# **HyNet North West**

## NATIONAL POLICY STATEMENT TRACKER (CLEAN)

## **HyNet Carbon Dioxide Pipeline**

**Planning Act 2008** 

The Infrastructure Planning (Examination Procedure) Rules 2010 Rule 8(1)(c)

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## **TABLE OF CONTENTS**

1.	INTR	RODUCTION	3
	1.1.	Purpose of this document	3
	1.2.	The DCO Proposed Development	3
2.	APP	LICANT'S RESPONSE	5
TA	BLE	S	
Та	ble 2-	I Accordance with NPS EN-1	5
Та	ble 2-2	2 Accordance with NPS EN-4	50
Та	ble 2-3	3 Accordance with NPS EN-1	5
Та	ble 2-4	4 Accordance with NPS EN-4	50

#### 1. INTRODUCTION

#### 1.1. PURPOSE OF THIS DOCUMENT

- 1.1.1. This document has been prepared on behalf of Liverpool Bay CCS Limited ('the Applicant') and relates to an application ('the Application') for a Development Consent Order (DCO) that has been submitted to the Secretary of State (SoS) for Energy Security and Net Zero (DESNZ) under Section 37 of the Planning Act 2008 ('the PA 2008'). The Application relates to the carbon dioxide (CO<sub>2</sub>) pipeline which constitutes the DCO Proposed Development.
- 1.1.2. Sections 104 and 105 of the PA2008 provide for the approach to be taken to decisions where an NPS has effect (section 104) and where no NPS has effect (section 105). The Applicant considers that, as there is no NPS in force for CO<sub>2</sub> pipelines, the Application falls to be determined under section 105.
- 1.1.3. While NPSs may not have effect in relation to schemes determined under section 105, matters incorporated within them are nonetheless likely to constitute important and relevant considerations in determining such applications and have therefore been considered for the DCO Proposed Development in Appendix B of the Planning Statement [REP1-013] and this document.
- 1.1.4. This document is used to determine the accordance of the DCO Proposed Development with the National Policy Statements (NPSs) considered to be an important and relevant consideration in decision-making by the SoS. The Applicant considers these to be:
  - Overarching National Policy Statement for Energy (EN-1)
  - National Policy Statement for Gas Supply Infrastructure and Gas and Oil Pipelines (EN-4)
- 1.1.5. This document considers compliance of the DCO Proposed Development to the draft NPS EN-1 and EN-4 released by DESNZ on 30 March 2023. The document includes an assessment of policies considered to be relevant to the DCO Proposed Development.
- 1.1.6. Additionally, this document will be reviewed and updated throughout the Examination, when required.

#### 1.2. THE DCO PROPOSED DEVELOPMENT

1.2.1. HyNet (the Project) is an innovative low carbon hydrogen and carbon capture, transport and storage project that will unlock a low carbon economy for the North West of England and North Wales and put the region at the forefront of the UK's drive to Net-Zero. The details of the project can be found in the main DCO documentation.

- 1.2.2. A full description of the DCO Proposed Development is detailed in Chapter 3 of the 2022 Environmental Statement (ES) (as submitted with the DCO application) [APP-055]. The previously submitted ES is hereafter referred to as the '2022 ES'.
- 1.2.3. Following the Preliminary Meeting on 20 March 2023 and the Applicant's submission of its Notification of Intention to Submit a Change Request [AS-060] on 21 March 2023, the Applicant submitted a Change Request on 27 March 2023. The Applicant's Change Request includes '2023 ES Addendum Change Request 1' [CR1-124] and ES Addendum Chapter 3 provides an update to the description of the DCO Proposed Development [APP-055] resulting from the proposed design changes and clarifications to assessments. The change request was accepted on 24 April 2023.

### 2. APPLICANT'S RESPONSE

2.1.1. This chapter sets out the Applicant's assessment of the accordance of the DCO Proposed Development with NPS EN-1 and EN-4 which are submitted by the Applicant to be important and relevant considerations in decision-making by the SoS.

**TABLE 2-1 ACCORDANCE WITH NPS EN-1** 

Overarching National Policy Statement for Energy (EN-1) (July 2011)				
Part 4 – Assessment Princi	Part 4 – Assessment Principles			
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment		
4.1 General points	<ul> <li>4.1.2 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 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.</li> <li>4.1.3 In considering any proposed development, and in particular when weighing its adverse impacts against its benefits, the IPC should take into account: <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> <li>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.</li> </ul> </li> <li>4.1.4 In this context, the IPC 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).</li> <li>4.1.9 In deciding to bring forward a proposal for infrastructure development, the</li> </ul>	The DCO Proposed Development is considered to have demonstrated the financial and technical viability required within this policy. The Funding Statement [APP-029] demonstrates the DCO Proposed Development is financially viable, and funding is not an impediment to delivery.  The Applicant has taken into account environmental, social and economic benefits and adverse impacts, at national, regional and local levels.  Chapter 6 of the Planning Statement [REP1-013] sets out the likely benefits and dis-benefits of the DCO Proposed Development. The Planning Statement also sets out the overall planning balance and policy support for the CO2 pipeline. The urgent need for the DCO Proposed Development and its role in facilitating the wider HyNet Project is explained in the Needs Case [APP-049]. Please also refer to the supporting Statement of Reasons [CR1-020].  This demonstrates that the Applicant has complied with Part 4.1 of EN-1.		
4.2 Environmental Statement	applicant will have made a judgement on the financial and technical viability of the proposed development, within the market framework and taking account of Government interventions. Where the IPC 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 IPC 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).  4.2.1 All proposals for projects that are subject to the European Environmental Impact Assessment Directive must be accompanied by an Environmental Statement (ES) describing the aspects of the environment likely to be significantly affected by the project. The Directive specifically refers to effects on human beings,	The DCO Proposed Development is considered to be Schedule 1 development under <b>paragraph 23</b> of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 ('the EIA Regulations 2017'). It falls under the category of 'Installations for the capture of carbon dioxide streams for the		

Overarching Nationa	Overarching National Policy Statement for Energy (EN-1) (July 2011)			
Part 4 – Assessmen	Part 4 – Assessment Principles			
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment		
	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, 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.  4.2.2 To consider the potential effects, including benefits, of a proposal for a project, the IPC will find it helpful if the applicant sets out information on the likely significant social and economic effects of the development, and shows how any likely significant negative effects would be avoided or mitigated. This information could include matters such as employment, equality, community cohesion and well-being.  4.2.3 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 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 are set out where necessary in sections on individual impacts in this NPS and in the technology-specific NPSs. In the absence of any additional information on additional assessments, the principles set out in this Section will apply to all assessments.	purposes of geological storage pursuant to Directive 2009/31/EC from installations referred to in this Schedule'.  In accordance with the EIA Regulations 2017, the Application therefore includes an ES [APP-051 to APP-245].  An assessment of the DCO Proposed Development's combined and cumulative impacts is included in Chapter 19 of the ES [APP-071].  This demonstrates that the Applicant has complied with Part 4.2 of EN-1.		
	<ul> <li>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.</li> <li>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). The IPC may also have other evidence before it, for example from appraisals of sustainability of relevant NPSs or</li> </ul>			

HyNet Carbon Dioxide Pipeline
Page 7 of 114

development plans, on such effects and potential interactions. Any such information

## Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	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, 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.	
	4.2.7 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.	
	4.2.8 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.	
	4.2.9 Should the IPC 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. Clearly, if development consent is granted for a proposal and at a later stage the developer wishes for technical or commercial reasons to construct it in such a way that its extent will be greater than has been provided for in the terms of the consent, it may be necessary to apply for a change to be made to the development consent, and the application to change the consent may need to be accompanied by further environmental information to supplement the original ES.	
	4.2.10 To help the IPC consider thoroughly the potential effects of a proposed project in cases where the EIA Directive does 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. References to an Environmental Statement in this NPS should be taken as including a statement which provides this information, even if the EIA Directive does not apply.	
4.3 Habitats and Species Regulations	4.3.1 Prior to granting a development consent order, the IPC must, under the Habitats and Species Regulations, (which implement the relevant parts of the Habitats Directive and the Birds Directive in England and Wales) consider whether	The Applicant has provided a Habitat Regulations Assessment [APP-226]. This report has been submitted to the Planning Inspectorate as part of the DCO Application and included in the Environmental Statement (ES) [APP-053 to

Overarching National	Overarching National Policy Statement for Energy (EN-1) (July 2011)		
Part 4 – Assessment F	Principles		
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment	
	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. Further information on the requirements of the Habitats and Species Regulations can be found in a Government Circular. Applicants should also refer to <b>Section 5.3</b> of this NPS on biodiversity and geological conservation. The applicant should seek the advice of Natural England and/or the Countryside Council for Wales, and provide the IPC 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 IPC 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.	APP-060, AS-025, APP-062 to APP-072] which shows accordance with Part 4.3 of NPS EN-1.  Chapter 4 (section 4.2) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 4.3 (Habitats and Species Regulations) of the NPS.  Chapter 4 (section 4.3) of the Planning Statement [REP1-013] also provides an assessment of the DCO Proposed Development against Part 5.3 (Biodiversity and Geological Conservation) of the NPS.  With the inclusion of mitigation measures, it is concluded that the DCO Proposed Development would not adversely affect the integrity of the European Sites either alone or in-combination. Significant effects can be avoided with the inclusion of mitigation and compensation measures.  This demonstrates that the Applicant has complied with Part 4.3 of EN-1.	
4.4 Alternatives	<ul> <li>4.4.1 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 contain any general requirement to consider alternatives or to establish whether the proposed project represents the best option.</li> <li>4.4.2 However: <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 relevant, technical and commercial feasibility; <ul> <li>in some circumstances there are specific legislative requirements, notably under the Habitats Directive, for the IPC to consider alternatives. These should also be identified in the ES by the applicant; and</li> <li>in some circumstances, the relevant energy NPSs may impose a policy requirement to consider alternatives (as this NPS does in Sections 5.3, 5.7 and 5.9).</li> </ul> </li> <li>4.4.3 "Where there is a policy or legal requirement to consider alternatives the applicant should describe the alternatives considered in compliance with these</li> </ul> </li> </ul>	A number of options for the route of the new pipeline were identified and considered, and a sifting process carried out based on environmental, planning and engineering factors. The number of corridor options has been reduced to a single preferred corridor which will be further consolidated through detailed design.  The Applicant is considered to have demonstrated the most viable and least harmful route through the options appraisal as demonstrated within the ES Chapter 4 [APP-056] in compliance with Part 4.4 of EN-1.  Chapter 4 (section 4.2) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 4.4 (Alternatives) of the NPS.  The consideration of alternatives as set out in the ES is considered to be appropriate and proportionate.  This demonstrates that the Applicant has complied with Part 4.4 of EN-1.	

#### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	requirements. Given the level and urgency of need for new energy infrastructure, the IPC should, subject to any relevant legal requirements (e.g. under the Habitats Directive) which indicate otherwise, be guided by the following principles when deciding what weight should be given to alternatives:	
	- the consideration of alternatives in order to comply with policy requirements should be carried out in a proportionate manner;	
	<ul> <li>the IPC 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 and climate change benefits) in the same timescale as the proposed development;</li> </ul>	
	- where (as in the case of renewables) legislation imposes a specific quantitative target for particular technologies or (as in the case of nuclear) there is reason to suppose that the number of sites suitable for deployment of a technology on the scale and within the period of time envisaged by the relevant NPSs is constrained, the IPC should not reject 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 possibility that all suitable sites for energy infrastructure of the type proposed may be needed for future proposals;	
	- alternatives not among the main alternatives studied by the applicant (as reflected in the ES) should only be considered to the extent that the IPC thinks they are both important and relevant to its decision;	
	- as the IPC must decide an application in accordance with the relevant NPS (subject to the exceptions set out in the Planning Act 2008), if the IPC 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 IPC's decision;	
	<ul> <li>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 IPC's decision;</li> </ul>	
	- alternative proposals which are vague or inchoate can be excluded on the grounds that they are not important and relevant to the IPC's decision; and	
	- it is intended that potential alternatives to a proposed development should, wherever possible, be identified before an application is made to the IPC in respect	

Overarching National Policy Statement for Energy (EN-1) (July 2011)				
Part 4 – Assessment Princ	Part 4 – Assessment Principles			
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment		
	of it (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 IPC may place the onus on the person proposing the alternative to provide the evidence for its suitability as such and the IPC should not necessarily expect the applicant to have assessed it.			
4.5 Criteria for "good design" for energy infrastructure	4.5.1 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 sustainable infrastructure sensitive to place, efficient in the use of natural 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. 4.5.2 Good design is also a means by which many policy objectives in the NPS can be met, for example the impact sections show how good design, in terms of siting and use of appropriate technologies can help mitigate adverse impacts such as noise. 4.5.3 In the light of the above, and given the importance which the Planning Act 2008 places on good design and sustainability, the IPC 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. In so doing, the IPC should satisfy itself that the applicant has taken into account 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. Furthermore, the design a	The DCO Proposed Development will utilise best practice through the available technology, industry standards and construction techniques to minimise impacts and local inconvenience appropriately and effectively as demonstrated within Chapter 3 of the Environmental Statement [APP-055].  The design development process included the identification of mitigation commitments, both for mitigation embedded in the design and also good practice mitigation.  There will be a number of permanent BVS and AGI locations across the pipeline route which will typically consist of a fenced compound, cathodic protection transformer rectifier cabinets and some above ground connection.  Chapter 12 of the ES [APP-064] concludes that with the application of mitigation these would not give rise to an adverse significant impact in terms of their visual prominence. Chapter 12 of the ES [APP-064] concludes that with the application of mitigation these would not give rise to a significant adverse impact in terms of their visual prominence.  Chapter 4 (section 4.2) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 4.5 (Criteria for Good Design for Energy Infrastructure) of the NPS.  This demonstrates that the Applicant has complied with Part 4.5 of EN-1.		

Overarching National Policy Statement for Energy (EN-1) (July 2011)		
Part 4 – Assessment Princi	ples	
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	<ul> <li>4.5.4 For the IPC 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 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.</li> <li>4.5.5 Applicants and the IPC should consider taking independent professional advice on the design aspects of a proposal. In particular, Design Council CABE can be asked to provide design review for nationally significant infrastructure projects and applicants are encouraged to use this service</li> </ul>	
4.7 Carbon Capture and Storage (CCS) and Carbon Capture Readiness (CCR)	4.7.7 The most likely method for transporting the captured carbon dioxide is through pipelines. 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.	The DCO Proposed Development will deliver approximately 36km of carbon transporting infrastructure with associated above ground installations, which will lay the foundations for the wider Project as described in <b>Chapter 1</b> and <b>Chapter 3</b> of this Planning Statement [REP1-013]. The Needs Case for the DCO Proposed Development [APP-049] also provides further detailed information.  Chapter 4 (section 4.2) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 4.7 (Carbon Capture and Storage) of the NPS.  The Applicant concludes that the DCO Proposed Development aligns with the Government's encouragement of CCS technology, with potential to exceed the assumed figures set out in Part 4.7  This demonstrates that the Applicant has complied with Part 4.7 of EN-1.
4.8 Climate Change Adaption	<ul> <li>4.8.3 To support planning decisions, the Government produces a set of UK Climate Projections and is developing a statutory National Adaptation Programme. In addition, the Government's Adaptation Reporting Power 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.</li> <li>4.8.4 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</li> </ul>	Climate change adaption has been considered throughout the design and selection process for the proposed route. The risk of flooding, effect of greenhouse gas emissions to the atmosphere, and embedded carbon have been considered as part of the design and assessment of impact and mitigation. This is further expanded on in ES Chapter 7 [APP-059] on climate resilience, ES Chapter 10 [APP-062] on Greenhouse Gases, and ES Chapter 18 [APP-070] on water resource and flood risk and their associated appendices. Climate Change has also been considered cumulatively across each chapter of the ES, wherein the inter-dependencies are assessed. Where a combined impact is considered, it is mitigated or justified accordingly.

