other measures the operational impacts of the Proposed Scheme are carbon sequestration, as such this requirement is not applicable to the DCO Application.
- How operational emissions have been reduced as much as possible through the application of best available technology for that type of technology the operational mitigation measures proposed will ensure that the principle of the Proposed Scheme and associated technology seeks to reduce operational emissions at the existing power station, through the use of the best available technology. Controls through the permitting process will ensure that emissions are reduced, with appropriate mitigation for potential air quality and ecology impacts. The Design Framework (APP-195) allows for flexibility to the detailed design in order to allow for potential technological developments to ensure that the best available technology can be used.
- Calculation of operational energy consumption and associated carbon
   emissions this requirement forms part of the assessment and lifecycle assessment presented in Chapter 15 of the ES.
- Whether and how any residual carbon emissions will be (voluntarily) offset or removed using a recognised framework there are emissions during the construction phase albeit these are minimal and cannot be offset. However, this needs to be seen in the context of the overall emissions of the Proposed Scheme which are negative across the project lifetime. As such, the operation of the Proposed Scheme will result in no residual effects.

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	CCS technology). Given the characteristics of these and other technologies, as noted in Part 3 of this NPS, and the range of non-planning policies that can be used to decarbonise electricity generation, such as the UK ETS (see Sections 2.4 and 2.5 above), government has determined that operational GHG emissions are not reasons to prohibit the consenting of energy projects or to impose more restrictions on them in the planning policy framework than are set out in the energy NPSs (e.g. the CCR requirements). Any carbon assessment will include an assessment of operational GHG emissions, but the policies set out in Part 2, including the UK ETS, can be applied to these emissions.  5.3.12 Operational emissions will be addressed in a managed, economy-wide manner, to ensure consistency with carbon budgets, net zero and our international climate commitments. The Secretary of State does not, therefore need to assess individual applications for planning consent against operational carbon emissions and their contribution to carbon budgets, net zero and our international climate commitments.	<ul> <li>Where there are residual emissions, the level of emissions and the impact of those on national and international efforts to limit climate change, both alone and where relevant in combination with other developments at a regional or national level, or sector level, if sectoral targets are developed – the Proposed Scheme will result in negative emissions, as such, it will directly assist in meeting national and international efforts to limit climate change and assist in meeting the UK's net zero by 2050 target.</li> <li>In summary, the ES has sufficiently assessed GHG emission at each of stage of development, where possible, and has taken all steps to reduce carbon emissions where possible in line with paragraph 5.3.5. The Applicant therefore considers that the content of the DCO Application complies with Part 5.3 of draft EN-1.</li> <li>By nature of the Proposed Scheme being 'carbon capture' infrastructure, the Proposed Scheme will have significant beneficial effects in terms of GHG reduction, resulting in negative carbon emissions.</li> </ul>
5.4 Biodiversity and Geological Conservation  (Part 5.4 of EN-1)5.4  Greenhouse Gas Emissions	Introduction  5.34.1 Biodiversity is the variety of life in all its forms and encompasses all species of plants and animals, the genetic diversity they contain and the complex ecosystems of which they are a part. Geological conservation relates to the sites that are designated for their geology and/or their geomorphological importance. 173  5.3-24.2 The government's policy for biodiversity in England is set out in the Environmental Improvement Plan 174, Biodiversity 2020 175, the National Pollinator Strategy 176 and the UK Marine Strategy 177. The aim is to halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people. This aim needs to be viewed in the context of the challenge presented by climate change. Healthy, naturally functioning ecosystems and coherent ecological networks will be more resilient and adaptable to climate change effects. Failure to address this challenge will result in significant adverse impact on biodiversity and the ecosystem services it provides.  5.4.3 The wide range of legislative provisions at the international and national level that can impact on planning decisions affecting biodiversity and geological conservation issues are set out in a Government Circular 178 The National Planning Policy Framework and Natural Environment PPG document sets out	Part 5.4 of draft EN-1 encourages applicants to consider BNG and wider environmental gains. It highlights the Government's aim to halt overall biodiversity loss at new paragraph 5.4.2. It also highlights the aims and goals of the Government's policy for biodiversity is set out in the Environmental Improvement Plan, Biodiversity 2020, the National Pollinator Strategy and the UK Marine Strategy <sup>177,</sup> and that any other targets set under the Environment Act or elsewhere should be a consideration of the SoS when decision making.  Proposed paragraph 5.4.43 states the SoS will give significant weight to any residual harm to biodiversity which cannot be avoided, mitigated, or compensated.  Proposed paragraphs 5.4.12 and 5.4.13 add text regarding Local Wildlife Sites ('LWS') which are identified as being areas of substantive nature conservation value and make an important contribution to ecological networks and nature's recovery. There are two LWS within 2 km of the site, Barmby-on-the-Marsh and Barmby Pond. Without mitigation, nitrogen and acid deposition could also lead to an effect on such non-statutory designated sites, potentially contributing to increased nutrient nitrogen levels and acidification of habitats which could result in changes to the structure, composition and function of the habitats. Mitigation measures have therefore been identified to reduce the impact of operational emissions to air. These mitigation measures primarily bring benefits in reducing acidification effects, but also have minor beneficial effects in terms of the With Proposed Scheme scenario contribution to nitrogen deposition and NH <sub>3</sub> concentrations. Following
	good practice in England in relation to planning for biodiversity and geological conservation 98. Applicant's assessment 5.3.3 Where the development is subject to EIA the applicant should ensure that the ES clearly sets out any effects on internationally, nationally and locally designated sites of ecological or geological conservation importance, on protected species and on habitats and other species identified as being of principal importance for the conservation of biodiversity. The applicant should provide environmental information proportionate to the infrastructure where EIA is not required to help the IPC consider thoroughly the potential effects of a proposed project.	implementation of the mitigation measures, effects on LWS are predicted to be neutral and not significant during operation.  Proposed text at 5.4.2 puts greater emphasis on the consideration of BNG, and emphasises that this "needs to be viewed in the context of the challenge presented by climate change." Opportunities for ecological and environmental enhancement, and specific mitigation which an Applicant should demonstrate are set out at proposed paragraph 5.4.35. The Applicant has delivered on the policy ambition for BNG, as

## Policy Emerging Policy Text Detailing Changes 5.3.4 The applicant should show how the projection of t

to conserve and enhance biodiversity and geological conservation interests. IPC decision making 5.3.5 The Government's biodiversity strategy is set out in 'Working with the grain of nature'99. Its aim is to ensure: • a halting, and if possible a reversal, of declines in priority habitats and species, with wild species and habitats as part of healthy, functioning ecosystems; and • the general acceptance of biodiversity's essential role in enhancing the quality of life, with its conservation becoming a natural consideration in all relevant public, private and non-governmental decisions and policies, 5.3.6 In having regard to the aim of the Government's biodiversity strategy the IPC should take account of the context of the challenge of climate change: failure to address this challenge will result in significant adverse impacts to biodiversity. The policy set out in the following sections recognises the need to protect the most important biodiversity and geological conservation interests. The benefits of nationally significant low carbon energy infrastructure development may include benefits for biodiversity and geological conservation interests and these benefits may outweigh harm to these interests. The IPC may take account of any such net benefit in cases where it can be demonstrated. 5.3.7 As a general principle, and subject to the specific policies below, development should aim to avoid significant harm to biodiversity and geological conservation interests, including through mitigation and consideration of reasonable alternatives (as set out in Section 4.4 above); where significant harm cannot be avoided, then appropriate compensation measures should be sought. 5.3.8 In taking decisions, the IPC should ensure that appropriate weight is attached to designated sites of international, national and local importance; protected species; habitats and other species of principal importance for the conservation of biodiversity and to biodiversity and geological interests within the wider environment. International Sites 5.3.9 The most important sites for biodiversity are those conservation. 179 Habitats Regulations

5.4.4 The highest level of biodiversity protection is afforded to sites identified through international conventions and European Directives... The Habitats Regulations provide statutory protection for these set out sites but do not provide statutory protection for potential for which an HRA will assess the implications of a plan or project, including Special Areas of Conservation and Special Protection Areas (pSPAs) before they have been classified as a Special Protection Area. For the purposes of considering development proposals affecting them, as a ...

<u>5.4.5 As a matter of policy</u> the Government wishes pSPAs to following should be considered ingiven the same way as if they had already been classified. Listed protection as sites covered by the Habitats Regulations and an HRA will also be required:

(a) potential Special Protection Areas and possible Special Areas of Conservation;

(b) listed or proposed Ramsar sites; and

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described in the BNG report (REP3-010, Rev03 being submitted at Deadline 6) and secured through the section 106 Agreement (REP3-016REP8-025).

The mitigation measures for the construction phase of the Proposed Scheme are set out in the REAC (AS-121REP9-019) and the majority are secured through a CEMP via a requirement to the DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10).

The mitigation proposed meets all requirements of proposed paragraph 5.4.18 to mitigate impact on ecological and biodiversity receptors, such as any clearance works taking place outside of the main bird breeding season where practical and restoring habitats following construction. The Proposed Scheme also seeks to avoid any unnecessary impacts upon ecological and biodiversity receptors, with the Order Limits being reduced during the preapplication workstage to minimise the potential impacts. Existing habitats will also be enhanced, as set out in detail in the OLBS (REP6-017AS-119). This document provides the outline measures which will be secured in a final Biodiversity and Landscape Strategy which is secured through a requirement to the DCO. In addition, new habitats are proposed, such as pond creation, which will be delivered in the Off-site Habitat Provision Area.

As required by proposed paragraph 5.4.18, habitats will, where practicable, be restored after construction works have finished, and this is a principle adopted in the OLBS (AS-119).

Proposed paragraph 5.4.36 encourages applicants to implement a Biodiversity Management Strategy. The OLBS (REP6-017AS-119) submitted with the DCO application and updated at Deadline 5 meets this requirement and also the requirement for mitigation or BNG to be delivered, and maintained for 30 years, as per proposed paragraph 5.4.44. The OLBS contains the inclusion of 'Toolbox Talks' for the construction phase. This meets the suggested requirement of awareness training for employees set out in proposed paragraph 5.4.36. Toolbox Talks are not proposed during operation as there will be no requirement for employees of the Drax Power Station to enter the either of the Habitat Provision Areas proposed. Therefore, there is no need to educate employees in respect of biodiversity protection.

In compliance with proposed paragraph 5.4.37, the existing cooling system at the Drax Power Station will be modified, upgraded and extended. Therefore, the existing location will be retained. The ES confirms that there will be no significant adverse effects on water in terms of ecology nor contamination which cannot be suitably mitigated. The Applicant therefore considers the Proposed Scheme to be in accordance with proposed paragraph 5.4.37.

No significant impacts are predicted to ancient woodland, veteran trees or other irreplaceable habitats and protected species and appropriate mitigation measures are in place for species generally.

### **Policy Emerging Policy Text Detailing Changes Assessment of Changes of Relevance** (c) sites should, also as a matter of policy, receive the same protection 100. identified, or The conclusions of the HRA (REP9-021) are agreed with Natural England, as set out in its required, as compensatory measures for adverse effects on any of the other sites Deadline 4 submissions (REP4-041), and the Deadline 5 signed SoCG with that party covered by this paragraph. (REP8-019REP5-017). 5.4.6 The British Energy Security Strategy<sup>180</sup> committed to establishing strategic In other regards, the conclusions set out in Table 1 of this document also apply to the compensation for offshore renewables NSIPs, to offset environmental effects but also policy as revised. to reduce delays for individual projects. See paragraphs 2.8.292 - 2.8.300 of EN-3 for further information. Sites of Special Scientific Interest (SSSIs) 5.3.104.7 Many SSSIs are also designated as sites of international importance and will be protected accordingly. Those that are not, or those features of SSSIs not covered by an international designation, should be given a high degree of protection. All Most National Nature Reserves are notified as SSSIs. 5.3.11 Where a proposed 5.4.8 Development on land within or outside ana SSSI, and which is likely to have an adverse effect on an SSSIit (either individually or in combination with other developments), development consent should not normally be granted. Where an adverse effect, after mitigation, on the site's notified special interest features is likely, an permitted. The only exception should only be made is where the benefits (including need) of the development at this site 101, in the location proposed clearly outweigh both the impacts that it is its likely to have impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of SSSIs. The IPC should use requirements and/or planning obligations to mitigate the harmful 102 aspects of the development and, where possible, to ensure the conservation and enhancement of the site's biodiversity or geological interest. **Marine Conservation Zones** 5.3.124.9 Marine Conservation Zones (MCZs) (Marine Protected Areas in Scotland), introduced under the Marine and Coastal Access Act 2009, are areas that have been designated for the purpose of conserving marine flora or fauna, marine habitats or types of marine habitat or features of geological or geomorphological interest. The protected feature or features and the conservation objectives for the MCZ are stated in the designation order for the MCZ, which provides statutory protection for these areas implemented by the MMO (see paragraph 1.2.2). As a public authority, the IPC is bound by the duties in relation to MCZs imposed by sections 125 and 126 of the Marine and Coastal Access Act 2009. **Marine Protected Areas** 5.4.10 Marine Protected Area (MPA) is a term used to describe the network of HRA sites, SSSIs and MCZs in the English and Welsh marine environment. 5.4.11 It is important that relevant guidance on managing environmental impacts of infrastructure in marine protected areas is followed, and that equal consideration of the effect of proposals should be given to all MPAs regardless of the legislation they were

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	designated under. This is because all sites contribute to the network of MPAs and	
	therefore to overall network integrity.	
	Regional and Local Sites	
	5.3.134.12 Sites of regional and local biodiversity and geological interest, which include Regionally Important Geological Sites, Local Nature Reserves and Local Sites, have a	
	fundamental role to play in meeting overall national biodiversity targets; contributing to	
	the quality of life and the well-being of the community; and in supporting research and education. The IPC should give due consideration to such regional or local	
	designations. However, given the need for new infrastructure, these designations	
	should not be used in themselves to refuse development consent. Ancient Woodland	
	and Veteran Trees 5.3.14 Wildlife Sites, are areas of substantive nature conservation	
	value and make an important contribution to ecological networks and nature's recovery.	
	They can also provide wider benefits including public access (where agreed), climate	
	mitigation and helping to tackle air pollution.	
	5.4.13 National planning policy expects plans to identify and map Local Wildlife sites,	
	and to include policies that not only secure their protection from harm or loss but also	
	help to enhance them and their connection to wider ecological networks.	
	Ancient woodland, veteran trees and other irreplaceable habitats	
	5.4.14 Irreplaceable habitats are habitats which would be technically very difficult (or	
	take a very significant time) to restore, recreate or replace once destroyed, taking into	
	account their age, uniqueness, species diversity or rarity.	
	5.4.15 Ancient woodland is a valuable biodiversity resource both for its diversity of	
	species and for its longevity as woodland. Once lost it cannot be recreated. The IPC	
	should not grant development consent for any development that would result in its loss	
	or deterioration unless the benefits (including need) of the development, in that	
	location outweigh the loss of the woodland habitat. Aged or 'veteran' Ancient or	
	veteran trees found outside ancient woodland are also particularly valuable for	
	biodiversity and their loss should be avoided 104. Where such trees would be affected by	
	development proposals the applicant should set out proposals for their conservation or,	
	where their loss is unavoidable, the reasons why. Biodiversity within Developments 5.3.15 Development proposals provide many opportunities for building-in beneficial	
	biodiversity or geological features as part of good design. When considering proposals,	
	the IPC should maximise such opportunities in and around developments, using	
	requirements or planning obligations where appropriate. Protection of Habitats and.	
	Other Species 5.3types of irreplaceable habitats include blanket bog, limestone	
	pavement, sand dunes, salt marsh and lowland fen.	
	Protection and enhancement of habitats and other species	
	5.4.16 Many individual wildlife species receive statutory protection under a range of	
	legislative provisions <sup>105</sup> . 5.3.17provisions. <sup>181</sup> Other species and habitats have been	
	identified as being of principal importance for the conservation of biodiversity in	
	England and Wales, as well as for their continued benefit for climate mitigation and	

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	adaptation and thereby requiring conservation action 106. The IPC should ensure that	
	these species and habitats are protected from the adverse effects of development by	
	using requirements or planning obligations. The IPC should refuse consent where harm	
	to the habitats or species and their habitats would result, unless the benefits (including	
	need) of the development outweigh that harm. In this context the IPC should give	
	substantial weight to any such harm to the detriment of biodiversity features of national	
	or regional importance which it considers may result from a proposed development.  Mitigation 5.3action. <sup>182</sup>	
	Applicant assessment	
	5.4.17 Where the development is subject to EIA the applicant should ensure that the	
	ES clearly sets out any effects on internationally, nationally, and locally designated	
	sites of ecological or geological conservation importance (including those outside	
	England), on protected species and on habitats and other species identified as being of	
	principal importance for the conservation of biodiversity, including irreplaceable	
	habitats.	
	5.4.18 The applicant should include appropriate mitigation measures provide	
	environmental information proportionate to the infrastructure where EIA is not required	
	to help the Secretary of State consider thoroughly the potential effects of a proposed	
	project.	
	5.4.19 The applicant should show how the project has taken advantage of opportunities	
	to conserve and enhance biodiversity and geological conservation interests. <sup>183</sup>	
	5.4.20 Applicants should consider wider ecosystem services and benefits of natural	
	capital when designing enhancement measures.	
	5.4.21 As set out in Section 4.6, the design process should embed opportunities for	
	nature inclusive design. Energy infrastructure projects have the potential to deliver	
	significant benefits and enhancements beyond Biodiversity Net Gain, which result in	
	wider environmental gains (see Section 4.5 on Environmental and Biodiversity Net	
	Gain). The scope of potential gains will be dependent on the type, scale, and location	
	of each project.	
	5.4.22 The design of Energy NSIP proposals will need to consider the movement of	
	mobile / migratory species such as birds, fish and marine and terrestrial mammals and	
	their potential to interact with infrastructure. As energy infrastructure could occur	
	anywhere within England and Wales, both inland and onshore and offshore, the	
	potential to affect mobile and migratory species across the UK and more widely across	
	Europe (transboundary effects) requires consideration, depending on the location of	
	development.	
	5.4.23 Energy projects will need to ensure vessels used by the project follow existing	
	regulations and guidelines to manage ballast water. 184	
	5.4.24 In Wales, applicants should consider the guidance set out in Section 6.4 of	
	Planning Policy Wales and the relevant policies in the Wales National Marine Plan. 185	

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	Habitats Regulations The government's "Nature Recovery Green Paper: Protected	
	Sites and Species", consulted on changes to the Habitats Regulation Assessment	
	(HRA) process. If changes are made, relevant plans and projects would have to comply	
	with such relevant regulations. Until a new process is implemented, current legislation	
	continues to apply.	
	5.4.25 The applicant should seek the advice of the appropriate SNCB and provide the	
	Secretary of State with such information as the Secretary of State may reasonably	
	require, to determine whether an Appropriate Assessment (AA) is required. Applicants	
	can request and agree 'Evidence Plans' with SNCBs, which is a way to agree and	
	record upfront the information the applicant needs to supply with its application, so that	
	the HRA can be efficiently carried out. If an AA is required, the applicant must provide	
	the Secretary of State with such information as may reasonably be required to enable	
	the Secretary of State to conduct the AA. This should include information on any	
	mitigation measures that are proposed to minimise or avoid likely significant effects.	
	5.4.26 If, during the pre-application stage, the SNCB indicate that the proposed	
	development is likely to adversely impact the integrity of HRA sites, the applicant must	
	include with their application such information as may reasonably be required to assess	
	a potential derogation under the Habitats Regulations.	
	5.4.27 If the SNCB gives such an indication at a later stage in the development consent	
	process, the applicant must provide this information as soon as is reasonably possible	
	and before the close of the examination. This information must include assessment of	
	alternative solutions, a case for Imperative Reasons of Overriding Public Interest	
	(IROPI) and appropriate environmental compensation.	
	5.4.28 Provision of such information will not be taken as an acceptance of adverse	
	impacts and if an applicant disputes the likelihood of adverse impacts, it can provide	
	this information as part of its application 'without prejudice' to the Secretary of State's	
	final decision on the impacts of the potential development. If, in these circumstances,	
	an applicant does not supply information required for the assessment of a potential	
	derogation, there will be no expectation that the Secretary of State will allow the	
	applicant the opportunity to provide such information following the examination.	
	5.4.29 It is vital that applicants consider the need for compensation as early as possible	
	in the design process as 'retrofitting' compensatory measures will introduce delays and	
	uncertainty to the consenting process.	
	5.4.30 Applicants should work closely at an early stage in the pre-application process	
	with SNCB and Defra/Welsh Government to develop a compensation plan for all	
	protected sites adversely affected by the development.	
	5.4.31 Before submitting an application, applicants should seek the views of the SNCB	
	and Defra/Welsh Government as to the suitability, securability and effectiveness of the	
	compensation plan to ensure the development will not hinder the achievement of the	
	conservation objectives for the protected site. In cases where such views are provided,	

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	the applicant should include a copy of this information with the compensation plan in	
	their application for further consideration by the Examining Authority.	
	Ancient woodland, veteran trees and other irreplaceable habitats	
	5.4.32 Applicants should include measures to mitigate the direct and indirect effects of	
	development on ancient woodland, veteran trees or other irreplaceable habitats during	
	both construction and operational phase. 186	
	Protection and enhancement of habitats and other species	
	5.4.33 Applicants should consider any reasonable opportunities to maximise the	
	restoration, creation, and enhancement of wider biodiversity, and the protection and	
	restoration of the ability of habitats to store or sequester carbon as set out under	
	Section 4.5.	
	5.4.34 Consideration should be given to improvements to, and impacts on, habitats and	
	species in, around and beyond developments, for wider ecosystem services and	
	natural capital benefits, beyond those under protection and identified as being of	
	principal importance. This may include considerations and opportunities identified	
	through Local Nature Recovery Strategies, and national goals and targets set through	
	the government's strategy for nature for example.	
	<u>Mitigation</u>	
	5.4.35 Applicants should include appropriate avoidance, mitigation, compensation and	
	enhancement measures as an integral part of the proposed development. In particular,	
	the applicant should demonstrate that:	
	<ul> <li>during construction, they will seek to ensure that activities will be confined to the minimum areas required for the works;</li> </ul>	
	the timing of construction has been planned to avoid or limit disturbance	
	during construction and operation best practice will be followed to ensure that risk of	
	disturbance or damage to species or habitats is minimised, including as a	
	consequence of transport access arrangements;	
	<ul> <li>habitats will, where practicable, be restored after construction works have finished;</li> <li>and</li> </ul>	
	<ul> <li>opportunities will be taken to enhance existing habitats and,rather than replace</li> </ul>	
	them, and where practicable, to create new habitats of value within the site landscaping proposals.	
	5.3.19 Where the applicant cannot demonstrate that appropriate mitigation measures	
	will be put in place the IPCWhere habitat creation is required as mitigation,	
	compensation, or enhancement the location and quality will be of key importance. In	
	this regard habitat creation should be focused on areas where the most ecological and	
	ecosystems benefits can be realised.	
	5.4.36 Applicants should produce and implement a Biodiversity Management Strategy	
	as part of their development proposals. This could include provision for biodiversity	

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	awareness training to employees and contractors so as to avoid unnecessary adverse	
	impacts on biodiversity during the construction and operation stages.	
	5.4.37 In the design of any direct cooling system the locations of the intake and outfall	
	should be sited to avoid or minimise adverse impacts on the receiving waters, including	
	their ecology. There should also be specific measures to minimise impact to fish and	
	aquatic biota by entrainment and impingement or by excessive heat or biocidal	
	chemicals from discharges to receiving waters.	
	5.4.38 To further minimise any adverse impacts on geodiversity, where appropriate	
	applicants are encouraged to produce and implement a Geodiversity Management	
	Strategy to preserve and enhance access to geological interest features, as part of	
	relevant development proposals.	
	Secretary of State decision making	
	5.4.39 The government's 25 Year Environment Plan <sup>187</sup> and the Environment Act 2021	
	mark a step change in ambition for wildlife and the natural environment. The Secretary	
	of State should have regard to the aims and goals of the government's Environmental	
	Improvement Plan and any relevant measures and targets, including statutory targets	
	set under the Environment Act or elsewhere.	
	5.4.40 In addition, in exercising functions in relation to Wales, the Secretary of State	
	should consider Section 6 of the Environment (Wales) Act 2016 <sup>188</sup> and seek to	
	maintain and enhance biodiversity, and in so doing promote the resilience of	
	ecosystems, so far as consistent with the proper exercise of the Secretary of State's	
	<u>functions.</u>	
	5.4.41 The benefits of nationally significant low carbon energy infrastructure	
	development may include benefits for biodiversity and geological conservation interests	
	and these benefits may outweigh harm to these interests. The Secretary of State may	
	take account of any such net benefit in cases where it can be demonstrated.	
	5.4.42 As a general principle, and subject to the specific policies below, development	
	should, in line with the mitigation hierarchy, aim to avoid significant harm to biodiversity	
	and geological conservation interests, including through consideration of reasonable	
	alternatives (as set out in Section 4.2 above). Where significant harm cannot be	
	avoided, impacts should be mitigated and as a last resort, appropriate compensation	
	measures should be sought.	
	5.4.43 If significant harm to biodiversity resulting from a development cannot be	
	avoided (for example through locating on an alternative site with less harmful impacts),	
	adequately mitigated, or, as a last resort, compensated for, then the Secretary of State	
	will give significant weight to any residual harm and consent may be refused.	
	5.4.44 The Secretary of State should consider what appropriate requirements should	
	be attached to any consent and/or in any planning obligations entered into. 5.3.20 The	
	IPC, in order to ensure that any mitigation or biodiversity net gain measures, if offered,	
	are delivered and maintained. Any habitat creation or enhancement delivered including	