Overarching Nationa	Overarching National Policy Statement for Energy (EN-1) (July 2011)		
Part 4 – Assessment	Principles		
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment	
	of protecting against flood risk, there may be consequential impacts on coastal change (see Section 5.5).  4.8.5 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 impacts of climate change when planning the location, design, build, operation and, where appropriate, decommissioning of new energy infrastructure. The ES should set out how the proposal will take account of the projected impacts of climate change. While not required by the EIA Directive, 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 impacts of climate change using the latest UK Climate Projections 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. Should a new set of UK Climate Projections become available after the preparation of the ES, the IPC should consider whether they need to request further information from the applicant.  4.8.7 Applicants should apply as a minimum, the emissions 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 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		

HyNet Carbon Dioxide Pipeline
Page 13 of 114

Overarching National Policy	Overarching National Policy Statement for Energy (EN-1) (July 2011)		
Part 4 – Assessment Principles			
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment	
	4.8.10 If any adaptation measures give rise to consequential impacts (for example on flooding, water resources or coastal change) the IPC 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.		
	4.8.11 Any adaptation measures should be based on the latest set of UK Climate Projections, the Government's latest UK Climate Change Risk Assessment, when available and in consultation with the EA.		
	4.8.12 Adaptation measures can 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 IPC 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).		
4.10 Pollution control and other environmental regulatory regimes  4.10.3 In considering an application for development consent, the IPC should focus 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, 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 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.  4.10.4 Applicants should consult the Marine Management Organisation (MMO) on nationally significant projects which would affect, or would be likely to affect, any	An initial assessment of potential environmental impacts was carried out and included in the EIA Scoping Report [APP-073 and APP-074].  The Outline Construction Environmental Management Plan (OCEMP) [CR1-119 and REP1-017] sets out the actions and measures that would be implemented to control the risk of a pollution incident. This would be consolidated into a Construction Environmental Management Plan (CEMP) during detailed design and applied by a construction contractor. The design will be defined and set out in the ES and elsewhere in the DCO application. The ES Volume II [APP-053 to APP-060, AS-025, APP-062 to APP-072] further illustrates this approach.		
	relevant marine areas as defined in the Planning Act 2008 (as amended by s.23 of the Marine and Coastal Access Act 2009). The IPC consent may include a deemed marine licence and the MMO will advise on what conditions should apply to the	The project will comply with all required regulations under the pollution control framework or other consenting and licensing regimes.	
deemed marine licence. The IPC and MMO should cooperate closely to ensure that energy NSIPs are licensed in accordance with environmental legislation, including	Appendix A of the Consultation Report [APP-032] provides a list of meetings with relevant environmental stakeholders.		
	European directives.  4.10.5 Many projects covered by this NPS will be subject to the Environmental Permitting (EP) regime, which also incorporates operational waste management	Chapter 4 (section 4.2) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 4.10 (Pollution Control and Other Environmental Regulatory Regimes) of the NPS.	
	requirements for certain activities. When a developer applies for an Environmental Permit, the relevant regulator (usually EA but sometimes the local authority)	This demonstrates that the Applicant has complied with Part 4.10 of EN-1.	

#### Part 4 - Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
Τοριστοιίας	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.  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	Compilance Assessment
	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 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 IPC 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	
	<ul> <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>	
	4.10.8 The IPC 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.	
4.11 Safety	4.11.1 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.	The Applicant has engaged and will continue to engage with the HSE with respect to compliance with health and safety legislation, this is shown within the Consultation Report [APP-031].  The OCEMP [REP1-017 and CR1-119] set out the actions and measures that
	4.11.3 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	would be implemented to control the risk of a pollution incident.  Although the pipeline is not a COMAH, COMAH guidance has been referred to in development of the methodologies for hazard identification and the assessment of major accidents.

Part 4 – Assessment Principles		
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	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.	Chapter 4 (section 4.2) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 4.11 (Safety) of the NPS.  This demonstrates that the Applicant has complied with Part 4.11 of EN-1.
	4.11.4 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 IPC should be satisfied that an assessment has been done where required and that the Competent Authority has assessed that it meets the safety objectives described above.	
4.12 Hazardous Substances	4.12.1 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 stage 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 consent. The IPC should consult HSE about this.  4.12.2 HSE will assess the risks based on the development consent application. Where HSE does not advise against the IPC 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 hazardous substances consent and notifies the relevant local planning authorities. The applicant should therefore consult the local planning authority at pre-application 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 particular development on that site.	The Applicant has engaged and will continue to engage with the HSE with respect to compliance with hazardous substances legislation, this is shown within the Consultation Report [APP-031].  Where it is required, other consents have been shown in the Other Consents and Licences Document [REP1-011]. The Applicant knows of no reason as to why these will not be secured.  Chapter 4 (section 4.2) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 4.12 (Hazardous Substances) of the NPS.  This demonstrates that the Applicant has complied with Part 4.12 of EN-1.
4.13 Health	4.13.2 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	From the EIA Scoping Report [APP-073 and APP-074] to the assessment within the ES Volume II Chapters [APP-053 to APP-060, AS-025, APP-062 to APP-072]. The key health impacts have been assessed to be the disruption to group space and nature, effects on communities, traffic transport, connectivity.

health impacts, and identifying measures to avoid, reduce or compensate for these

green space and nature, effects on communities, traffic, transport, connectivity,

<b>Overarching National Poli</b>	cy Statement for Energy (EN-1) (July 2011)		
Part 4 – Assessment Principles			
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment	
	impacts as appropriate. The impacts of more than one development may affect people simultaneously, so the applicant and the IPC should consider the cumulative	severance and physical injury from accidents, soil contamination, noise and vibration, water, major accidents and community wellbeing.	
	impact on health.  4.13.3 The direct impacts on health may include increased traffic, air or water pollution, dust, odour, hazardous waste and substances, noise, exposure to	<b>Chapter 4 (section 4.2)</b> of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 4.13 (Health) of the NPS.	
	radiation, and increases in pests.  4.13.4 New energy infrastructure may also affect the composition, size and proximity of the local population, and in doing so have indirect health impacts, for	Overall, it has been demonstrated within the ES Volume II [APP-053 to Al 060, AS-025, APP-062 to APP-072] that there will be no significant adverse health impacts as a result of the DCO Proposed Development.	
	example if it in some way affects access to key public services, transport or the use of open space for recreation and physical activity.	This demonstrates that the Applicant has complied with Part 4.13 of EN-	
	4.13.5 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 constitute a reason to refused consents or require specific mitigation under the Planning Act 2008. However, the IPC will want to take account of health concerns when setting requirements relating to a range of impacts such as noise.		
4.12 Common Law Nuisance and Statutory Nuisance	4.14.2 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 IPC so that appropriate requirements can be included in any subsequent order granting development consent. (See <b>Section</b>	To reduce the risk of nuisance or environmental incident, which includes noise vibration and air quality, the OCEMP [REP1-017 and CR1-119] sets out a number of good housekeeping measures to be implemented by the contractor at compound sites.	
	5.6 on Dust, odour, artificial light etc. and Section 5.11 on Noise and vibration.)	In accordance with the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (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 Secretary of State (SoS) so that appropriate requirements can be included in any subsequent order granting development consent.	
		The DCO Application is supported with a Statutory Nuisance Statement [APP-047] in order to satisfy the requirements of APFP Regulation 5(2)(f) and paragraph 4.14.2 of EN-1. This document lays out both the likely significant	

and insignificant impacts of proposed works and provides mitigation.

Overarching National Po	olicy Statement for Energy (EN-1) (July 2011)		
Part 4 – Assessment Principles			
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment	
		Chapter 4 (section 4.2) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 4.14 (Common Law Nuisance and Statutory Nuisance) of the NPS.  This demonstrates that the Applicant has complied with Part 4.14 of EN-1.	
4.13 Security Considerations	4.15.3 DECC will be notified at pre-application stage about every likely future application for energy NSIPs, so that any national security implications can be identified. Where national security implications have been identified, the applicant should consult with relevant security experts from CPNI, OCNS and DECC 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 are satisfied that security issues have been adequately addressed in the project when the application is submitted to the IPC, it will provide confirmation of this to the IPC. The IPC should not need to give any further consideration to the details of the security measures in its examination.  4.15.4 The applicant should only 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.	The Applicant has engaged and will continue to engage with BEIS with respect to compliance with security, this is shown within the Consultation Report [APP-031].  Chapter 4 (section 4.2) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 4.15 (Security Considerations) of the NPS.  This demonstrates that the Applicant has complied with Part 4.15 of EN-1.	
Part 5 – Generic Impacts			
5.1 Generic Impacts  5.1.1 Some impacts (such as landscape and visual impacts) arise from the development of any of the types of energy infrastructure covered by the energy NPSs. Others (such as air quality impacts) are relevant to all types of energy infrastructure but nevertheless arise in similar ways from the development of types of energy infrastructure covered in at least two of the energy NPSs. Both these classes of impacts are considered in this Part and are referred to as "generic impacts". However, in some cases the technology-specific NPSs provide detail on the way these impacts arise or are to be considered in the context of applications which is specific to the technology in question. Impacts which are more or less limited to one particular technology are only covered in the relevant technology-specific NPS.  5.1.2 The list of impacts (generic and technology-specific) and the policy in respect of the consideration of impacts in this Part and in the impact section of the		The DCO Proposed Development has engaged with a wide range of national and local environmental organisations, local authorities, other local groups and individual land owners as shown in the Consultation Report [APP-031].  Chapter 4 (section 4.3) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 5.1 (Generic and	

Overarching National	Policy Statement for Energy (EN-1) (July 2011)	
Part 4 – Assessment Principles		
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	intended to provide a list of all possible effects or ways to mitigate such effects. The IPC should therefore consider other impacts and means of mitigation where it determines that the impact is relevant and important to its decision. The technology-specific NPSs may state that certain impacts should be given a particular weight. Where they do not do so, the IPC should follow any policy set out on the level of weight to be given to such impact set out in this NPS. Applicants should identify the impacts of their proposals in the ES in terms of those covered in this NPS and any others that may be relevant to their application.	
	5.1.3 Some of the impact sections in this NPS and the technology-specific NPSs refer to development consent requirements or obligations being a means of securing appropriate mitigation. The fact that the possible use of requirements or obligations are not mentioned in relation to other impacts does not mean that they may not be relevant.	
	5.1.4 Some of the impact sections in this NPS and the technology-specific NPSs also refer to bodies whom the applicant or IPC should consult. The references to specific bodies are not intended to be exhaustive. The fact that in other impact sections no mention is made of such consultation does not mean that the applicant or IPC should not, where appropriate, engage in it. Applicants must also ensure they consult the relevant bodies about their proposed applications in accordance with section 42 to 44 of the Planning Act 2008 and the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009.	
5.2 Air Quality and Emissions	5.2.1 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, or on the wider countryside. Impacts on protected species and habitats are covered in <b>Section 5.3</b> . 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). Levels for pollutants in ambient air are set out in the Air Quality Strategy which in turn embodies EU legal requirements. The Secretary of State for the Department for Environment Food and Rural Affairs is required to make available up to date information on air quality to any relevant interested party.	Air Quality has been taken into consideration in the EIA for the DCO Proposed Development. It has been identified that air quality changes could occur through dust and changes in pollutant levels caused by emissions during construction, through plant machinery and dust pollution and also during operation. However, with the implementation of mitigation measures and controls, the likely effect on human health, amenity and ecological receptors during construction is concluded to be not significant. This is demonstrated in <b>Chapter 6</b> of the ES [APP-058] and its appendices.  It has been identified that air quality changes could occur during construction activity. However, with the application of mitigation measures, the DCO Proposed Development will have no significant adverse effect on air quality
	5.2.2 CO2 emissions are a significant adverse impact from some 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	during construction, operation and decommissioning stages.

Part 4 – Assessment	Principles	
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	decarbonising electricity generation such as EU ETS (see Section 2.2 above), Government has determined that CO2 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 CO2 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 not address CO2 emissions or any Emissions Performance Standard that may apply to plant.  5.2.6 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).  5.2.7 The ES should describe:  - 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;  - the predicted absolute emission levels of the proposed project, after mitigation methods have been applied;  - existing air quality levels and the relative change in air quality from existing levels; and  - any potential eutrophication impacts.  5.2.8 Many activities involving air emissions are subject to pollution control. The considerations set out in Section 4.10 on the interface between planning and pollution control therefore apply.  5.2.9 The IPC should generally give air quality considerations substantial weight where a project would lead to a deterioration in 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.	Chapter 4 (section 4.3) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 5.2 (Air Qualit and Emissions) of the NPS.  This demonstrates that the Applicant has complied with Part 5.2 of EN

HyNet Carbon Dioxide Pipeline
Page 20 of 114

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

Overarching National Policy Statement for Energy (EN-1) (July 2011)			
Part 4 – Assessment Princi	Part 4 – Assessment Principles		
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment	
	to allow the proposal to proceed. In the event that a project will lead to non- compliance with a statutory limit the IPC should refuse consent.		
	5.2.11 The IPC 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.		
	5.2.12 In doing so the IPC may refer to the conditions and advice in the Air Quality Strategy or any successor to it.		
5.3 Biodiversity and Geological Conservation	<ul> <li>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.</li> <li>5.3.4 The applicant should show how the project has taken advantage of opportunities to conserve and enhance biodiversity and geological conservation interests.</li> <li>5.3.5 The Government's biodiversity strategy is set out in 'Working with the grain of nature'. Its aim is to ensure:</li> </ul>	Chapter 9 [AS-025] and Chapter 11 [APP-063] of the ES identifies the baseline biodiversity value, sensitive receptors and ground conditions assessment along the route of the DCO Proposed Development. The impact of construction and operation has been considered. There is a negligible concern related to ecological receptors. Mitigation is applied to seek some minor, positive, long terms effects at a local scale. Whilst maintenance of the DCO Proposed Development may be required throughout its lifecycle, potentially resulting in the need to excavate ground to access the DCO Proposed Development, this is likely to be a rare occurrence and impacts associated with such maintenance activities will be short term, temporary and localised.  A Habitats Regulations Assessment [CR1-121] has also been undertaken and reported in relation to any likely significant effects.  All mitigation measures are set out in the Register of Environmental Actions and Commitments (REAC) [CR1-109 and REP1-015].	
	- 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	Chapter 4 (section 4.3) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 5.3 (Biodiversity and Geological Conservation) of the NPS.	
	- 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.	This demonstrates that the Applicant has complied with Part 5.3 of EN-1.	
	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		

#### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	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 <b>Section 4.4</b> 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.	
	5.3.9 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.	
	5.3.10 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.	
	5.3.11 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 IPC 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.	

#### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	5.3.13 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.	
	5.3.14 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' trees found outside ancient woodland are also particularly valuable for biodiversity and their loss should be avoided. 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.	
	5.3.17 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 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.	
	5.3.18 "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;	
	<ul> <li>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;</li> </ul>	

#### Part 4 - Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	<ul> <li>habitats will, where practicable, be restored after construction works have finished; and</li> <li>opportunities will be taken to enhance existing habitats and, where practicable, to</li> </ul>	
	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 IPC should consider what appropriate requirements should be attached to any consent and/or planning obligations entered into.	
	5.3.20 The IPC 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 (MMO), and whether Natural England (or the Countryside Council for Wales) or the MMO has granted or refused or intends to grant or refuse, any relevant licences, including protected species mitigation licences.	
5.4 Civil and Military Aviation and Defence Interests	5.4.9 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 MoD also operates Air Defence radars and Meteorological radars which have wide coverage over the UK (onshore and offshore). It is important that new energy infrastructure does not significantly impede or compromise the safe and effective use of any defence assets.  5.4.10 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 <b>Section 4.2</b> ).  5.4.11 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.  5.4.12 Any assessment of aviation or other defence interests should include	The DCO Proposed Development falls adjacent to MoD land in Saughill, England. With a construction compound being located in an adjacent land parcel. It is not considered that any impact will be had on this land. This is confirmed through the EIA Scoping Report [APP-073 and APP-074] and response received which concluded that the MoD had no objections to the DCO Proposed Development.  There is an Airbus Aerodrome located 1.68km south of the Order Limits within Flintshire, Wales. Correspondence has been held with Airbus and this can be found within Appendix A of the Consultation Report [APP-032]. It is not considered that the construction, operation or decommissioning of the DCO Proposed Development would impact the setting or operation of the Airbus facility. Where mitigation (such as lighting or height limitations) may be required, it will be embedded accordingly.  Chapter 4 (section 4.3) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 5.4 (Civil and
	potential impacts of the project upon the operation of CNS infrastructure, flight patterns (both civil and military), other defence assets and aerodrome operational procedures. It should also assess the cumulative effects of the project with other relevant projects in relation to aviation and defence.	Military Aviation and Defence Interests) of the NPS.  This demonstrates that the Applicant has complied with Part 5.4 of EN-1.
	5.4.13 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	

#### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	relevant aviation and defence consultees are informed as soon as reasonably possible.	
	5.4.14 The IPC 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. When assessing the necessity, acceptability and reasonableness of operational changes to aerodromes, the IPC should satisfy itself that it has 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 IPC should have regard to interests of defence and national security.	
	5.4.15 If there are conflicts between the Government's energy and transport policies and military interests in relation to the application, the IPC 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.	
	5.4.16 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 IPC 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.	
	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;	

### Part 4 – Assessment Principles

art 4 - Assessment Finiciples		
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	<ul> <li>the development would have an impact on the safe and efficient provision of an 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;</li> </ul>	
	consent should not be granted."	
	5.4.18 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 'Grampian, 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:	
	- 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;	
	<ul> <li>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</li> </ul>	
	- 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. "	

Overarching Nation	nal Policy Statement for Energy (EN-1) (July 2011)	
Part 4 – Assessmen	nt Principles	
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	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	

## 5.6 Dust, Odour, Artificial Light, Smoke, Steam and Insect Infestation

5.6.3 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.

unreasonable for the IPC to require mitigation by way of a reduction in the scale of development, for example, where reducing the tip height of wind turbines in a wind

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

farm would result in a material reduction in electricity generating capacity or operation would be severely constrained. However, there may be exceptional

5.6.4 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 Environmental Statement.

5.6.5 In particular, the assessment provided by the applicant should describe:

- the type, quantity and timing of emissions;

mitigation outweighs the marginal loss of function.

- aspects of the development which may give rise to emissions;
- premises or locations that may be affected by the emissions;
- effects of the emission on identified premises or locations; and
- measures to be employed in preventing or mitigating the emissions.
- 5.6.6 The applicant is advised to consult the relevant local planning authority and, where appropriate, the EA about the scope and methodology of the assessment.
- 5.6.7 The IPC should satisfy itself that:
- 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
- that all reasonable steps have been taken, and will be taken, to minimise any such detrimental impacts.

5.6.8 If the IPC does grant development consent for a project, it should consider whether there is a justification for all of the authorised project (including any associated development) being covered by a defence of statutory authority against

It has been identified that air quality changes could occur through dust and changes in pollutant levels during construction works. Changes in air quality are not anticipated during the operation or decommissioning phases of the DCO Proposed Development.

**Chapter 6** of the ES **[APP-058]** concludes that with the application of mitigation measures, the DCO Proposed Development will have no significant adverse effect on air quality during the construction, operation and decommissioning.

The Construction Dust Assessment [APP-081] provides further detail regarding the approach to mitigation.

The DCO Proposed Development is submitted with a Statutory Nuisance Statement [APP-047] which concludes that with appropriate and embedded mitigation, any adverse impacts can be removed.

**Chapter 4 (section 4.3)** of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 5.6 (Dust, Odour, Artificial Light, Smoke, Steam and Insect Manifestation) of the NPS.

This demonstrates that the Applicant has complied with Part 5.6 of EN-1.

#### Overarching National Policy Statement for Energy (EN-1) (July 2011) Part 4 – Assessment Principles Topic/Policy **NPS Requirement (Relevant Policy Text) Compliance Assessment** nuisance claims. If it cannot conclude that this is justified, it should disapply in whole or in part the defence through a provision in the development consent order. 5.6.10 In particular, the IPC 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, smoke and artificial light from the development. The IPC 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. 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. 5.7 Flood Risk 5.7.2 Climate change over the next few decades is likely to mean milder, wetter Initial assessments of groundwater and surface water quality and resource, winters and hotter, drier summers in the UK, while sea levels will continue to rise. fluvial geomorphology and flood risk have been carried out in order to identify Within the lifetime of energy projects, these factors will lead to increased flood risks the potential significant effects associated with the construction, operation and decommissioning of the DCO Proposed Development on potentially sensitive 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 applicant and receptors. the IPC should take account of the policy on climate change adaptation in **Section** The pipeline route was selected and designed to reduce the impact on flood 4.8. risk, avoiding high levels of flood risk with the whole route within FZ1. 5.7.4 Applications for energy projects of 1 hectare or greater in Flood Zone 1 in Chapter 18 of the ES [APP-070] and its associated appendices assess the England or Zone A in Wales and all proposals for energy projects located in Flood likely significant effects of the DCO Proposed Development on Water Zones 2 and 3 in England or Zones B and C in Wales should be accompanied by a Resources and Flood Risk. This chapter concludes that significant impacts are flood risk assessment (FRA). An FRA will also be required where an energy project likely during the construction phase, rather than the operation or less than 1 hectare may be subject to sources of flooding other than rivers and the decommissioning phases. Embedded mitigation is proposed to remove any sea (for example surface water), or where the EA, Internal Drainage Board or other adverse impacts regarding water resource and flood risk. 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.

5.7.5 The minimum requirements for FRAs are that they should:

The DCO Proposed Development is supported with a Flood Risk Assessment

Consequences Assessment (FCA) [AS-004 to AS-006] for Wales. These have

(FRA) [APP-166 and APP-167] for flood risk areas in England and a Flood

#### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	- be proportionate to the risk and appropriate to the scale, nature and location of the project;	been informed through ongoing engagement with EA, NRW internal drainage boards, local authorities and Natural England.
	- consider the risk of flooding arising from the project in addition to the risk of flooding to the project;	These documents are considered to be in accordance with paragraph 5.7.5 of EN-1 which sets out the minimum requirements in addition to supplementary
	- take the impacts of climate change into account, clearly stating the development lifetime over which the assessment has been made;	guidance documents, Planning Policy Statement 25 (PPS25), TAN15 for Wales (or the latest versions since the adoption of EN-1).
	- be undertaken by competent people, as early as possible in the process of preparing the proposal;	Alltami Brook is noted as an area which is likely to experience a moderate adverse impact as a result of the DCO Proposed Development. However, a
	- consider both the potential adverse and beneficial effects of flood risk	WFD Assessment [APP-165] has concluded compliance with legislation and retention of good status for the water body.
	management infrastructure, including raised defences, flow channels, flood storage areas and other artificial features, together with the consequences of their failure;	Mitigation measures and management plans are secured through the REAC [CR1-109 and REP1-015].
	- consider the vulnerability of those using the site, including arrangements for safe access;	Chapter 4 (section 4.3) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 5.7 (Flood Risk)
	- consider and quantify the different types of flooding (whether from natural and	of the NPS.
	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;	This demonstrates that the Applicant has complied with Part 5.7 of EN-1.
	<ul> <li>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;</li> </ul>	
	- 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;	
	<ul> <li>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;</li> </ul>	
	- 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.	
	5.7.7 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	

HyNet Carbon Dioxide Pipeline
Page 29 of 114

#### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	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 IPC to reach a decision on the application when it is submitted. The IPC should advise applicants to undertake these steps where they appear necessary, but have not yet been addressed.	
	5.7.8 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.	
	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;	
	- 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 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	

#### Part 4 - Assessment Principles

Part 4 – Assessment Principles		
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	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. 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.	
	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 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 <b>Section 4.4</b> above.	
	5.7.14 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.	
	5.7.15 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 where as 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).	

#### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	5.7.16 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;	
	<ul> <li>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</li> </ul>	
	- 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.	
	5.7.17 Exceptionally, where an increase in flood risk elsewhere cannot be avoided or wholly mitigated, the IPC may grant consent if it is satisfied that the increase in present and future flood risk can be mitigated to an acceptable 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 IPC should make clear how, in reaching its decision, it has 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 and other relevant bodies.	
	5.7.19 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:	
	- source control measures including rainwater recycling and drainage;	
	- infiltration devices to allow water to soak into the ground, that can include individual soakaways and communal facilities;	
	- filter strips and swales, which are vegetated features that hold and drain water downhill mimicking natural drainage patterns;	
	- filter drains and porous pavements to allow rainwater and run-off to infiltrate into permeable material below ground and provide storage if needed;	
	- basins ponds and tanks to hold excess water after rain and allow controlled discharge that avoids flooding; and	

#### Part 4 - Assessment Principles

Part 4 – Assessment Principles  Tonio/Policy NRS Poquiroment (Polovent Policy Toyt)  Compliance Assessment		
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	<ul> <li>flood routes to carry and direct excess water through developments to minimise the impact of severe rainfall flooding.</li> </ul>	
	5.7.20 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.	
	5.7.21 The surface water drainage arrangements for any project should 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.	
	5.7.22 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.	
	5.7.23 The sequential approach should be applied to the layout and design of the project. More vulnerable uses should be located on parts of the site at lower probability 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 The receipt of and response to warnings of floods is an essential element in the management of the residual risk of flooding. Flood Warning and evacuation 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 evacuation plan for a manned energy project as part of the FRA. Any emergency planning documents, flood warning and evacuation procedures that are required should be identified in the FRA.	

#### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
5.8 Historic Environment	5.8.5 The absence of designation for such heritage assets does not indicate lower significance. If the evidence before the IPC indicates to it that a non-designated 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 The IPC should also consider the impacts on other non-designated heritage assets, as identified either through the development plan making process (local listing) or through the IPC's decision making process on the basis of clear evidence that the assets have a heritage significance that merits consideration in its decisions, even though those assets are of lesser value than designated heritage assets.  5.8.8 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 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.  5.8.9 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.  5.8.10 The applicant should ensure	The pipeline route of the DCO Proposed Development has been selected to reduce the impact on the historic environment by avoiding where practicable designated heritage assets.  Non-designated and designated heritage assets have been included in the environmental impact assessment as identified within Part 5.8 and assessed against its value based on professional judgements informed by guidance and national policy, this is reported in Chapter 8 of the ES [APP-060].  Consultation and ongoing engagement with heritage advisors of the local planning authority and Historic England identified the need for, scope and scale of archaeological evaluation in support of the application.  Chapter 8 of the ES contains the historic environment assessment undertaken for the DCO Proposed Development. The focus of the assessment is on buried heritage assets (archaeological remains and paleoenvironmental deposits) and above ground heritage assets (buildings, structures, monuments and landscapes of heritage interest), including the character and setting of designated heritage assets.  This visual impact to the landscape is considered further within Chapter 12 of the ES [APP-064] which further concludes that through the use of sufficient mitigation, the impacts of the new above ground infrastructure can be mitigated.  These Chapters conclude that no significant residual effects are anticipated on any other heritage assets or their settings as a result of the construction or operation works.  Chapter 4 (section 4.3) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 5.8 (Historic Environment) of the NPS.  This demonstrates that the Applicant has complied with Part 5.8 of EN-1.

**HyNet Carbon Dioxide Pipeline**National Policy Statement Tracker

#### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	- 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.	
	5.8.12 In considering the impact of a proposed development on any heritage assets, the IPC 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.	
	5.8.13 The IPC 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 IPC 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 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.	
	5.8.17 Where loss of significance of any heritage asset is justified on the merits of the new development, the IPC 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.	
	5.8.18 When considering applications for development affecting the setting of a designated heritage asset, the IPC 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 IPC 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.	

### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	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 secured.	
	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.	
5.9 Landscape and Visual	5.9.5 The applicant should carry out a landscape and visual assessment and report it in the ES. (See <b>Section 4.2</b> ) A number of guides have been produced to assist in addressing landscape issues. 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.	Chapter 12 of the ES [APP-064] and its relevant appendices provide an assessment of the likely significant effects of the DCO Proposed Development on landscape character and visual amenity.  The appendices contain an LVIA Methodology [APP-139]. Chapter 12 concludes that whilst all proposed mitigation will bring a reduction to the visual impact, some significant effects are expected to result on the landscape character and sensitive views as a result of the construction phase of the DCO Proposed Dayslopment.
	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.	Proposed Development.  Vegetation loss prior to construction would cause a primary impact on views during both construction and operation, though this is temporary and proposed to be screened where required. It has been identified, however, that significant
	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.	visual effects would be possible from residential properties close to the pipeline route and sections of Public Right of Way that are in close proximity to, or cross, the emerging route.

Part 4 – Assessment Principles		
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	<ul> <li>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 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.</li> <li>5.9.9 National Parks, the Broads and AONBs have been confirmed by the Government as having the highest status of protection in relation to landscape and scenic 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 decisions. 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.</li> <li>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 interest and consideration of such applications should include an assessment of: <ul> <li>the need for the development, including in terms of national considerations, and the impact of consenting or not consenting it upon the local economy;</li> <li>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</li> <li>any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.</li> <li>5.9.11 The IPC should ensure that any projects consented in these designated areas should</li></ul></li></ul>	Chapter 4 (section 4.3) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 5.9 (Landscape and Visual) of the NPS.  This demonstrates that the Applicant has complied with Part 5.9 of EN-7

HyNet Carbon Dioxide Pipeline
Page 37 of 114

sensitively given the various siting, operational, and other relevant constraints. This

### Part 4 – Assessment Principles

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Fopic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	should include projects in England which may have impacts on National Scenic Areas in Scotland.	
	5.9.14 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 character assessment, these should be paid particular attention. However, local landscape designations 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.	
	5.9.18 All proposed energy infrastructure is likely to have visual effects for many receptors around proposed sites. The IPC 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.	
	5.9.19 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 in judging the weight it should give to the assessed visual impacts of the proposed development.	
	5.9.21 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	

Part 4 – Assessment Principles		
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	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 IPC may decide that the benefits of the mitigation to reduce the landscape and/or visual effects outweigh the marginal loss of function.	
	5.9.22 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.	
	5.9.23 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.	
5.10 Land Use including open space, green infrastructure and Green Belt	5.10.5 The ES (see <b>Section 4.2</b> ) 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.	ES Chapter 11 [APP-063] provides a detailed assessment of the land use impacts of the DCO Proposed Development. It concludes that no significant residual effects for Land and Soils associated with the Construction, Operational or Decommissioning Stages of the DCO Proposed Development are identified.
	5.10.6 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.	<b>Chapter 16</b> of the ES <b>[APP-068]</b> summarises that there would be a residual impact associated with the DCO Proposed Development during construction on community receptors, PRoW's and green infrastructure. Mitigation is included to reduce its significance.
		In addition to this, <b>Chapter 12</b> of the ES <b>[APP-064]</b> provides a detailed assessment of the visual impacts of the DCO Proposed Development. This chapter concludes that through appropriate mitigation, the magnitude of the construction can bring a reduction to potential impacts notwithstanding an
	5.10.7 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.	acknowledgement of a permanent change.  The pipeline route has been designed to avoid built development and proposed major development allocations in adopted and emerging local plans.  Existing land use of open space, sports and recreational facilities is not
	5.10.8 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	affected during the operational stage of the DCO Proposed Development, due

Overarching National Policy Statement for Energy (EN-1) (July 2011) Part 4 – Assessment Principles Topic/Policy **NPS Requirement (Relevant Policy Text) Compliance Assessment** 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. operating impacts are minimal.

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.

5.10.9 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.

5.10.10 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 5.10.17 below).