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Policy	Emerging Policy Text Detailing Changes  linkages with existing habitats for compensation or biodiversity net gain should generally be maintained for a minimum period of 30 years, or for the lifetime of the project, if longer.  5.4.45 The Secretary of State will need to take account of what mitigation measures may have been agreed between the applicant and Natural England (or the Countryside Council for Wales) or the Marine Management Organisation (the SNCB and the MMO/NRW (where appropriate), and whether the SNBC or the MMO), and whether Natural England (or the Countryside Council for Wales) or the MMO/NRW has granted or refused, or intends to grant or refuse, any relevant licences, including protected species mitigation licences.  5.4.46 Development proposals provide many opportunities for building-in beneficial biodiversity or geological features as part of good design. The Secretary of State should give appropriate weight to environmental and biodiversity enhancements, although any weight given to gains provided to meet a legal requirement (for example under the Environment Act 2021) is likely to be limited.  5.4.47 When considering proposals, the Secretary of State should maximise such reasonable opportunities in and around developments, using requirements or planning obligations where appropriate. This can help towards delivering biodiversity net gain as part of or in addition to the approach set out at Section 4.5.  5.4.48 In taking decisions, the Secretary of State should ensure that appropriate weight is attached to designated sites of international, national, and local importance; protected species; habitats and other species of principal importance for the conservation of biodiversity; and to biodiversity and geological interests within the wider environment.  Habitats Regulations  5.4.49 The Secretary of State must consider whether the project may have a likely	
	Habitats Regulations	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	Regional and Local Sites	
	5.4.53 The Secretary of State should give due consideration to such regional or local	
	designations. However, given the need for new nationally significant infrastructure,	
	these designations should not be used in themselves to refuse development consent.	
	Development will still be expected to comply with the biodiversity and geological	
	conservation requirements set out in this NPS.	
	Ancient woodland, veteran trees and other irreplaceable habitats	
	5.4.54 The Secretary of State should not grant development consent for any	
	development that would result in the loss or deterioration of any irreplaceable habitats,	
	including ancient woodland, and ancient or veteran trees unless there are wholly	
	exceptional reasons <sup>190</sup> and a suitable compensation strategy exists.	
	Protection and enhancement of habitats and other species	
	5.4.55 The Secretary of State should ensure that species and habitats identified as	
	being of importance for the conservation of biodiversity are protected from the adverse	
	effects of development by using requirements, planning obligations, or licence	
	conditions where appropriate.	
	5.4.56 The Secretary of State should refuse consent where harm to the habitats or	
	species and their habitats would result, unless the benefits (including need) of the	
	development outweigh that harm. In this context the Secretary of State should give	
	substantial weight to any such harm to the detriment of biodiversity features of national	
	or regional importance or the climate resilience and the capacity of habitats to store	
	carbon, which it considers may result from a proposed development.	
	97173 A list of designated sites (including marine sites) is included in the Geological Conservation Review held by the Joint Nature Conservation Committee (JNCC)	
	174 See https://www.gov.uk/government/publications/environmental-improvement-plan	
	<sup>175</sup> See https://www.gov.uk/government/publications/biodiversity-2020-a-strategy-for-england-s-wildlife-andecosystem-services	
	176 See https://www.gov.uk/government/publications/national-pollinator-strategy-for-bees-and-other-pollinators-inengland	
	177 See https://www.gov.uk/government/publications/marine-strategy-part-one-uk-updated-assessment-and-	
	<u>goodenvironmental-status</u>	
	178 Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System (ODPM 06/2005, Defra 01/2005) available via TSO website www.tso.co.uk/bookshop. It should be noted that this document does not cover more recent legislative requirements, such as the Marine Strategy Framework DirectiveRegulations 2010.	
	98 Planning for Biodiversity and Geological Conservation: A Guide to Good Practice (March 2006).	
	99 'Working with the grain of nature' applies in England only	
	100_See http://www.jncc.gov.uk/page-161	
	<sup>101</sup> -'At this site' applies the language in PPS9: Biodiversity and Geological Conservation. The benefits of the	
	development 'at this site' should be interpreted as including any benefits which are not dependent on a particular location.	
	102 In line with the principle in paragraph 4.2.11, the term 'harm' should be understood to mean 'significant harm'.	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	100 See https://www.ukgov.uk/guidance/natural-environment 101 See https://www.gov.uk/guidance/natural-environment 102 See https://www.gov.uk/guidance/natural-environment 103 See https://www.gov.uk/guidance/natural-environment 104 See https://www.gov.uk/guidance/natural-environment 105 See https://www.gov.uk/guidance/natural-environment 106 See https://www.gov.uk/guidance/natural-environment 107 See https://www.gov.uk/guidance/natural-environment 108 See https://www.gov.uk/guidance/natural-environment 108 See https://www.gov.uk/guidance/natural-environment 109 See https://www.ukgovernment/publications/british-energy-security-strategy/british-energy-securitystrategy 103 See https://www.ukgovernment/publications/british-energy-security-strategy/british-energy-securitystrategy 104 See https://www.ukgovernment/publications/british-energy-security-strategy/british-energy-securitystrategy 105 See https://www.ukgovernment/publications/british-energy-security-strategy/british-energy-securitystrategy 108 See security State of Habitats and species in patural same protected under the Conservation of Habitats and Species Regulations 2010. Some other animals are protected under their own legislation, for example Protection of Badgers 108 Act 1992. 109 See https://www.uklaaproporting System website at http://www.ukbap-reporting.org.uk/news/details.asp?X=45. See section 7 of the Environment (Wales) Act 2016 for a list of habitats and species of principle importance in Wales. 108 See, for example, the biodiversity planning toolkit created by the Association of Local Government Ecologists in partnership with NGOs, Defra, SNCB and the Environment Agency. 108 See https://gov.wales/marine-planning 109 See https://gov.wales/marine-planning 109 See https://www.gov.uk/government/publications/25-year-environment-plan. An updated Environmental Improvement Plan 2023 has also been published in February 2023: 109 In line with the principle in paragraph 4.2.8, the term 'harm' should be understood to mean 'significant harm'. 109 For example	
Civil and Military Aviation and Defence Interests (Part 5.4-5 of EN-1)	Introduction  5.45.1 CivilAll aerodromes, covering civil and military aerodromes, activities, as well as aviation technical sites, meteorological radars and other types of defence interests (both onshore and offshore) can be affected by new energy development.  5.5.2 Collaboration and co-existence between aviation and energy industry stakeholders should strive for scenarios such that neither is unduly compromised.  5.5.3 Whilst energy infrastructure, such as wind turbines, are an established part of the expected built energy environment, issues such as the cumulative impact, location and increasing geographical spread and height of offshore windfarms, can all potentially have a bearing on aviation safety, defence capabilities and weather warnings and forecasts.  Aviation  5.5.4.2 UK airspace is important for both civilian and military aviation interests. It is essential that the safety of UKnew energy infrastructure is developed collaboratively alongside aerodromes, aircraft, air systems and airspace isso that safety, operations	There are no proposed changes to EN-1 of relevance to the Proposed Scheme. Therefore, the assessment of adopted EN-1 policy relating to 'civil and military aviation and defence interests' in Table 1 above is relevant to both the adopted and emerging NPS policy.

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	and capabilities are not adversely affected by new energy infrastructure. Similarly,	
	aerodromes	
	5.5.5 Aerodromes can have important economic and social benefits, particularly at the	
	regional and local level-, but there is also an urgent need for new energy developments, which bring about a wide range of social, economic and environmental	
	benefits.	
	5.5.6 Commercial civil aviation is largely confined to designated corridors of controlled	
	airspace and set approaches to airports. However, civilian leisure and militaryother	
	aircraft may often fly outside of 'controlled air space'.	
	5.5.7 The approaches and flight patterns to aerodromes are not necessarily routine and	
	can be irregular owing to a variety of factors including the performance characteristics	
	of the aircraft concerned and the prevailing meteorological conditions. 5.4.3 t may be	
	possible to adapt flight patterns to work alongside new energy infrastructure without	
	impacting on aviation safety.	
	<u>Safeguarding</u>	
	5.5.8 Certain civil aerodromes, and aviation technical sites, selected on the basis of	
	their importance to the national air transport system, are officially safeguarded in order	
	to ensure that their safety and operation are not compromised by new development.	
	5.5.9 A similar official safeguarding system applies to certainall military aerodromes	
	and, defence <u>surveillance sites</u> , and other defence assets, selected on the basis of their strategic importance.	
	5.5.10 Areas of airspace around aerodromes used by aircraft, including taking off or on approach and landing are described as "obstacle limitation surfaces" (OLS). OLS for All	
	civil aerodromes <u>licensed</u> by the Civil Aviation Authority (CAA) and all military	
	aerodromes must comply with the OLS. These are defined according to criteria set out	
	in relevant Civil Aviation Authority (CAA) guidance and CAA guidance 191 for	
	licensed civil aerodromes and according to MOD criteria, as set by the Military Aviation	
	Authority, which is part of the Defence Safety Authority (DSA), for military aerodromes	
	according to MoD criteria	
	5.5.11 Aerodromes that are officially safeguarded will have officially produced plans	
	that show the OLS. 5.4.4 The certified Safeguarding maps depicting the OLS and other	
	criteria (Care must be taken to ensure that new developments do not infringe these protected OLS, as these encompass the critical airspace within which key air traffic	
	associated with the aerodrome operates.	
	5.5.12 The CAA's CAP 738 <sup>192</sup> sets out that all licensed aerodromes are required to	
	ensure they have a system in place to safeguard their aerodrome against the growth of	
	obstacles or activities that may present a hazard to aircraft operations.	
	5.5.13 It is considered best practice for example to minimise "birdstrike" hazards) are	
	deposited with the relevant local the LPA to include the safeguarded area and	
	explanatory notes on its planning authorities. constraints plan so that potential	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	applicants can be aware of the presence of the aerodrome and the extent and nature of the safeguarding relevant to a particular aerodrome. DfT/ODPM Circular 01/20031082003 <sup>193</sup> provides advice to planning authorities on the official safeguarding of aerodromes and includes a list of the <u>civil</u> aerodromes which are officially safeguarded.	
	5.5.14 The <u>DfT/ODPM</u> Circular <u>01/2003<sup>194</sup></u> and CAA guidance also recommendrecommends that the operators of aerodromes which are not officially safeguarded should take steps to protect their aerodrome from the <u>possible</u> effects of possible adverse development by establishing an agreed consultation procedure between themselves and the <u>local planning authority or authorities.LPAs.</u>	
	5.4.5.15 The certified Safeguarding maps for all aerodromes (both licensed and unlicensed) depicting the OLS and other criteria (for example to minimise "birdstrike" hazards) are deposited with the relevant LPAs.	
	5.5.16 The CAA makes clear that the responsibility for the safeguarding of General Aviation aerodromes lies with the aerodrome operator.	
	5.5.17 There are also "Public Safety Zones" (PSZs) at the end of runways of the busiest airports in the UK, within which development is restricted to minimise risks to people on the ground in the event of an aircraft accident on take-off or landing. Maps showing the PSZs are deposited with the relevant local planning authorities. LPAs. DfT/ODPM Circular 01/2010 provides advice to local planning authorities on Public Safety Zones109. Zones. 195	
	5.4.65.18 The military Low Flying system covers the whole of the UK and enables low flying activities as low as 75m (mean separation distance). A considerable amount of military flying for training purposes is conducted at as low as 30m in designated Tactical Training Areas (TTAs) in mid Wales, Cumbria, the Scottish Border region and in the Electronic Warfare Range in the Scottish Border area. In addition, military helicopters may operate down to ground level.	
	5.5.19 New energy infrastructure may cause obstructions in Ministry of Defence (MoDMOD) low flying areas. 5.4.7A balance must be struck between defence and energy needs in these areas. 5.5.20 Sufficient air training space and space for civil operations will be required and operation around structures such as wind turbines will become increasingly important as the number of these structures increase.	
	Communications, navigation and surveillance (CNS) infrastructure	
	5.5.21 Safe and efficient operations within UK airspace is dependent upon communications, navigation and surveillance (CNS) infrastructure, including radar (often referred to as 'technical sites').	
	5.5.22 Energy infrastructure development may interfere with the operation of CNS systems such as radar. ItThis is a particular problem for wind turbines as they can act as a reflector or diffractor of radio signals upon which Air Traffic Control Services rely (an effect which is particularly likely to arise when large structures, such as wind	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	turbines, are located in close proximity tonear Communications and Navigation Aids	
	and technical sites). Wind turbines may also cause false returns when built in line of	
	sight to Primary or Secondary Surveillance radar installations. Other defence interests	
	5.4.8 The MoDand other technical issues when built in line of sight to radar	
	installations.	
	5.5.23 Windfarms are an integral part of the plan to achieve Net Zero, as well as	
	delivering affordable clean energy to consumers. The government has an official	
	ambition to deliver up to 50GW of offshore wind by 2030 and the Committee on	
	Climate Change's 6th Carbon Budget (CB6) views offshore wind as the backbone of	
	electricity generation across all its scenarios. The Offshore Wind Sector Deal confirmed that government will work collaboratively with the energy sector and wider stakeholders	
	to address strategic deployment issues including aviation and surveillance systems	
	including radar.	
	5.5.24 Whilst it is hoped that future surveillance technologies will enable civil and	
	military aviation, defence and meteorological surveillance providers and offshore	
	windfarms to meet coexistence challenges, it should not be assumed, however, that	
	there will be sufficient advancement in surveillance technologies to meet all future	
	requirements.	
	5.5.25 A "system of systems" approach may help address the impacts on air	
	surveillance and routine air traffic control operations for those windfarms that exist	
	when radar or other surveillance systems are procured, however this can add	
	complexity to aviation safety assurance and operating practices.	
	5.5.26 Surveillance methods that rely on cooperation alone, such as Automatic	
	Dependent Surveillance – Broadcast (ADS-B) or Secondary Surveillance Radar	
	transponders, are not sufficient to meet the UKs security and national defence	
	requirements nor would they assure the flight safety of air traffic from non-cooperative	
	threats.	
	5.5.27 MOD recognises that the environmental baseline includes existing windfarms	
	and any mitigation solutions that have been established to support them when	
	procuring future radar systems.	
	5.5.28 As existing CNS infrastructure reaches the end of its operational life,	
	replacement options that are more tolerant of wind turbines, if available, should be	
	installed by CNS owners/operators to future proof aerodromes against possible future	
	turbine installations in order to maintain or enhance aviation safety. This should be	
	considered on a case-by-case basis, so that the correct solution(s) are identified which	
	strike the balance between surveillance quality/needs and reasonableness of costs	
	being achieved, whilst maintaining safety.	
	5.5.29 Applicants should provide relevant information on proposed developments to	
	enable CNS owners/operators to consider upgrades appropriately.	
	Weather warnings and forecasts	

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	5.5.30 The UK weather radar network is composed of 15 weather radars that are operated and maintained by the Met Office. Each radar provides data out to 255km that underpin the Public Weather Service and the provision of critical meteorological information to a range of stakeholders including aviation, defence, civil contingencies, and the wider UK population, and in the case of severe weather, through the National Severe Weather Warning Service (NSWWS).	
	5.5.31 Weather radars are currently the only means of detecting the presence and location of precipitation in real time. The main hazard from precipitation is flooding and assessment of the potential flood impacts are carried out in consultation with the UKs authoritative flood agencies.	
	5.5.32 Some energy structures, such as wind turbines, have the potential to adversely impact weather radar signals, even beyond 100km from the radar. This can lead to downstream impacts in meteorological and hydrological warning systems that use radar data, which in turn decreases the credibility of warning systems. For example, when the size of the affected area exceeds the typical size of storms, warning systems may miss the initial stages of a significant rainfall event, which can cause delays in issuing warnings.	
	5.5.33 The Met Office protects its weather radars by engaging in the formal planning consultation process. Met Office weather radars are officially safeguarded196 and as per Secretary of State direction will be consulted directly on all relevant applicable planning applications within safeguarded zones by local planning authorities. 197	
	Other defence interests	
	5.5.34 The MOD operates military training areas, military danger zones (offshore Danger and Exercise areas), military explosives storage areas and TTAs. There are extensive Danger and Exercise Areas across the UK Continental Shelf Area (UKCS) for military firing and highly surveyed routes to support Governmentgovernment shipping that are essential for national defence.	
	5.4.95.35 Other operational defence assets may be affected by new development, for example the Seismological Monitoring Station at Eskdalemuir and maritime acoustic facilities used to test and calibrate noise emissions from naval vessels, such as at Portland Harbour. The <a href="MoDMOD">MoDMOD</a> also operates Air Defence radars and Meteorological radars—which have wide coverage over the UK (onshore and offshore).	
	5.5.36 It is important that new energy infrastructure does not significantly unacceptably	
	impede or compromise the safe and effective use of any defence assets. Applicant's  5.5.37 The Joint industry and government Air Defence and Offshore Wind Mitigation Task Force was set up to enable the co-existence of UK Air Defence and offshore wind. The Strategy and Implementation Plan <sup>198</sup> sets the direction for that collaboration. The recommendations generated from this Task Force should be referred to by both aviation and energy stakeholders.	
	<u>Applicant</u> assessment	

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	5.4.105.38 Where the proposed development may have an effect on affect the performance of civil or military aviation CNS, meteorological radars and/or other defence assets an assessment of potential effects should be set out in the ES (see Section 4.2).	
	5.4.115.39 The requirement for ATC and non-cooperative surveillance – i.e. radar/tracking technologies - forms part of the environmental baseline for proposed developments.	
	5.5.40 The applicant should consult the MoD, MOD, Met Office, Civil Aviation Authority (CAA,), NATS and any aerodrome – licensed or otherwise – likely to be affected by the proposed development in preparing an assessment of the proposal on aviation, meteorological or other defence interests.	
	5.4.125.41 Any assessment of <u>effects on</u> aviation, <u>meteorological</u> or other defence interests should include potential impacts of the project upon the operation of CNS infrastructure, flight patterns (both civil and military), <u>other defence assets and</u> aerodrome operational procedures. It should also assess the cumulative effects of the	
	project with other relevant projects in relation to aviation and defence. 5.4.13generation of weather warnings and forecasts, other defence assets (including radar) and aerodrome operational procedures. It should also assess the demonstratable cumulative effects <sup>199</sup> of the project with other relevant projects in relation to aviation, meteorological and defence.	
	5.5.42 In addition, consideration of developments near aerodromes should take into account the following factors:	
	<ul> <li>Bird Strike Risk - Aircraft are vulnerable to wildlife strike, in particular bird strike.         Birds and other wildlife may be attracted to the vicinity of an aerodrome by various types of development, for example, large buildings with perching/roosting opportunities for birds. It is therefore important that infrastructure, buildings and other elements from energy installations, as well as environmental mitigation are designed in such a way so as not to increase the bird strike risk to the airport for developments within 13km (this can vary)<sup>200</sup>.</li> <li>Building Induced Turbulence - If a significant building or structure is proposed close to the airport/runways, there is potential for building induced turbulence/wind shear to be created which has the potential to impact on aircraft on take-off and landing. Studies may be required to identify the extent of any turbulence resulting from the</li> </ul>	
	<ul> <li><u>Thermal Plume Turbulence - This is caused under certain conditions by the release of hot air from a power plant equipped with a dry cooling system. The plumes generated by these facilities have the potential to create invisible turbulence that can affect the manoeuvrability of aircraft.</u></li> </ul>	
	5.5.43 If any relevant changes are made to proposals during the pre-application and determination period, it is the responsibility of the applicant to ensure that the relevant aviation and defence consultees are informed as soon as reasonably possible. IPC	

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	decision making 5.4.14 The IPC should be satisfied that the effects on, meteorological	
	and defence consultees are informed as soon as reasonably possible.	
	<u>Mitigation</u>	
	5.5.44 The applicant should include appropriate mitigation measures as an integral part	
	of the proposed development.	
	5.5.45 Mitigation for infringement of OLS may include <sup>201</sup> :	
	agreed changes to operational procedures of the aerodromes in accordance with	
	relevant guidance, provided that safety assurances can be provided by the operator	
	that are acceptable to the CAA where the changes are proposed to a civilian	
	aerodrome (and provided that it does not result in an unreasonable reduction of	
	capacity or unreasonable constraints on the operation of the aerodrome against pre-COVID-19 levels); or	
	<ul> <li>installation of obstacle lighting and/or by notification in Aeronautical Information</li> </ul>	
	Service publications	
	5.5.46 For CNS infrastructure, the UK military Low Flying system (including TTAs) and	
	designated air traffic routes, mitigation may also include:	
	operational airspace changes	
	<ul> <li>agreement to upgrade CNS infrastructure, the cost of which the applicant may</li> </ul>	
	reasonably be required to contribute in part or in full until the end of the life of the	
	surveillance equipment if subsequently replaced by a fully windfarm tolerant	
	system. If an appropriate system upgrade cannot be identified at the point of	
	application, the applicant may be required to contribute in part or in full to any future upgrade for the lifetime of the wind farm. Costs should be reflective of need and	
	impact of the energy installation on the monitoring equipment	
	<ul> <li>introducing radar mitigation technology to the development, e.g. by using non-radar</li> </ul>	
	reflecting materials to manufacture wind turbine blades	
	5.5.47 Mitigation for effects on meteorological radar and CNS systems may include	
	reducing the scale of a project, although it is likely to be unreasonable for the Secretary	
	of State to require mitigation by way of a reduction or alteration in the scale of	
	development.	
	5.5.48 There may be exceptional circumstances where a small reduction in the scale of	
	a development and any associated reduction in generating capacity, will result in	
	proportionately greater mitigation for radar and CNS systems. In these cases, the	
	Secretary of State may consider that the benefits to CNS and radar mitigation	
	outweighs this loss of capacity.	
	5.5.49 Consideration from energy stakeholders should also be given to the possibility	
	of introducing radar mitigation technology as windfarm assets are renewed and	
	replaced e.g., by using non-radar reflecting materials to manufacture turbine blades.	
	Secretary of State decision making	

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Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	5.5.50 The Secretary of State should be satisfied that the effects on meteorological radars, civil and military aerodromes, aviation technical sites and other defence assets have been addressed by the applicant and that any necessary assessment of the proposal on aviation, NSWWS or defence interests has been carried out.	
	5.5.51 In particular, itthe Secretary of State should be satisfied that the proposal has been designed, where possible, to minimise adverse impacts on the operation and safety of aerodromes and that reasonable realistically achievable mitigation is carried out, on existing surveillance systems such as radar / tracking technologies. It may also be appropriate to expect or operators of the aerodrome to consider making examine the possibility of agreeing to make reasonable changes to operational procedures.	
	5.5.52 When assessing the necessity, acceptability, and reasonableness of operational changes to aerodromes, the IPCSecretary of State should satisfy itselfbe satisfied that it hasthey have the necessary information regarding the operational procedures along with any demonstrable risks or harm of such changes, taking into account the cases put forward by all parties. When making such a judgement in the case of military aerodromes, the IPCSecretary of State should have regard to interests of defence and national security.	
	5.4.155.5.53 In the case of meteorological radars, the Secretary of State should consider the extent to which the provision of weather and flood warnings is compromised.	
	5.5.54 If there are conflicts between the Government's energy and transport policies and military interests in relation to the application, the IPCSecretary of State should expect the relevant parties to have made appropriate efforts to work together to identify realistic and pragmatic solutions to the conflicts. In so doing, the parties should seek to protect the aims and interests of the other parties as far as possible, recognising simultaneously the evolving landscape in terms of the UK's energy security and the need to tackle climate change, which necessitates the	
	installation of wind turbines and the need to maintain air safety and national defence and the national weather warning service.	
	5.4.165.55 There are statutory requirements concerning lighting to tall structures110.structures. <sup>202</sup> Where lighting is requested on structures that goes beyond statutory requirements by any of the relevant aviation and defence consultees, the IPCSecretary of State should satisfy itselfbe satisfied of the necessity of such lighting	
	taking into account the case put forward by the consultees. The effect of such lighting on the landscape and ecology may be a relevant consideration. 5.4.17 Where, after reasonable mitigation, operational changes, obligations and requirements have been	
	proposed, the IPC considers that: • a development would prevent a licensed aerodrome from maintaining its licence; • the benefits of the proposed development are outweighed by the harm to aerodromes serving business, training or emergency	
	service needs, taking into account the relevant importance and need for such aviation infrastructure; or ● the development would significantly impede or compromise the safe and effective use of defence assets or significantly limit military training; ● the	

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	development would have an impact on the safe and efficient provision of en route air	
	traffic control services for civil aviation, in particular through an adverse effect on the	
	infrastructure required to support communications, navigation or surveillance systems;	
	consent should not be granted. Mitigation	
	5.4.185.5.56 Lighting must also be designed in such a way as to ensure that there is no	
	glare or dazzle to pilots and/or ATC, aerodrome ground lighting is not obscured and	
	that any lighting does not diminish the effectiveness of aeronautical ground lighting and	
	cannot be confused with aeronautical lighting.	
	5.5.57 Where new technologies to mitigate the adverse effects of wind farms on	
	surveillance systems, such as radar, are concerned, the Secretary of State should	
	have regard to any government guidance which emerges from the joint	
	government/Industry Aviation Management Board and the Joint Air Defence and	
	Offshore Wind Task Force.	
	5.5.58 Where suitable technological solutions have not yet been developed or proven,	
	the Secretary of State will need to consider the likelihood of a solution becoming	
	available within the time limit for implementation of the development consent.	
	5.5.59 Where a proposed energy infrastructure development would significantly impede	
	or compromise the safe and effective use of civil or military aviation or defence assets	
	and or significantly limit military training, the IPC may consider the use of 'Grampian111, or other forms of condition which relate to the use of future	
	technological solutions, to mitigate impacts. Where technological solutions have not yet	
	been developed or proven, the IPC will need to consider the likelihood of a solution	
	becoming available within the time limit for implementation of the development consent.	
	In this context, where new technologies to mitigate the adverse effects of wind farms	
	on radar are concerned, the IPC should have regard to any Government guidance	
	which emerges from the joint Government/Industry Aviation Plan. 5.4.19 Mitigation for	
	infringement of OLS may include 112: • amendments to layout or scale of infrastructure	
	to reduce the height, provided that it does not result in an unreasonable reduction of	
	capacity or unreasonable constraints on the operation of the proposed energy	
	infrastructure; ● changes to operational procedures of the aerodromes in accordance	
	with relevant guidance, provided that safety assurances can be provided by the	
	operator that are acceptable to the CAA where the changes are proposed to a civilian	
	aerodrome (and provided that it does not result in an unreasonable reduction of	
	capacity or unreasonable constraints on the operation of the aerodrome); and ●	
	installation of obstacle lighting and/or by notification in Aeronautical Information Service	
	publications. 5.4.20 For CNS infrastructure, the UK military Low Flying system	
	(including TTAs) and designated air traffic routes, mitigation may also include: ●	
	lighting; ● operational airspace changes; and ● upgrading of existing CNS	
	infrastructure, the cost of which the applicant may reasonably be required to contribute	
	in part or in full. 5.4.21 Mitigation for effects on radar, communications and navigational	
	systems may include reducing the scale of a project, although in some cases it is likely	
	to be unreasonable for the IPC to require mitigation by way of a reduction in the scale	