5.10.11 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 criteria 133 on such developments in Green Belts.

5.10.12 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 not in the circumstances of the application inappropriate development. It may also be possible for an applicant to show that the physical characteristics of a proposed overhead line development or wind farm are such that it has no adverse effects which conflict with the fundamental purposes of Green Belt designation.

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

to the fact that the pipeline would be mainly located below ground and

The pipeline must cross the Cheshire West and Chester Council (CWCC) Green Belt in order to reach the Wales border. As per Chapter 5 of the Planning Statement [REP1-013] the DCO Proposed Development has established "very special circumstances" that demonstrate that the harm to the Green Belt is outweighed by the benefits of the DCO Proposed Development.

Statutory and non-statutory consultation has been completed and the views of the consultees have been given full consideration when selecting the pipeline route as identified within the Consultation Report [APP-031] and the Chapter 4 of the ES [APP-056] on consideration of alternatives.

The DCO Proposed Development crosses grades 1, 2 and 3 agricultural land. This is assessed in ES Chapter 11 [APP-063], which concludes that there will be a net loss of agricultural land through the permanent acquisition of land for above ground infrastructure and land designated for mitigation delivery. Mitigation is proposed, but this does not remove the impact which is acknowledged and considered on balance to be acceptable given the scale of loss.

Chapter 4 (section 4.3) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 5.10 (Land use including Open Space, Green Infrastructure and Green Belt) of the NPS.

This demonstrates that the Applicant has complied with Part 5.10 of EN-1.

Page 40 of 114 **HyNet Carbon Dioxide Pipeline** 

### Part 4 - Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	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.	

### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	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 should assess whether there are very special circumstances to justify any proposed inappropriate development.	
	5.10.19 Although in the case of much 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.	
	5.10.20 Where green infrastructure is affected, the IPC should consider imposing requirements to ensure the 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 new coastal access routes.	
	5.10.21 The IPC should also consider whether mitigation of any adverse effects on green infrastructure and other forms of open space is adequately provided for 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. 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 should ensure that appropriate mitigation measures have been put in place to safeguard mineral resources.	
	5.10.23 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.	

## Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	5.10.24 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 IPC 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.	
5.11 Noise and Vibration	<ul> <li>5.11.3 Factors that will determine the likely noise impact include:</li> <li>the inherent operational noise from the proposed development, and its characteristics;</li> <li>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);</li> </ul>	Chapter 15 of the ES [APP-067] and its relevant appendices reports the outcome of the assessment of likely significant environmental effects arising from the DCO Proposed Development on noise and vibration during the construction, operation and decommissioning stages. Significant impacts caused from likely noise effects arising from the DCO Proposed Development construction activities are proposed to be accordingly mitigated as part of the development of the Detailed Design.
	<ul> <li>the proximity of the proposed development to quiet places and other areas that are particularly valued for their acoustic environment or landscape quality; and</li> <li>the proximity of the proposed development to designated sites where noise may have an adverse impact on protected species or other wildlife.</li> </ul>	The Noise Policy Statement for England and other relevant national policies, regulations, guidance and standards have been considered in the environmental assessment of the potential noise and vibration impacts generated by the DCO Proposed Development. A noise and vibration assessment [CR1-036] has informed the EIA.
	<ul> <li>5.11.4 Where noise impacts are likely to arise from the proposed development, the applicant should include the following in the noise assessment:</li> <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>	Where the pipeline is to be constructed in urban areas the noise impacts are not considered to be significantly more impactful compared to the typically rural route. Good practice measures will be used to minimise the impact on the closest properties, however, there may be some noise impacts temporarily during construction.
	- identification of noise sensitive premises and noise sensitive areas that may be affected;	Ongoing engagement and consultation has taken place with the EA, Local Authorities and Natural England to discuss the approach.
	<ul> <li>- the characteristics of the existing noise environment;</li> <li>- a prediction of how the noise environment will change with the proposed development;</li> </ul>	Anticipated likely noise impacts are raised in the ES as significant. Effects arise from the DCO Proposed Development's construction and decommissioning activities, this established in <b>Chapter 15 [APP-067].</b>
	<ul> <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 as appropriate.</li> </ul>	In the most part, significant impacts caused from noise effects arising from construction activities will be adequately mitigated through measures detailed in the Noise and Vibration Management Plan. The production of a Noise and Vibration Management Plan and agreement with the Local Authorities will be a construction of the
		secured as part of the consolidated CEMP as a DCO requirement. This is considered to reduce the overall impact.

**HyNet Carbon Dioxide Pipeline**National Policy Statement Tracker

### Part 4 – Assessment Principles

Part 4 – Assessment		
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	- measures to be employed in mitigating noise.	Whilst in most part the construction of the DCO Proposed Development would accord with the objectives of Part 5.11 of EN-1 and Part 2.20 of EN-4, in some localised areas along the route the construction and (potential) decommissioning activities will give rise to residual noise effects which would conflict with Part 5.11 of EN-1 and Part 2.20.
	The nature and extent of the noise assessment should be proportionate to the likely noise impact.	
	5.11.5 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 Operational noise, with respect to human receptors, should be assessed	
	using the principles of the relevant British Standards137 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 Standards138 and other guidance which also give examples of mitigation strategies.	
	5.11.7 The applicant should consult EA and Natural England (NE), or the Countryside Council for Wales (CCW), as necessary and in particular with regard to assessment of noise on protected species or other wildlife. The 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.	
	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; optimisation of plant layout to minimise noise emissions; and, where possible, the use of landscaping, bunds or noise barriers to reduce noise transmission.	
	5.11.9 The IPC 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.	
	5.11.10 When preparing the development consent order, the IPC should consider including measurable requirements or specifying the mitigation measures	

HyNet Carbon Dioxide Pipeline
Page 44 of 114

## Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	to be put in place to ensure that noise levels do not exceed any limits specified in the development consent.	
	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 <b>Section 4.1</b> ) 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.	
5.12 Socio-Economic	5.12.2 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 <b>Section 4.2</b> ).	The DCO Proposed Development is considered to address matters related financial and technical viability required within policy as demonstrated by the supporting Needs Case for the DCO Proposed Development [APP-049]. The DCO Proposed Development [APP-049].
	5.12.3 This assessment should consider all relevant socio-economic impacts, which may include:	Funding Statement [APP-029] demonstrates the DCO Proposed Development is financially viable and funding is not an impediment to delivery.
	- the creation of jobs and training opportunities;	Chapter 16 of the ES [APP-068] and its relevant appendices provides an
	- the provision of additional local services and improvements to local infrastructure, including the provision of educational and visitor facilities;	assessment of the likely significant effects of the DCO Proposed Develop on Population and Human Health. It has been identified that potential effects are expected during construction. These effects relate to traffic affecting
	- effects on tourism;	communities in rural and urban areas, noise and vibration, visual, community
	- 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).	severance and change in access. There are no significant effects anticipated during operation.  Consideration of the potential impact of the DCO Proposed Development has informed the selection of the pipeline route, design and construction. The

**HyNet Carbon Dioxide Pipeline**National Policy Statement Tracker

Part 4 – Assessment Principles		
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	There could also be effects on social cohesion depending on how populations and service provision change as a result of the development; and	impact of the pipeline has been assessed as part of the ES [APP-053 to APP-060, AS-025, APP-062 to APP-072].
	projects within a region and these were developed in a similar timeframe, there	Chapter 4 (section 4.3) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 5.12 (Socio-Economic) of the NPS.
	construction workers to meet the needs of other industries and major projects within the region.	This demonstrates that the Applicant has complied with Part 5.12 of EN-1.
	5.12.4 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.	
	5.12.6 The IPC 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 considers to be both relevant and important to its decision.	
	5.12.7 The IPC 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).	
	5.12.8 The IPC should consider any relevant positive provisions the developer 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.	
	5.12.9 The IPC 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.	
5.13 Traffic and Transport	5.13.3 If a project is likely to have significant transport implications, the applicant's ES (see <b>Section 4.2</b> ) should include a transport assessment, using the NATA/WebTAG139 methodology stipulated in Department for Transport guidance140, or any successor to such methodology. Applicants should consult the Highways Agency and Highways Authorities as appropriate on the assessment and mitigation.	Chapter 17 of the ES [APP-069] and its relevant appendices include an assessment of the likely significant effects of the DCO Proposed Development on the environment in respect of Traffic and Transport. This Chapter identifies a number of sensitive receptors and potential effects which are limited exclusively to the construction period of the DCO Proposed Development, and would therefore, by definition, be exclusively temporary in nature, with no
	5.13.4 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,	permanent effects likely. Some temporary effects would be likely to last longer than others and it is considered appropriate to reflect the predicted duration of effects when determining the likelihood of significant effects. Operation and decommissioning of the proposed pipeline are not likely to be significant for

Page 46 of 114

Part 4 – Assessment Principles		
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	walking and cycling, to reduce the need for parking associated with the proposal and to mitigate transport impacts.	transport effects and this is supported by the Transport Assessment [CR1-042].
	5.13.5 If additional transport infrastructure is proposed, applicants should discuss with network providers the possibility of co-funding by Government for any third-party benefits. Guidance has been issued141 in England142 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.	Consultation has been ongoing with both Flintshire County Council (FCC) and Cheshire West and Chester Council (CWCC) Highways Authorities. This consultation has included sharing the scope and conclusions of the transport assessment.  The DCO Proposed Development does not propose to provide any
	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	improvement to, new or additional permanent highway infrastructure. There are temporary measures, diversions etc. which will be introduced during construction. This will be agreed with the highways authorities.
	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.	Mitigation measures are outlined in the Outline Construction Traffic Management Plan (OCTMP) [CR1-117]. Traffic management will be used to mitigate any residual constraints identified along construction traffic routes, as set out in the OCTMP [CR1-117]. This includes the use of restrictions such as speed limit reductions, one-way systems, and traffic signals. The need for these measures has been determined on a case-by-case basis to address identified local risks.
	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.	Trenchless crossing techniques will be utilised to restrict the disturbance to major public highways. Construction compounds will also be used to manage construction traffic and delivery of materials and resources. These facilities will allow works to progress smoothly without reliance on peak time deliveries of staff and materials.
	5.13.8 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.	Chapter 4 of the ES [APP-056] provides a logistical assessment of route selection. A key consideration was to avoid and/or reduce adverse environmental effects, maintain operational efficiency and cost-effective design solutions, and consideration of other relevant matters such as available land planning policy. A three-stage appraisals process was developed to identify the
	5.13.11 The IPC may attach requirements to a consent where there is likely to be substantial HGV traffic that:	preferred route option, which included development of strategic corridors, then route options and then finally, refinement of the preferred route option and siting which best achieves the appraisal criteria.
	- 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;	<b>Chapter 4 (section 4.3)</b> of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 5.13 (Traffic and Transport) of the NPS.
	<ul> <li>make sufficient provision for HGV parking, either on the site or at dedicated facilities elsewhere, to avoid 'overspill' parking on public roads, prolonged queuing</li> </ul>	This demonstrates that the Applicant has complied with Part 5.13 of EN-1.

Overarching National Police	cy Statement for Energy (EN-1) (July 2011)	
Part 4 – Assessment Princ	iples	
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	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.	
	5.13.12 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.	
5.14 Waste Management	5.14.4 All large infrastructure projects are likely to generate 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 Permit, the EA will require the application to demonstrate that processes are in place to meet all relevant EP requirements.	Waste management regulations will be adhered too. Waste will be disposed of in a way that is least damaging to the environment and to human health. The DCO Application is submitted with the Other Consents and Licences Documer [REP1-011] which sets out other environmental licences, consents, and permits (that sit outside of the DCO) including waste, that would be required to build, operate and maintain the DCO Proposed Development.
	5.14.6 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 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.	Chapter 14 of the ES [APP-066] and its relevant appendices reports the outcome of the assessment of the likely significant environmental effects of the DCO Proposed Development on Material Assets and Waste. This Chapter concludes that the assessment of material resource consumption and waste generation and disposal to landfill demonstrates that the DCO Proposed Development will have no significant adverse environmental effects. As such, no additional mitigation measures are required.  Chapter 4 (section 4.3) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 5.14 (Resource and Waste Management) of the NPS.
	5.14.7 The IPC 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:	This demonstrates that the Applicant has complied with Part 5.14 of EN-
	- any such waste will be properly managed, both on-site and off-site;	

HyNet Carbon Dioxide Pipeline
Page 48 of 114

- 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

Part 4 – Assessment Principles		
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	<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>	
	5.14.8 Where necessary, the IPC should use requirements or obligations to ensure that appropriate measures for waste management are applied. The IPC may wish to include a condition on revision of waste management plans at reasonable intervals when giving consent.	
	5.14.9 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 <b>Section 4.10</b> will apply.	
5.15 Water Quality and Resource	5.15.2 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 <b>Section 4.2</b> .)	Initial assessments of groundwater and surface water quality and resource, fluvial geomorphology and flood risk have been carried out in order to identify the potential significant effects associated with the construction, operation and decommissioning of the DCO Proposed Development on potentially sensitive
	5.15.3 The ES should in particular describe:	receptors.
	- 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;	The pipeline route was selected and designed to reduce the impact on flood risk, avoiding high levels of flood risk with the whole route within FZ1.  Chapter 18 of the ES (Water Resource and Flood Risk) [APP-070] and its
	- existing water resources147 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);	associated appendices assess the likely significant effects of the DCO Proposed Development on Water Resources and Flood Risk. This chapter concludes that significant impacts are likely during the construction phase, rather than the operation or decommissioning phases. Embedded mitigatio proposed to remove any adverse impacts regarding water resource and flo risk.
	<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>	The DCO Proposed Development is supported with a FRA [APP-166 and APP-167] for flood risk areas in England and a FCA [AS-004 to AS-006] for Wales.
	- 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.	Ongoing engagement with the EA, NRW, the local authorities and Natural England informed the assessment of flood risk.  These documents are considered to be in accordance with paragraph 5.7.5 of
	5.15.4 Activities that discharge to the water environment are subject to pollution control. The considerations set out in <b>Section 4.10</b> on the interface between planning and pollution control therefore apply. These considerations will also apply	EN-1 which sets out the minimum requirements in addition to supplementary guidance documents Planning Policy Statement 25 (PPS25), TAN15 for Wales (or the latest versions since the adoption of EN-1).
	in an analogous way to the abstraction licensing regime regulating activities that	Alltami Brook is noted as an area which is likely to experience a moderate adverse impact as a result of the DCO Proposed Development. However, a

### Part 4 – Assessment Principles

rait 4 - Assessment Frinciples		
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	take water from the water environment, and to the control regimes relating to works to, and structures in, on, or under a controlled water148.	WFD Assessment [APP-165] has concluded compliance with legislation and retention of good status for the water body.
	<ul> <li>5.15.5 The IPC 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 Framework Directive.</li> <li>5.15.6 The IPC 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 IPC should also consider the interactions of the proposed project with other plans such as Water Resources Management Plans and Shoreline/Estuary Management Plans.</li> <li>5.15.7 The IPC should consider whether appropriate requirements should be attached to any development consent and/or planning obligations entered into to mitigate adverse effects on the water environment.</li> <li>5.15.8 The IPC should consider whether mitigation measures are needed over and above any which may form part of the project application. (See Sections 4.2 and 5.1.) A construction management plan may help codify mitigation at that stage.</li> </ul>	Mitigation measures and management plans are secured through the REAC [CR1-109 and REP1-015].  Chapter 4 (section 4.3) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 5.15 (Water Quality and Resources) of the NPS.  This demonstrates that the Applicant has complied with Part 5.15 of EN-1.

# **TABLE 2-1 ACCORDANCE WITH NPS EN-4**

National Policy Statement for Gas Supply Infrastructure and Gas and Oil Pipelines (EN-4) (July 2011)

Part 2 - Assessment and Te	Part 2 - Assessment and Technology-Specific Information		
Policy	Policy	Policy	
2.2 Climate Change Adaption	<ul> <li>2.2.2 As climate change is likely to increase risks to some of this infrastructure, from flooding or rising sea levels for example, applicants should in particular set out how the proposal would be resilient to: <ul> <li>increased risk of flooding;</li> <li>effects of rising sea levels and increased risk of storm surge;</li> <li>higher temperatures;</li> <li>increased risk of earth movement or subsidence from increased risk of flooding and drought; and</li> <li>any other increased risks identified in the applicant's assessment.</li> </ul> </li> <li>2.2.3 The IPC should expect that climate change resilience measures will form part of the relevant impact assessment in the Environment Statement (ES) accompanying an application. For example, future increased risk of flooding should be covered in the flood risk assessment.</li> </ul>	Climate change adaption has been considered when designing and selecting the route option. The risk of flooding, effect of greenhouse gas emissions to the atmosphere, and embedded carbon have been considered as part of the design and assessment of impact and mitigation. This is further expanded on in ES Chapter 7 [APP-059] and ES Chapter 10 [APP-062] and their associated appendices. Climate Change has also been considered cumulatively across each chapter of the ES, wherein the inter-dependencies are assessed. Where a combined impact is considered, it is mitigated or justified accordingly.  The design of the pipeline has considered those measures to make the pipeline more resilient and safer to climate change, there are no significant impacts on climate change resulting from the laying of this pipeline.  Generally, the use of pipelines offers a betterment on emissions given alternative means of transport such as tanker via road.  Compliance with the Climate Change Adaptation policy in Part 4.8 of EN-1 has been covered in Chapter 4 (section 4.2) of the Planning Statement [REP1-013].  The Applicant also explains in Chapter 4 that the DCO Proposed Development accords with Part 2.2 of EN-4.	
2.3 Consideration of good design	<ul> <li>2.3.1 Section 4.5 of EN-1 sets out the principles for good design that should be applied to all energy infrastructure.</li> <li>2.3.2 For the reasons given there, applicants should demonstrate good design, in particular where mitigating the impacts relevant to the infrastructure.</li> </ul>	The DCO Proposed Development will utilise best practice through the available technology, industry standards and construction techniques to minimise impacts and local inconvenience appropriately and effectively as demonstrated within <b>Chapter 3</b> of the Environmental Statement [APP-055]. The design development process included the identification of mitigation commitments, both for mitigation embedded in the design and also good practice mitigation. There will be a number of permanent BVS and AGI locations across the pipeline route which will typically consist of a fenced compound, cathodic protection transformer rectifier cabinets and some above ground connection. <b>Chapter 12</b> of the ES [APP-064] concludes that with the application of mitigation these would not give rise to a significant adverse impact in terms of their visual prominence.	

**HyNet Carbon Dioxide Pipeline**National Policy Statement Tracker

		The design development process includes the identification of mitigation commitments, for mitigation embedded in design and also good practice mitigation, this is secured through the REAC [CR1-109], [REP1-015] and OCEMP [CR1-119 and REP1-017]. Compliance with the Consideration of Good Design policy in Part 4.5 of EN-1 has already been covered in Chapter 4 (section 4.2) of the Planning Statement [REP1-013].  The Applicant also explains in Chapter 4 that the DCO Proposed Development accords with Part 2.3 of EN-4.
2.4 Hazardous Substances	2.4.1 Section 4.12 of EN-1 sets out the regime for obtaining hazardous substances consent from the IPC where it is required. All establishments wishing to hold stocks of certain hazardous substances, which include oil and gas, above a threshold quantity must apply to the Hazardous Substances Authority (HSA) for hazardous substances consent. In the case of natural gas, the threshold is 15 tonnes. In relation to gas supply infrastructure, the Health and Safety Executive (HSE) will advise the IPC on the risks, taking into account the quantities of gas to be stored, the installation type and specification, and the local population.	The Pipeline Safety Regulations define a 'major accident hazard pipeline' as one which conveys a dangerous fluid, and which has the potential to cause an accident.  The Applicant has engaged and will continue to engage with the HSE with respect to compliance with hazardous substances legislation as shown within the Consultation Report [APP-031].  Where it is required, other consents have been shown in the Other Consents and Licences Document [REP1-011]. The Applicant knows of no reason as to why these would not be secured.  Compliance with the Hazardous Substances policy in Part 4.12 of EN-1 has already been covered in Chapter 4 (section 4.2) of the Planning Statement [REP1-013].  The Applicant also explains in Chapter 4 that the DCO Proposed Development accords with Part 2.4 of EN-4.
2.19 Gas and Oil Pipelines	2.19.8 When designing the route of new pipelines applicants should research relevant constraints including proximity of existing and planned residential properties, schools and hospitals, railway crossings, major road crossings, below surface usage and proximity to environmentally sensitive areas, main river and watercourse crossings. These can be undertaken by means of desk top studies in the first instance, followed up by consulting the appropriate authority, operator, or conservation body if necessary.  2.19.9 Undetected underground cavities from mine workings, abandoned industrial sites and other activities, such as waste disposal, or other utilities' services (water, telecommunication, etc.) could have an effect on the integrity and safety of a pipeline. The effects might include collapse of underground tunnels, damage to utility services and pollution of water courses. Applicants should undertake desktop surveys to identify historic or current mine workings, underground cavities serving industrial usage, the nature of any made ground, waste sites, unexploded	A large number of options for the route of the new pipeline were identified and considered, and a sifting process carried out based on environmental, planning and engineering factors. The number of corridor options has been reduced to a single preferred corridor which will be further consolidated through detailed design.  The Applicant is considered to have demonstrated the most viable and least harmful route through options appraisal as demonstrated within the <b>Chapter 4</b> of the ES <b>[APP-056]</b> in compliance with Part 4.4 of EN-1 and Part 2.19 of EN-4.  Following Statutory consultation some detailed design refinement to reduce the impact of the pipeline has been undertaken and this route is now proposed in this DCO Application.

### National Policy Statement for Gas Supply Infrastructure and Gas and Oil Pipelines (EN-4) (July 2011)

ordnance, utility services and any other below surface usage when assessing routes for a pipeline.

2.19.10 When choosing a pipeline route, applicants should seek to avoid or minimise adverse effects from usage below the surface. Where it is not considered practicable to select a route that avoids below surface usage, applicants should demonstrate in the ES that mitigating measures will be put in place to avoid adverse effects both on other below ground works and on the pipeline. Mitigating measures may include: protection or diversion of underground services; gas detection near landfill sites; horizontal direct drilling (HDD) techniques and rerouting. Contaminated material may need to be removed and disposed of.

# 2.20 Gas and Oil Pipelines: Noise and Vibration

2.20.2 During the pre-construction phase there could be vibration effects from seismic surveys. During construction, tasks may include site clearance, soil movement, ground excavation, tunnelling, trenching, pipe laying and welding, and ground reinstatement. In addition, increased HGV traffic will be generated on local roads for the movement of materials. These types of noise and vibration impacts will need to be assessed.

2.20.3 The commissioning of a new pipeline can involve extensive periods of drying after hydrotesting, using air compressors, and noise mitigation may be required for this type of activity.

2.20.4 A new gas pipeline may require an above ground installation such as a gas compression station on the route of the pipeline to boost transmission line pressure. A new oil pipeline may require pumping stations. These may be located in quiet rural areas, and therefore the control of noise from these facilities is likely to be an important consideration.

2.20.5 The ES should include an assessment of noise and vibration effects (see Section 5.11 of EN-1) including the specific issues outlined above, where they are relevant.

2.20.7 Noise mitigation measures for gas and oil pipelines, in particular their associated above-ground installations, include screening or enclosure of compressors and pumps. Other measures could include the use of sound attenuators on ventilation systems, acoustic lagging on pipework, multi-stage (inherently quiet) control valves, gas turbine exhaust silencers, and high efficiency low speed cooler fans, depending on the specific issues. Vibration mitigation measures could include the use of non-impact piling such as augur boring.

**Chapter 15** of the ES [APP-067] and its relevant appendices reports the outcome of the assessment of likely significant environmental effects arising from the DCO Proposed Development on noise and vibration during the construction, operation and decommissioning phases. Significant impacts caused from likely noise effects arising from the DCO Proposed Development construction activities are proposed to be accordingly mitigated as part of the development of the Detailed Design.

The Noise Policy Statement for England and other relevant national policies, regulations, guidance and standards have been considered in the environmental assessment of the potential noise and vibration impacts of generated by the DCO Proposed Development. A noise and vibration assessment [CR1-036] has informed the EIA.

Where the pipeline is to be constructed in urban areas the noise impacts are not considered to be significantly more impactful compared to the typically rural route. Good practice measures will be used to minimise the impact on the closest properties, however, there may be some noise impacts temporarily during construction.

Ongoing engagement and consultation with the EA, Local Authorities and Natural England will be undertaken to discuss approach.

Anticipated likely noise impacts are raised in the ES as significant. Effects arise from the DCO Proposed Development's construction and decommissioning activities, this established in **Chapter 15 [APP-067].** In the most part, significant impacts caused from noise effects arising from construction activities will be adequately mitigated through measures detailed in the Noise and Vibration Management Plan. The production of a Noise and Vibration Management Plan and agreement with the Local Authorities will be secured as part of the consolidated CEMP as a DCO requirement. This considered to reduce the overall impact.

National Policy Statement f	or Gas Supply Infrastructure and Gas and Oil Pipelines (EN-4) (July 2011)	
		Whilst in most part the construction of the DCO Proposed Development would accord with the objectives of Part 5.11 of EN-1 and Part 2.20 of EN-4, in some localised areas along the route the construction and (potential) decommissioning activities will give rise to residual noise effects which would conflict with Part 5.11 of EN-1 and Part 2.20.
2.21 Gas and Oil Pipeline impacts: Biodiversity, Landscape and Visual	<ul> <li>2.21.3 The ES should include an assessment of the biodiversity and landscape and visual effects of the proposed route and of the main alternative routes considered (see Section 5.9 of EN-1). The application should also include proposals for reinstatement of the pipeline route as close to its original state as possible and take into account any requirements for agreements with the landowner to access areas for aftercare and management work. Where it is unlikely to be possible to restore landscape to its original state, the applicant should set out measures to avoid, mitigate, or employ other landscape measures to compensate for, any adverse effect on the landscape.</li> <li>2.21.5 Mitigation measures to protect the landscape and ecology could include reducing the working width required for the installation of the pipeline in order to reduce the impact on the landscape where it will not be possible to fully reinstate the route.</li> <li>2.21.6 In circumstances where the habitat to be crossed contains ancient woodland, trees subject to a Tree Preservation Order, or hedgerows subject to the Hedgerows Regulations 1997, the applicant should consider whether it would be feasible to use horizontal direct drilling under the ancient woodland or thrust bore under the protected tree or hedgerow and the IPC should consider requiring this, where not included in the proposal.</li> </ul>	Chapter 12 of the ES [APP-064] and its relevant appendices provide an assessment of the likely significant effects of the DCO Proposed Development on landscape character and visual amenity. The appendices contain the Landscape and Visual Impact Assessment (LVIA) Methodology [APP-140]. Chapter 12 concludes that whilst all proposed mitigation will bring a reduction to the visual impact, some significant effects are expected to result on the landscape character and sensitive views as a result of the construction phase of the DCO Proposed Development.  Vegetation loss prior to construction would cause a primary impact on views during both construction and operation, though this is temporary and proposed to be screened where required. It is proposed to reinstate land to its former use where possible.  During operation, above ground infrastructure will be a more permanent fixture on the landscape. Mitigation is proposed as outlined within the REAC [CR1-109 and REP1-015] such as landscape planting. Whilst this will take time to fully screen any infrastructure, it is considered that it will reduce the impact of the DCO Proposed Development over time. The Landscape and Ecological Mitigation Plan [APP-230] highlights the proposed screening.  Compliance with the Biodiversity policy in Part 5.13 of EN-1 and the Landscape policy in Part 5.9 of EN-1 has already been covered in Chapter 4 (section 4.2) of the Planning Statement [REP1-013].  The Applicant also explains in Chapter 4 that the DCO Proposed Development accords with Part 2.21 of EN-4.
2.22 Gas and Oil Pipeline impacts: Water Quality and Resource	2.22.3 Where the project is likely to have effects on water resources or water quality, for example impacts on groundwater recharge or on existing surface water or groundwater abstraction points, or on associated ecological receptors, the applicant should provide an assessment of the impacts in line with <b>Section 5.15</b> of EN-1 as part of the ES.	Initial assessments of groundwater and surface water quality and resource, fluvial geomorphology and flood risk have been carried out in order to identify the potential significant effects associated with the construction, operation and decommissioning of the DCO Proposed Development on potentially sensitive receptors.
	2.22.4 Where the project is likely to give rise to effects on water quality, for example through siltation or spillages, discharges from maintenance activities or the discharge of disposals such as wastewater or solvents, the applicant should provide an assessment of the impacts.	The pipeline route was selected and designed to reduce the impact on flood risk, avoiding high levels of flood risk with the whole route within FZ1.  Chapter 18 of the ES [APP-070] and its associated appendices assess the likely significant effects of the DCO Proposed Development on Water

### National Policy Statement for Gas Supply Infrastructure and Gas and Oil Pipelines (EN-4) (July 2011)

2.22.5 The IPC should be satisfied that the impacts on water quality and resources are acceptable in accordance with **Section 5.15** of EN-1. The IPC should liaise with the EA over the potential for the new development to result in loss or reduction of supply to any licensed abstraction or unlicensed groundwater abstraction, or any potential interference with current legitimate uses of groundwater or surface waters, taking account of the terms of any relevant environmental permits or any negative effect on a groundwater dependent ecosystem.

2.22.6 Mitigation measures to protect the water environment may include techniques for crossing rivers and managing surface water before and after construction, including restoring vegetation and using sustainable drainage systems to control run-off.

2.22.7 Mitigation measures to protect water quality may include:

- the avoidance of vulnerable groundwater areas or appropriate use of above ground pipeline facilities;
- use of the highest specification pipework and best practice in the storage and handling of pollutants to prevent spillage;
- careful storage of excavated material away from watercourses and facilities for the disposal of sewage and waste;
- use of sustainable drainage systems; and
- careful reinstatement of riverbanks and reed beds.

Resources and Flood Risk. This chapter concludes that significant impacts are likely during the construction phase, rather than the operation or decommissioning phases. Embedded mitigation is proposed to remove any adverse impacts regarding water resource and flood risk.

The DCO Proposed Development is supported with a FRA [APP-166 and APP-167] for flood risk areas in England and a FCA [AS-004 to AS-006] for Wales. Ongoing engagement with the EA, NRW, the local authorities and Natural England informed the assessment of flood risk.

These documents are considered to be in accordance with paragraph 5.7.5 of EN-1 which sets out the minimum requirements in addition to supplementary guidance documents Planning Policy Statement 25 (PPS25), TAN15 for Wales (or the latest versions since the adoption of EN-1).

Compliance with the Water Quality and Resource policy in Part 5.15 of EN-1 has already been covered in **Chapter 4 (section 4.2)** of the Planning Statement [REP1-013].

The Applicant also explains in Chapter 4 that the DCO Proposed Development accords with Part 2.22 of EN-4.

# 2.23 Gas and Oil Pipeline impacts: Soil and Geology

2.23.2 Applicants should assess the stability of the ground conditions associated with the pipeline route and incorporate the findings of that assessment in the ES (see **Section 4.2** of EN-1) as appropriate. Desktop studies, which include known geology and previous borehole data, can form the basis of the applicant's assessment. The applicant may find it necessary to sink new boreholes along the preferred route to better understand the ground conditions present. The assessment should cover the options considered for installing the pipeline and weigh up the impacts of the means of installation. Where the applicant proposes to use horizontal directional drilling (HDD) as the means of installing a pipeline under a National or European Site and mitigating the impacts, the assessment should cover whether the geological conditions are suitable for HDD.