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	of development, for example, where reducing the tip height of wind turbines in a wind farm would result in a material reduction in electricity generating capacity or operation would be severely constrained. However, there may be exceptional circumstances where a small reduction in such function will result in proportionately greater mitigation. In these cases, the IPC may consider that the benefits of the mitigation outweighs the marginal loss of function, meteorological radars, defence assets and/or significantly	
	limit military training, the Secretary of State may consider the use of 'Grampian conditions' 203, or other forms of requirement which relate to the use of current or future technological solutions, to mitigate impacts on legacy CNS equipment.	
	5.5.60 Where, after reasonable mitigation, operational changes, obligations and requirements have been proposed, the Secretary of State should consider that:	
	<ul> <li>a development would prevent a licensed aerodrome from maintaining its licence and the operational loss of the said aerodrome would have impacts on national security and defence, or result in substantial local/national economic loss, or emergency service needs</li> <li>it would cause harm to aerodromes' training or emergency service needs,</li> <li>the development would impede or compromise the safe and effective use of defence assets or unacceptably limit military training</li> <li>the development would have a negative impact on the safe and efficient provision of en-route air traffic control services for civil aviation, in particular through an adverse effect on CNS infrastructure</li> <li>the development would compromise the effective provision of weather warnings by the NSWWS, or flood warnings by the UKs flood agencies</li> <li>5.5.61 Provided that the Secretary of State is satisfied that the impacts present risks to national security and physical safety, such that they outweigh the urgent need for an acceleration in the deployment of offshore wind, or other technology; and provided that the Secretary of State is satisfied that all efforts have been made by the parties to find an acceptable mitigation of the impact, and that such mitigation is not available, consent should not be granted.</li> </ul>	
	https://publicapps.caa.co.uk/modalapplication.aspx?appid=11&mode=detail&id=6114	
	<ul> <li>198192 See https://publicapps.caa.co.uk/modalapplication.aspx?appid=11&amp;mode=detail&amp;id=576</li> <li>193 DfT/ODPM Circular 01/2003: Safeguarding, Aerodromes, Technical Sites and Military Explosives Storage Areas.</li> <li>109194 DfT/ODPM Circular 01/2002/2003: Safeguarding, Aerodromes, Technical Sites and Military Explosives Storage Areas.</li> </ul>	
	195 DfT circular 01/2010: Control of Development in Airport Public Safety Zones-: See https://www.gov.uk/government/publications/control-of-development-in-airport-public-safety-zones	
	<ul> <li>Articles 219 and 220. Air Navigation Order 2009.</li> <li>A negative condition that prevents the start of a development until specific actions, mitigation or other development have been completed.</li> </ul>	
	112 Town & Country Planning (Safeguarded Meteorological Sites) (England) Direction 2014, The Town and Country Planning (Safeguarded Aerodromes, Technical Sites, Meteorological Technical Sites and Military Explosives Storage Areas) (Scotland) Direction 2016), Town and Country Planning (Crug-yGorllwyn) Technical Site	

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	Direction (2016), Town and Country Planning (Safeguarded Meteorological Sites) Order 2014, Meteorological (Castor Bay) Technical Sites Direction  197 See https://www.gov.uk/guidance/consultation-and-pre-decision-matters#safeguarding-directions  198 See https://www.gov.uk/government/publications/air-defence-and-offshore-wind-working-together-towards-netzero/air-defence-and-offshore-wind-working-together-towards-netzero/air-defence-and-offshore-wind-working-together-towards-netzero  199 It may not always be appropriate to share the detailed bases of defence asset assessments on security grounds, to avoid exposing vulnerabilities that could be exploited by potential adversaries.  200 CAP 772 Wildlife Hazard Management at Aerodromes  201 Where mitigation is required using a condition or planning obligation, the tests set out at paragraphs 4.1.75 – 4.1.87 in EN-1 should be applied.  202 Articles 222 and 223. Air Navigation Order 2016.  203 As set out on See https://www.gov.uk/guidance/use-of-planning-conditions, a Grampian condition refers to a condition worded in a negative form, i.e. prohibiting development authorised by the planning permission or other aspects linked to the planning permission (e.g. occupation of premises) until a specific action has been taken (such as the provision of supporting infrastructure).	
Flood-Risk (Part 5.7 of EN-1)Coastal Change (Part 5.6 of Draft EN-1)	<ul> <li>5.6.1 The government's Flood and Coastal Erosion Risk Management Policy Statement<sup>204</sup> sets out our ambition to create a nation more resilient to future flood and coastal erosion risk. It outlines policies and actions which will accelerate progress to better protect and better prepare the country against flooding and coastal erosion.</li> <li>5.6.2 The government's aim is to ensure that our coastal communities continue to prosper and adapt to coastal change. This means planning should: <ul> <li>ensure that policies and decisions in coastal areas are based on an understanding of coastal change over time</li> <li>prevent new development from being put at risk from coastal change by: <ul> <li>i. avoiding inappropriate development in areas that are vulnerable to coastal change or any development that adds to the impacts of physical changes to the coast</li> <li>ii. directing development away from areas vulnerable to coastal change</li> </ul> </li> <li>ensure that the risk to development which is, exceptionally, necessary in coastal change areas because it requires a coastal location and provides substantial economic and social benefits to communities, is managed over its planned lifetime</li> <li>ensure that plans are in place to secure the long-term sustainability of coastal areas</li> <li>5.6.3 For the purpose of this section, coastal change means physical change to the shoreline, i.e. erosion, coastal landslip, permanent inundation and coastal accretion.</li> <li>5.6.4 Where onshore infrastructure projects are proposed on the coast, coastal change is a key consideration as well as a vital element of climate change adaptation (see Section 4.9).</li> <li>5.6.5 Some kinds of coastal change happen very gradually, others over shorter timescales. Some are the result of purely natural processes others, including potentially significant modifications of the coastline or coastal environment resulting from climate change, are wholly or partly man-made. This section is concerned both with the</li> </ul> </li> <td>Land within the Order Limits is not located on the coast; therefore, the Applicant considers the proposed Part 5.6 of draft EN-1 is not relevant to the Proposed Scheme.</td></ul>	Land within the Order Limits is not located on the coast; therefore, the Applicant considers the proposed Part 5.6 of draft EN-1 is not relevant to the Proposed Scheme.

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	impacts which energy infrastructure can have as a driver of coastal change and with how to ensure that developments are resilient to ongoing and potential future coastal change.  5.6.6 The construction of an onshore energy project on the coast may involve, for example, dredging, dredge spoil deposition, cooling water, culvert construction, marine landing facility construction and flood and coastal protection measures which could result in direct effects on the coastline, seabed and marine ecology and biodiversity.	
	<ul> <li>5.6.7 Additionally, indirect changes to the coastline and seabed might arise as a result of a hydrodynamic response to some of these direct changes. This could lead to localised or more widespread coastal erosion or accretion and changes to offshore features such as submerged banks and ridges, marine biodiversity and heritage assets.</li> <li>5.6.8 This section only applies to onshore energy infrastructure projects situated on the coast. The impacts of offshore renewable energy projects on marine life and coastal geomorphology are considered in EN-3.</li> </ul>	
	5.6.9 Section 5.4 on biodiversity and geological conservation, Section 5.8 on flood risk and Section 4.9 on adaptation to climate change, including the increased risk of coastal erosion, are also relevant, as is advice on access to coastal recreation sites and features in Section 5.11 on land use.  5.6.10 Advice on the historic environment in Section 5.9 may also be relevant.  Applicant assessment	
	5.6.11 Where relevant, applicants should undertake coastal geomorphological and sediment transfer modelling to predict and understand impacts and help identify relevant mitigating or compensatory measures.  5.6.12 The ES (see Section 4.2) should include an assessment of the effects on the coast, tidal rivers and estuaries. In particular, applicants should assess:	
	<ul> <li>the impact of the proposed project on coastal processes and geomorphology, including by taking account of potential impacts from climate change. If the development will have an impact on coastal processes the applicant must demonstrate how the impacts will be managed to minimise adverse impacts on other parts of the coast</li> <li>the implications of the proposed project on strategies for managing the coast as set out in Shoreline Management Plans (SMPs)<sup>205</sup> (which provide a large-scale assessment of the physical risks associated with coastal processes and present a long term policy framework to reduce these risks to people and the developed, historic and natural environment in a sustainable manner), any relevant Marine Plans, River Basin Management Plans, and capital programmes for maintaining flood and coastal defences and Coastal Change Management Areas</li> <li>the effects of the proposed project on marine ecology, biodiversity, protected sites</li> </ul>	
	and heritage assets	

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	<ul> <li>how coastal change could affect flood risk management infrastructure, drainage and flood risk</li> <li>the effects of the proposed project on maintaining coastal recreation sites and features</li> <li>the vulnerability of the proposed development to coastal change, taking account of climate change, during the project's operational life and any decommissioning period.</li> </ul>	
	5.6.13 For any projects involving dredging or deposit of any substance or object into the sea, the applicant should consult the MMO and Historic England, or the NRW in Wales. Where a project has the potential to have a major impact in this respect, this is covered in the technology specific NPSs. For example, EN-4 looks further at the environmental impacts of dredging in connection with Liquified Natural Gas (LNG)	
	tanker deliveries to LNG import facilities.  5.6.14 The applicant should be particularly careful to identify any effects of physical changes on the integrity and special features of Marine Protected Areas (MPAs).  These could include MCZs, HRA Sites including Special Areas of Conservation and Special Protection Areas with marine features, Ramsar Sites, Sites of Community Importance, and SSSIs with marine features. Applicants should also identity any effects on the special character of Heritage Coasts <sup>206</sup> .	
	5.6.15 Applicants must demonstrate that full account has been taken of the policy on assessment and mitigation in paragraphs 4.2.1 to 4.2.9 of this NPS, taking account of the potential effects of climate change on these risks.	
	<u>5.6.16 Applicants should propose appropriate mitigation measures to address adverse</u> physical changes to the coast, in consultation with the MMO, the EA or NRW, LPAs, other statutory consultees, Coastal Partnerships and other coastal groups, as it considers appropriate. Where this is not the case, the Secretary of State should consider what appropriate mitigation requirements might be attached to any grant of development consent.	
	Secretary of State decision making  5.6.17 The Secretary of State should be satisfied that the proposed development will be resilient to coastal erosion and deposition, taking account of climate change, during the project's operational life and any decommissioning period. Proposals that aim to facilitate the relocation of existing energy infrastructure from unsustainable locations which are at risk from coastal change, should be supported where it would result in climate resilient infrastructure.	
	5.6.18 The Secretary of State should not normally consent new development in areas of dynamic shorelines where the proposal could inhibit sediment flow or have an adverse impact on coastal processes at other locations. Impacts on coastal processes must be managed to minimise adverse impacts on other parts of the coast. Where such proposals are brought forward, consent should only be granted where the	

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	Secretary of State is satisfied that the benefits (including need) of the development outweigh the adverse impacts.  5.6.19 The Secretary of State should ensure that applicants have restoration plans for areas of foreshore disturbed by direct works and will undertake pre- and post-construction coastal monitoring arrangements with defined triggers for intervention and	
	restoration.  5.6.20 The Secretary of State should examine the broader context of coastal protection around the proposed site, and the influence in both directions, i.e. coast on site, and site on coast.	
	5.6.21 The Secretary of State should consult the MMO on projects which could impact on coastal change in England, or NRW for projects in Wales, since the MMO or NRW may also be involved in considering other projects which may have related coastal impacts.	
	5.6.22 In addition to this NPS, the Secretary of State must have regard to the appropriate marine policy documents, as provided for in the Marine and Coastal Access Act 2009, in taking any decision which relates to the exercise of any function capable of affecting any part of the UK marine area. The Secretary of State should also have regard to any relevant Shoreline Management Plans <sup>207</sup> .	
	5.6.23 Substantial weight should be attached to the risks of flooding and coastal erosion and the Secretary of State should be satisfied that the applicant has taken full account of the policy on assessment and mitigation in paragraphs 4.2.1 to 4.2.9 of this NPS, taking account of the potential effects of climate change on these risks.	
	<ul> <li>204 See https://www.gov.uk/government/publications/flood-and-coastal-erosion-risk-management-policy-statement</li> <li>205 See https://www.gov.uk/government/publications/shoreline-management-plans-smps</li> <li>206 See https://www.gov.uk/government/publications/heritage-coasts-protecting-undeveloped-coast/heritagecoasts-definition-purpose-and-natural-englands-role</li> <li>207 Shoreline management plans are developed by Coastal Groups with members mainly from local councils and the</li> </ul>	
	Environment Agency. They identify the most sustainable approach to managing the flood and coastal erosion risks to the coastline in the short term (0 to 20 years), medium term (20 to 50 years) and the long term (50 to 100 years).  The Shoreline Management Plan is available online at: https://www.gov.uk/government/publications/shorelinemanagement-plans-smps	
Dust, Odour, Artificial Light, Smoke, Steam, and Insect Infestation Flood Risk (Part 5.7 of EN-1)	5.67.1 During the construction, operation and decommissioning of energy infrastructure there is potential for the release of a range of emissions such as odour, dust, steam, smoke, artificial light and infestation of insects. All have the potential to have a detrimental impact on amenity or cause a common law nuisance or statutory nuisance under Part III, Environmental Protection Act 1990 <sup>208</sup> . However, they are not regulated by the environmental permitting regime, so mitigation of these impacts will need to be included in the DCO.	The emerging policy text demonstrates no significant changes are proposed to EN-1 in relation to dust, odour, artificial light, smoke, steam, and insect infestation. The assessment of adopted policy presented at Table 1 above therefore remains relevant.  Suitable mitigation measures for construction are set out in the General and Air Quality sections of the REAC (AS-121REP9-019) and secured pursuant to Requirement 14 of the DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10).
	5.7.2 Note that pollution impacts from some of these emissions (for example dust, smoke) are covered in the Section 5.2 on air emissions.	

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	5.6.27.3 Because of the potential effects of these emissions and infestation, and in view of the availability of the defence of statutory authority against nuisance claims described in Section 4.14, it is important that the potential for these impacts is considered by the IPC. 5.6.3 applicant and Secretary of State.	
	5.7.4 For energy NSIPs of the type covered by this NPS, some impact on amenity for local communities is likely to be unavoidable. The aim should be to keep impacts to a minimum, and at a level that is acceptable.	
	Applicant's Applicant assessment	
	5.6.47.5 The applicant should assess the potential for insect infestation and emissions of odour, dust, steam, smoke, and artificial light to have a detrimental impact on amenity, as part of the <a href="Environmental Statement.ES">Environmental Statement.ES</a> .	
	5.7.6.5 In particular, the assessment provided by the applicant should describe:	
	<ul> <li>the type, quantity and timing of emissions</li> <li>aspects of the development which may give rise to emissions</li> <li>premises or locations that may be affected by the emissions</li> <li>effects of the emission on identified premises or locations; and</li> <li>measures to be employed in preventing or mitigating the emissions.</li> </ul>	
	5.6.67.7 The applicant is advised to consult the relevant local planning authority and, where appropriate, the EA about the scope and methodology of the assessment. IPC decision making 5.6.7 The IPC should satisfy itself that:	
	<u>Mitigation</u>	
	5.7.8 Mitigation measures may include one or more of the following:	
	<ul> <li>engineering:</li> <li>prevention of a specific emission at the point of generation;</li> <li>control, containment and abatement of emissions if generated</li> <li>lay-out: adequate distance between source and sensitive receptors;</li> <li>reduced transport or handling of material</li> <li>administrative: limiting operating times; restricting activities allowed on the site; implementing management plans</li> </ul>	
	5.7.9 Construction should be undertaken in a way that reduces emissions, for example the use of low emission mobile plant during the construction, and demolition phases as appropriate, and consideration should be given to making these mandatory in DCO requirements.	
	5.7.10 Demolition considerations should be embedded into designs at the outset to enable demolition techniques to be adopted that remove the need for explosive demolition.	
	5.7.11 A construction management plan may help clarify and secure mitigation.	
	Secretary of State decision making	

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	<ul> <li>5.7.12 The Secretary of State should satisfy itself that:</li> <li>an assessment of the potential for artificial light, dust, odour, smoke, steam and insect infestation to have a detrimental impact on amenity has been carried out; and</li> <li>that all reasonable steps have been taken, and will be taken, to minimise any such detrimental impacts.</li> </ul>	
	5.6.87.13 If the IPC does grant development consent is granted for a project, itthe Secretary of State should consider whether there is a justification for all of the authorised project (including any associated development) beingto be covered by a defence of statutory authority against nuisance claims. If itthe Secretary of State cannot conclude that this is justified, itthe Secretary of State should disapply in whole or in part the defence through a provision in the development consent order.	
	5.6.97.14 Where itthe Secretary of State believes it appropriate, the IPCSecretary of State may consider attaching requirements to the development consent, in order to secure certain mitigation measures.	
	5.6.107.15 In particular, the IPCSecretary of State should consider whether to require the applicant to abide by a scheme of management and mitigation concerning insect infestation and emissions of odour, dust, steam, smoke₁ and artificial light from the development. The IPCSecretary of State should consider the need for such a scheme to reduce any loss to amenity which might arise during the construction, operation and decommissioning of the development. A construction management plan may help codify mitigation at that stage. Mitigation 5.6.11 Mitigation measures may include one or more of the following: ● engineering: prevention of a specific emission at the point of generation; control, containment and abatement of emissions if generated; ● lay-out: adequate distance between source and sensitive receptors; reduced transport or handling of material; and ● administrative: limiting operating times; restricting activities allowed on the site; implementing management plans.	
Historic Environment-Flood Risk (Part 5.8 of EN-1)	Introduction  5.78.1 Flooding is a natural process that plays an important role in shaping the natural environment. However, flooding threatens life and causes substantial disruption and damage to property.	Proposed text in Part 5.8 of draft EN-1 emphasises the importance of energy infrastructure being resilient to flood risk, at proposed paragraph 5.8.2, and has been updated to highlight the current and future impact of climate change on the UK in respect of flood risk at paragraph 5.8.5.
	5.8.2 The effects of weather events on the natural environment, life and property can be increased in severity both as a consequence of decisions about the location, design and nature of settlement and land use, and as a potential consequence of future climate change. Having resilient energy infrastructure not only reduces the risk of flood damages to the infrastructure, it also reduces the disruptive impacts of flooding on those homes and businesses that rely on that infrastructure. Although flooding cannot be wholly prevented, its adverse impacts can be avoided or reduced through good planning and management. 5.7.2 Climate change over the next few decades is likely to	Proposed paragraph 5.8.3 encourages the industry to consider updates to Government policy as a matter of priority.  As set out in Table 1 above, primary mitigation has ensured the infrastructure can still operate should a flood event occur. This is in compliance with proposed paragraphs 5.8.4. Table 1 also explains how the Sequential and Exception Test have been applied to the Proposed Scheme.  The Government's Flood and Coastal Erosion Risk Management Policy Statement (2020) is referenced at proposed paragraph 5.8.3, which sets out the Government's ambition to create a flood risk resilient nation; outlining policies and actions to achieve this. The

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mean milder, wetter winters and hotter, drier summers in the UK, while sea levels will continue to rise.

5.8.3 The government's Flood and Coastal Erosion Risk Management Policy
Statement<sup>209</sup> sets out our ambition to create a nation more resilient to future flood and
coastal erosion risk. It outlines policies and actions which will accelerate progress to
better protect and better prepare the country against flooding and coastal erosion. The
industry should consider any updates to government policy and apply updated
approaches as a matter of priority.

5.8.4 All buildings in flood risk areas can improve their preparedness to reduce costs and disruption to key public services when a flood happens. Where infrastructure is not better protected as part of a wider community scale flood defence scheme, those who own and run infrastructure sites – whether in public or private hands – are expected to take action to keep water out, minimise the damage if water gets in through flood-resilient materials, and reduce the disruption caused. This includes effective contingency planning to mitigate the impacts of flooding on the delivery of important services.

5.8.5 Climate change is already having an impact and is expected to have an increasing impact on the UK throughout this century. The UK Climate Projections 2018<sup>210</sup> show an increased chance of milder, wetter winters and hotter, drier summers in the UK, with more intensive rainfall causing flooding. Sea levels will continue to rise beyond the end of the century, increasing risks to vulnerable coastal communities. Within the lifetime of energy projects, these factors will lead to increased flood risks in areas susceptible to flooding, and to an increased risk of the occurrence of floods in some areas which are not currently thought of as being at risk. The A robust approach to flood risk management is a vital element of climate change adaptation; the applicant and the IPCSecretary of State should take account of the policy on climate change adaptation in Section 4.89.

5.7.38.6 The aims of planning policy on development and flood risk are to ensure that flood risk from all sources of flooding is taken into account at all stages in the planning process to avoid inappropriate development in areas at risk of flooding, and to direct development away from areas at highest risk. Where new energy infrastructure is, exceptionally, necessary in such areas, policy aims to make it safe without increasing flood risk elsewhere and, where possible, by reducing flood risk overall. Applicant's assessment 5.7.4 Applications for energy projects of 1 hectare or greater in Flood Zone 1 in England or Zone A in Wales113 and all proposals for energy projects located in Flood Zones 2 and 3 in England or Zones B and C in Wales should be accompanied by a flood risk assessment (FRA). An FRA will also be required where an energy project less than 1 hectare may be subject to sources of flooding other than rivers and the sea (for example surface water), or where the EA, Internal Drainage Board or other body have indicated that there may be drainage problems. This steer new development to areas with the lowest risk of flooding.

#### **Assessment of Changes of Relevance**

Applicant does not anticipate the Proposed Scheme would present any issues with complying with this Policy Statement.

Proposed paragraph 5.8.15 proposes text requiring FRAs to consider climate change across a range of climate scenarios. The FRA presented at Appendix 12.1 of the ES (REP2-039) does this by using a range of climate change allowances within the hydraulic modelling that was undertaken.

Whilst it is noted that the Draft DCO predates the advice within the Environment AgencyEA's 2022 Climate Change Risk Assessment, the design standards for flood risk assessments (which were adopted for use within the Flood Risk Assessment (FRA) (REP2-039and REP2-041) for the Proposed Scheme) have been developed by the Environment AgencyEA based upon RCP8.5, which is the high-emissions global warming scenario and would equate to a 3.3 °C warming for North Yorkshire. The FRA has a assessed the impacts of RCP8.5 through site specific models. These impacts are suitably mitigated within the FRA (REP2-039) for the design life of the Proposed Scheme.

The FRA also includes information on flood likelihood, speed-of-onset, duration and hazard, the latter of which is informed by depth and velocity.

Natural flood management (NFM) measures are not appropriate, due to nature of the Proposed Scheme and as the Drax Power Station site (i.e. the siting of the proposed operational equipment) is part of the existing development, as per paragraph 5.8.12.

In line with proposed paragraph 5.8.12, the Proposed Scheme will offset any net loss of floodplain storage through delivery of a Floodplain Compensation Area.

The Surface Water Drainage Strategy covers the information listed in points i – ix in the new bullet points proposed in paragraph 5.8.15.

The remaining text proposed to EN-1 in relation to Flood Risk is addressed in the assessment of adopted policy in Table 1 above, in particular that flood compensation has been provided and that the <a href="mailto:Environment AgencyEA">Environment AgencyEA</a> is satisfied with the flood risk position with the Proposed Scheme.

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	5.8.7 Where new energy infrastructure is, exceptionally, necessary in flood risk areas	
	(for example where there are no reasonably available sites in areas at lower risk),	
	policy aims to make it safe for its lifetime without increasing flood risk elsewhere and,	
	where possible, by reducing flood risk overall. It should also be designed and	
	constructed to remain operational in times of flood.	
	5.8.8 Proposals that aim to facilitate the relocation of existing energy infrastructure from	
	unsustainable locations which are or will be at unacceptable risk of flooding, should be	
	supported where it would result in climate-resilient infrastructure.	
	5.8.9 If, following application of the Sequential Test <sup>211</sup> , it is not possible, (taking into	
	account wider sustainable development objectives), for the project to be located in	
	areas of lower flood risk the Exception Test can be applied, as required by Annex 3 of	
	the Planning Practice Guidance. <sup>212</sup> The test provides a method of allowing necessary	
	development to go ahead in situations where suitable sites at lower risk of flooding are	
	not available.	
	5.8.10 The Exception Test <sup>213</sup> is only appropriate for use where the Sequential Test	
	alone cannot deliver an acceptable site. It would only be appropriate to move onto the	
	Exception Test when the Sequential Test has identified reasonably available, lower risk	
	sites appropriate for the proposed development where, accounting for wider	
	sustainable development objectives, application of relevant policies would provide a	
	clear reason for refusing development in any alternative locations identified. Examples	
	could include alternative site(s) that are subject to national designations such as	
	landscape, heritage and nature conservation designations, for example Areas of	
	Outstanding Natural Beauty (AONBs), SSSIs and World Heritage Sites (WHS) which	
	would not usually be considered appropriate.	
	5.8.11 Both elements of the Exception Test will have to be satisfied for development to	
	be consented. To pass the Exception Test it should be demonstrated that:	
	<ul> <li>the project would provide wider sustainability benefits to the community<sup>214</sup> that</li> </ul>	
	outweigh flood risk; and	
	• the project will be safe for its lifetime taking account of the vulnerability of its users,	
	without increasing flood risk elsewhere, and, where possible will reduce flood risk	
	<u>overall.</u>	
	5.8.12 Development should be designed to ensure there is no increase in flood risk	
	elsewhere, accounting for the predicted impacts of climate change throughout the	
	lifetime of the development. There should be no net loss of floodplain storage and any	
	deflection or constriction of flood flow routes should be safely managed within the site.	
	Mitigation measures should make as much use as possible of natural flood	
	management techniques.	
	Applicant assessment	
	5.8.13 A site-specific flood risk assessment should be provided for all energy projects	
	in Flood Zones 2 and 3 in England or Zones B and C in Wales. In Flood Zone 1 in	

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	England or Zone A in Wales, an assessment should accompany all proposals	
	involving:	
	sites of 1 hectare or more	
	land which has been identified by the EA or NRW as having critical drainage	
	problems	
	land identified (for example in a local authority strategic flood risk assessment) as	
	being at increased flood risk in future	
	<ul> <li>land that may be subject to other sources of flooding (for example surface water)</li> </ul>	
	<ul> <li>where the EA or NRW, Lead Local Flood Authority, Internal Drainage Board or</li> </ul>	
	other body have indicated that there may be drainage problems.	
	5.8.14 This assessment should identify and assess the risks of all forms of flooding to	
	and from the project and demonstrate how these flood risks will be managed, taking	
	climate change into account.	
	5.7.58.15 The minimum requirements for FRAsFlood Risk Assessments (FRA) are that	
	they should:	
	be proportionate to the risk and appropriate to the scale, nature and location of the	
	project;	
	consider the risk of flooding arising from the project in addition to the risk of flooding     to the project:	
	to the project;	
	<ul> <li>take the impacts of climate change into account, <u>across a range of climate</u></li> <li><u>scenarios</u>, clearly stating the development lifetime over which the assessment has</li> </ul>	
	been made <sup>215</sup> ;	
	be undertaken by competent people, as early as possible in the process of	
	preparing the proposal;	
	consider both the potential adverse and beneficial effects of flood risk management	
	infrastructure, including raised defences, flow channels, flood storage areas and	
	other artificial features, together with the consequences of their failure; and	
	<u>exceedance</u>	
	consider the vulnerability of those using the site, including arrangements for safe	
	access; and escape;	
	consider and quantify the different types of flooding (whether from natural and	
	human sources and including joint and cumulative effects) and identify flood risk reduction measures, so that assessments are fit for the purpose of the decisions	
	being made; •include information on flood likelihood, speed-of-onset, depth,	
	velocity, hazard and duration;	
	identify and secure opportunities to reduce the causes and impacts of flooding	
	overall, making as much use as possible of natural flood management techniques	
	as part of an integrated approach to flood risk management;	
	<ul> <li>consider the effects of a range of flooding events including extreme events on</li> </ul>	
	people, property, the natural and historic environment and river and coastal processes;	
	include the assessment of the remaining (known as 'residual') risk after risk	
	reduction measures have been taken into account and demonstrate that this is	

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	<ul> <li>acceptable for the particular project; •these risks can be safely managed, ensuring people will not be exposed to hazardous flooding;</li> <li>consider how the ability of water to soak into the ground may change with</li> </ul>	
	development, along with how the proposed layout of the project may affect drainage systems;. • consider if there is a need to be safe and remain operational during a worst case flood event over the development's lifetime; and Information should	
	include:	
	i. Describe the existing surface water drainage arrangements for the site	
	ii. Set out (approximately) the existing rates and volumes of surface water run- off generated by the site. Detail the proposals for restricting discharge rates	
	iii. Set out proposals for managing and discharging surface water from the site	
	using sustainable drainage systems and accounting for the predicted impacts of climate change. If sustainable drainage systems have been rejected, present	
	clear evidence of why their inclusion would be inappropriate	
	iv. Demonstrate how the hierarchy of drainage options has been followed. <sup>216</sup>	
	v. Explain and justify why the types of SuDS <sup>217</sup> and method of discharge have	
	been selected and why they are considered appropriate. Where cost is a reason for not including SuDS, provide information to enable comparison with the	
	lifetime costs of a conventional public sewer connection	
	vi. Explain how sustainable drainage systems have been integrated with other	
	aspects of the development such as open space or green infrastructure, so as to ensure an efficient use of the site	
	vii. Describe the multifunctional benefits the sustainable drainage system will provide	
	viii. Set out which opportunities to reduce the causes and impacts of flooding	
	have been identified and included as part of the proposed sustainable drainage system	
	ix. Explain how run-off from the completed development will be prevented from causing an impact elsewhere	
	x. Explain how the sustainable drainage system been designed to facilitate maintenance and, where relevant, adoption. Set out plans for ensuring an acceptable standard of operation and maintenance throughout the lifetime of the development	
	detail those measures that will be included to ensure the development will be safe	
	and remain operational during a flooding event throughout the development's	
	<ul> <li>lifetime without increasing flood risk elsewhere;</li> <li>identify and secure opportunities to reduce the causes and impacts of flooding</li> </ul>	
	overall during the period of construction; and	
	<ul> <li>be supported by appropriate data and information, including historical information on previous events.</li> </ul>	
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	5.7.68.16 Further guidance can be found in the Planning Practice Guide Guidance	
	Flood Risk and Coastal Change section <sup>218</sup> which accompanies Planning Policy	
	Statement 25 (PPS25), the NPPF <sup>219</sup> , TAN15 for Wales <sup>220</sup> or successor documents.	
	5.7.78.17 Development (including construction works) will need to account for any	
	existing watercourses and flood and coastal erosion risk management structures or	
	features, or any land likely to be needed for future structures or features so as to	
	<u>ensure:</u>	
	<ul> <li>Access, clearances and sufficient land are retained to enable their maintenance,</li> </ul>	
	repair, operation, and replacement, as necessary	
	Their standard of protection is not reduced	
	Their condition or structural integrity is not reduced	
	5.8.18 Applicants for projects which may be affected by, or may add to, flood risk	
	should arrange pre-application discussions before the official pre-application stage of	
	the NSIP process with the EA or NRW, and, where relevant, other bodies such as Lead	
	Local Flood Authorities, Internal Drainage Boards, sewerage undertakers, navigation	
	authorities, highways authorities and reservoir owners and operators.	
	5.8.19 Such discussions should identify the likelihood and possible extent and nature of	
	the flood risk, help scope the FRA, and identify the information that will be required by	
	the IPCSecretary of State to reach a decision on the application when it is submitted.	
	The IPCSecretary of State should advise applicants to undertake these steps where	
	they appear necessary, but have not yet been addressed.	
	5.7.8.20 If the EA, NRW or another flood risk management authority <sup>221</sup> has reasonable	
	concerns about the proposal on flood risk grounds, the applicant should discuss these	
	concerns with the EA or NRW and take all reasonable steps to agree ways in which the	
	proposal might be amended, or additional information provided, which would satisfy the	
	Environment Agency's concerns. IPC decision making 5.7.9 In determining an	
	application for development consent, the IPC should be satisfied that where relevant: ◆	
	the application is supported by an appropriate FRA; • the Sequential Test has been	
	applied as part of site selection; ● a sequential approach has been applied at the site level to minimise risk by directing the most vulnerable uses to areas of lowest flood	
	risk;       the proposal is in line with any relevant national and local flood risk management	
	strategy <sub>114</sub> ; • priority has been given to the use of sustainable drainage systems	
	(SuDs) (as required in the next paragraph on National Standards); and ● in flood risk	
	areas the project is appropriately flood resilient and resistant, including safe access	
	and escape routes where required, and that any residual risk can be safely managed	
	over the lifetime of the development. 5.7.10 For construction work which has drainage	
	implications, approval for the project's drainage system will form part of the	
	development consent issued by the IPC. The IPC will therefore need to be satisfied	
	that the proposed drainage system complies with any National Standards published by	
	Ministers under Paragraph 5(1) of Schedule 3 to the Flood and Water Management Act	
	2010. In addition, the development consent order, or any associated planning	
	obligations, will need to make provision for the adoption and maintenance of any	

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	SuDS, including any necessary access rights to property. The IPC should be satisfied	
	that the most appropriate body is being given the responsibility for maintaining any	
	SuDS, taking into account the nature and security of the infrastructure on the proposed	
	site. The responsible body could include, for example, the applicant, the landowner, the	
	relevant local authority, or another body, such as an Internal Drainage Board. 5.7.11 If	
	the EA continues to have concerns and objects to the grant of development consent on	
	the grounds of flood risk, the IPC can grant consent, but would need to be satisfied	
	before deciding whether or not to do so that all reasonable steps have been taken by	
	the applicant and the EA to try to resolve the concerns. 5.7.12 The IPC should not	
	consent development in Flood Zone 2 in England or Zone B in Wales unless it is	
	satisfied that the sequential test requirements have been met. It should not consent	
	development in Flood Zone 3 or Zone C unless it is satisfied that the Sequential and	
	Exception Test requirements have been met. The technology-specific NPSs set out	
	some exceptions to the application of the sequential test.authority's concerns.	
	5.8.21 The Sequential Test <sup>222</sup> ensures that a sequential, risk-based approach is	
	followed to steer new development to areas with the lowest risk of flooding, taking all	
	sources of flood risk and climate change into account. Where it is not possible to locate	
	development in low-risk areas, the Sequential Test should go on to compare	
	reasonably available sites with medium risk areas and then, only where there are no	
	reasonably available sites in low and medium risk areas, within high-risk areas.	
	5.8.22 The technology specific NPSs set out some exceptions to the application of the	
	Sequential Test. However, when seeking development consent on a site allocated in a	
	development plan through the application of the Sequential Test, informed by a	
	strategic flood risk assessment, applicants need not apply the Sequential Test, but	
	should apply the sequential approach to locating development within the site. The	
	Sequential Test 5.7.13 Preference should be given to locating projects in Flood Zone 1	
	in England or Zone A in Wales. If there is no reasonably available site in Flood Zone 1	
	or Zone A, then projects can be located in Flood Zone 2 or Zone B. If there is no	
	reasonably available site115 in Flood Zones 1 or 2 or Zones A & B, then nationally	
	significant energy infrastructure projects can be located in Flood Zone 3 or Zone C	
	subject to the Exception Test.provided the proposed development is consistent with the	
	use for which the site was allocated and there is no new flood risk information that	
	would have affected the outcome of the test.	
	5.8.23 Consideration of alternative sites should take account of the policy on	
	alternatives set out in Section 4.42 above. All projects should apply the Sequential Test	
	to locating development within the site.	
	<u>Mitigation</u>	
	5.8.24 To satisfactorily manage flood risk, arrangements are required to manage	
	surface water and the impact of the natural water cycle on people and property.	

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	5.7.198.25 In this NPS, the term Sustainable Drainage Systems (SuDS) refers to the whole range of sustainable approaches to surface water drainage management including, where appropriate:	
	<ul> <li>source control measures including rainwater recycling and drainage;</li> <li>infiltration devices to allow water to soak into the ground, that can include individual soakaways and communal facilities;</li> <li>filter strips and swales, which are vegetated features that hold and drain water downhill mimicking natural drainage patterns;</li> <li>filter drains and porous pavements to allow rainwater and run-off to infiltrate into permeable material below ground and provide storage if needed;</li> <li>basins ponds and tanks to hold excess water after rain and allow controlled discharge that avoids flooding; and</li> <li>flood routes to carry and direct excess water through developments to minimise the impact of severe rainfall flooding.</li> </ul>	
	5.7.208.26 Site layout and surface water drainage systems should cope with events that exceed the design capacity of the system, so that excess water can be safely stored on or conveyed from the site without adverse impacts.	
	5.7.218.27 The surface water drainage arrangements for any project should, accounting for the predicted impacts of climate change throughout the development's lifetime, be such that the volumes and peak flow rates of surface water leaving the site are no greater than the rates prior to the proposed project, unless specific off-site arrangements are made and result in the same net effect.	
	5.7.228.28 It may be necessary to provide surface water storage and infiltration to limit and reduce both the peak rate of discharge from the site and the total volume discharged from the site. There may be circumstances where it is appropriate for infiltration facilities or attenuation storage to be provided outside the project site, if necessary through the use of a planning obligation.	
	5.7.238.29 The sequential approach should be applied to the layout and design of the project. More vulnerable uses Vulnerable aspects of the development should be located on parts of the site at lower probabilityrisk and residual risk of flooding. Applicants should seek opportunities to use open space for multiple purposes such as amenity, wildlife habitat and flood storage uses. Opportunities should be taken to lower flood risk by reducing the built footprint of previously developed sites and using SuDS. 5.7.24 Essential energy infrastructure which has to be located in flood risk areas should be designed to remain operational when floods occur. In addition, any energy projects proposed in Flood Zone 3b the Functional Floodplain (where water has to flow or be stored in times of flood), or Zone C2 in Wales, should only be permitted if the development will not result in a net loss of floodplain storage, and will not impede water flows.	
	5.7.25 5.8.30 Where a development may result in an increase in flood risk elsewhere through the loss of flood storage, on-site level-for-level compensatory storage,	

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	5.8.37 For energy projects which have drainage implications, approval for the project's	
	drainage system, including during the construction period, will form part of the	
	development consent issued by the Secretary of State. The Secretary of State will	
	therefore need to be satisfied that the proposed drainage system complies with any	
	National Standards published by Ministers under paragraph 5(1) of Schedule 3 to the	
	Flood and Water Management Act 2010. <sup>224</sup>	
	5.8.38 In addition, the development consent order, or any associated planning	
	obligations, will need to make provision for appropriate operation and maintenance of	
	any SuDS throughout the project's lifetime. Where this is secured through the adoption	
	of any SuDS features, any necessary access rights to property will need to be granted.	
	5.8.39 Where relevant, the Secretary of State should be satisfied that the most	
	appropriate body is being given the responsibility for maintaining any SuDS, taking into	
	account the nature and security of the infrastructure on the proposed site. Responsible	
	bodies could include, for example the landowner, the relevant lead local flood authority	
	or water and sewerage company (through the Ofwat-approved Sewerage Sector	
	Guidance <sup>225</sup> ), or another body, such as an Internal Drainage Board.	
	5.8.40 If the EA, NRW or another flood risk management authority continues to have	
	concerns and objects to the grant of development consent on the grounds of flood risk,	
	the Secretary of State can grant consent, but would need to be satisfied before	
	deciding whether or not to do so that all reasonable steps have been taken by the	
	applicant and the authority to try to resolve the concerns.	
	5.8.41 Energy projects should not normally be consented within Flood Zone 3b <sup>226</sup> , or	
	Zone C2 in Wales, or on land expected to fall within these zones within its predicted	
	lifetime. This may also apply where land is subject to other sources of flooding (for	
	example surface water). However, where essential energy infrastructure has to be located in such areas, for operational reasons, they should only be consented if the	
	development will not result in a net loss of floodplain storage, and will not impede water	
	flows.	
	5.8.42 Exceptionally, where an increase in flood risk elsewhere cannot be avoided or	
	wholly mitigated, the Secretary of State may grant consent if they are satisfied that the	
	increase in present and future flood risk can be mitigated to an acceptable and safe	
	level and taking account of the benefits of, including the need for, nationally significant	
	energy infrastructure as set out in Part 3 above. In any such case the Secretary of	
	State should make clear how, in reaching their decision, they have weighed up the	
	increased flood risk against the benefits of the project, taking account of the nature and	
	degree of the risk, the future impacts on climate change, and advice provided by the	
	EA or NRW and other relevant bodies.	
	113 The Flood Zones refer to the probability of flooding from rivers, the sea and tidal sources and ignore the	
	presence of existing defences, because these can be breached, overtopped and may not be in existence for the lifetime of the project. The definition of Flood Zones can be found in PPS25 (in England), TAN 15 (in Wales), or their	
	relevant successor documents.	
	114 As provided for in section 9(1) of the Flood and Water Management Act 2010.	

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Landscape and Visual Historic Environment (Part 5.9 of EN-1)	Introduction  5.89.1 The construction, operation and decommissioning of energy infrastructure has the potential to result in adverse impacts on the historic environment. 5.8 above, at and below the surface of the ground.  5.9.2 The historic environment includes all aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, landscaped and planted or managed flora.	The assessment of impact of the Proposed Scheme on the historic environment is assessed with regard to adopted EN-1 policy at Table 1 above and remains relevant for the text of the proposed EN-1 policy. New requirements proposed at paragraph 5.9.9 and 5.9.13 have been considered in Chapter 10 (Heritage) of the ES (APP-046).  Considering the nature of the heritage baseline in and around the Proposed Scheme, there are not opportunities to provide enhancements as per proposed paragraph 5.9.13.  As such, the Applicant considers the requirements of both the adopted and emerging EN-1 policy relating to the 'historic environment' have been met.

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	5.9.3 Those elements of the historic environment that hold value to this and future generations because of their historic, archaeological, architectural or artistic interest are called "heritage assets".	
	A h Heritage assets may be any building, monument, site, place, areabuildings, monuments, sites, places, areas or landscapelandscapes, or any combination of these. The sum of the heritage interests that a heritage asset holds is referred to as its significance 118. 5.8.3 significance. Significance derives not only from a heritage asset's physical presence, but also from its setting. 228	
	5.9.4 Some heritage assets have a level of significance that justifies official designation. Categories of designated heritage assets are:	
	<ul> <li>a World Heritage Sites<sup>229</sup>;</li> <li>Scheduled Monuments;</li> <li>Protected Wreck Sites;</li> <li>Protected Military Remains;</li> <li>Listed Buildings;</li> <li>Registered Parks and Gardens;</li> <li>Registered Battlefields;</li> <li>Conservation Areas<sup>230</sup>; and</li> <li>Registered Historic Landscapes (Wales only)<sup>119</sup>;</li> </ul>	
	5.8.49.5 There are heritage assets with archaeological interest that are not currently designated as scheduled monuments, but which are demonstrably have been demonstrated to be of equivalent significance. to designated heritage assets of the highest significance. These include: •are:	
	<ul> <li>those that have yet to be formally assessed for designation; • those that have been assessed as being designatable but which the Secretary of State has recognised as being capable of being designated as a Scheduled Monument or Protected Wreck Site but has decided not to designate; and • those that</li> <li>those that the Secretary of State has recognised as being of equivalent significance to Scheduled Monuments or Protected Wreck Sites but are incapable of being designated by virtue of being outside the scope of the Ancient Monuments and Archaeological Areas Act 1979. 5.8. related legislation.</li> </ul>	
	5.9.6 Non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to Scheduled Monuments should be considered subject to the policies for designated heritage assets 231. The absence of designation for such heritage assets does not indicate lower significance. If the evidence before the IPC indicates to it that a nondesignated heritage asset of the type described in 5.8.4 may be affected by the proposed development then the heritage asset should be considered subject to the same policy considerations as those that apply to designated heritage assets.	
	5.8.6-5.9.7 The IPCSecretary of State should also consider the impacts on other non-designated heritage assets, (as identified either through the development plan making	

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	process (by plan-making bodies, including 'local listing) listing', or through the IPC's application, examination and decision making process). This is on the basis of clear evidence that the assets have a such heritage assets have a significance that merits consideration in its decisions that process, even though those assets are of lesser values ignificance than designated heritage assets.  5.9.8.7 Impacts on heritage assets specific to types of infrastructure are included in the	
	technologyspecific NPSs.	
	Applicant's Applicant assessment	
	5.8.89.9 The applicant should undertake an assessment of any likely significant heritage impacts of the proposed development as part of the EIA and describe these in the ES (see Section 4.2). This should include consideration of heritage assets above, at, and below the surface of the ground. Consideration will also need to be given to the possible impacts, including cumulative, on the wider historic environment. The assessment should include reference to any historic landscape or seascape character assessment and associated studies as a means of assessing impacts relevant to the proposed project.	
	5.9.10 As part of the ES-(see Section 4.2) the applicant should provide a description of the significance of the heritage assets affected by the proposed development and the including any contribution of the made by their setting to that significance. The level of detail	
	should be proportionate to the importance of the heritage assets and no more than is sufficient to understand the potential impact of the proposal on thetheir significance of the heritage assets. As a minimum, the applicant should have consulted the relevant Historic Environment Record120Record <sup>232</sup> (or, where the development is in English or Welsh waters, English HeritageHistoric England or Cadw) and assessed the heritage assets themselves using expertise where necessary according to the proposed development's impact.	
	5.8-9.11 Where a <u>site on which</u> development <u>site is proposed</u> includes, or the available evidence suggests it has the potential to include, heritage assets with an archaeological interest, the applicant should carry out appropriate desk-based assessment and, where such desk-based research is insufficient to properly assess the interest, a field evaluation. Where proposed development will affect the setting of a heritage asset, <u>accurate</u> representative visualisations may be necessary to explain the impact. <sup>233</sup>	
	5.8.109.12 The applicant should ensure that the extent of the impact of the proposed development on the significance of any heritage assets affected can be adequately understood from the application and supporting documents. IPC decision making 5.8.11 In considering applications, the IPC Studies will be required on those heritage assets affected by noise, vibration, light and indirect impacts, the extent and detail of these studies will be proportionate to the significance of the heritage asset affected.	
	5.9.13 The applicant is encouraged, where opportunities exist, to prepare proposals which can make a positive contribution to the historic environment, and to consider how	

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	their scheme takes account of the significance of heritage assets affected. This can include, where possible:	
	<ul> <li>enhancing, through a range of measures such a sensitive design, the significance of heritage assets or setting affected</li> <li>considering where required the development of archive capacity which could deliver significant public benefits</li> <li>considering how visual or noise impacts can affect heritage assets, and whether there may be opportunities to enhance access to, or interpretation, understanding and appreciation of, the heritage assets affected by the scheme</li> </ul>	
	5.9.14 Careful consideration in preparing the scheme will be required on whether the	
	impacts on the historic environment will be direct or indirect, temporary, or permanent.  5.9.15 Applicants should look for opportunities for new development within  Conservation Areas and World Heritage Sites, and within the setting of heritage assets, to enhance or better reveal their significance. Proposals that preserve those elements of the setting that make a positive contribution to the asset (or which better reveal its significance) should be treated favourably. Mitigation	
	5.9.16 A documentary record of our past is not as valuable as retaining the heritage asset, and therefore the ability to record evidence of the asset should not be a factor in deciding whether such loss should be permitted, and whether or not consent should be given.	
	5.9.17 Where the loss of the whole or part of a heritage asset's significance is justified, the Secretary of State will require the applicant to record and advance understanding of the significance of the heritage asset before it is lost (wholly or in part). The extent of the requirement should be proportionate to the asset's importance and significance and the impact. The applicant should be required to publish this evidence and to deposit copies of the reports with the relevant Historic Environmental Record. They should also be required to deposit the archive generated in a local museum or other public repository willing to receive it.	
	5.9.18 Where appropriate, the Secretary of State will impose requirements on the Development Consent Order to ensure that the work is undertaken in a timely manner, in accordance with a written scheme of investigation that complies with the policy in this NPS and which has been agreed in writing with the relevant local authority, and to ensure that the completion of the exercise is properly secured.	
	5.9.19 Where there is a high probability (based on an adequate assessment) that a development site may include, as yet undiscovered heritage assets with archaeological interest, the Secretary of State will consider requirements to ensure appropriate procedures are in place for the identification and treatment of such assets discovered during construction.	
	Secretary of State decision making  5.9.20 In determining applications, the Secretary of State should seek to identify and assess the particular significance of any heritage asset that may be affected by the	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	proposed development, including by development affecting the setting of a heritage asset, (including assets whose setting may be affected by the proposed development), taking account of: evidence	
	<ul> <li>relevant information provided with the application; and, where applicable, relevant information submitted during the examination of the application any designation records; the, including those on the National Heritage List for England<sup>234</sup></li> <li>historic landscape character records</li> <li>the relevant Historic Environment Record; (s), and similar sources of information<sup>124</sup>; the heritage assets themselves; the outcome of consultations with information representations made by interested parties; and during the examination process</li> <li>expert advice, where appropriate, and when the need to understand the significance of the heritage asset demands it, expert advice.</li> </ul>	
	5.8.129.21 The Secretary of State must also comply with the requirements on listed buildings, conservation areas and scheduled monuments, set out in Regulation 3 of the Infrastructure Planning (Decisions) Regulations 2010 <sup>235</sup> .	
	5.9.22 In considering the impact of a proposed development on any heritage assets, the IPCSecretary of State should take into account consider the particular nature of the significance of the heritage assets and the value that they hold for this and future generations. This understanding should be used to avoid or minimise conflict between their conservation of that significance and proposals for development any aspect of the proposal.	
	5.8.139.23 The IPCSecretary of State should take into account consider the desirability of sustaining and, where appropriate, enhancing the significance of heritage assets, the contribution of their settings and the positive contribution they that their conservation can make to sustainable communities and, including to their quality of life, their economic vitality122vitality, and to the public's enjoyment of these assets. 236	
	5.9.24 The IPCSecretary of State should take into accountalso consider the desirability of the new development making a positive contribution to the character and local distinctiveness of the historic environment. The consideration of design should include scale, height, massing, alignment, materials, use and use. The IPC should have regard to any relevant local authority development plans or local impact report on the proposed development in respect of the factors set out in footnote 122. 5.8.14 There should be a presumption in favour of the conservation of designated heritage assets and the more significant the landscaping (for example, screen planting).	
	5.9.25 When considering the impact of a proposed development on the significance of a designated heritage asset, the Secretary of State should give great weight to the asset's conservation. The more important the asset, the greater the presumption in favourweight should be. This is irrespective of whether any potential harm amounts to substantial harm, total loss, or less than substantial harm to its conservation significance.	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	5.9.26 The Secretary of State should be. Once lost give considerable importance and	<u> </u>
	weight to the desirability of preserving all heritage assets cannot be replaced and their.	
	Any harm or loss hasof significance of a cultural, environmental, economic and social	
	impact. Significance can be harmed or lost through designated heritage asset (from its	
	alteration or destruction of the heritage asset, or from development within its setting.	
	Loss affecting any designated heritage asset ) should require clear and convincing	
	justification.	
	5.9.27 Substantial harm to or loss of significance of a grade II listed building parkListed	
	Building or gardena grade II Registered Park or Garden should be exceptional.	
	5.9.28 Substantial harm to or loss of designated significance of assets of the highest	
	significance, including Scheduled Monuments; registered battlefieldsProtected Wreck	
	Sites; Registered Battlefields; grade I and II* listed buildings Listed Buildings; grade I	
	and II* registered parksRegistered Parks and gardensGardens; and World Heritage	
	Sites, should be wholly exceptional.	
	5.8.15 Any harmful impact on the significance of a designated heritage asset should be	
	weighed against the public benefit of development, recognising that the greater the	
	harm to the significance of the heritage asset the greater the justification will be needed	
	for any loss.	
	5.9.29 Where the application proposed development will lead to substantial harm to (or	
	total loss of significance of) a designated heritage asset the IPCSecretary of State	
	should refuse consent unless it can be demonstrated that the substantial harm to, or	
	loss of, significance is necessary in order to deliverachieve substantial public benefits	
	that outweigh that harm or loss or harm. 5.8.16 Not all elements of a World Heritage	
	Site or Conservation Area, or all the following apply:	
	the nature of the heritage asset prevents all reasonable uses of the site	
	no viable use of the heritage asset itself can be found in the medium term through	
	appropriate marketing that will enable its conservation	
	conservation by grant-funding or some form of not for profit, charitable or public	
	ownership is demonstrably not possible	
	the harm or loss is outweighed by the benefit of bringing the site back into use	
	5.9.30 Where the proposed development will lead to less than substantial harm to the	
	significance of the designated heritage asset, this harm should be weighed against the	
	public benefits of the proposal, including, where appropriate securing its optimum	
	viable use.	
	5.9.31 In weighing applications that directly or indirectly affect non-designated heritage	
	assets, a balanced judgement will be required having regard to the scale of any harm	
	or loss and the significance of the heritage asset.	
	5.9.32 Not all elements of a Conservation Area or World Heritage Site will necessarily	
	contribute to its significance. The policies set out in paragraphs 5.8.11 to 5.8.15 above	
	apply to those elements that do contribute to the significance. When considering	
	proposals the IPC should take into account Loss of a building (or other element) which	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	makes a positive contribution to the significance of the Conservation Area or World	
	Heritage Site should be treated either as substantial harm or less than substantial harm	
	under paragraph 5.9.29 or less than substantial harm under paragraph 5.9.30, as	
	appropriate, considering the relative significance of the element affected and its	
	contribution to the significance of the Conservation Area or World Heritage Site or	
	Conservation Area as a whole.	
	5.8.179.33 Where lossthere is evidence of significancedeliberate neglect of any, or	
	damage to, a heritage asset is justified on, the meritsSecretary of the new	
	development, the IPCState should consider imposing a condition on the consent or	
	requiring the applicant to enter into an obligation that will prevent the loss occurring	
	until it is reasonably certain that the relevant part of the development is to proceed.	
	5.8.18not take its deteriorated state into account in any decision. <sup>237</sup>	
	5.9.34 When considering applications for development affecting the setting of a	
	designated heritage asset, the IPC should Secretary of State should give appropriate	
	weight to the desirability of preserving the setting such assets and treat favourably	
	applications that preserve those elements of the setting that make a positive	
	contribution to, or better reveal the significance of, the asset. When considering	
	applications that do not do this, the IPCSecretary of State should weighgive great	
	weight to any negative effects, when weighing them against the wider benefits of the	
	application. The greater the negative impact on the significance of the designated	
	heritage asset, the greater the benefits that will be needed to justify approval.	
	Recording 5.8.19 A documentary record of our past is not as valuable as retaining the	
	heritage asset and therefore the ability to record evidence of the asset should not be a	
	factor in deciding whether consent should be given. 5.8.20 Where the loss of the whole	
	or a material part of a heritage asset's significance is justified, the IPC should require	
	the developer to record and advance understanding of the significance of the heritage	
	asset before it is lost. The extent of the requirement should be proportionate to the	
	nature and level of the asset's significance. Developers should be required to publish	
	this evidence and deposit copies of the reports with the relevant Historic Environment	
	Record. They should also be required to deposit the archive generated in a local	
	museum or other public depository willing to receive it. 5.8.21 Where appropriate, the	
	IPC should impose requirements on a consent that such work is carried out in a timely	
	manner in accordance with a written scheme of investigation that meets the	
	requirements of this Section and has been agreed in writing with the relevant Local	
	Authority (where the development is in English waters, the Marine Management	
	Organisation and English Heritage, or where it is in Welsh waters, the MMO and	
	Cadw)) and that the completion of the exercise is properly secured123. 5.8.22 Where	
	the IPC considers there to be a high probability that a development site may include as	
	yet undiscovered heritage assets with archaeological interest, the IPC should consider	
	requirements to ensure that appropriate procedures are in place for the identification	
	and treatment of such assets discovered during construction. <sup>238</sup>	
	<sup>118</sup> Save for <sup>227</sup> Terms used in this section, including the term "Designated Heritage Asset (covered in 5.8.3 above), these and other terms used in this section" are defined in Annex 2 to PPS5, or any successor to it. The PPS5	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	Practice Guide containe guidance on their interpretation. Additionally, part of the purpose of designating National Parke is in order to protect their culturalPlanning Policy Framework.  22ª The setting of a heritage andasset is the conservations puroundings in which it is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of cultural heritage is an important consideration in all Arease setting may make a positive or negative contribution to the significance of Outstanding Natural Beautyan asset and may affect the ability to appreciate that significance or may be neutral.  144220 The Department of Digital Culture, Media and Sport is responsible for consultation with UNESCO but Historic England generally deal with the issues at a project level.  12ª The issuing of licenses/licences to undertake works on Protected Wreck Sites in English waters is the responsibility of the Secretary of State for Digital, Culture, Media and Sport and does not form part of development consents issued by the IPC-Secretary of State for BEIS. In Wales it is the responsibility of Welsh Ministers. The issuing of licenses for Protected Millitary Remains is the responsibility of the Secretary of State for Defence.  148231 There will be archaeological interest in a heritage asset if it holds, or may potentially hold, evidence of past human activity worthy of expert investigation at some point.  148242 Historic Environment Records (HERs) are information services maintained by local authorities and National Park Authorities with a view to providing access to comprehensive and dynamic resources relating to the historic environment of an area for public benefit and use. The County HERs for Details of Historic Environment Records in England are available from the Heritage Gateway website-al-http://www.heritagegateway.org.uk/GatewayOHR/F, For Wales, HERs can be obtained through the Historic Wales Portal at http://www.heritagegateway.org.uk/GatewayOHR/F, For Wales, HERs can be obtained through th	Assessment of Glanges of Relevance
Land use including open space, green infrastructur and Green Belt Landscap and Visual (Part 5.10 of EN-1)	- 1 J. <del>2</del> IV. I THE IGHUSUADE AND VISUAL ENERGY OF ENERGY DIVIEUS WIII VALV ON A CASE DV CASE	Proposed paragraph 5.10.5 confirms that virtually all NSIPs will have adverse effects on the landscape but that beneficial landscape character impacts may also arise from mitigation. The Proposed Scheme will include a number of mitigation measures set out in the OLBS (REP6-017AS-119) which will have beneficial visual impact, including but not limited to the following:  New hedgerows with trees within the East Construction Laydown Area to provide intermittent screening, visual interest and ecological benefit within the Habitat Provision Area and East Construction Laydown Area, and to provide screening for sensitive visual receptors; and