2.23.3 When considering any application where the pipeline goes under a designated area of geological or geomorphological interest, the applicant should submit details of alternative routes, which either bypass the designated area or reduce the length of pipeline through the designated area to the minimum possible, and the reasons why they were discounted.

The predominant soils are freely draining slightly acid to acid loamy soils with more limited areas of freely draining lime-rich soils along with more limited areas of freely draining lime-rich soils and seasonally waterlogged loamy and clayey soils. The area of soil mapped as peat is relatively small.

The DCO Proposed Development has looked at a range of impacts relating to land contamination, geology, soils (type and quality) and mineral resource. Trenchless construction techniques including Horizontal Direction Drilling is proposed as part of the DCO Proposed Development.

**Chapter 11** of the ES **[APP-063]** provides a detailed assessment of the land use impacts of the DCO Proposed Development. It concludes that no significant residual effects for Land and Soil associated with the Construction, Operational or Decommissioning phases of the DCO Proposed Development are identified. A loss of agricultural land is acknowledged as permanent.

All mitigation measures can be found in the ES [APP-053 to APP-060, AS-025, APP-062 to APP-072] and REAC [CR1-109 and REP1-015] with

### National Policy Statement for Gas Supply Infrastructure and Gas and Oil Pipelines (EN-4) (July 2011)

2.23.4 Applicants should consult with the relevant statutory consultees at an early stage.

2.23.5 The IPC should take into account the impact on and from geology and soils when considering a pipeline project. A proposal will be acceptable from the point of view of soil and geology if the applicant has proposed a route and other measures (if applicable) that either eliminates any adverse impacts on soil and geology or reduces them to an acceptable level and that the route chosen does not adversely affect the integrity of the pipeline, for example, by increasing materially the risk of fracture or impact on areas of high population. The HSE can advise on the suitability of the pipeline route and on the design of the pipeline.

2.23.6 Where the applicant has considered and discounted a route or routes on the ground that the soil is unstable and susceptible to landslip, the IPC should consult the HSE for their views on its suitability and its impact on the integrity of the pipeline.

2.23.7 Mitigation measures to minimise any adverse effects on soil and geology should include measures to ensure that residual impacts on the surface are minor, for example some differential vegetation growth. Mitigation measures should include appropriate treatment of soil (and in particular topsoil) during site construction and other infrastructure activity (and appropriate soil storage and reinstatement in line with the principles and practices outlined in the Code of Practice for the Sustainable Management of Soils on Construction Sites. The IPC should consider what appropriate conditions should be attached to any consent.

2.23.8 Where HDD is proposed, the applicant should provide an alternative plan for installing the pipeline in the event that HDD fails. Such alternative means could include open cut, micro-tunnelling and tunnelling.

Consultation with relevant stakeholders recorded in the Consultation Report [APP-032].

HyNet Carbon Dioxide Pipeline
Page 56 of 114

## TABLE 2-3 ACCORDANCE WITH DRAFT NPS EN-1

# DRAFT: Overarching National Policy Statement for Energy (EN-1) (March 2023)

Part 4 – Assessment Principles		
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
4.1 General Policies and Considerations	<ul> <li>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 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.</li> <li>4.1.5 In considering any proposed development, and in particular when weighing its adverse impacts against its benefits, the SoS should take into account: <ul> <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</li> <li>its potential adverse impacts, including on the environment, and including any long-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts, following the mitigation hierarchy</li> <li>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 and seek to maintain and enhance biodiversity and in so doing promote the resilience of ecosystems, so far as consistent with the propose exercise of the Secretary of State's functions.</li> <li>4.1.6 In this context, the Secretary 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)</li> <li>4.1.2.1 In deciding to bring forward a proposal for infrastructure development, the applicant will have made a judgement on the financial viability and technical feasibility of t</li></ul></li></ul>	The DCO Proposed Development is considered to have demonstrated the financial and technical viability required within this policy. The Funding Statement [APP-029] demonstrates the DCO Proposed Development is financially viable and funding is not an impediment to delivery.  Chapter 6 of the Planning Statement [REP1-013] sets out the likely benefits and dis-benefits of the DCO Proposed Development. The Planning Statement also sets out the overall planning balance and policy support for the CO2 pipeline. The Applicant has taken into account environmental, social and economic benefits and adverse impacts, at national, regional and local levels and justified the urgent need for the DCO Proposed Development and its role in facilitating the wider HyNet Project within the Needs Case for the DCO Proposed Development [APP-049].  Please also refer to the supporting Statement of Reasons [CR1-020].  The Applicant has also provided, in accordance with EN-1, an Environmental Statement [APP-051 to APP-072, CR1-124] which provides a summary of how the design has evolved, what likely significant environmental effects are predicted and how these have been mitigated or compensated for.  Consultation and engagement have played a critical role in ensuring that the scope of the ES is agreed upon with all relevant stakeholders. The Applicant has consulted with organisations, such as the Environment Agency and Natural Resources Wales.  The ES sets out and likely significant effect during the construction, operation and decommissioning phases and advises on any impacts and relevant mitigation required. All mitigation measures are set out in the Register of Environmental Actions and Commitments (REAC) [CR1-109 and REP1-015].  This demonstrates that the Applicant has complied with Part 4.1 of draft EN-1.

**HyNet Carbon Dioxide Pipeline**National Policy Statement Tracker

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NPS Requirement (Relevant Policy Text)	Compliance Assessment
reasons why financial viability or technical feasibility is likely to be of relevance explained)	
The government has announced plans to bring forward legislation to replace the existing EU generated systems of Environmental Impact Assessment Directive and Strategic Environmental Assessment with a domestic framework of environmental assessment. The new system would be brought forward through subsequent regulations following further consultation. Environmental assessment would still be required and if introduced relevant plans and projects would have to comply with such regulations. Until a new system is implemented, current legislation on environmental assessment continues to apply.	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 replat the EU generated EIA, current legislation will continue to apply.  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. the Applicant will achieve minimum of 10% BNG. This is to be secured through development consent
<ul> <li>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.</li> <li>4.2.2 The Regulations specifically refer to effects on population, human health, biodiversity, land, soil, water, air, climate, the landscape, material assets and cultural heritage, and the interaction between them.</li> </ul>	obligation agreements.  The DCO Proposed Development is considered to be Schedule 1 development under <b>paragraph 23</b> of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 ('the EIA Regulations 2017'). It falls under the category of 'Installations for the capture of carbon dioxide streams for the purposes of geological storage pursuant to Directive 2009/31/EC from installations referred to in this Schedule'.
<ul> <li>4.2.3 The 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 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</li> <li>4.2.4 To consider the potential effects, including benefits, of a proposal for a project, the applicant must set out information on the likely significant environmental, social and economic effects of the development, and show how any likely significant negative effects would be avoided, 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.</li> <li>4.2.5 For the purposes of this NPS and the technology specific NPSs the ES should</li> </ul>	In accordance with the EIA Regulations 2017, the Application therefore includes an ES [APP-051 to APP-245]. The ES submitted with the DCO Application addresses transboundary effects across all chapters and the assessments undertaken.  The Applicant considers alternatives at Chapter 3 of the ES [APP-056], and the Environmental Statement Addendum supporting Change Request 1 [CR1-124] and demonstrates that the Order Limits are the only suitable location to deliver the DCO Proposed Development. A number of options for the route of the new pipeline were identified and considered, and a sifting process carried out based on environmental, planning and engineering factors. The number of corridor options has been reduced to a single preferred corridor which will be further consolidated through detailed design.  The Applicant has demonstrated the most viable and least harmful route through the options appraisal as demonstrated within the ES.  Chapter 4 (section 4.2) of the Planning Statement [REP1-013] provides an
	reasons why financial viability or technical feasibility is likely to be of relevance explained)  The government has announced plans to bring forward legislation to replace the existing EU generated systems of Environmental Impact Assessment Directive and Strategic Environmental Assessment with a domestic framework of environmental assessment. The new system would be brought forward through subsequent regulations following further consultation. Environmental assessment would still be required and if introduced relevant plans and projects would have to comply with such regulations. Until a new system is implemented, current legislation on environmental assessment continues to apply.  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.  4.2.2 The Regulations specifically refer to effects on population, human health, biodiversity, land, soil, water, air, climate, the landscape, material assets and cultural heritage, and the interaction between them.  4.2.3 The 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 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 and temporary, positive and negative effects at all stages of the project, and also of the measures envisaged for avoiding or mitigating significant environmental social and economic effects of the development, and show how any likely significant negative

Part 4 – Assessment Principles		
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	4.2.6 Where the NPSs use the term 'environment' they are referring to both the natural and historic environments.	The consideration of alternatives as set out in the ES by the Applicant is considered to be appropriate and proportionate.
	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.	An assessment of the DCO Proposed Development's combined and cumulative impacts is included in <b>Chapter 19</b> of the ES <b>[APP-071]</b> .
	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.	This demonstrates that the Applicant has complied with Part 4.2 of draf EN-1.
	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.98	
	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.	
	4.2.12 Where some details are still to be finalised, the ES should, to the best of the applicant's knowledge, assess the likely worst-case environmental, social and economic effects of the proposed development to ensure that the impacts of the project as it may be constructed have been properly assessed.	
	4.2.13 To help the Secretary of State consider thoroughly the potential effects of a proposed project in cases where the EIA Regulations do 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.	

HyNet Carbon Dioxide Pipeline
Page 59 of 114

4.2.14 References to an ES in this NPS and the technology specific NPSs should be taken as including a statement which provides this information, even if the EIA

# DRAFT: Overarching National Policy Statement for Energy (EN-1) (March 2023)

## Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	Regulations do not apply 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 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 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:	
	the consideration of alternatives in order to comply with policy requirements should be carried out in a proportionate manner	
	only alternatives that can meet the objectives of the proposed development need to be considered	

# DRAFT: Overarching National Policy Statement for Energy (EN-1) (March 2023)

### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	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 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.	

DRAFT: Overarching National Policy Statement for Energy (EN-1) (March 2023)			
Part 4 – Assessment I	Part 4 – Assessment Principles		
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment	
	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.		
4.3 Health	4.3.1 Energy infrastructure 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.  4.3.2 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.  4.3.3 New energy infrastructure may also affect the composition and size 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.  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 humans, the ES should assess these effects for each element of the project, identifying any potential adverse health impacts, and identifying measures to avoid, reduce or compensate for these impacts as appropriate.  4.3.5 The impacts of more than one development may affect people simultaneously, so the applicant should consider the cumulative impact on health in the ES where appropriate.  4.3.6 Opportunities should be taken to mitigate indirect impacts, by promoting local improvements to encourage 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.  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		

HyNet Carbon Dioxide Pipeline
Page 62 of 114

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.  4.4.4 In Wales, the Welsh National Marine Plan 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.  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	Post 4 - Assessment Britariulus		
is unlikely that health concerns will either by themselves constitute a reason to refuse consent or require specific mitigation under the Planning Act 2008.  4.3.8 However, not 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.  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. Manne plans apply in the "marine area", which is a trea 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 told.  4.4.1 n Wales, the Weish National Marine Plan sets out Weish Ministers' expectations that nationally significant infrastructure projects contribute to the well-being of Weish communities and the sustainable management of natural resources and should seek to deliver leasting 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.  4.4.7 Applicants are encouraged to approach the marine licensing regulator (MMO in England and Natural Resources Wales in Wales) in pre-application.  Applicant assessment  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 assessment as part of their project development, using this information to support an application for development consent.  4.4.9 A	Part 4 – Assessment Princi	pies	
4.3.8 However, not 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.  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. Martine plans apply in the 'marine area', which is the area from mean high water spring to the seaward limit of the Exclusive Economic Zone (EEZ). The 'marine area' also includes the waters of any vire or channel, so far as the tide flows at mean high water spring tide.  4.4.1 in Wales, the Welsh National Marine Plan 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.  4.7.7 Applicants are encouraged to approach the marine licenses alongside their DCO application.  Applicant assessment  4.8.8 Applicants for a development consent order must take account of any relevant Marine Plans and are expected to complete a Marine Plan assessment and pre-population, to inform project planning, for example to avoid less favourable in pre-application, to inform project planning, for example to avoid less favourable in pre-application, to inform project planning, for example to avoid less favourable in pre-application, to inform project planning, for example to avoid less favourable in pre-application, to inform project planning, for example to avoid less favourable in pre-application, to inform project planning, for example to avoid less favourable in the p	Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
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.  4.4.4 Marine Considerations  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.  4.4.4 In Wales, the Welsh National Marine Plan 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.  4.5. Defra are producing guidance to help applicants and regulators understand how to use the miligation hierarchy for environmental impacts on Marine Protected Areas (MPAs), including strategic approaches.  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, to ensure that they are aware of any needs for additional marine licenses alongside their DCO application, to ensure that they are aware of any needs for additional marine licenses alongside their DCO application, to ensure that they are aware of any needs for additional marine licenses alongside their DCO application, to ensure that they are aware of any needs for additional marine licenses alongside their DCO application, to ensure that they are aware of any needs for additional marine licenses alongside their DCO application, to ensure that they are aware of any needs for			
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.  4.4.4 In Wales, the Welsh National Marine Plan 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.  4.4.7 Applicants are encouraged to approach the marine licensing regulator (MMO in England and Natural Resources Wales in Wales) in pre-application.  Applicant assessment  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, to inform project planning, for example to avoid less favourable		way and the Secretary of State may want to take account of health concerns when	
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		in pre-application, to inform project planning, for example to avoid less favourable	
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DRAFT: Overarching National Policy Statement for Energy (EN-1) (March 2023)		
Part 4 – Assessment Princ	ciples	
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	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.	
4.5 Environmental and Biodiversity Net Gain	<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>	4.5.1 States development should not only mitigate harm but consider opportunities for biodiversity enhancement. The DCO Proposed Development sets out a scheme of mitigation which will protect and enhance biodiversity. However, proposed paragraph 4.5.17 confirms that achieving BNG is not an obligation for NSIPs, albeit it is encouraged, where possible.
	Projects in England should consider and seek to incorporate improvements in natural capital, ecosystem services and the benefits they deliver when planning how to deliver biodiversity net gain.	Amendments to the Environment Bill (2021) set out that the SoS may not gran development consent unless satisfied that a biodiversity gain objective is met i relation to the development to which the application relates.
	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.	assessment presents modelled compensation scenarios required to achieve a minimum of 1% net gain of Priority Habitats across the DCO Proposed
	Applicant assessment	Development. Where proportionate and practicable, delivery of a higher net gain up to 10% on all Priority Habitats or a selection of Priority Habitats will be
	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.	further explored. Identification of suitable sites for delivery of BNG has begun and will continue through further engagement with landowners and stakeholders. These will be further developed from the point of DCO
encouraged to use the most current version of the Defra biodiversity metric to calculate their biodiversity baseline and present planned biodiversity net gain outcomes. This calculation data should be presented in full as part of their This demons application.  The Applicant [document r This demons 4.5 of draft E	Application submission and will be progressed through the examination phase The Applicant will be submitted a BNG Strategy Update at Deadline 2 [document reference D.7.23].  This demonstrates that the Applicant will seek to deliver compliance with Part 4.5 of draft EN-1 through periodic updates to the BNG documentation	
	4.5.6 Where possible, this data should be shared with the Local Authority and	throughout the examination.

Natural England for discussion at the pre-application stage as it can help to

# DRAFT: Overarching National Policy Statement for Energy (EN-1) (March 2023)

### Part 4 – Assessment Principles

Part 4 – Assessment	Part 4 – Assessment Principles	
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	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.	
	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 off-site 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,	
	landscape enhancement, or	
	<ul> <li>increased access to natural greenspace including trees and woodlands. 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 Infrastructure.</li> </ul>	
	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	

# DRAFT: Overarching National Policy Statement for Energy (EN-1) (March 2023)

### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	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), and other tools that aim to enable wider benefits for people and nature.	
	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 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 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 where a review of an NPS has begun before the provisions are commenced, as is the case with these energy NPSs.	