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<del>200 metres, although this would be exceptional.</del> Visual impacts may be not just the physical structures but also visible steam plumes from cooling towers. <sup>239</sup>

5.910.3 Other types of cooling system, for example direct throughput where water is abstracted, used for cooling then returned to source, or air-cooled condensers, will have less visible impacts as the structures are considerably lower than natural draught cooling towers and exhibit no visible steam plumes. Further, modern hybrid cooling systems – for example mechanical draught – do not generally exhibit visible steam plumes except in exceptional adverse weather conditions. These systems are normally considered as the "Best Available Techniques" (BAT). However there may be losses of electricity output owing to the need for energy to operate hybrid cooling or air-cooled condenser systems.

5.9.4 When considering visual impacts of thermal combustion generating stations, the IPC should presume that the adverse impacts would be less if a hybrid or direct cooling system is used and that developers will use BAT. The IPC should therefore expect the applicant to justify BAT for the use of a cooling system that involves visible steam plumes or has a high visible structure, such as a natural draught cooling tower. It should be satisfied that the application of modern hybrid cooling technology or other technologies is not reasonably practicable before giving consent to a development with natural draught cooling towers. Applicant's assessment 5.9.5 The applicant should carry out a landscape and visual assessment and report it in the ES. (See Section 4.2) A number of guides have been produced to assist in addressing landscape issues 125.

5.10.4 Landscape effects arise not only from the sensitivity of the landscape but also the nature and magnitude of change proposed by the development, whose specific siting and design make the assessment a case-by-case judgement.

5.10.5 Virtually all nationally significant energy infrastructure projects will have adverse effects on the landscape, but there may also be beneficial landscape character impacts arising from mitigation.

5.10.6 The landscape and visual assessment should include reference to any landscape character assessment and associated studies as a means of assessing landscape impacts relevant to the proposed project. The applicant's assessment should also take account of any relevant policies based on these assessments in local development documents in England and local development plans in Wales. 5.9.6 The applicant's assessment should include the effects during construction of the project and the effects of the completed development and its operation on landscape components and landscape character. 5.9.7 The assessment should include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and potential impacts on views and visual amenity. This should include light pollution effects, including on local amenity, and nature conservation. IPC decision making Landscape impact 5.9.8 Landscape effects depend on the existing character of the local landscape, its current quality, how highly it is valued and its capacity to accommodate change. All of these factors need to be considered in judging the impact of a project on landscape. Virtually all nationally significant energy infrastructure

## Assessment of Changes of Relevance

 Enhance existing scrub within the Off-Site Habitat Provision Area to provide visual variety appropriate to the setting.

In accordance with proposed paragraph 5.10.21, the noise and light pollution from construction and operational activities on residential amenity and on sensitive locations, receptors and views has been assessed, and will be minimised through measures set out in the REAC, which include the preparation and implementation of a CEMP to manage impacts at the construction stage, and a sensitive lighting scheme will be finalised at the detailed design stage of development. This mitigation is secured through requirements in Schedule 2 of the DCO. Impacts on views are assessed within Chapter 9 (Landscape and Visual Amenity) of the ES (APP-045), in response to WQ1 DLV1.13 (REP2-060) and summarised within Table 1 above.

In accordance with proposed paragraph 5.10.10, measures are proposed to enhance existing habitats within and outside of the Order Limits. Enhancement measures proposed are set out in the OLBS (REP6-017AS-119). A final Strategy is secured through a requirement in Schedule 2 of the DCO, to be substantially in accordance with the OLBS. The delivery of enhancement works in the Off-site Habitat Provision Area is secured through a S106 Agreement. This legal agreement is detailed in the Draft-sealed S106 Agreement (REP3-016REP8-025).

As well as within the OLBS, enhancement is also discussed in Chapter 2 (Site and Project Description) of the ES (APP-038) and Chapter 9 (Landscape and Visual Amenity) of the ES (APP-045).

Remaining policy changes proposed in draft EN-1 are minor or are not relevant to the Proposed Scheme given its location. Therefore, the Applicant considers the assessment undertaken in respect of adopted policy EN-1, as set out in Table 1 above, remains relevant to the remaining proposed policy text.

To note, The Landscape Institute and Institute of Environmental Management and Assessment: Guidelines for Landscape and Visual Impact Assessment (2013, 3rd edition); Landscape and Seascape Character Assessments has been used to inform the assessment.

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	projects will have effects on the landscape. Projects need to be designed carefully,	
	taking account of the potential impact on the landscape. Having regard to siting,	
	operational and other relevant constraints the aim should be to minimise harm to the	
	landscape, providing reasonable mitigation where possible and appropriate.	
	Development proposed within nationally designated landscapes	
	5.9.910.7 National Parks, the Broads and AONBs have been confirmed by the	
	Government as having the highest status of protection in relation to	
	landscape and scenicnatural beauty. Each of these designated areas has specific	
	statutory purposes which help ensure their continued protection and which the IPC	
	should have regard to in its decisions126. The conservation of the natural beauty of the	
	landscape and countryside should be given substantial weight by the IPC in deciding	
	on applications for development consent in these areas. 5.9.10 Nevertheless, the IPC	
	may grant development consent in these areas in exceptional circumstances. The	
	development should be demonstrated to be in the public interest127 and consideration	
	of such applications should include an assessment of: • the need for the development,	
	including in terms of national considerations128, and the impact of consenting or not	
	consenting it upon the local economy; • the cost of, and scope for, developing elsewhere outside the designated area or meeting the need for it in some other way,	
	taking account of the policy on alternatives set out in Section 4.4; and • any	
	detrimental effect on the environment, the landscape and recreational opportunities,	
	and the extent to which that could be moderated. 5.9.11 The IPC should ensure that	
	any projects consented in these designated areas should be carried out to high	
	environmental standards, including through the application of appropriate requirements	
	where necessary. Developments outside nationally designated areas which might	
	affect them 5.9.12Secretary of State should have regard to in their decisions. <sup>240</sup>	
	5.10.8 The duty to have regard to the purposes of nationally designated areas also	
	applies when considering applications for projects outside the boundaries of these	
	areas which may have impacts within them. The aim should be to avoid	
	compromising harming the purposes of designation or to minimise adverse impacts on	
	designated areas, and such projects should be designed sensitively given the various	
	siting, operational, and other relevant constraints. This should include projects in	
	England which may have impacts on National Scenic Areas in Scotland, or National	
	Parks and AONBs in Wales, as well as projects in Wales which may have impacts on	
	National Parks and AONBs in England.	
	5.10.9.13 The fact that a proposed project will be visible from Heritage Coasts are	
	defined areas of undeveloped coastline which are managed to conserve their natural	
	beauty and, where appropriate, to improve accessibility for visitors.	
	5.10.10 Development within a designated Heritage Coast (that is not also a National	
	Park, The Broads or an AONB) is unlikely to be appropriate, unless it is compatible with	
	the natural beauty and special character of the area-should not in itself be a reason for	
	refusing consent. Developments in other areas 5.9.14.	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
POlicy	5.10.11 Outside nationally designated areas, there are local landscapes that may be highly valued locally-and protected by local designation. Where a local development document in England or a local development plan in Wales has policies based on landscape or waterscape character assessment, these should be paid particular attention. However, local landscape designations locally valued landscapes should not be used in themselves to refuse consent, as this may unduly restrict acceptable development. 5.9.15 The scale of such projects means that they will often be visible within many miles of the site of the proposed infrastructure. The IPC should judge whether any adverse impact on the landscape would be so damaging that it is not offset by the benefits (including need) of the project. 5.9.16 In reaching a judgment, the IPC should consider whether any adverse impact is temporary, such as during construction, and/or whether any adverse impact on the landscape will be capable of being reversed in a timescale that the IPC considers reasonable. 5.9.17 The IPC should consider whether the project has been designed carefully, taking account of environmental effects on the landscape and siting, operational and other relevant constraints, to minimise harm to the landscape, including by reasonable mitigation.	Assessment of Changes of Relevance
	Visual impact  5.9.185.10.12 All proposed energy infrastructure is likely to have visual effects for many receptors around proposed sites.  5.10.13 The IPCSecretary of State will have to judge whether the visual effects on sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the project.  5.10.14 Coastal areas are particularly vulnerable to visual intrusion because of the potential high visibility of development on the foreshore, on the skyline and affecting views along stretches of undeveloped coast.	
	5.10.15 The applicant should carry out a landscape and visual impact assessment and report it in the ES, including cumulative effects (see Section 4.2). Several guides have been produced to assist in addressing landscape issues. <sup>241</sup> 5.10.16 The landscape and visual assessment should include reference to any landscape character assessment and associated studies as a means of assessing landscape impacts relevant to the proposed project. The applicant's assessment should also take account of any relevant policies based on these assessments in local development documents in England and local development plans in Wales.  5.10.17 For seascapes, applicants should consult the Seascape Character Assessment and the Marine Plan Seascape Character Assessments, and any successors to them. <sup>242</sup>	
	5.10.18 The applicant should consider landscape and visual matters in the early stages of siting and design, where site choices and design principles are being established.  This will allow the applicant to demonstrate in the ES how both negative effects have	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	been minimised and opportunities for creating positive benefits or enhancement have	
	been recognised.	
	5.10.19 The assessment should include the effects on landscape components and	
	character during construction and operation. For projects which may affect a National	
	Park, The Broads or an Areas of Outstanding Natural Beauty the assessment should include effects on the natural beauty and special qualities of these areas'.	
	5.10.20 The assessment should include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and	
	potential impacts on views and visual amenity. This should include light pollution	
	effects, including on local amenity, and nature conservation.	
	5.9.19 lt5.10.21 The assessment should also demonstrate how noise and light	
	pollution, and other emissions (see Section 5.2 and Section 5.7), from construction and	
	operational activities on residential amenity and on sensitive locations, receptors and	
	views, will be minimised.	
	5.10.22 Applicants are expected to justify BAT for the use of a cooling system that	
	involves visible steam plumes or has a high visible structure, such as a natural draught	
	cooling tower explaining why the application of modern hybrid cooling technology or	
	other technologies is not reasonably practicable.	
	5.10.23 Applicants should consider how landscapes can be enhanced using landscape	
	management plans, as this will help to enhance environmental assets where they	
	contribute to landscape and townscape quality.	
	5.10.24 In considering visual effects it may be helpful for applicants to draw attention,	
	in the supporting evidence to their applications, to any examples of existing permitted	
	infrastructure they are aware of with a similar magnitude of impact on sensitive	
	receptors. This may assist the IPC Secretary of State in judging the weight itthey should	
	give to the assessed visual impacts of the proposed development. 5.9.20 The IPC should ensure applicants have taken into account the landscape and visual impacts of	
	visible plumes from chimney stacks and/or the cooling assembly. It may need to attach	
	requirements to the consent requiring the incorporation of particular design details that	
	are in keeping with the statutory and technical requirements.	
	Mitigation	
	5.9.2110.25 Reducing the scale of a project can help to mitigate the visual and	
	landscape effects of a proposed project. However, reducing the scale or otherwise	
	amending the design of a proposed energy infrastructure project may result in a	
	significant operational constraint and reduction in function - for example, the electricity	
	generation output. There may, however, be exceptional circumstances, where	
	mitigation could have a very significant benefit and warrant a small reduction in	
	function. In these circumstances, the IPCSecretary of State may decide that the	
	benefits of the mitigation to reduce the landscape and/or visual effects outweigh the marginal loss of function.	
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Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	5.9.2210.26 Within a defined site, adverse landscape and visual effects may be minimised through appropriate siting of infrastructure within that site, design including colours and materials, and landscaping schemes, depending on the size and type of the proposed project. Materials and designs of buildings should always be given careful consideration.	
	5.9.2310.27 Depending on the topography of the surrounding terrain and areas of population it may be appropriate to undertake landscaping off site. For example, filling in gaps in existing tree and hedge lines would mitigate the impact when viewed from a more distant vista may mitigate the impact when viewed from a more distant vista.	
	Secretary of State decision making	
	5.10.28 The Secretary of State should take into consideration the level of detailed design which the applicant has provided and is secured in the DCO, and the extent to which design details are subject to future approvals.	
	5.10.29 The Secretary of State should be satisfied that local authorities will have sufficient design content secured to ensure future consenting will meet landscape, visual and good design objectives.	
	5.10.30 When considering visual impacts of thermal combustion generating stations, the Secretary of State should presume that the adverse impacts would be less if a hybrid or direct cooling system is used. The Secretary of State should therefore expect information in the application justifying BAT for the use of a cooling system that	
	involves visible steam plumes or has a high visible structure, such as a natural draught cooling tower, and be satisfied that the application of modern hybrid cooling technology	
	or other technologies is not reasonably practicable before giving consent to a development with natural draught cooling towers.	
	5.10.31 When considering applications for development within National Parks, the	
	Broads and Areas of Outstanding Natural Beauty the conservation and enhancement	
	of the natural beauty of the landscape and countryside should be given substantial	
	weight by the Secretary of State in deciding on applications for development consent in	
	these areas. The Secretary of State may grant development consent in these areas in exceptional circumstances. Such development should be demonstrated to be in the	
	public interest and consideration of such applications should include an assessment of:	
	the need for the development, including in terms of national considerations <sup>243</sup> , and the impact of consenting or not consenting it upon the local economy;	
	the cost of, and scope for, developing all or part of the development elsewhere outside the designated area or meeting the need for it in some other way, taking account of the policy on alternatives set out in Section 4.2; and	
	any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.	
	5.10.32 The Secretary of State should ensure that any projects consented in these designated areas should be carried out to high environmental standards, including	
	through the application of appropriate requirements where necessary.	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	5.10.33 The duty to have regard to the purposes of nationally designated areas also	
	applies when considering applications for projects outside the boundaries of these	
	areas which may have impacts within them. The fact that a proposed project will be	
	visible from within a designated area should not in itself be a reason for the Secretary	
	of State to refuse consent.	
	5.10.34 The scale of energy projects means that they will often be visible within many	
	miles of the site of the proposed infrastructure. The Secretary of State should judge	
	whether any adverse impact on the landscape would be so damaging that it is not	
	offset by the benefits (including need) of the project.	
	5.10.35 In reaching a judgment, the Secretary of State should consider whether any	
	adverse impact is temporary, such as during construction, and/or whether any adverse	
	impact on the landscape will be capable of being reversed in a timescale that the	
	Secretary of State considers reasonable.	
	5.10.36 The Secretary of State should consider whether the project has been designed	
	carefully, taking account of environmental effects on the landscape and siting,	
	operational and other relevant constraints, to minimise harm to the landscape,	
	including by appropriate mitigation.	
	5.10.37 The Secretary of State should consider whether requirements to the consent	
	are needed requiring the incorporation of particular design details that are in keeping	
	with the statutory and technical requirements for landscape and visual impacts.	
	124239 Cooling towers and exhaust stacks can form part of projects covered by EN-2, EN-3 and EN-6. Other features	
	of energy infrastructure which can be similarly prominent are associated with particular technologies and so are	
	considered in the technology-specific NPSs (see e.g. Section 2.89 of EN-5).	
	125240 For an explanation of the duties which will apply to the Secretary of State, see 'Duties on relevant authorities to	
	have regard to the purposes of National Parks, AONBs and the Norfolk and Suffolk Broads' at https://landscapesforlife.org.uk/application/files/2015/8928/8605/Duty of Regard Guide Defra 2005.pdf	
	<sup>241</sup> The Landscape Institute and Institute of Environmental Management and Assessment (2002, 2nd edition)::	
	Guidelines for Landscape and Visual Impact Assessment; and Land Use Consultants (2002): (2013, 3rd edition);	
	Landscape and Seascape Character Assessment — Guidance for England and Scotland: Assessments — see	
	https://www.gov.uk/guidance/landscape-and-seascape-character-assessments: Countryside Council for Wales/Cadw (2007) Guide to Good Practice on Using the Register of Landscapes of Historic Interest in Wales in the	
	Planning and Development Process; or any successor documents.	
	<sup>426</sup> For an explanation of the duties which will apply to the IPC, see 'Duties on relevant authorities to have regard to	
	the purposes of National Parks, AONBs and the Norfolk and Suffolk Broads' at <a href="http://www.defra.gov.uk/rural/documents/protected/npaonb-duties-guide.pdf">http://www.defra.gov.uk/rural/documents/protected/npaonb-duties-guide.pdf</a>	
	127 PPS7 applies a public interest test for major development in these designated areas.	
	128242 The Seascape Character Assessments Guidance: See	
	https://www.gov.uk/government/publications/seascapecharacter-assessments-identify-and-describe-seascape-	
	types; Marine plan seascape character assessments: see https://www.gov.uk/government/publications/seascape-	
	<u>assessments-for-north-east-north-west-south-east-southwest-marine-plan-areas-mmo1134, See</u> <a href="https://www.gov.uk/government/publications/seascape-assessment-forthe-south-marine-plan-areas-mmo-1037">https://www.gov.uk/government/publications/seascape-assessment-forthe-south-marine-plan-areas-mmo-1037</a> and	
	see https://www.gov.uk/government/publications/east-marine-planareas-seascape-character-assessment for	
	England and See https://naturalresources.wales/evidence-anddata/maps/marine-character-areas/?lang=en for	
	<u>Wales</u>	
	National considerations should be understood to include the national need for the infrastructure as set out in Part 3 of this NPS and the contribution of the infrastructure to the national economy.	
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# Policy

# **Emerging Policy Text Detailing Changes**

# Introduction

Land use including open space, green infrastructure & Green Belt Noise and Vibrations

(Part 5.11 of EN-1)

5.4011.1 An energy infrastructure project will have <u>a</u> direct <u>effectseffect</u> on the existing use of the proposed site and may have indirect effects on the use, or planned use, of land in the vicinity for other types of development. Given the likely locations of energy infrastructure projects there may be particular effects on open space 129244 including green infrastructure 130. 5.10.2 The Government's policy is to ensure there is adequate provision of high quality open space (including green infrastructure) and sports and recreation facilities to meet the needs of local communities. Open spaces, sports and recreational facilities all help to underpin people's quality of life and have a vital role to play in promoting healthy living. Green infrastructure in particular will also play an increasingly important role in mitigating or adapting to the impacts of climate change. 5.10 including green and blue infrastructure.<sup>245</sup>

5.11.2 Green Belts, defined in a local authority's development plan<sup>246</sup> in England or regional strategic development plans in Wales, are situated around certain cities and large built-up areas. The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and permanence. For further information on the purposes of Green Belt policy see chapter 13 of the NPPF, or any successor to it.<sup>247</sup>

5.11.3 Although the re-use of previously developed land for new development can make a major contribution to sustainable development by reducing the amount of countryside and undeveloped greenfield land that needs to be used, it may not be possible for many forms of energy infrastructure. 5.10.4 Green Belts, defined in a local authority's development plan<sup>134</sup>, are situated around certain cities and large built-up areas. The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the most important attribute of Green Belts is their openness. Green Belt land can play a positive role in providing access to sport and recreation facilities or access to the open countryside. For further information on the purposes of Green Belt policy see PPG2 or any successor to it. Applicant's assessment 5.10.5 The ES (see Section 4.2) should identify existing and proposed 132

5.11.4 Development of land will affect soil resources, including physical loss of and damage to soil resources, through land contamination and structural damage. Indirect impacts may also arise from changes in the local water regime, organic matter content, soil biodiversity and soil process.

5.11.5 Where pre-existing land contamination is being considered within a development, the objective is to ensure that the site is suitable for its intended use.

Risks would require consideration in accordance with the contaminated land statutory quidance as a minimum.<sup>248</sup>

5.11.6 The government's policy is to ensure there is adequate provision of high quality open space and sports and recreation facilities to meet the needs of local communities. Connecting people with open spaces, sports and recreational facilities all help to underpin people's quality of life and have a vital role to play in promoting healthy living.

# Assessment of Changes of Relevance

Proposed EN-1 text relating to land use emphasises the benefits of well-designed and managed greenspace and encourages applicants to consider how new infrastructure can be delivered, or existing green infrastructure can be enhanced. As set out in the row above, landscape enhancement measures, including green infrastructure, will be deliver by the Applicant, both within and outside of the Order Limits. On site provision will be located within the Habitat Provision Area and is secured via a requirement to the DCO (through the delivery of a final Biodiversity and Landscape Strategy). Off-site measures will be located in the Off-Site Habitat Provision Area and secured via the S106 Agreement (further to the Draft-sealed S106 Agreement (REP3-016REP8-025).

Contamination has been assessed at Chapter 11 (Ground Conditions) of the ES (APP-047) and concludes that there is likely to be no significant adverse effects with respect of contamination on identified sensitive receptors. In accordance with proposed paragraph 5.11.8 of EN-1, should contamination be present, opportunities for remediation will be considered where possible. The Soil Handling Management Plan required by paragraph 5.11.14 is secured through the CEMP and will include measures to reduce impacts on soil through handling during the construction process.

Whilst new public access cannot be provided to the existing Drax Power Station Site given the nature of the operations, in accordance with proposed paragraph 5.11.24 and 5.11.30, the Proposed Scheme seeks to maintain the quality and use of all PRoWs. As detailed in Table 1 above, it is proposed to temporarily close PRoW path 35.6/6/1 which runs through the Offsite Habitat Provision Area for approximately two months, in order to enable habitat provision related works to be undertaken.

PRoW AIRMF03 is located adjacent to the Order Limits for Work No.8. It sits just outside the Order Limits. Any works for the OHL will be fenced off to ensure the safety of all users of PRoW AIRMF03, however, given the proximity of the PRoW to the fencing, and the lack of any delineating features to guide the public along the definitive route of the PRoW, powers for temporary closure of a short section of the PRoW have been included in the DCO, to ensure interference with the fencing is avoided. The Applicant will seek to avoid diverting the footpath if at all possible. The position, and details of the management measures put in place, will be set out in the CTMP which is secured as a Requirement in the DCO.

In addition, construction plant and equipment located in works areas adjacent to the PRoWs may have a temporary impact on the amenity value of the paths. However, such impacts will be short term, and it is considered that the mitigation measures put forward in the REAC (AS-121REP9-019) and to be included in the CEMP secured by a requirement to the DCO are acceptable to mitigate impact sufficiently.

Impacts to trees are minimal as a result of the Proposed Scheme, and have been suitably mitigated through the proposals set out in the OLBS (REP6-017AS-119).

The Applicant considers that the remaining draft EN-1 text relating to land use is suitably assessed in the assessment of adopted EN-1 text in Table 1 above.

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	5.11.7 Green and blue infrastructure <sup>249</sup> can also enable developments to provide positive environmental, social, health and economic benefits. Green infrastructure includes green space such as parks and woodlands but also other environmental features such as street trees, hedgerows and green walls and roofs. It also includes blue infrastructure such as canals, rivers, streams, ponds lakes and their borders. Well designed and managed green and blue infrastructure provides multiple benefits at a	
	range of scales. It can contribute to biodiversity recovery, sequester carbon, absorb surface water, cleanse pollutants, absorb noise and reduce high temperatures.	
	<u>Applicant assessment</u> 5.11.8 The ES (see Section 4.2) should identify existing and proposed <sup>250</sup> land uses near the project, any effects of replacing an existing development or use of the site with the proposed project or preventing a development or use on a neighbouring site from continuing. Applicants should also assess any effects of precluding a new development or use proposed in the development plan. The assessment should be proportionate to the scale of the preferred scheme and its likely impacts on such receptors. For developments on previously developed land, the applicant should ensure that they	
	have considered the risk posed by land contamination and how it is proposed to address this.  5.40.611.9 Applicants will need to consult the local community on their proposals to build on existing open space, sports or recreational buildings and land. Taking account of the consultations, applicants should consider providing new or additional open space including green and blue infrastructure, sport or recreation facilities, to substitute for any losses as a result of their proposal.	
	5.11.10 Applicants should use any up-to-date local authority assessment or, if there is none, provide an independent assessment to show whether the existing open space, sports and recreational buildings and land is surplus to requirements.	
	5.10.711.11 During any pre-application discussions with the applicant the LPA should identify any concerns it has about the impacts of the application on land use, having regard to the development plan and relevant applications and including, where relevant, whether it agrees with any independent assessment that the land is surplus to requirements.	
	5.10.811.12 Applicants should seek to minimise impacts on the best and most versatile agricultural land (defined as land in grades 1, 2 and 3a of the Agricultural Land Classification) and preferably use land in areas of poorer quality (grades 3b, 4 and 5) except where this would be inconsistent with other sustainability considerations. Applicants should also identify any effects and seek to minimise impacts on soil quality taking into account any mitigation measures proposed.).	
	5.11.13 Applicants should also identify any effects and seek to minimise impacts on soil health and protect and improve soil quality taking into account any mitigation measures proposed.	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	5.11.14 Applicants are encouraged to develop and implement a Soil Management Plan which could help minimise potential land contamination. The sustainable reuse of soils needs to be carefully considered in line with good practice guidance where large quantities of soils are surplus to requirements or are affected by contamination. <sup>251</sup>	
	5.11.15 Developments should contribute to and enhance the natural and local environment by preventing new and existing developments from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability.	
	5.11.16 Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans.	
	<ul> <li>5.11.17 Applicants should ensure that a site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination.</li> <li>5.11.18 For developments on previously developed land, applicants should ensure that</li> </ul>	
	they have considered the risk posed by land contamination. 5.10.9, and where contamination is present, applicants should consider opportunities for remediation where possible. It is important to do this as early as possible as part of engagement with the relevant bodies before the official pre-application stage. <sup>252</sup>	
	5.11.19 Applicants should safeguard any mineral resources on the proposed site as far as possible, taking into account the long-term potential of the land use after any future decommissioning has taken place.	
	5.10.1011.20 The general policies controlling development in the countryside apply with equal force in Green Belts but there is, in addition, a general presumption against inappropriate development within them. Such development should not be approved except in very special circumstances. Applicants should therefore determine whether their proposal, or any part of it, is within an established Green Belt and if it is, whether their proposal may be inappropriate development within the meaning of Green Belt policy (see paragraph 5.10.1711.35 below).	
	5.40.11.21 However, infilling or redevelopment of major developed sites in the Green Belt, if identified as such by the local planning authority, may be suitable for energy infrastructure. It may help to secure jobs and prosperity without further prejudicing the Green Belt or offer the opportunity for environmental improvement. Applicants should refer to relevant <a href="mailto:criteria133criteria253">criteria253</a> on such developments in Green Belts.	
	5.10.12 An 11.22 Moreover an applicant may be able to demonstrate that a-particular type of energy infrastructure, such as an underground pipeline, which, in Green Belt policy terms, may be considered as an "engineering operation" rather than a building is and regarded as not in the circumstances of the application inappropriate development in Green Belt. This is provided it preserves the openness of the Green Belt and does not conflict with the purposes of Green Belt designation. It may also be possible for an applicant to show that the physical characteristics of a proposed	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	overhead line development or wind farm are such that it has no adverse effects which	
	conflict with the fundamental purposes of Green Belt designation. IPC decision making	
	5.10.13 Where the project conflicts with a proposal in a development plan, the IPC	
	should take account of the stage which the development plan document in England or	
	local development plan in Wales has reached in deciding what weight to give to the	
	plan for the purposes of determining the planning significance of what is replaced,	
	prevented or precluded. The closer the development plan document in England or local	
	development plan in Wales is to being adopted by the LPA, the greater weight which	
	can be attached to it. 5.10.14 The IPC should not grant consent for development on	
	existing open space, sports and recreational buildings and land unless an assessment	
	has been undertaken either by the local authority or independently, which has shown	
	the open space or the buildings and land to be surplus to requirements or the IPC	
	determines that the benefits of the project (including need), outweigh the potential loss	
	of such facilities, taking into account any positive proposals made by the applicant to	
	provide new, improved or compensatory land or facilities. The loss of playing fields	
	should only be allowed where applicants can demonstrate that they will be replaced	
	with facilities of equivalent or better quantity or quality in a suitable location. 5.10.15	
	The IPC should ensure that applicants do not site their scheme on the best and most	
	versatile agricultural land without justification. It should give little weight to the loss of	
	poorer quality agricultural land (in grades 3b, 4 and 5), except in areas (such as	
	uplands) where particular agricultural practices may themselves contribute to the	
	quality and character of the environment or the local economy. 5.10.16 In considering	
	the impact on maintaining coastal recreation sites and features, the IPC should expect	
	applicants to have taken advantage of opportunities to maintain and enhance access to	
	the coast. In doing so the IPC should consider the implications for development of the	
	creation of a continuous signed and managed route around the coast, as provided for	
	in the Marine and Coastal Access Act 2009, 5.10.17 When located in the Green Belt.	
	energy infrastructure projects are likely to comprise 'inappropriate development' 134.	
	Inappropriate development is by definition harmful to the Green Belt and the general	
	planning policy presumption against it applies with equal force in relation to major	
	energy infrastructure projects. The IPC will need to assess whether there are very	
	special circumstances to justify inappropriate development. Very special circumstances	
	will not exist unless the harm by reason of inappropriateness, and any other harm, is	
	outweighed by other considerations. In view of the presumption against inappropriate	
	development, the IPC will attach substantial weight to the harm to the Green Belt when	
	considering any application for such development while taking account, in relation to	
	renewable and linear infrastructure, of the extent to which its physical characteristics	
	· · ·	
	are such that it has limited or no impact on the fundamental purposes of Green Belt	
	designation. 5.10.18 In Wales, 'green wedges' may be designated locally135. These	
	enjoy the same protection as Green Belt in Wales and the IPC should adopt a similar	
	approach. Green wedges give the same protection as Green Belt in Wales. Green	
	wedges do not convey the same level of permanence of a Green Belt and should be	
	reviewed by the local authority as part of the development plan review process. As with	
	Green Belt, there is a presumption against inappropriate development and the IPC	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	should assess whether there are very special circumstances to justify any proposed	
	inappropriate development. Mitigation 5.10.19 Although in the case of muchin a	
	particular location would not have so harmful an impact as to conflict with the purposes	
	of Green Belt designation, or with other protections of rural landscape	
	<u>Mitigation</u>	
	5.11.23 Although in the case of most energy infrastructure there may be little that can	
	be done to mitigate the direct effects of an energy project on the existing use of the	
	proposed site (assuming that some at least of that use can still be retained post project	
	construction) applicants should nevertheless seek to minimise these effects and the	
	effects on existing or planned uses near the site by the application of good design	
	principles, including the layout of the project- and the protection of soils during	
	construction.	
	5.10.2011.24 Where green infrastructure is affected, the IPCSecretary of State should	
	consider imposing requirements to ensure the functionality and connectivity of the	
	green infrastructure network is maintained in the vicinity of the development and that	
	any necessary works are undertaken, where possible, to mitigate any adverse impact	
	and, where appropriate, to improve that network and other areas of open space	
	including appropriate access to National Trails and other public rights of way and new	
	coastal access routes.	
	5.10.2111.25 The IPCSecretary of State should also consider whether mitigation of any	
	adverse effects on green infrastructure and other forms of open space is	
	adequately provided formitigated or compensated by means of any planning	
	obligations, for example exchange land and provide for appropriate management and	
	maintenance agreements. Any exchange land should be at least as good in terms of	
	size, usefulness, attractiveness and quality, and, where possible, at least as	
	accessible. accessibility.	
	5.11.26 Alternatively, where Sections 131 and 132 of the Planning Act 2008	
	apply, replacement land provided under those sections will need to conform to the	
	requirements of those sections. 5.10.22 Where a proposed development has an impact	
	upon a Mineral Safeguarding Area (MSA), the IPC	
	5.11.27 Existing trees and woodlands should be retained wherever possible. The	
	applicant should assess the impacts on, and loss of, all trees and woodlands within the	
	project boundary and develop mitigation measures to minimise adverse impacts and	
	any risk of net deforestation as a result of the scheme. Mitigation may include the use	
	of buffers to enhance resilience, improvements to connectivity, and improved woodland	
	management. Where woodland loss is unavoidable, compensation schemes will be	
	required, and the long-term management and maintenance of newly planted trees	
	should be secured.	
	5.11.28 Where a proposed development has an impact upon a Mineral Safeguarding	
	Area (MSA), the Secretary of State should ensure that appropriate mitigation measures	
	have been put in place to safeguard mineral resources.	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Rel
	5.10.2311.29 Where a project has a sterilising effect on land use (for example in some cases under transmission lines) there may be scope for this to be mitigated through, for example, using or incorporating the land for nature conservation or wildlife corridors or for parking and storage in employment areas.	
	5.10.2411.30 Public Rights of way, National Trails, and other rights of access to land are important recreational facilities for example for walkers, cyclists and horse riders. The IPCSecretary of State should expect applicants to take appropriate mitigation measures to address adverse effects on coastal access, National Trails-and other rights of way. Where this is not the case the IPC should consider what appropriate mitigation requirements might be attached to any grant of development consent, other rights of way and open access land and, where appropriate, to consider what opportunities there may be to improve or create new access. In considering revisions to an existing right of way, consideration should be given to the use, character, attractiveness, and convenience of the right of way.	
	5.11.31 The Secretary of State should consider whether the mitigation measures put forward by an applicant are acceptable and whether requirements or other provisions in respect of these measures should be included in any grant of development consent.	
	<ul><li><u>Secretary of State decision making</u></li><li>5.11.32 The Secretary of State should not grant consent for development on existing</li></ul>	
	open space, sports and recreational buildings and land unless an assessment has been undertaken either by the local authority or independently, which has shown the open space or the buildings and land to be surplus to requirements or the Secretary of State determines that the benefits of the project (including need), outweigh the potential loss of such facilities, taking into account any positive proposals made by the applicant to provide new, improved or compensatory land or facilities.	
	5.11.33 The loss of playing fields should only be allowed where applicants can demonstrate that they will be replaced with facilities of equivalent or better quantity or quality in a suitable location.	
	5.11.34 The Secretary of State should ensure that applicants do not site their scheme on the best and most versatile agricultural land without justification. Where schemes are to be sited on best and most versatile agricultural land the Secretary of State should take into account the economic and other benefits of that land. Where development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality.	
	5.11.35 In considering the impact on maintaining coastal recreation sites and features, the Secretary of State should expect applicants to have taken advantage of opportunities to maintain and enhance access to the coast. In doing so the Secretary of State should consider the implications for development of the creation of a continuous signed and managed route around the coast, as provided for in the Marine and Coastal Access Act 2009. <sup>254</sup>	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	5.11.36 When located in the Green Belt, energy infrastructure projects may comprise	
	'inappropriate development'. 255 Inappropriate development is by definition harmful to	
	the Green Belt. The NPPF makes clear that most new building is inappropriate in	
	Green Belt and should be refused permission unless in very special circumstances.	
	5.11.37 Very special circumstances are not defined in national planning policy as it is	
	for the individual decision maker to assess each case on its merits and give relevant	
	circumstances their due weight. However, when considering any planning application	
	affecting Green Belt land, the Secretary of State should ensure that substantial weight	
	is given to any harm to the Green Belt when considering any application for such	
	development, while taking account, in relation to renewable and linear infrastructure, of	
	the extent to which its physical characteristics are such that it has limited or no impact	
	on the fundamental purposes of Green Belt designation. Very special circumstances	
	may include the wider environmental benefits associated with increased production of	
	energy from renewables and other low carbon sources.	
	5.11.38 In England, Local Green Spaces may be designated locally in Local Plans and	
	Neighbourhood Plans. These enjoy the same protection as Green Belt in England and	
	the Secretary of State should adopt a similar approach.	
	5.11.39 In Wales, 'green wedges' may be designated locally. 256 These enjoy the same	
	protection as Green Belt in Wales and the Secretary of State should adopt a similar	
	approach.	
	5.11.40 Green wedges do not convey the same level of permanence of a Green Belt	
	and should be reviewed by the local authority as part of the development plan review	
	process.	
	defined in the Town and Country Planning Act 1990 as land laid out as a public garden, or used for the purposes of public recreation, or land which is a disused burial ground. However, in applying the policies in this section, open space should be taken to mean all open space of public value, including not just land, but also areas of water such as rivers, canals, lakes and reservoirs which offer important opportunities for sport and recreation and can also act as a visual amenity.	
	<sup>138</sup> Green infrastructure is a network of multi-functional green and blue spaces and other natural features, both rural and urban, which is capable of delivering a wide range of environmental, economic, health and wellbeing	
	benefits for nature, climate, local and wider communities and prosperity	
	<sup>246</sup> Or else so designated under The Green Belt (London and Home Counties) Act 1938.	
	247 Further information on Wales can be found in PPW 3.64-3.78.	
	248 https://www.gov.uk/government/publications/contaminated-land-statutory-guidance	
	<sup>249</sup> Green infrastructure is a network of multi-functional green spaces, both new and existing, both rural and urban, which supports the natural and ecological processes and is integral to the health and quality of life of sustainable communities. Blue infrastructure relates to features which incorporate the water environment.	
	131-Or else so designated under The Green Belt (London and Home Counties) Act 1938.	
	<sup>132250</sup> For example, where a planning application has been submitted.	
	<sup>133</sup> 251 For guidance, see the Defra Code of practice for the sustainable use of soils on construction sites	
	252 See Annex C to Planning Policy Guidance 2: Green belts https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm	
	253 See Section 13 of the NPPF, or any successor to it.	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
Socio-economics Noise	134 Referred to in section 3 of PPG2: Green Belts.  136254 See section 2.6 of Planning Policy Wales. See https://www.legislation.gov.uk/ukpga/2009/23/contents  255 Referred to in paragraphs 147-151 of section 13 of the NPPF — https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPFJuly_2021.pdf  256 See Managing Settlement Form - Green Belts and Green Wedges, in Planning Policy Wales (Edition 11, February 2021), or any successor to it See https://gov.wales/sites/default/files/publications/2021-02/planningpolicy-wales-edition-11_0.pdf  Introduction	The Proposed Scheme accords with the draft NPS text. Any additional requirements
and Vibration (Part 5.12 of EN-1)	5.44.12.1 Excessive noise can have wide-ranging impacts on the quality of human life, health (for example owing to annoyance or sleep disturbance)), the environment, and the use and enjoyment of areas of value such as quiet places and areas with high landscape quality.  5.12.2 The Government's policy on noise is set out in the Noise Policy Statement for England. 136257. It promotes good health and good quality of life through effective noise management. Similar considerations apply to vibration, which can also cause damage to buildings. In this section, in line with current legislation, references to "noise" below apply equally to assessment of impacts of vibration.  5.12.3 The Welsh Government's overarching policy is set out in its Noise and Soundscape Action Plan 2018 to 2023. 258 lts focus is on creating appropriate soundscapes for communities. This includes not only managing noise but also considering what sounds are appropriate in each time and place.  5.12.4 Noise resulting from a proposed development can also have adverse impacts on wildlife and biodiversity. Noise effects of the proposed development on ecological receptors should be assessed by the IPCSecretary of State in accordance with the Biodiversity and Geological Conservation section of this NPS. At Section 5.41.34. This should consider underwater noise and vibration especially for marine developments. Underwater noise can be a significant issue in the marine environment, particularly in regard to energy production.  5.12.5 Factors that will determine the likely noise impact include:  • the inherent operational noise from the proposed development, and its characteristics;  • the proximity of the proposed development to noise sensitive premises (including residential properties, schools and hospitals) and noise sensitive areas (including certain parks and open spaces);  • the proximity of the proposed development to quiet places and other areas that are particularly valued for their acoustic environmentsoundscape or landscape quality; and	proposed are addressed in Chapter 7 (Noise and Vibration) of the ES (APP-043) and in the assessment of adopted EN-1 policy relating to noise and vibration which is set out in Table 1 above.  In the context of proposed paragraph 5.12.16, whilst the assessment does not specifically assess different times of year, it does consider the potential impacts on outdoor sensitive receptors and with open windows, so can be assumed that in the summer months when windows are most likely to be open and would therefore be most sensitive to noise, the assessment for the Proposed Scheme would be applicable for different times of year.  Chapter 7 of the ES concludes that no significant environmental effects for noise have been identified. Whilst the Noise Policy Statement for England ('NPSE') notes that "it acknowledged that further research is required to increase our understanding of what may constitute a significant adverse impact on health and quality of life from noise", it can be reasonably assumed that no significant environmental effects would mean no significant impacts upon health and well-being in the context of proposed paragraph 5.12.6.  In the context of proposed paragraph 5.12.10, the Proposed Scheme has been located and designed with regard to potential noise impacts in the context of planning considerations, in addition to other environmental permits and responsibilities of Drax Power Ltd. Further detail is provided in the Other Consents and Licenses document (REP5-009REP8-010).  The required noise levels will be achieved through mitigation defined during detailed design and pursuant to Requirement 17 of the DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10). This may include acoustic enclosures or certain cladding, if necessary. Design principles and the colour palette for the exterior of major buildings / structures is established in the Design Framework (APP-195) and will ensure any containment for noise mitigation purposes follows these princi

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	Applicant's Applicant assessment	
	5.11.412.6 Where noise impacts are likely to arise from the proposed development, the applicant should include the following in the noise assessment:	
	<ul> <li>a description of the noise generating aspects of the development proposal leading to noise impacts, including the identification of any distinctive tonal, impulsive—or_low frequency or temporal characteristics of the noise;</li> <li>identification of noise sensitive premisesreceptors and noise sensitive areas that may be affected;</li> <li>the characteristics of the existing noise environment;</li> <li>a prediction of how the noise environment will change with the proposed development;—•</li> <li>in the shorter term_such as during the construction period;</li> <li>in the longer term_during the operating life of the infrastructure;</li> <li>at particular times of the day, evening and night (and weekends) as appropriate.</li> <li>and at different times of year</li> <li>an assessment of the effect of predicted changes in the noise environment on any noise—sensitive premisesreceptors, including an assessment of any likely impact on health and well-being where appropriate, and noise—sensitive areas; and</li> <li>if likely to cause disturbance, an assessment of the effect of underwater or subterranean noise</li> </ul>	
	measures to be employed in mitigating noise.the effects of noise using best available techniques to reduce noise impacts      5.12.7 The nature and extent of the noise assessment should be proportionate to the	
	likely noise impact.	
	5.11.5 The 5.12.8 Applicants should consider the noise impact of ancillary activities associated with the development, such as increased road and rail traffic movements, or other forms of transportation, should also be considered.	
	5.11.6. 5.12.9 Operational noise, with respect to human receptors, should be assessed using the principles of the relevant British Standards 137259 and other guidance. Further information on assessment of particular noise sources may be contained in the technology-specific NPSs. In particular, for renewables (EN-3) and electricity networks (EN-5) there is assessment guidance for specific features of those technologies. For the prediction, assessment and management of construction noise, reference should	
	be made to any relevant British Standards138Standards <sup>260</sup> and other guidance which also give examples of mitigation strategies.	
	5.11.75.12.10 Some noise impacts will be controlled through environmental permits and parallel tracking is encouraged where noise impacts determined by an environmental permit interface with planning issues (i.e. physical design and location of development). The applicant should consult EA and Natural England (NE), or the Countryside Council for Wales (CCW), SNCB, as necessary, and in particular with	
	regard to regarding assessment of noise on protected species or other wildlife. The	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	results of any noise surveys and predictions may inform the ecological assessment.	
	The seasonality of potentially affected species in nearby sites may also need to be	
	taken into account. IPC decision making 5.11.8 The project should demonstrate good	
	design through selection of the quietest cost-effective plant available; containment of	
	noise within buildings wherever possible considered.	
	5.12.11 In the marine environment, applicants should consider noise impacts on	
	protected species, both at the individual project level and in-combination with other	
	marine activities.	
	5.12.12 Applicants should submit a detailed impact assessment and mitigation plan as	
	part of any development plan, including the use of noise mitigation and noise	
	abatement technologies during construction and operation.	
	<u>Mitigation</u>	
	5.12.13 The Secretary of State should consider whether mitigation measures are	
	needed both for operational and construction noise over and above any which may	
	form part of the project application. In doing so the Secretary of State may wish to	
	impose mitigation measures. Any such mitigation measures should take account of the	
	NPPF or any successor to it and planning practice guidance on noise.	
	5.12.14 Mitigation measures may include one or more of the following:	
	engineering: reducing the noise generated at source and/or containing the noise	
	<ul> <li>generated</li> <li>lay-out: where possible, optimising the distance between the source and noise-</li> </ul>	
	sensitive receptors and/or incorporating good design to minimise noise transmission	
	through the use of screening by natural or purpose-built barriers, or other buildings	
	administrative: using planning conditions/obligations to restrict activities allowed on	
	the site at certain times and/or specifying permissible noise limits/ noise levels,	
	differentiating as appropriate between different times of day, such as evenings and	
	late at night, and taking into account seasonality of wildlife in nearby designated	
	<u>sites</u>	
	<ul> <li>insulation: mitigating the impact on areas likely to be affected by noise including through noise insulation when the impact is on a building.</li> </ul>	
	5.12.15 The project should demonstrate good design through selection of the quietest	
	or most acceptable cost-effective plant available; containment of noise within buildings	
	wherever possible, taking into account any other adverse impacts that such	
	containment might cause (e.g. on landscape and visual impacts; optimisation of plant	
	layout to minimise noise emissions; and, where possible, the use of landscaping,	
	bunds or noise barriers to reduce noise transmission.	
	5.11.912.16 A development must be undertaken in accordance with statutory	
	requirements for noise. Due regard must be given to the relevant sections of the Noise	
	Policy Statement for England <sup>261</sup> , the NPPF, and the government's associated planning	
	guidance on noise. In Wales the relevant policy will be PPW and the TANs, as well as	
	the Welsh Government's Noise and Soundscape Action Plan.	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	Secretary of State decision making	
	5.12.17 The IPCSecretary of State should not grant development consent unless it isthey are satisfied that the proposals will meet the following aims, through the effective management and control of noise:	
	<ul> <li>avoid significant adverse impacts on health and quality of life from noise;</li> <li>mitigate and minimise other adverse impacts on health and quality of life from noise; and</li> <li>where possible, contribute to improvements to health and quality of life through the effective management and control of noise.</li> </ul>	
	5.11.1012.18 When preparing the development consent order, the IPCSecretary of State should consider including measurable requirements or specifying the mitigation measures to be put in place to ensure that noise levels do not exceed any limits specified in the development consent. Mitigation 5.11.11 The IPC should consider whether mitigation measures are needed both for operational and construction noise over and above any which may form part of the project application. In doing so the IPC may wish to impose requirements. Any such requirements should take account of the guidance set out in Circular 11/95 (see Section 4.1) or any successor to it. 5.11.12 Mitigation measures may include one or more of the following: • engineering: reduction of noise at point of generation and containment of noise generated; • lay-out: adequate distance between source and noise-sensitive receptors; incorporating good design to minimise noise transmission through screening by natural barriers, or other buildings; and • administrative: restricting activities allowed on the site; specifying acceptable noise limits; and taking into account seasonality of wildlife in nearby designated sites. 5.11.13 In certain situations, and only when all other forms of noise mitigation have been exhausted, it may be appropriate for the IPC to consider requiring noise mitigation through improved sound insulation to dwellings These requirements or mitigation measures may apply to the construction, operation, and decommissioning of	
	the energy infrastructure development.  136 http://www.defra.gov.uk/environment/quality/noise/npse/ 137257 See https://www.gov.uk/government/publications/noise-policy-statement-for-england 258 See https://gov.wales/noise-and-soundscape-action-plan-2018-2023-0 259 For example BS 4142÷, BS 6472 and BS 8233138 260 For example BS 5228.  261 See https://www.gov.uk/government/publications/noise-policy-statement-for-england	
Traffic and Transport Socio-economic Impac (Part 5.13 of EN-1)	Introduction	The Proposed Scheme contributes to sustainable economic growth. Draxon the Power Station would act as an anchor project for Zero Carbon Humber, protecting and creating tens of thousands of jobs, and kickstarting a new green industry for the region.  A report published in 2021 (Coalition for Negative Emissions, 2021) estimates that between 50,000 and 100,000 total new jobs could be created in the UK by 2050 by scaling up negative emissions projects to achieve the 1.5°C pathway need, based on the CCC's Sixth Carbon Budget. The report recognises that carbon removal presents a viable path for

# **Emerging Policy Text Detailing Changes Policy** 5.4213.2 Where the project is likely to have socio-economic impacts at local or regional levels, the applicant should undertake and include in their application an assessment of these impacts as part of the ES (see Section 4.2). 5.4213.3 This The applicant is strongly encouraged to engage with relevant local authorities during early stages of project development so that the applicant can gain a better understanding of local or regional issues and opportunities. 5.13.4 The applicant's assessment should consider all relevant socio-economic impacts, which may include: • the creation of jobs and training opportunities; •. Applicants may wish to provide information on the sustainability of the jobs created, including where they will help to develop the skills needed for the UK's transition to Net Zero the contribution to the development of low-carbon industries at the local and regional level as well as nationally the provision of additional local services and improvements to local infrastructure, including the provision of educational and visitor facilities; • effects on tourism; any indirect beneficial impacts for the region hosting the infrastructure, in particular in relation to use of local support services and supply chains effects on tourism the impact of a changing influx of workers during the different construction,

# Assessment of Changes of Relevance

job protection, as 70 to 90 per cent of the skills required by a STEM oil and gas professional are highly relevant to those required in engineered removal. It also notes that engineered removal is likely to occur in clusters that have historically experienced lower economic growth and where current jobs have higher transition risks, such as in the Humber. In doing so, the UK can develop engineering and construction capabilities around CCS delivery, which would create additional jobs and add economic value.

As set out in the Humber Industrial Cluster Plan (Appendix 1 to the Applicant's Deadline 5 Project Updates Arising from Government Publications), the Humber Cluster is expected to deliver 22,500 jobs; and the Drax BECCS Scheme is a key part of the Cluster reaching that potential.