HyNet Carbon Dioxide Pipeline
Page 66 of 114

DRAFT: Overarching National Policy Statement for Energy (EN-1) (March 2023)			
Part 4 – Assessment Princ	Part 4 – Assessment Principles		
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment	
	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		
4.6 Criteria for "good design" for energy infrastructure	4.6.1 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. Applying "good design" to energy projects should produce sustainable infrastructure sensitive to place, efficient in the use of natural 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.  4.6.3 Good design is also a means by which many policy objectives in the NPS can be met, for example the impact sections show how good design, in terms of siting and use of appropriate technologies can help mitigate adverse impacts such as noise.  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 so doing, the Secretary of State should be satisfied that the applicant has taken into account 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, 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 DCO Proposed Development will utilise best practice through the available technology, industry standards and construction techniques to minimise impacts and local inconvenience appropriately and effectively as demonstrated within Chapter 3 of the Environmental Statement [APP-055].  The design development process included the identification of mitigation commitments, both for mitigation embedded in the design and also good practice mitigation.  There will be a number of permanent BVS and AGI locations across the pipeline route which will typically consist of a fenced compound, cathodic protection transformer rectifier cabinets and some above ground connection.  Chapter 12 of the ES [APP-064] concludes that with the application of mitigation these would not give rise to an adverse significant impact in terms of their visual prominence. Chapter 12 of the ES [APP-064] concludes that with the application of mitigation these would not give rise to a significant adverse impact in terms of their visual prominence.  Chapter 4 (section 4.2) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 4.5 (Criteria for Good Design for Energy Infrastructure) of the NPS.  This demonstrates that the Applicant has complied with Part 4.6 of draft EN-1.	

HyNet Carbon Dioxide Pipeline
Page 67 of 114

DRAFT: Overarching National Policy Statement for Energy (EN-1) (March 2023)

Part 4 – Assessment Principles		
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	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.	
	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.	
4.8 Carbon Capture and Storage (CCS)	4.8.1 CCS is a 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 thermal generating power stations or other industrial processes that are high emitters.  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. In October 2021, the government published its Net Zero Strategy which reaffirmed the importance of deploying CCUS to reaching our 2050 net zero target and also outlines our ambition to capture 20-30Mt of CO2 per year by 2030.  4.8.6 The barriers to CCS deployment to date have been commercial rather than technical, and the business models, which may evolve over time, aim to support the deployment of the technology.  4.8.10 In the Energy White Paper, published in December 2020, government committed to consult on an expansion to CCR requirements. As part of this expansion, we intend to rename Carbon Capture Readiness to Decarbonisation Readiness.  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	Proposed paragraph 4.8.22 – 4.8.27 goes on to provide advice relating to carbon dioxide transport pipelines and storage. The DCO Proposed Development will deliver approximately 36km of carbon transporting infrastructure with associated above ground installations, which will lay the foundations for the wider Project as described in <b>Chapter 1</b> and <b>Chapter 3</b> of this Planning Statement [REP1-013]. The Needs Case for the DCO Proposed Development [APP-049] also provides further detailed information
	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 CO2).	<b>Chapter 4 (section 4.2)</b> of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 4.8 (Carbon Capture and Storage) of the NPS.

**HyNet Carbon Dioxide Pipeline** Page **68 of 114** 

# DRAFT: Overarching National Policy Statement for Energy (EN-1) (March 2023)

### Part 4 - Assessment Principles

Part 4 – Assessment Principles		
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
include details of how the captured CO2 is intended to be transported and stored, how cumulative impacts will be assessed and whether any necessary consents, permits and licences have been obtained.  Go  ass  This	The Applicant concludes that the DCO Proposed Development aligns with the Government's encouragement of CCS technology, with potential to exceed the assumed figures set out in Part 4.8  This demonstrates that the Applicant has complied with Part 4.8 of draft EN-1.	
4.9 Climate Change Adaption	<ul> <li>4.9.3 To support planning decisions, the government produces a set of UK Climate Projections and has developed a statutory National Adaptation Programme. In addition, the government's Adaptation Reporting Power 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.</li> <li>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 5.6).</li> <li>4.9.8 New energy infrastructure will typically be a long-term investment and will</li> </ul>	appendices. Climate Change has also been considered cumulatively across each chapter of the ES, wherein the inter-dependencies are assessed. Where a combined impact is considered, it is mitigated or justified accordingly.
	need to remain operational over many decades, in the face of a changing climate.  Consequently, applicants must consider the direct (e.g. site flooding, limited water availability, storms, heatwave and wildfire threats to infrastructure and operations)	The design of the pipeline has considered those measures to make it resilient to climate change, and the ES concludes that there are no significant impacts on climate change resulting from the laying of this pipeline.

# DRAFT: Overarching National Policy Statement for Energy (EN-1) (March 2023)

### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	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, using government guidance and industry standard benchmarks such as the Climate Change allowances for Flood Risk Assessments, Climate Impacts Tool, and British Standards of climate change adaptation, in accordance with the EIA regulations. This this information will be needed by the Secretary of State.  4.9.10 Applicants should assess the impacts on 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 outset and should also demonstrate how proposals can be adapted over their predicted lifetimes to remain resilient to a credible maximum climate change scenario. These results should be considered alongside relevant research which is based on the climate change projections  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.  4.9.16 If any adaptation measures give rise to consequential impacts (for example on flooding, water resources or coastal change) the Secretary of State sh	Generally, the use of pipelines offers a betterment on emissions given alternative means of transport such as tanker via road.  Chapter 4 (section 4.2) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 4.9 (Climate Change Adaptation) of the NPS.  This demonstrates that the Applicant has complied with Part 4.9 of draft EN-1.

DRAFT: Overarching National Policy Statement for Energy (EN-1) (March 2023)			
Part 4 – Assessment Princi	Part 4 – Assessment Principles		
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment	
	4.9.19 Adaptation measures should 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 Secretary 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).		
4.11 Pollution control and other environmental regulatory regimes	4.11.3 Pollution from industrial sources in England and Wales is controlled through the Environmental Permitting (England and Wales) Regulations 2016 (EPR). The EPR requires industrial facilities to have an EP and meet limits on allowable emissions to operate.	The proposed changes to EN-1 regarding 'pollution control and other environmental regulatory regimes' are considered by the Applicant to not be significant between the adopted and draft NPS's and therefore do not change the Applicant's initial assessment found in Table 2-1.	
	4.11.4 Larger industrial facilities undertaking specific types of activity are also required to use Best Available Techniques (BAT) to reduce emissions to air, water, and land. Agreement on what sector specific BAT standards are, will now be determined through a new UK-specific BAT process.  4.11.5 Applicants should consult the MMO on nationally significant projects which would affect, or would be likely to affect, any relevant marine areas as defined in the Planning Act 2008 (as amended by s.23 of the Marine and Coastal Access Act 2009). Applicants are encouraged to consider the relevant marine plans in advance of consulting the MMO for England or the relevant policy teams at the Welsh government.  4.11.6 Many projects covered by this NPS will be subject to the EP regime, which also incorporates operational waste management requirements for certain activities. When an applicant applies for an EP, 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.  4.11.7 Applicants should make early contact with relevant regulators, including EA or NRW and the MMO, to discuss their requirements for EPs and other consents. 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 Secretary of State	An initial assessment of potential environmental impacts was carried out and included in the EIA Scoping Report [APP-073 and APP-074].  The Outline Construction Environmental Management Plan (OCEMP) [CR1-119 and REP1-017] sets out the actions and measures that would be implemented to control the risk of a pollution incident. This would be	

#### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	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	
	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, the SNCB, Drainage Boards, and water and sewerage undertakers, the Secretary of State 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	
	<ul> <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>	
	4.11.6 The Secretary of State should not refuse consent on the basis of pollution impacts unless there 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.	
4.12 Safety	4.12.1 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 construction, operation and decommissioning of energy infrastructure.	The Applicant has engaged and will continue to engage with the HSE with respect to compliance with health and safety legislation, this is shown within the Consultation Report [APP-031].
	4.12.3 Some energy infrastructure will be subject to the Control of Major Accident Hazards (COMAH) Regulations 2015. These Regulations aim to prevent major	The OCEMP [REP1-017 and CR1-119] set out the actions and measures that would be implemented to control the risk of a pollution incident.
	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	Although the pipeline is not a COMAH, COMAH guidance has been referred to in development of the methodologies for hazard identification and the assessment of major accidents.
	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 by the HSE and NRW acting jointly in Wales, and the HSE and Scottish Environment Protection Agency (SEPA) acting jointly in Scotland.	<b>Chapter 4 (section 4.2)</b> of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 4.12 (Safety) of the NPS.
	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.	This demonstrates that the Applicant has complied with Part 4.12 of draft EN-1.

# DRAFT: Overarching National Policy Statement for Energy (EN-1) (March 2023) Part 4 – Assessment Principles Topic/Policy NPS Requirement (Relevant Policy Text) Compliance Assessment

#### 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. 4.12.8 The Secretary of State should be satisfied that a safety assessment has been done, where required, and that the Competent Authority has assessed that it meets the safety objectives described above. 4.13 Hazardous 4.1.3 Where hazardous substances consent is applied for the Secretary of State The Applicant has engaged and will continue to engage with the HSE with **Substances** will consider whether to make an order directing that hazardous substances respect to compliance with hazardous substances legislation, this is shown consent shall be deemed to be granted alongside making an order granting within the Consultation Report [APP-031], and the Applicant confirms it has development consent. The Secretary of State should consult HSE about this. been seeking engagement regarding an SoCG Where it is required, other consents have been shown in the Other Consents and Licences Document [REP1-011]. The Applicant knows of no reason as to why these will not be secured. Chapter 4 (section 4.2) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 4.12 (Hazardous Substances) of the NPS. This demonstrates that the Applicant has complied with Part 4.13 of draft EN-1.

## 4.14 Common Law Nuisance and Statutory Nuisance Nuisance Nuisance 4.14.5 At the application stage of an energy NSIP, possible sources of nuisance under section 79(1) of the EPA 1990 and how they may be mitigated or limited should be considered by the Secretary of State so that appropriate requirements can be included in any subsequent order granting development consent. (See

vibration.)

Section 5.7 on Dust, odour, artificial light etc. and Section 5.12 on Noise and

To reduce the risk of nuisance or environmental incident, which includes noise, vibration and air quality, the OCEMP [REP1-017 and CR1-119] sets out a number of good housekeeping measures to be implemented by the contractor at compound sites.

In accordance with the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (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 Secretary of State (SoS) so that appropriate

#### Part 4 – Assessment Principles

Topic/Policy NPS Requirement (Relevant Policy Text)		Compliance Assessment
		requirements can be included in any subsequent order granting development consent.
		The DCO Application is supported with a Statutory Nuisance Statement [APP-047] in order to satisfy the requirements of APFP Regulation 5(2)(f) and paragraph 4.14.2 of EN-1. This document lays out both the likely significant and insignificant impacts of proposed works and provides mitigation.
		Chapter 4 (section 4.2) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 4.14 (Common Law Nuisance and Statutory Nuisance) of the NPS.
		This demonstrates that the Applicant has complied with Part 4.14 of draft EN-1.
4.15 Security Considerations	4.15.5 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.	The Applicant has engaged and will continue to engage with BEIS with respect to compliance with security, this is shown within the Consultation Report [APP-031].
	4.15.6 Where national security implications have been identified, the applicant should consult with relevant security experts from CPNI, ONR (for civil nuclear) and/or DESNZ to ensure security measures have been adequately considered in	Chapter 4 (section 4.2) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 4.15 (Security Considerations) of the NPS.
	the design process and that adequate consideration has been given to the management of security risks.	This demonstrates that the Applicant has complied with Part 4.15 of draft EN-1.
	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 and make a properly informed decision on the application.	
	4.15.8 If CPNI, ONR (for civil nuclear) and/or DESNZ are satisfied that security issues have been adequately addressed in the project when the application is submitted to the Secretary of State, it will provide confirmation of this to the Secretary of State. The Secretary of State should not need to give any further consideration to the details of the security measures in its examination.	
Part 5 – Generic Impacts	5	
5.1 Generic Impacts	5.1.1 This part considers generic impacts that arise from the development of all of any of the types of energy infrastructure covered by the energy NPSs (such as landscape and visual impacts) or arise in similar ways from the development of energy infrastructure covered in at least two of the energy NPSs. In some cases the	An initial assessment has been carried out to identify the potential impacts of the DCO Proposed Development. They have been addressed in the EIA Scoping Report [APP-073 and APP-074] submitted to The Planning Inspectorate. The full assessment of the impacts and related mitigation

#### Part 4 - Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	technology-specific NPSs provide detail on the way these impacts arise, or are to be considered, in the context of applications specific to the technology in question. Impacts which are more or less limited to one particular technology are only covered in the relevant technology-specific NPS.  5.1.2 The list of impacts (generic and technology-specific) and the policy in respect of the consideration of impacts in this Part and in the impact section of the technology-specific NPSs is not exhaustive. The NPSs address those impacts and means of mitigation that are anticipated to arise most frequently. They are not intended to provide a list of all possible effects or ways to mitigate such effects. The Secretary of State should therefore consider other impacts and means of mitigation where it determines that the impact is relevant and important to its decision.  5.1.3 The technology-specific NPSs may state that certain impacts should be given a particular weight. Where they do not do so, the Secretary of State should follow any policy set out on the level of weight to be given to such impact set out in this NPS. Applicants should identify the impacts of their proposals in the ES in terms of those covered in this NPS and any others that may be relevant to their application.  5.1.5 Some of the impact sections in this NPS and the technology-specific NPSs refer to development consent requirements or obligations being a means of securing appropriate mitigation. The fact that the possible use of requirements or obligations are not mentioned in relation to other impacts does not mean that they may not be relevant.  5.1.6 Some of the impact sections in this NPS and the technology-specific NPSs also refer to bodies whom the applicant or IPC should consult. The references to specific bodies are not intended to be exhaustive. The fact that in other impact sections no mention is made of such consultation does not mean that the applicant or IPC should not, where appropriate, engage in it. Applicants must also ensure they consult	measures are detailed in the ES [APP-053 to APP-060, AS-025, APP-062 to APP-072] submitted as part of this DCO Application.  The DCO Proposed Development has engaged with a wide range of national and local environmental organisations, local authorities, other local groups and individual land owners as shown in the Consultation Report [APP-031].  Chapter 4 (section 4.3) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 5.1 (Generic and Specific Impacts) of the NPS.  This demonstrates that the Applicant has complied with Part 5.1 of draft EN-1.
5.2 Air Quality and Emissions	5.2.1 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, or on the wider countryside and species. 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).	Air Quality has been taken into consideration in the EIA for the DCO Proposed Development. It has been identified that air quality changes could occur through dust and changes in pollutant levels caused by emissions during construction, through plant machinery and dust pollution and also during operation. However, with the implementation of mitigation measures and controls, the likely effect on human health, amenity and ecological receptors

**HyNet Carbon Dioxide Pipeline**National Policy Statement Tracker

#### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	5.2.2 Levels for pollutants in ambient air are set out in the Air Quality Standards Regulations 2010 and reiterated in the Air Quality Strategy. In addition, two new air	during construction is concluded to be not significant. This is demonstrated in <b>Chapter 6</b> of the ES <b>[APP-058]</b> and its appendices.
	State is required to make available up to date information on air quality to any	It has been identified that air quality changes could occur during construction activity. However, with the application of mitigation measures, the DCO Proposed Development will have no significant adverse effect on air quality during construction, operation and decommissioning stages.
	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 ES.	Chapter 4 (section 4.3) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 5.2 (Air Quality and Emissions) of the NPS.
	5.2.8 The ES should describe:	This demonstrates that the Applicant has complied with Part 5.2 of draft
	- existing air quality levels and the relative change in air quality from existing levels;	EN-1.
	- 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;	
	- the predicted absolute emission levels of the proposed project, after mitigation methods have been applied;	
	- existing air quality levels and the relative change in air quality from existing levels; and	
	- any potential eutrophication impacts.	
	5.2.13 Many activities involving air emissions are subject to pollution control. The considerations set out in <b>Section 4.11</b> on the interface between planning and pollution control therefore apply. 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.	