In line with proposed paragraph 5.13.6, the Applicant commits to promoting the use of local suppliers and contractors through a Local Employment Plan which is secured as a requirement of the DCO. This is set out in detail in Section 4.1 of the Planning Statement (APP-032).

The Local Employment Plan will be based on the Outline Local Employment Plan (REP3-022). The final Plan will be submitted for approval prior to commencement and will include the use of local suppliers and contractors and developing opportunities for local people to access training opportunities. This also accords with proposed paragraph 5.13.12, which states that the SoS "may wish to include a requirement that specifies the approval by the local authority of an employment and skills plan detailing arrangements to promote local employment and skills development opportunities, including apprenticeships, education, engagement with local schools and colleges and training programmes to be enacted".

In line with proposed paragraph 5.13.7, Chapter 16 (Population, Health and Socio-economics) of the ES (APP-052) concludes that adverse accommodation impacts are only anticipated as a cumulative effect of the Proposed Scheme and other projects, and that that regardless, effects anticipated are not significant. As such, the Applicant does not consider that accommodation strategies are a relevant requirement for the Proposed Scheme to address.

The remaining text proposed in part 5.13 of draft EN-1 has been addressed within Table 1 above, relating to the existing adopted EN-1 policy.

# the impact of a changing influx of workers during the different construction, operation and decommissioning phases of the energy infrastructure. This could change the local population dynamics and could alter the demand for services and facilities in the settlements nearest to the construction work (including community facilities and physical infrastructure such as energy, water, transport and waste). There could also be effects on social cohesion depending on how populations and service provision change as a result of the development; and

cumulative effects — if development consent were to be granted to for a number of projects within a region and these were developed in a similar timeframe, there could be some short-term negative effects, for example a potential shortage of construction workers to meet the needs of other industries and major projects within the region.

5.42.413.5 Applicants should describe the existing socio-economic conditions in the areas surrounding the proposed development and should also refer to how the development's socio-economic impacts correlate with local planning policies.

5.12.513.6 Socio-economic impacts may be linked to other impacts, for example the visual impact of a development is impacts considered in Section 5.910 but may also have an impact on tourism and local businesses. Applicants are encouraged, where possible, to demonstrate that local suppliers have been considered in any supply chain.

5.13.7 Applicants should consider developing accommodation strategies where appropriate, especially during construction and decommissioning phases, that would include the need to provide temporary accommodation for construction workers if required.

Mitigation

Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
5.13.8 The Secretary of State should consider whether mitigation measures are necessary to mitigate any adverse socio-economic impacts of the development. For example, high quality design can improve the visual and environmental experience for visitors and the local community alike. IPC Secretary of State decision making  5.12.613.9 The IPC Secretary of State should have regard to the potential socio-economic impacts of new energy infrastructure identified by the applicant and from any other sources that the IPC Secretary of State considers to be both relevant and important to its decision.	
5.12.713.10 The IPCSecretary of State may conclude that limited weight is to be given to assertions of socio-economic impacts that are not supported by evidence (particularly in view of the need for energy infrastructure as set out in this NPS).	
5.12.813.11 The IPC Secretary of State should consider any relevant positive provisions the developerapplicant has made or is proposing to make to mitigate impacts (for example through planning obligations) and any legacy benefits that may arise as well as any options for phasing development in relation to the socio-economic impacts. Mitigation 5.12.9 The IPC should consider whether mitigation measures are necessary to mitigate any adverse socio-economic impacts of the development.  5.13.12 The Secretary of State may wish to include a requirement that specifies the approval by the local authority of an employment and skills plan detailing arrangements to promote local employment and skills development opportunities, including apprenticeships, education, engagement with local schools and colleges and training programmes to be enacted.  262 For infrastructure in Wales see Wales' socio-economic duty (referenced in the Wales Policy Considerations. For example, high quality design can improve the visual and environmental experience for visitors and the local community alike.	
Introduction  5.4314.1 The transport of materials, goods and personnel to and from a development during all project phases can have a variety of impacts on the surrounding transport infrastructure and potentially on connecting transport networks, for example through increased congestion. Impacts may include economic, social and environmental effects.  5.14.2 Environmental impacts may result particularly from increases intrips generated on roads which may increase noise and air pollution as well as greenhouse gas emissions from road transport.  5.14.3 Disturbance caused by traffic and abnormal loads generated during the construction phase will depend on the scale and type of the proposal.  5.13.214.4 The consideration and mitigation of transport impacts is an essential part of Government's wider policy objectives for sustainable development as set out in Section 2.26 of this NPS.	The assessment presented in Chapter 5 (Traffic and Transport) of the ES (APP-041) considers possible disruption to services and infrastructure as a result of the Proposed Scheme, in line with proposed paragraph 5.14.8.  Chapter 5 concludes that there would be temporary disruption to the highway network associated with the movement of AIL, and that this will be managed through an AIL strategy which is included in the Outline CTMP presented at Appendix 5.1 of the ES (REP2-029). As set out in Table 1 above, the final CEMP is secured via a Requirement in Schedule 2 of the DCO.  A Framework CWTP (REP2-030) has also been prepared and accords with the principles of paragraph 5.14.7. The CWTP presents a series of SMART (Specific, Measurable, Achievable, Relevant and Time Bound) objectives related to trip generation and modal split. It sets out framework for encouraging sustainable travel to and from the Order Limits during the construction phase. The overall aim of this CWTP is to provide construction workers with sustainable travel choices to travel to and from the Order Limits by sustainable modes, where possible, and reduce single occupancy vehicle use. It also aims to help individuals in terms of making better informed travel decisions.
	5.13.8 The Secretary of State should consider whether mitigation measures are necessary to mitigate any adverse socio-economic impacts of the development. For example, high quality design can improve the visual and environmental experience for visitors and the local community alike. IPC Secretary of State decision making  5.12.613.9 The IPCSecretary of State should have regard to the potential socio-economic impacts of new energy infrastructure identified by the applicant and from any other sources that the IPCSecretary of State considers to be both relevant and important to its decision.  5.12.713.10 The IPCSecretary of State may conclude that limited weight is to be given to assertions of socio-economic impacts that are not supported by evidence (particularly in view of the need for energy infrastructure as set out in this NPS).  5.12.813.11 The IPCSecretary of State should consider any relevant positive provisions the developerapplicant has made or is proposing to make to mitigate impacts (for example through planning obligations) and any legacy benefits that may arise as well as any options for phasing development in relation to the socio-economic impacts. Mitigation-5.12.0 The IPC should consider whether mitigation measures are necessary to mitigate any adverse socio-economic impacts of the development.  5.13.12 The Secretary of State may wish to include a requirement that specifies the approval by the local authority of an employment and skills plan detailing arrangements to promote local employment and skills development opportunities, including apprenticeships, education, engagement with local schools and colleges and training programmes to be enacted.  ***Department of the secretary of materials, goods and personnel to and from a development during all project phases can have a variety of impacts on the surrounding transport infrastructure and potentially on connecting transport networks, for example through increased congestion. Impacts may include economic, social and environmental effects.  5.14.2 E

# Policy Emerging Policy Text Detailing Changes

5.13.314.5 If a project is likely to have significant transport implications, the applicant's ES (see Section 4.2) should include a transport assessment, using the NATA/WebTAG<sup>139</sup> methodology stipulated in Department for appraisal. The DfT's Transport guidance<sup>140</sup>, or any successor to such methodology. Analysis Guidance (TAG)<sup>263</sup> and Welsh Governments WelTAG<sup>264</sup> provides guidance on modelling and assessing the impacts of transport schemes.

<u>5.14.6</u> Applicants should consult <u>the National</u> Highways <u>Agency</u> and Highways Authorities as appropriate on the assessment and mitigation. <u>5.13.4 Where appropriate</u>, the

<u>5.14.7 The</u> applicant should prepare a travel plan including demand management <u>and</u> <u>monitoring</u> measures to mitigate transport impacts. The applicant should also provide details of proposed measures to improve access by <u>active</u>, public <u>and shared</u> transport, <u>walking and cycling</u>, to:

- reduce the need for parking associated with the proposal;
- contribute to decarbonisation of the transport network;
- reduce the need to travel; and
- secure behavioural change and modal shift through an offer of genuine modal choice and to mitigate transport impacts.

5.13.5.14.8 The assessment should also consider any possible disruption to services and infrastructure (such as road, rail and airports).

5.14.9 If additional transport infrastructure is <u>needed or proposed</u>, <u>applicantsit should</u> <u>always include good quality walking</u>, <u>wheeling and cycle routes</u>, <u>and associated</u> facilities (changing/storage etc) <u>needed to enhance active transport provision</u>.

5.14.10 Applicants should discuss with network providers the possibility of co-funding by Government for any third-party benefits. Guidance has been issued 141265 in England which explains the circumstances where this may be possible, although the Government cannot guarantee in advance that funding will be available for any given uncommitted scheme at any specified time. IPC decision making 5.13.6 A new energy NSIP may give rise to substantial impacts on the surrounding transport infrastructure and the IPC should therefore ensure that the applicant has sought to mitigate these impacts, including during the construction phase of the development. Where the proposed mitigation measures are insufficient to reduce the impact on the transport infrastructure to acceptable levels, the IPC should consider requirements to mitigate adverse impacts on transport networks arising from the development, as set out below. Applicants may also be willing to enter into planning obligations for funding infrastructure and otherwise mitigating adverse impacts. 5.13.7 Provided that the applicant is willing to enter into planning obligations or requirements can be imposed to mitigate transport impacts identified in the NATA/WebTAG transport assessment, with attribution of costs calculated in accordance with the Department for Transport's guidance, then development consent should not be withheld, and appropriately limited weight should be applied to residual effects on the surrounding transport infrastructure.

## Assessment of Changes of Relevance

The proposed addition of text at paragraph 5.14.21 highlights that the SoS "should only consider preventing or refusing development on highways grounds if there would be an unacceptable impact on highway safety, or residual cumulative impacts on the road network would be severe."

As set out in the assessment of adopted EN-1 policy relating to 'Traffic and Transport', any adverse impacts from the Proposed Scheme in isolation or cumulatively are considered to be mitigable to an acceptable degree, as set out in Chapter 5 and Table 1 above. The Highways Technical Note (REP2-063) illustrates that the impact of the Proposed Scheme on the operation of the junction would be negligible. The Proposed Scheme should therefore not be refused on grounds of severe impact on the road network.

Proposed paragraph 5.14.16 states applicants should "consider the DfT policy guidance "Water Preferred Policy Guidelines for the movement of abnormal indivisible loads" when preparing their application". Chapter 5 (Traffic and Transport) of the ES (APP-041) considers this guidance and confirms that transport of AIL was discussed during preapplication discussions with National Highways, NYCC and ERYC. This is described in further detail in Chapter 3 (Consideration of Alternatives) of the ES (APP-039) and in Table 1 above. The outcome of the consultation was Agreement in Principle to transporting AIL by using the 'Road Option' and approval of the proposed strategy was confirmed 20 April 2021. The Applicant therefore considers the Proposed Scheme is in accordance with the DfT policy guidance.

Based on the above and detailed assessment undertaken in Table 1, the Applicant considers the Proposed Scheme to comply with the text proposed for inclusion in Part 5.14 of draft EN-1 policy.

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	Mitigation 5.13.8 Where mitigation is needed, possible demand management measures must be considered and if feasible and operationally reasonable,	
	Mitigation	
	5.14.11 Where mitigation is needed, possible demand management measures must be considered. This could include identifying opportunities to:	
	<ul> <li>reduce the need to travel by consolidating trips,</li> <li>locate development in areas already accessible by active travel and public transport,</li> <li>provide opportunities for shared mobility</li> <li>re-mode by shifting travel to a sustainable mode that is more beneficial to the network,</li> <li>retime travel outside of the known peak times,</li> <li>reroute to use parts of the network that are less busy.</li> </ul>	
	5.14.12 If feasible and operationally reasonable, such mitigation should be required, before considering requirements for the provision of new inland transport infrastructure to deal with remaining transport impacts. 5.13.9 The IPCAII stages of the project should have regard support and encourage a modal shift of freight from road to the cost effectiveness of demand management measures compared to new transportmore environmentally sustainable alternatives, such as rail, cargo bike, maritime and inland waterways, as well as making appropriate provision for and infrastructure, as well as needed to support the aimuse of alternative fuels including charging for electric vehicles.	
	5.14.13 Regard should always be given to secure more sustainable patterns of transport development when considering mitigation measures. 5.13.10 Water-borne or rail transport is preferred over road transportthe needs of freight at all stages of the project, where cost-effective. 5.13.11 The IPCin the construction and operation of the development including the need to provide appropriate facilities for HGV drivers as appropriate. <sup>266</sup>	
	5.14.14 The Secretary of State may attach requirements to a consent where there is likely to be substantial HGV traffic that:	
	<ul> <li>control numbers of HGV movements to and from the site in a specified period during its construction and possibly on the routing of such movements;</li> <li>make sufficient provision for HGV parking, 267 and associated high quality drive facilities either on the site or at dedicated facilities elsewhere, to support driver welfare, avoid 'overspill' parking on public roads, prolonged queuing on approach roads and uncontrolled on-street HGV parking in normal operating conditions; and</li> <li>ensure satisfactory arrangements for reasonably foreseeable abnormal disruption, in consultation with network providers and the responsible police force.</li> </ul>	
	5.13.125.14.15 The Secretary of State should have regard to the cost-effectiveness of demand management measures compared to new transport infrastructure, as well as	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	the aim to secure more sustainable patterns of transport development when	
	considering mitigation measures.	
	5.14.16 Applicants should consider the DfT policy guidance "Water Preferred Policy	
	Guidelines for the movement of abnormal indivisible loads" when preparing their	
	application. <sup>268</sup>	
	5.14.17 If an applicant suggests that the costs of meeting any obligations or	
	requirements would make the proposal economically unviable this should not in itself	
	justify the relaxation by the IPC of any obligations or requirements needed to secure	
	the mitigation Secretary of State of any obligations or requirements needed to secure the mitigation.	
	Secretary of State decision making	
	5.14.18 A new energy NSIP may give rise to substantial impacts on the surrounding	
	transport infrastructure and the Secretary of State should therefore ensure that the applicant has sought to mitigate these impacts, including during the construction phase	
	of the development and by enhancing active, public and shared transport provision and	
	accessibility.	
	5.14.19 Where the proposed mitigation measures are insufficient to reduce the impact	
	on the transport infrastructure to acceptable levels, the Secretary of State should	
	consider requirements to mitigate adverse impacts on transport networks arising from	
	the development, as set out below.	
	5.14.20 Development consent should not be withheld provided that the applicant is	
	willing to enter into planning obligations for funding new infrastructure or requirements	
	can be imposed to mitigate transport impacts. <sup>269</sup> In this situation the Secretary of State	
	should apply appropriately limited weight to residual effects on the surrounding	
	transport infrastructure.	
	5.14.21 The Secretary of State should only consider refusing development on	
	highways grounds if there would be an unacceptable impact on highway safety,	
	residual cumulative impacts on the road network would be severe, or it does not show how consideration has been given to the provision of adequate active public or shared	
	transport access and provision.	
	139-WelTag in Wales.	
	<sup>140</sup> -Guidance on transport assessments is at http://www.dft.gov.uk/pgr/regional/transportassessments/guidanceonta	
	and (for Wales) at: http://wales.gov.uk/topics/transport/publications/weltag/?lang=en	
	141-http://www.dft.gov.uk/pgr/regional/fundingtransportinfrastructure/	
	<sup>142</sup> -Please note that no separate guidance has been issued for Wales. The Welsh Assembly Government discusses funding arrangements with developers on a project-specific basis.	
	<sup>263</sup> Guidance on transport assessments is at See https://www.gov.uk/guidance/transport-analysis-guidancetag#full-publication-update-history	
	264 See https://gov.wales/welsh-transport-appraisal-guidance-weltag	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	265 See https://www.gov.uk/government/publications/transport-investment-strategy, For Wales, refer to the guidance note regarding Transport Grants or any successor to it: see https://gov.wales/sites/default/files/publications/2020-01/local-transport-grants-guidance-2020-to-2021.pdf  266 See Future of Freight, DfT, June 2022 at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1085917/future - of-freight-plan.pdf  267 See DfT WMS on planning reforms for lorry parking at: See https://www.gov.uk/government/speeches/planning-reforms-for-lorry-parking  268 See https://www.gov.uk/government/publications/movement-of-abnormal-loads-by-water  269 With attribution of costs calculated in accordance with the DfT's guidance.	
Water Quality and Resources and Waste Management (Part 5.15 of EN-1)	Introduction  5.4415.1 Government policy on hazardous and non-hazardous waste is intended to protect human health and the environment by producing less waste and by using it as a resource wherever possible. Where this is not possible, waste management regulation ensures that waste is disposed of in a way that is least damaging to the environment and to human health.  5.4415.2 Sustainable waste management is implemented through the "waste hierarchy" hierarchy which sets out the priorities that must be applied when managing waste "**-a) waste. These are (in order):  • prevention; b)  • preparing for reuse; e)  • recycling; d)  • other recovery, including energy recovery; and e)  • disposal.  5.4415.3 Disposal of waste should only be considered where other waste management options are not available or where it is the best overall environmental outcome.  5.4415.4 All large infrastructure projects are likely to generate some hazardous and non-hazardous waste. The EA's Environmental Permitting (EP) regime incorporates operational waste management requirements for certain activities. When an applicant applies to the EA for an Environmental PermitEP, the EA will require the application to demonstrate that processes are in place to meet all relevant EP requirements.  5.4415.5 Specific considerations with regard toregarding radioactive waste are set out in section Section 2.11 and Annex B of EN-6.271 This The present section will apply to non-radioactive waste for nuclear infrastructure as for other energy infrastructure.  Applicant's assessment 5.14.6Applicant assessment  5.15.6 Applicants must demonstrate that development proposals are in line with Defra's policy position on the role of energy from waste in treating municipal waste.  5.15.7 The proposed plant must not compete with greater waste prevention, re-use, or recycling, or result in over-capacity of EfW or similar processes for the treatment of waste at a national or local level.	Resource Efficient Economy was consulted upon in March to June 2021 and the update is awaited. The WPP has not been specifically addressed in the ES, as neither the WPP nor the draft NPS policy is yet adopted, and only limited weight can therefore be given to these at this stage. Moreover, the draft WPP is not a relevant document to consider for Operational Waste from the Proposed Scheme, as it is focused on seven key manufacturing sectors, none of which apply to Drax Power Station's current or future operations. However, Chapter 13 considers 'Our Waste, Our Resources: A Strategy for England' (DEFRA, 2018), the principles of which are aimed to be achieved by the WPP. Proposed paragraphs 5.15.8, 5.15.9 and 5.15.12 encourages applicants, where possible, to source materials from recycled or reused sources and use low carbon materials, sustainable sources and local suppliers, and use construction best practices in relation to storing materials in an adequate and protected place on site to prevent waste. The CEMP secured through a Requirement in the DCO will include a Site Waste Management Plan and a Materials Management Plan which will secure this approach. These matters have been addressed in Chapter 13 (Materials and Waste) of the ES (APP-049) and the assessment of adopted EN-1 policy relating to 'Resources and Waste Management' in Table 1 above.  The Applicant considers that the Proposed Scheme therefore complies with Part 5.15 of draft EN-1.

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	5.15.8 The applicant should set out the arrangements that are proposed for managing any waste produced and prepare a Site Waste Management Plan.report that sets out the sustainable management of waste and use of resources throughout any relevant	
	<ul> <li>demolition, excavation and construction activities.</li> <li>5.15.9 The arrangements described and Management Plana report setting out the sustainable management of waste and use of resources should include information on</li> </ul>	
	how re-use and recycling will be maximised in addition to the proposed waste recovery and disposal system for all waste generated by the development, and. They should also include an assessment of the impact of the waste arising from development on the	
	capacity of waste management facilities to deal with other waste arising in the area for at least five years of operation. The applicant	
	5.15.10 The applicant is encouraged to refer to the 'Waste Prevention Programme for England' 272 and 'Towards Zero Waste: Our Waste Strategy for Wales' 273 and should seek to minimise the volume of waste produced and the volume of waste sent for disposal unless it can be demonstrated that this is the best overall environmental outcome. IPC decision making 5.14.7 The IPC	
	5.15.11 If the applicant's assessment includes dredged material, the assessment should also include other uses of such material before disposal to sea, for example through reuse in the construction process.	
	5.15.12 The UK is committed to moving towards a more 'circular economy'. Where possible, applicants are encouraged to source materials from recycled or reused sources and use low carbon materials, sustainable sources and local suppliers.  Construction best practices should be used to ensure that material is reused or recycled onsite where possible.	
	5.15.13 Applicants are also encouraged to use construction best practices in relation to storing materials in an adequate and protected place on site to prevent waste, for example, from damage or vandalism. The use of Building Information Management tools (or similar) to record the materials used in construction can help to reduce waste in future decommissioning of facilities, by identifying materials that can be recycled or reused.	
	Secretary of State decision making	
	5.15.14 The Secretary of State should consider the extent to which the applicant has proposed an effective system for managing hazardous and non-hazardous waste arising from the construction, operation and decommissioning of the proposed development. #	
	5.15.15 The Secretary of State should be satisfied that:	
	<ul> <li>any such waste will be properly managed, both on-site and off-site;</li> <li>the waste from the proposed facility can be dealt with appropriately by the waste infrastructure which is, or is likely to be, available. Such waste arisings should not have an adverse effect on the capacity of existing waste management facilities to deal with other waste arisings in the area; and</li> </ul>	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	<ul> <li>adequate steps have been taken to minimise the volume of waste arisings, and of the volume of waste arisings sent to disposal, except where that is the best overall environmental outcome.</li> </ul>	
	5.14.815.16 Where necessary, the IPCSecretary of State should use requirements or obligations to ensure that appropriate measures for waste management are applied.	
	5.15.17 The IPCSecretary of State may wish to include a condition on revision of waste management plans at reasonable intervals when giving consent.	
	5.14.915.18 Where the project will be subject to the EP regime, waste management arrangements during operations will be covered by the permit and the considerations set out in Section 4.10 will apply 11 will apply.	
	5.15.19 The Secretary of State should have regard to any potential impacts on the achievement of resource efficiency and waste reduction targets set under the Environment Act 2021 or wider goals set out in the government's Environmental Improvement Plan.  143270 The Waste Hierarchy is set out in Article 16 of the Waste Framework Directive 2008 and The Waste (England	
	and Wales) Regulations 2011.  271 see https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/47859/2009- nps- for-nuclear-volumel.pdf  272 See https://www.gov.uk/government/consultations/waste-prevention-programme-for-england-2021  273 See https://gov.wales/towards-zero-waste-our-waste-strategy	
Water Quality and Resources (Part 5.16 of EN-1)	Introduction  5.4516.1 Infrastructure development can have adverse effects on the water environment, including groundwater, inland surface water, transitional waters144 and waters274 coastal and marine waters.  5.16.2 During the construction, operation, and decommissioning phases, itdevelopment can lead to increased demand for water, involve discharges to water and cause adverse ecological effects resulting from physical modifications to the water environment. There may also be an increased risk of spills and leaks of pollutants to the water environment. These effects could lead to adverse impacts on health or on protected species and habitats (see Section 4.3 and Section 4.182) and could, in particular, result in surface waters, groundwaters or protected areas145areas275 failing to meet environmental objectives established under the Water Environment (Water Framework Directive146,) (England and Wales) Regulations 2017 and the Marine Strategy Regulations 2010.276  Applicant's Applicant assessment	The proposed text relating to the draft EN-1 policy for 'Water Quality and Resources' is sufficiently addressed in Table 1 above, including cumulative effects and how climate change could impact any of the above in the future as per proposed text at paragraph 5.16.7. Appendix 12.3 (Existing Drainage Systems and Surface Water Drainage Strategy) of the ES (REP2-043) details the proposed drainage scheme to support the Proposed Scheme. In summary, Surface water runoff will remain being collected across the Existing Drax Power Station Site, outside of the Proposed Scheme area, by a network of surface water drains. In the Order Limits land subject to Work Nos. 1D and 2 (and 3 if required) shown on the Works Plans (AS-106), a new surface water drainage system will be installed.  The Surface Water Drainage Strategy and existing drainage systems will ensure that runoff is treated, and the quality of discharges are managed.  The Water Framework Directive ('WFD') screening exercise has been carried out for the Proposed Scheme. The conclusions of this exercise have been discussed with the Environment AgencyEA and it has been agreed that a full WFD assessment is not required to accompany the planning application. The discussions undertaken are detailed within the signed SoCG between the Applicant and the EA (REP8-018 REP5-016).
	5.45.216.3 Where the project is likely to have effects on the water environment, the applicant should undertake an assessment of the existing status of, and impacts of the proposed project on, water quality, water resources and physical characteristics of the water environment as part of the ES or equivalent. (See Section 4.2.) 5.15.3 The ES	The Scheme will not impact on the ability for Environment Act 2021 water quality targets to be met.  The Applicant therefore considers the Proposed Scheme accords with Part 5.1 of draft EN-1 policy.

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	should in particular describe: •, and how this might change due to the impact of climate change on rainfall patterns and consequently water availability across the water environment, as part of the ES or equivalent (see Section 4.2 and 4.9).	
	5.16.4 The applicant should make early contact with the relevant regulators, including the local authority, the Environment Agency and Marine Management Organisation, where appropriate, for relevant licensing and environmental permitting requirements.	
	5.16.5 Where possible, applicants are encouraged to manage surface water during construction by treating surface water runoff from exposed topsoil prior to discharging and to limit the discharge of suspended solids e.g. from car parks or other areas of hard standing, during operation.	
	5.16.6 Applicants are encouraged to consider protective measures to control the risk of pollution to groundwater beyond those outlined in River Basin Management Plans and Groundwater Protection Zones - this could include, for example, the use of protective barriers.	
	5.16.7 The ES should in particular describe:	
	<ul> <li>the existing quality of waters affected by the proposed project and the impacts of the proposed project on water quality, noting any relevant existing discharges, proposed new discharges and proposed changes to discharges;</li> <li>existing water resources decrease and proposed project and the impacts of the proposed project on water resources, noting any relevant existing abstraction rates, proposed new abstraction rates and proposed changes to abstraction rates (including any impact on or use of mains supplies and reference to Catchment Abstraction ManagementLicensing Strategies); ) and also demonstrate how proposals minimise the use of water resources and water consumption in the first instance</li> <li>existing physical characteristics of the water environment (including quantity and dynamics of flow) affected by the proposed project and any impact of physical modifications to these characteristics; and</li> <li>any impacts of the proposed project on water bodies or protected areas (including shellfish protected areas) under the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 and source protection zones (SPZs) around potable groundwater abstractions</li> <li>how climate change could impact any of the above in the future</li> <li>any cumulative effects</li> </ul>	
	<u>Mitigation</u>	
	5.16.8 The Secretary of State should consider whether mitigation measures are needed over and above any which may form part of the project application. A construction management plan may help codify mitigation at that stage.	
	5.16.9 The risk of impacts on the water environment can be reduced through careful design to facilitate adherence to good pollution control practice. For example,	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	designated areas for storage and unloading, with appropriate drainage facilities, should	
	be clearly marked IPC	
	5.16.10 The impact on local water resources can be minimised through planning and	
	design for the efficient use of water, including water recycling. If a development needs	
	new water infrastructure, significant supplies or impacts other water supplies, the	
	applicant should consult with the local water company and the EA or NRW.	
	Secretary of State decision making	
	5.45.416.11 Activities that discharge to the water environment are subject to pollution	
	control. The considerations set out in Section 4.1011 on the interface between planning	
	and pollution control therefore apply. These considerations will also apply in an	
	analogous way to the abstraction licensing regime regulating activities that take water	
	from the water environment, and to the control regimes relating to works to, and	
	structures in, on, or under a-controlled water 148278.	
	5.15.516.12 The IPCSecretary of State will-generally need to give impacts on the water	
	environment more weight where a project would have an adverse effect on the	
	achievement of the environmental objectives established under the Water Environment	
	(Water Framework Directive-) (England and Wales) Regulations 2017.279	
	5.15.616.13 The IPCSoS must also consider duties under other legislation including	
	duties under the Environment Act 2021 in relation to environmental targets and have	
	regard to the policies set out in the Government's Environmental Improvement Plan.	
	5.16.14 The Secretary of State should satisfy itself be satisfied that a proposal has	
	regard to the current River Basin Management Plans and meets the requirements of the	
	Water Environment (Water Framework Directive (including Article 4.7)) (England and	
	its daughter directives, Wales) Regulations 2017 (including those on priority	
	substances and groundwater.regulation 19). The specific objectives for particular river	
	basins are set out in River Basin Management Plans. The IPC The Secretary of State must refuse development consent where a project is likely to cause deterioration of a	
	water body or its failure to achieve good status or good potential, unless the	
	requirements set out in Regulation 19 are met. A project may be approved in the	
	absence of a qualifying Overriding Public Interest test only if there is sufficient certainty	
	that it will not cause deterioration or compromise the achievement of good status or	
	good potential.	
	5.16.15 The Secretary of State should also consider the interactions of the proposed	
	project with other plans such as Water Resources Management Plans and	
	Shoreline/Estuary Management Plans. 5.15.7 The IPC should consider	
	5.16.16 The Secretary of State should consider proposals to mitigate adverse effects	
	on the water environment and any enhancement measures put forward by the	
	applicant and whether appropriate requirements should be attached to any	
	development consent and/or planning obligations entered into to mitigate adverse	
	effects on the water environment. Mitigation 5.15.8 The IPC should consider whether	
	mitigation measures are needed over and above any which may form part of the	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	project application. (See Sections 4.2 and 5.1.) A construction management plan may	
	help codify mitigation at that stage. 5.15 are necessary. 9 The risk of impacts on the	
	water environment can be reduced through careful design to facilitate adherence to	
	good pollution control practice. For example, designated areas for storage and	
	unloading, with appropriate drainage facilities, should be clearly marked. 5.15.10 The	
	impact on local water resources can be minimised through planning and design for the	
	efficient use of water, including water recycling	
	444274 As defined in the Water Environment (Water Framework Directive (2000/60/EC),) (England and Wales)	
	Regulations 2017, transitional waters are bodies of surface water in the vicinity of river mouths which are partly	
	saline in character as a result of their proximity to coastal waters but which are substantially influenced by freshwater flows.	
	445275 Protected areas are areas which have been designated as requiring special protection under specific	
	Community legislation for the protection of their surface water and groundwater or for the conservation of habitats and species directly depending on water.	
	<sup>146</sup> -2000/60/EC.	
	<sup>147</sup> -See EA document Water resources strategy for England and Wales: water for people and the environment (2009).	
	148276 See https://www.gov.uk/government/publications/marine-strategy-part-one-uk-updated-assessment-and-	
	goodenvironmental-status; See	
	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/522426/LIT_10 445.pdf; see PINS advice: See	
	https://infrastructure.planninginspectorate.gov.uk/wpcontent/uploads/2017/06/advice_note_18.pdf	
	277 See the Water Resources planning guideline: See https://www.gov.uk/government/publications/waterresources-	
	planning-guideline/water-resources-planning-guideline	
	278 Controlled waters include all watercourses, lakes, lochs, coastal waters, and water contained in underground	
	strata.	
	<sup>279</sup> See https://www.legislation.gov.uk/uksi/2017/407/contents/made	
Part 3.3 of Draft EN-3 Fac	ctors influencing site selection and design, and Part 3.7 of Draft EN-3 – Biomass and V	Waste Combustion

Air Quality a	and <u>Green</u>
<b>House Gas</b>	Emissions

## Introduction

3.7.1 The combustion of biomass for electricity generation plays an important role in meeting the UK's energy needs and supports the decarbonisation of the sector. It also has a potentially significant role in supporting delivery towards the UK's net zero target when combined with carbon capture and storage.

3.7.2.5.37 Generic air In accordance with the waste hierarchy<sup>11</sup> Energy from Waste (EfW) also plays an important role in meeting the UK's energy needs. Furthermore, the recovery of energy from the combustion of waste forms an important element of waste management strategies in both England and Wales.

3.7.3 The Biomass Policy Statement<sup>12</sup> sets out the strategic aims for the role of biomass across the economy in the short, medium, and long term in achieving our net zero target.

3.7.4 The upcoming Biomass Strategy will seek to inform decisions on how biomass is supported in the future, reviewing the amount of sustainable biomass available to the UK and how this resource could be best utilised across the economy to help achieve

The principles of the Proposed Scheme reflect matters set out in proposed paragraph 3.7.1, which highlights that combustion of biomass for electricity generation plays an important role in meeting the UK's energy needs and supports the decarbonisation of the sector, and is potentially significant in supporting delivery towards the UK's net zero target when combined with CCS.

The proposed text relating to the draft EN-3 policy for 'Air Quality and Green House Gas Emissions' is sufficiently addressed in Table 1 above. The Applicant therefore considers the Proposed Scheme accords with Part 3.7 of draft EN-3 policy in respect of air quality and GHG emissions. It is noted that the Applicant's Air Quality Assessments were undertaken with reference to the EA's guidance on BAT.

Whilst the SoS does not need to assess individual applications for planning consent against operational carbon emissions and their contribution to carbon budgets, net zero and our international climate commitments, it is nonetheless an important and relevant consideration that the Proposed Scheme does play an important contribution towards net zero.

## **Policy Emerging Policy Text Detailing Changes** our net zero greenhouse gas (GHG) emissions impacts other than CO2 are covered in Section 5.2 of EN-1. In addition there are specific considerations which apply to biomass/ waste combustion plant as set out below. 2.5.38 CO2target, and wider environmental targets. Applicant Assessment **Impacts** Air quality and greenhouse gas emissions may be a significant adverse impact of biomass/waste combustion plant. Although an ES on air emissions will include an assessment of CO2 emissions, the policies set out in Section 2.2 of EN-1 will apply. The IPC does not, therefore need to assess individual applications in terms of carbon emissions against carbon budgets and this section does not address CO2 emissions or any Emissions Performance Standard that may apply to plant. 2.5.39 In addition to the air quality legislation referred to in EN-1 the Waste Incineration Directive (WID) is also relevant to waste combustion plant. It sets out specific emission limit values for waste combustion plants. Applicant's assessment 2.5.40 The applicant's EIA 3.7.36 Applicants should include in the ES an assessment of the air emissions resulting from the proposed infrastructure and demonstrate compliance with the relevant regulations (see Section 5.2 and 5.3 of EN-1). 3.7.37 For combustion plant using CCS, the ES should reflect the latest evidence on the air quality impacts of carbon capture using amine-based solvents. **Mitigation** Air quality and greenhouse gas emissions 3.7.60 Applicants should provide details on the air quality and emissions that will result from their plant, which may include NOx<sup>18</sup>. SOx<sup>19</sup>. NMVOCs<sup>20</sup> or other particulates. They should detail the abatement technologies adopted, which should be those set out in the relevant sector guidance notes as produced by the Environment Agency (EA). The EA will determine if the technology selected for the waste/biomass combustion generating station is considered Best Available Technique (BAT) and therefore the Secretary of State does not need to consider equipment selection in its determination process Secretary of State decision making

Air quality and greenhouse gas emissions

our international climate commitments.

3.7.89 Although a carbon assessment will be provided as part of the ES, the policies set out in Part 2 of EN-1 will apply. As set out in Section 5.3 of EN-1, the Secretary of State does not need to assess individual applications for planning consent against operational carbon emissions and their contribution to carbon budgets, net zero and

## **Assessment of Changes of Relevance**

In relation to paragraph 3.7.37 and 3.7.60, the Applicant has set out throughout the Examination how it has undertaken its air quality assessments with reference to the latest research position in respect of amines, see in particular with the <u>signed SoCG</u> with the <u>Environment AgencyEA</u> (<u>REP8-018 most recent version submitted at Deadline 5 (REP5-016)</u>) and its responses to Deadline 2 submissions (REP4-020). Those submissions (and those that they refer to) explain the results of the assessment of emissions, the mitigation measures that will be secured pursuant to the permit variation, and the Applicant has and will continue to apply BAT.

**Impacts** 

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
Policy	3.7.90 The Secretary of State should otherwise generally give air quality and emissions considerations substantial weight, following the guidance set out in Section 5.2 of EN-1)IPC-decision making 2.5.41.  3.7.91 Compliance with the WID and the Large Combustion Plant Directive13 (LCPDEnvironmental Permitted Regulations (EPR) is enforced through the environmental permitting regime regulated by the Environment Agency (EA)-, Plants not meeting the requirements of the WID and/or LCPDEPR would not be granted a permit to operate. The IPC should refer to the policy in Section 4.10 of EN-1 relating to other regimes. 2.5.42  3.7.92 The pollutants of concern arising from the combustion of waste and biomass may include NOx-14, SOx-15, NMVOCs particulates and CO2 In addition, emissions of heavy metals, dioxins and furans are a consideration for waste combustion generating stations, but limited by the WIDEPR and waste incineration BAT conclusions and regulated by the EA. 2.5.43  3.7.93 Where a proposed waste combustionEfW plant or biomass generating station meets the requirements of WIDthe EPR and BAT conclusions and will not exceed the local air quality standards, the IPCSecretary of State should not regard the proposed waste generating station as having adverse impacts on health. 2.5.44 Similarly, where a proposed biomass combustion generating station meets the requirements of LCPD and will not exceed the local air quality standards, the IPC should not regard the proposed biomass infrastructure as having adverse impacts on health. Mitigation 2.5.45 Abatement technologies should be those set out in the relevant sector guidance notes as produced by the EA. The EA will determine if the technology selected for the waste/ biomass-combustion generating station is considered Best Available Technique (BAT) and therefore the IPC does not need to consider equipment selection in its determination process.	Assessment of Changes of Relevance
	***Large Combustion Plant Directive 2001/80/EC can be found at: <a href="http://eur-lex.europa.eu/LexUriServ/site/en/oj/2001/I-309/I-30920011127en00010021.pdf">http://eur-lex.europa.eu/LexUriServ/site/en/oj/2001/I-309/I-30920011127en00010021.pdf</a> ***Large Combustion Plant Directive 2001/80/EC can be found at: <a href="http://eur-lex.europa.eu/LexUriServ/site/en/oj/2001/I-309/I-30920011127en00010021.pdf">http://eur-lex.europa.eu/LexUriServ/site/en/oj/2001/I-309/I-30920011127en00010021.pdf</a> **Large Combustion Plant Directive 2001/80/EC can be found at: <a href="http://eur-lex.europa.eu/LexUriServ/site/en/oj/2001/I-309/I-30920011127en00010021.pdf">http://eur-lex.europa.eu/LexUriServ/site/en/oj/2001/I-309/I-30920011127en00010021.pdf</a> **Large Combustion Plant Directive 2001/80/EC can be found at: <a href="http://eur-lex.europa.eu/LexUriServ/site/en/oj/2001/I-309/I-30920011127en00010021.pdf">http://eur-lex.europa.eu/LexUriServ/site/en/oj/2001/I-309/I-309/I-30920011127en00010021.pdf</a> **Large Combustion Plant Directive 2001/I-309/I-309/I-30920011127en00010021.pdf      **Large Combustion Plant Directive 2001/I-309/I-309/I-30920011127en00010021.pdf      **Large Combustion Plant Directive 2001/I-309/I-30920011127en00010021.pdf      **Large Combustion Plant Directive 2001/I-309/I-30920011127en000110021.pdf      **Large Combustion Plant Directive 2001/I-3092011.pdf      **Large Combustion Plant Directive 2001/I-3092011.pd	
IPC Impact Assessment Principles (Paragraph 3.7.74 and 3.3.9 of EN-3)	National designations  2.5.333.7.74 In sites with nationally recognised designations (Sites of Special Scientific InterestSSSIs, National Nature Reserves, National Parks, the Broads, Areas of Outstanding Natural Beauty-and, Heritage Coasts, Registered Parks and Gardens and Marine Conservation Zones), consent for renewable energy projects utilising purpose	EN-3 text proposed to replace adopted policy relating to for 'IPC Impact Assessment Principles' is sufficiently addressed in Table 1 above. The Applicant therefore considers the Proposed Scheme accords with Part 2.12 of draft EN-3 policy.

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	grown biomass or energy crops should only be granted where it can be demonstrated that the objectives of designation of the area will not be compromised by the development relevant tests in Sections 5.4 and 5.10 of EN-1 are met, and any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by the environmental, social and economic benefits. 42  **Other locational considerations**  2.5.363.3.9 As most renewable energy resources can only be developed where the resource exists and where economically feasible, the IPCand because there are no limits on the need established in Part 3 of EN-1, the Secretary of State should not use a sequential approach in the consideration of renewable energy projects (for example, by giving priority to the re-use of previously developed land for renewable technology developments).	
Landscape and Visual	Applicant Assessment Impacts Landscape and visual 3.7.38 An assessment of the landscape and visual effects of the proposed infrastructure should be undertaken in accordance with the guidance set out in 5.10 of EN-1. 3.7.39 Consideration should also be given to the potential impact of overshadowing neighbouring land uses.  Mitigation Landscape and visual 3.7.61 Good design that is sympathetic and contributes positively to the landscape character and quality of the area will go some way to mitigate adverse landscape and visual effects. 3.7.62 Applicants should consider the design of the generating station, including the materials to be used in the context of the local landscape character. 3.7.63 Although micro-siting within the development area can help, mitigation is achieved primarily through aesthetic aspects of site layout and building design including size and external finish and colour of the generating station to minimise intrusive appearance in the landscape as far as engineering requirements permit. The precise architectural treatment will need to be site-specific. Introduction 2.5.46 Generic landscape and visual effects are covered in detail in Section 5.9 of EN-1. In addition, there are specific considerations which apply to biomass/ waste combustion generating stations as set out below. 2.5.47 The IPC Secretary of State decision making Impacts	The proposed text relating to the draft EN-3 policy for 'Landscape and Visual' is sufficiently addressed in Table 1 above. In terms of the additional reference to sympathetic design in proposed paragraphs 2.14.5 and 2.14.7, the approach to design including the colour palette in particular is sympathetic to the local landscape character and is secured via Requirement 6 of the DCO (AS-109, Rev08 being submitted at Deadline 6REP9-005; to be superseded by Rev 12 being submitted at Deadline 10) and item D1 of the REAC (AS-124REP9-019).  The Applicant therefore considers the Proposed Scheme accords with Part 3.7 of draft EN-3 policy in respect of landscape and visual matters.

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	Landscape and Visual	
	3.7.94 The Secretary of State should be satisfied that the design of the proposed generating station is of appropriate quality and minimises adverse effects on the landscape character and quality. Applicant's assessment 2.5.48 An assessment of the landscape and visual effects of the proposed infrastructure should be undertaken in accordance with the policy set out in 5.9 of EN-1. IPC decision making 2.5.49 The IPC, visual amenity and quality.	
	3.7.95 The Secretary of State should take into account that any biomass/waste combustion generating station will require a building able to host fuel reception and storage facilities, the combustion chamber and abatement units.	
	3.7.96 The overall size of the building will be dependent on design and fuel throughput, although it is unlikely to be less than 25m in height. External to the building there may be cooling towers, the size of which will also be dependent on the throughput of the generating station. 2.5.50 Good design that contributes positively to the character and quality of the area will go some way to mitigate adverse landscape/visual effects. Development proposals should consider the design of the generating station, including the materials to be used in the context of the local landscape. 2.5.51 Mitigation  3.7.97 The Secretary of State should expect applicants to seek to design the landscape design of is achieved primarily through aesthetic aspects of site layout and building design including size and external finish and colour of the generating station to minimise intrusive appearance in the landscape as far as engineering requirements permit. The precise architectural treatment will need to be site specific. 2.5.52 The IPC should expect applicants to seek to landscape waste/biomass combustion generating station sites to visually enclose them at low level as seen from surrounding external viewpoints. This makes the scale of the generating station less apparent, and helps conceal its lower level, smaller scale features.	
	3.7.98 Earth bunds and mounds, tree planting or both may be used for softening the visual intrusion and may also help to attenuate noise from site activities. However, these features should be sympathetic to local landscape character and follow best practice. <sup>24</sup>	
	3.7.99 If having regard to the considerations in respect of other impacts set out Section 5.10 in EN-1 and this NPS, the Secretary of State is satisfied that the location is appropriate for the project, and that it has been designed sensitively (given the various siting, operational and other relevant constraints) to minimise harm to landscape and visual amenity, the visibility of a EfW plant or biomass electricity generating station should be given limited weight.  24 Such as the 10 characteristics of good design which are set out in the National Design Guide, see	
	https://www.gov.uk/government/publications/national-design-guide and the draft National Model Design Code and guidance notes. See https://www.gov.uk/government/consultations/nationalplanning-policy-framework-and-national-model-design-code-consultation-proposals	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
Biomass/Waste Impacts Waste Management Residue Management	Introduction  2.5.64 Waste combustion generating stations  Applicant Assessment  Impacts  Waste management  3.7.43 EfW plants need not disadvantage reuse or recycling initiatives where the proposed development accords with the waste hierarchy. 2.5.65 National, local and municipal strategies in England and Wales provide policy expectations for waste management at these different geographical levels. Local authorities will be responsible for providing an informative framework for the amount of waste management capacity sought. Information on the type of wastes arising and those that are combustible may also be provided. In Wales, the relevant regional waste plan will set out the strategy for dealing with waste generated in that region and include waste targets. Applicant's assessment 2.5.66 An  3.7.44 Applicants should undertake an assessment of the proposed waste combustion generating station should be undertaken that examinesexamining the conformity of the scheme with the waste hierarchy and the effect of the scheme on the relevant waste planWaste Local Plans or plans where a proposal is likely to involve more than one local authority. 2.5.67 The application  3.7.45 Applicants should set out the extent to which the generating station and capacity proposed contributes to the recovery targets set out in relevant strategies and plansis compatible with, and supports long-term recycling targets, taking into account existing eapacity. 2.5.68 residual waste treatment capacity and that already in development.  3.7.46 It may be appropriate for assessments to refer to the Annual Monitoring Reports published by relevant waste authorities which provide an updated figure of existing waste management capacity and future waste management capacity requirements. 2.5.69  3.7.47 The results of the assessment of the conformity with the waste hierarchy and the effect on relevant waste plans should be presented included in a separate document to accompany the application to the IPC. IPCSecretary of State.  Secretary of State	The proposed text relating to the draft EN-3 policy for 'Biomass/Waste Impacts – Waste Management is sufficiently addressed in Table 1 above.  The Applicant therefore considers the Proposed Scheme accords with Part 3.7 of draft EN-3 policy in respect of waste management matters.
	<u>Waste management</u> 3.7.104 The IPCSecretary of State should be satisfied, with reference to the relevant waste strategies and plans, that the proposed waste combustion generating station is in accordance with the waste hierarchy and of an appropriate type and scale so as not to prejudice the achievement of local or national waste management targets in England and local, regional or national waste management targets in Wales. 3.7.105 Where there are concerns in terms of a possible conflict, evidence should be provided to the	

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	IPCSecretary of State by the applicant as to why this is not the case or why a deviation from the relevant waste strategy or plan is nonetheless appropriate and in accordance with the waste hierarchy. 3.7.106 The Secretary of State should also consider whether a requirement, including monitoring, is appropriate to ensure compliance with the waste hierarchy.	
Residue Management	Introduction 2.5.71 Generic waste management impacts are set out in Section 5.14 of EN-1. In addition, there are specific considerations which apply to waste and biomass combustion generating stations as set out below. All waste/biomass combustion generating stations will produce residues that require further management. Much of the residues can be used for commercial purposes. 2.5.72  **Applicant Assessment**  Impacts  **Residue management**  3.7.48 Generating stations that burn waste (even if mixed with biomass fuel) produce two types of residues:  **combustion residue is inert material from the combustion chamber. The quantity of residue produced is dependent on the technology process and fuel type but might be as much as 30% (in terms of weight) of the fuel throughput of the generating station; and  **efly ash, a residue from flue gas emission abatement technology and usually 3-4% (in terms of weight) of the fuel throughput of the generating station. 2.5.73 Under the WID the  3.7.49 The two residues from waste combustion generating stations cannot be mixed; they must be disposed of separately, under different regimes. 2.5.74  3.7.50 Biomass combustion generating stations will also produce both combustion and flue gas treatment residues. However the residue types can be mixed and managed as ene product for disposal, which must not be mixed. Residues arising from biomass combustion generating stations are usually between 1% and 12% (in terms of weight) of the fuel capacity of the plant. 2.5.75  3.7.51 The regulations engulation of waste disposal for waste combustion and flue gas residues from biomass combustion areignitened to reduce the amount of waste that is sent to landfill. Waste combustion fly ash APCr is classified as a hazardous waste material and needs to be managed as such. 2.5.76  3.7.52 Waste management is covered in the Environmental Permit for operation of waste or biomass generating stations. (See (see Section 5.4415 of EN-1.) Applicant's assessment 2.5.77 The assessment).  3.7.53 Applicants sh	The proposed text relating to the draft EN-3 policy for 'Biomass/Waste Impacts – Residue Management is sufficiently addressed in Table 1 above.  The Applicant therefore considers the Proposed Scheme accords with Part 3.7 of draft EN-3 policy in respect of residue management matters.
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Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	3.7.54 Applicants should set out the consideration they have given to the existence of accessible capacity in waste management sites for dealing with residues for the planned life of the power station. IPC decision making 2.5.79 The IPC should consult the EA on the suitability of the proposals. Mitigation 2.5.83  3.7.55 Applicants must ensure proposals do not result in an over-capacity of EfW	
	waste treatment provision at a local or national level.  Mitigation	
	Residue management	
	3.7.69 The environmental burdens associated with the management of combustion residues can be mitigated through recovery of secondary products, for example aggregate or fertiliser, rather than disposal to landfill. The IPC should give substantial positive weight to development proposals that have a realistic prospect of recovering these materials.	
	3.7.70 The primary management route for fly ash is hazardous waste landfill. However; however, there may be opportunities to reuse this material for example in the stabilisation of industrial waste. The management of hazardous waste will be considered by the EA through the Environmental Permitting regime.	
	3.7.71 The management of hazardous waste will be considered by the EA or NRW through the Environmental Permitting regime. <sup>22</sup>	
	Secretary of State decision making	
	<u>Impacts</u>	
	Residue management	
	3.7.107 The Secretary of State should give substantial weight to development proposals that have a realistic prospect of recovering materials as described in Section 2.7.69 of this NPS.	
	3.7.108 The Secretary of State should consult the EA on the suitability of the proposals.	
	3.7.109 When the Secretary of State considers noise and vibration, release of dust and transport impacts, it should recognise that these impacts may arise from the need for residue disposal as well as other factors.	
	3.7.110 The Secretary of State should be satisfied that management plans for residue disposal satisfactorily minimise the amount that cannot be used for commercial purposes.	
	3.7.111 The Secretary of State should consider what requirements it may be appropriate to impose. If the EA has indicated that there are no known barriers to it issuing an Environmental Permit for operation of the proposed biomass/waste fuelled generating station and agrees that management plans suitably minimise the wider	

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Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	impacts from ash disposal, any residual ash disposal impacts should have limited weight.  22 The Environmental Permitting (England and Wales) Regulations 2016 https://www.legislation.gov.uk/uksi/2016/1154/contents	
Water Quality and Resources	Introduction 2.5.84 Generic water  Applicant Assessment Impacts  Water quality and resources impacts are set out in Section 5.15 of EN 1.  3.7.56 The design of water—cooling systems for EfW and biomass generating stations will have additional impacts on water quality, abstraction and discharge. This can affect marine ecosystems where cooling systems use seawater. These may include:  • discharging water at a higher temperature than the receiving water, affecting the biodiversity of aquatic flora and fauna;  • the use of resources may reduce the flow of watercourses, affecting the rate at which sediment is deposited, conditions for aquatic flora and potentially affecting migratory fish species (e.g. salmon);  • the fish impingement and/or entrainment—i.e. being taken into the cooling system during abstraction; and  • the discharging of water containing chemical anti-fouling treatment of-water-for use in cooling systems may have adverse impacts on aquatic biodiversity. Applicant's assessment 2.5.85  3.7.57 Where the project is likely to have effects on water quality or resources the applicant should undertake an assessment as required in EN-1, Section 5.4516. The assessment should particularly demonstrate that appropriate measures will be put in place to avoid or minimise adverse impacts of abstraction and discharge of cooling water. IPC decision making 2.5.86 The IPC  3.7.58 Applicants should include specific measures to minimise fish impingement and/or entrainment, and the discharge of excessive heat to receiving waters should consider discharge profiles that minimise the impact on temperature and resultant dissolved oxygen levels.  3.7.59 As river and sea temperatures rise (as a result of already locked-in climate change) then the operational constraints necessary to protect ecosystems will also increase. Applicants should consider climate risks when designing water cooling systems — ensuring they're fit for the future. Mitigation Water quality and resources  3.7.72 In addition to the mitigation measures set ou	The proposed text relating to the draft EN-3 policy for 'Water Quality and Resources' is sufficiently addressed in Table 1 above. The Applicant therefore considers the Proposed Scheme accords with Part 3.7 of draft EN-3 policy in respect of water quality and resources.

Policy	Emerging Policy Text Detailing Changes	Assessment of Changes of Relevance
	Secretary of State decision making	
	<u>Impacts</u>	
	Water quality and resources	
	3.7.112 The Secretary of State should be satisfied that the applicant has demonstrated measures to minimise adverse impacts on water quality and resources as described above and in EN-1. Mitigation 2.5.87 In addition to the mitigation measures set out in EN-1, design of the cooling system should include intake and outfall locations that avoid or minimise adverse impacts. There should also be specific measures to minimise fish impingement and/or entrainment and the discharge of excessive heat to receiving waters. Section 5.16 of EN-1.	