DRAFT: Overarching National Policy Statement for Energy (EN-1) (March 2023)		
Part 4 – Assessment Pri	nciples	
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	5.2.15 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.	
	5.2.17 In all cases the Secretary of State must take account of any relevant statutory air quality limits and statutory air quality objectives. If a project will lead to non-compliance with a statutory limit the Secretary of State should refuse consent.	
5.3 Greenhouse Gas Emissions	<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>5.3.2 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>5.3.4 All proposals for energy infrastructure projects should include a GHG assessment as part of their ES (See Section 4.2). This should include: <ul> <li>A whole life GHG assessment showing construction, operational and decommissioning GHG impacts.</li> <li>An explanation of the steps that have been taken to drive down the climate change impacts at each of those stages.</li> <li>Measurement of embodied GHG impact from the construction stage.</li> <li>How reduction in energy demand and consumption during operation has been prioritised in comparison with other measures.</li> <li>How operational emissions have been reduced as much as possible through the application of best available technology for that type of technology.</li> <li>Calculation of operational energy consumption and associated carbon emissions.</li> </ul> </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 Applicant has reported on the assessment of the likely significant effects of the Development Consent Order (DCO) Proposed Development on greenhouse gases within Chapter 10 of the ES [APP-062]. The assessment of GHG is not restricted by geographical area but instead includes any increase or decrease in emissions as a result of the DCO Proposed Development, wherever that may be. This includes:  Construction emissions from within the Newbuild Infrastructure Boundary but also relating to the transport of materials to and from Site and their manufacture.  Operational emissions (increase or reduction) which result from the end-use of the DCO Proposed Development. In this case, GHG emissions include onsite energy use, venting, fugitive gas emissions, land use change and emissions avoided by carbon capture and storage (CCS).  End of life decommissioning emissions from within the Newbuild Infrastructure Boundary but also relating to the transport of waste from Site and its disposal. Mitigation has been proposed accordingly to offset any potential impacts throughout the lifecycle of the DCO Proposed Development. For example, the Detailed Design of the AGIs / BVSs will ensure that high energy efficiency transformers/motors will be selected and Light-emitting diode (LED) based illumination systems will be installed instead of traditional lights for both outdoor and indoor areas of all AGIs / BVSs. All mitigation is outlined within the REAC REAC) [CR1-109 and REP1-015].
	Whether and how any residual GHG emissions will be (voluntarily) offset or removed using a recognised framework.	

#### Part 4 - Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	<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.</li> <li>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.</li> <li>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.</li> <li>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.</li> </ul>	through mitigation, a beneficial effect during operation and minor adverse impact at the decommissioning stage.  The Applicant considers that 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.
5.4 Biodiversity and Geological Conservation	5.4.2 The government's policy for biodiversity in England is set out in the Environmental Improvement Plan, Biodiversity 2020, the National Pollinator Strategy and the UK Marine Strategy. 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. The National Planning Policy Framework and Natural Environment PPG document sets out good practice in England in relation to planning for biodiversity and geological conservation.  5.4.4 The highest level of biodiversity protection is afforded to sites identified through international conventions. The Habitats Regulations set out sites for which	Part 5.4 of draft EN-1 places an emphasis that applicants should consider BNG and wider environmental gains within any proposal for Development Consent. It highlights the Government's aim to halt overall biodiversity loss at paragraph 5.4.2.  Part 5.4 also highlights the aims and goals of the Government's policy for biodiversity through supplementary documentation such as the Environmental Improvement Plan, Biodiversity 2020, the National Pollinator Strategy and the UK Marine Strategy, and the Environment Act; which are material to the SoS decision making process.  Paragraph 5.4.43 states the SoS will give significant weight to any residual harm to biodiversity which cannot be avoided, mitigated, or compensated.  Chapter 9 [AS-025] and Chapter 11 [APP-063] of the ES identifies the baseline biodiversity value, sensitive receptors and ground conditions assessment along the route of the DCO Proposed Development. The impact of construction and operation has been considered. There is a negligible concern related to ecological receptors. Mitigation is applied to seek some minor, positive, long terms effects at a local scale. Whilst maintenance of the DCO

	DRAFT: Overarchin	g National Polic	y Statement for Energy	(EN-1)	(March 2023)
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#### Part 4 - Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	an HRA will assess the implications of a plan or project, including Special Areas of Conservation and Special Protection Areas.	Proposed Development may be required throughout its lifecycle, potentially resulting in the need to excavate ground to access the DCO Proposed
	5.4.5 As a matter of policy, the following should be given the same protection as sites covered by the Habitats Regulations and an HRA will also be required:	Development, this is likely to be a rare occurrence and impacts associated with such maintenance activities will be short term, temporary and localised.
	<ul><li>(a) potential Special Protection Areas and possible Special Areas of Conservation;</li><li>(b) listed or proposed Ramsar sites; and (c) sites identified, or required, as</li></ul>	A Habitats Regulations Assessment [CR1-121] has also been undertaken and reported in relation to any likely significant effects.
	compensatory measures for adverse effects on any of the other sites covered by this paragraph.	All mitigation measures are set out in the Register of Environmental Actions and Commitments (REAC) [CR1-109 and REP1-015]. The mitigation proposed
	5.4.7 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. Most National Nature Reserves are notified as SSSIs.	seeks to meet all requirements of proposed paragraph 5.4.18 to mitigate impact on ecological and biodiversity receptors. The DCO Proposed Development also seeks to avoid any unnecessary impacts upon ecological and biodiversity receptors, with the Order Limits being reduced during the pre-
	5.4.8 Development on land within or outside a SSSI, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits (including need) of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of SSSIs.	application work stage to minimise the potential impacts. The Applicant acknowledges that due to the linear nature of the scheme, and in an effort to avoid urban centres, that not all ecological features can be avoided. <b>Chapter 4</b> (section 4.3) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 5.3 (Biodiversity and Geological Conservation) of the NPS.
	5.4.12 Sites of regional and local biodiversity and geological interest, which include Regionally Important Geological Sites, Local Nature Reserves and Local 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.	This demonstrates that the Applicant has complied with Part 5.4 of draft EN-1.
	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.	
	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. Ancient or veteran trees found outside ancient woodland are also particularly valuable. Other types of irreplaceable	

#### Part 4 – Assessment Principles

Part 4 – Assessment Principles		
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	habitats include blanket bog, limestone pavement, sand dunes, salt marsh and lowland fen.	
	5.4.16 Many individual wildlife species receive statutory protection under a range of legislative provisions. 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 adaptation and thereby requiring conservation action.	
	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 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.	
	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.	

#### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	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.	
	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, the applicant should include a copy of this information with the compensation plan in their application for further consideration by the Examining Authority.	
	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.	
	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.	
	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:	
	during construction, they will seek to ensure that activities will be confined to the minimum areas required for the works	

#### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	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	
	habitats will, where practicable, be restored after construction works have finished	
	<ul> <li>opportunities will be taken to enhance existing habitats rather than replace them, and where practicable, create new habitats of value within the site landscaping proposals. Where 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.</li> </ul>	
	5.4.36 Applicants should produce and implement a Biodiversity Management Strategy as part of their development proposals. This could include provision for biodiversity 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.	
	5.4.39 The government's 25 Year Environment Plan 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 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.	

#### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	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, 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 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.	
	5.4.46 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	

#### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	for the conservation of biodiversity; and to biodiversity and geological interests within the wider environment.	
	5.4.49 The Secretary of State must consider whether the project may have a likely significant effect on a protected site which is part of the National Site Network (an HRA Site), a Marine Protected Area (MPA), 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.	
	5.4.50 The Secretary of State 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.	
	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.	
	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 and a suitable compensation strategy exists.	
	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.	
5.5 Civil and Military Aviation and Defence nterests	5.5.35 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 MOD also operates Air Defence radars which have wide coverage over the UK (onshore and offshore).	The DCO Proposed Development falls adjacent to MoD land in Saughill, England. With a construction compound being located in an adjacent land parcel. It is not considered that any impact will be had on this land. This is confirmed through the EIA Scoping Report [APP-073 and APP-074] and

**HyNet Carbon Dioxide Pipeline**National Policy Statement Tracker

#### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	5.5.36 It is important that new energy infrastructure does not significantly impede or compromise the safe and effective use of any defence assets.	response received which concluded that the MoD had no objections to the DCO Proposed Development.
	5.5.38 Where the proposed development may 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 <b>Section 4.2</b> ).	There is an Airbus Aerodrome located 1.68km south of the Order Limits within Flintshire, Wales. Correspondence has been held with Airbus and this can be found within Appendix A of the Consultation Report [APP-032]. It is not
	5.5.40 The applicant should consult the MOD, Met Office, Civil Aviation Authority, NATS and any aerodrome – licensed or otherwise – likely to be affected by the proposed development in preparing an assessment of the proposal on aviation, meterological or other defence interests.	considered that the construction, operation or decommissioning of the DCO Proposed Development would impact the setting or operation of the Airbus facility. Where mitigation (such as lighting or height limitations) may be required, it will be embedded accordingly.
	5.5.41 Any assessment of effects on aviation, meteorological or other defence interests should include potential impacts of the project upon the operation of CNS infrastructure, flight patterns (both civil and military), generation of weather warnings	Chapter 4 (section 4.3) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 5.5 (Civil and Military Aviation and Defence Interests) of the NPS.
	and forecasts, other defence assets (including radar) and aerodrome operational procedures. It should also assess the demonstratable cumulative effects of the project with other relevant projects in relation to aviation, meteorological and defence	This demonstrates that the Applicant has complied with Part 5.5 of draft EN-1.
	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 meteorological and defence consultees are informed as soon as reasonably possible.	
	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, the 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 realistically achievable mitigation is carried out on existing surveillance systems such as radar/tracking technologies. It may also be appropriate for operators of the aerodrome to 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 Secretary of State be satisfied that they 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	

HyNet Carbon Dioxide Pipeline
Page 85 of 114

#### Part 4 - Assessment Principles

Part 4 – Assessment Principles		
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	aerodromes, the Secretary of State should have regard to interests of defence and national security.	
	5.5.54 If there are conflicts between the government's energy and transport policies and military interests in relation to the application, the Secretary 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.	
	5.5.55 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 Secretary of State should be 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.	
	5.5.56 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	
	5.5.59 Where a proposed energy infrastructure development would significantly impede or compromise the safe and effective use of civil or military meteorological radars, defence assets and/or significantly limit military training, the Secretary of State may consider the use of 'Grampian conditions', 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> </ul>	
	-it would cause harm to aerodromes' training or emergency service needs,	

#### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	-the development would impede or compromise the safe and effective use of defence assets or unacceptably limit military training	
	-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	
	-the development would compromise the effective provision of weather warnings by the NSWWS, or flood warnings by the UKs flood agencies	
	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.	
5.7 Dust, Odour, Artificial Light, Smoke, Steam and Insect Infestation	<ul> <li>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.</li> <li>5.7.5 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 ES.</li> <li>5.6.5 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;</li> <li>measures to be employed in preventing or mitigating the emissions.</li> </ul> </li> <li>5.7.7 The applicant is advised to consult the relevant local planning authority and, where appropriate, the EA about the scope and methodology of the assessment.</li> <li>5.7.12 The Secretary of State should satisfy itself that: <ul> <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;</li> </ul> </li> </ul>	It has been identified that air quality changes could occur through dust and changes in pollutant levels during construction works. Changes in air quality are not anticipated during the operation or decommissioning phases of the DCO Proposed Development.  Chapter 6 of the ES [APP-058] concludes that with the application of mitigation measures, the DCO Proposed Development will have no significant adverse effect on air quality during the construction, operation and decommissioning.  The Construction Dust Assessment [APP-081] provides further detail regarding the approach to mitigation.  The DCO Proposed Development is submitted with a Statutory Nuisance Statement [APP-047] which concludes that with appropriate and embedded mitigation, any adverse impacts can be removed.  Chapter 4 (section 4.3) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 5.7 (Dust, Odour, Artificial Light, Smoke, Steam and Insect Manifestation) of the NPS.  This demonstrates that the Applicant has complied with Part 5.7 of draft EN-1.

#### Part 4 – Assessment Principles

Part 4 – Assessment Principles		
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	- that all reasonable steps have been taken, and will be taken, to minimise any such detrimental impacts.	
	5.7.13 If development consent is granted for a project, the Secretary of State should consider whether there is a justification for all of the authorised project (including any associated development) to be covered by a defence of statutory authority against nuisance claims. If it cannot conclude that this is justified, the Secretary of State should disapply in whole or in part the defence through a provision in the development consent order.	
	5.7.15 In particular, the Secretary 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, smoke and artificial light from the development. The Secretary 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.	
5.8 Flood Risk	5.8.3 The government's Flood and Coastal Erosion Risk Management Policy Statement 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.  5.8.5 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 2018210 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. A robust approach to flood risk management is a vital element of climate change adaptation; the applicant and the Secretary of State should take account of the policy on climate change adaptation in Section 4.9.  5.8.6 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	decommissioning of the DCO Proposed Development on potentially sensitive receptors.  The pipeline route was selected and designed to reduce the impact on flood risk, avoiding high levels of flood risk with the whole route within FZ1.  Chapter 18 of the ES [APP-070] and its associated appendices assess the likely significant effects of the DCO Proposed Development on Water Resources and Flood Risk. This chapter concludes that significant impacts are likely during the construction phase, rather than the operation or decommissioning phases. Embedded mitigation is proposed to remove any

#### Part 4 - Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	planning process to avoid inappropriate development in areas at risk of flooding, and to steer new development to areas with the lowest risk of flooding.	guidance documents, Planning Policy Statement 25 (PPS25), TAN15 for Wales (or the latest versions since the adoption of EN-1).
	<ul> <li>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.</li> <li>5.8.8 Proposals that aim to facilitate the relocation of existing energy infrastructure</li> </ul>	Alltami Brook is noted as an area which is likely to experience a moderate adverse impact as a result of the DCO Proposed Development. The Applicant is in ongoing communication with the relevant bodies such as Natural Resource Wales (see SoCG [REP1-023]) regarding the approach to delivery of the DCO Proposed Development through Alltami Brook and has provided a WFD Assessment [APP-165].
	from unsustainable locations which are or will be at unacceptable risk of flooding, should be supported where it would result in climate-resilient infrastructure.	Mitigation measures and management plans are secured through the REAC [CR1-109 and REP1-015].
	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	Chapter 4 (section 4.3) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 5.8 (Flood Risk) of the NPS.
	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.	This demonstrates that the Applicant has complied with Part 5.8 of draft EN-1.
	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 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 • land that may be subject to other sources of flooding (for example surface water) • where the EA or NRW, Lead Local Flood Authority, Internal Drainage Board or 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.	
	5.8.15 The minimum requirements for Flood Risk Assessments (FRA) are that they should	
	be proportionate to the risk and appropriate to the scale, nature and location of the project;	
	<ul> <li>consider the risk of flooding arising from the project in addition to the risk of flooding to the project;</li> </ul>	

HyNet Carbon Dioxide Pipeline
Page 89 of 114

#### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	take the impacts of climate change into account, across a range of climate scenarios, clearly stating the development lifetime over which the assessment has been made215;	
	<ul> <li>be undertaken by competent people, as early as possible in the process of preparing the proposal;</li> </ul>	
	<ul> <li>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 exceedance;</li> </ul>	
	consider the vulnerability of those using the site, including arrangements for safe access and escape	
	<ul> <li>consider and quantify the different types of flooding (whether from natural and human sources and including joint and cumulative effects) and include information on flood likelihood, speed-of-onset, depth, velocity, hazard and duration;</li> </ul>	
	<ul> <li>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;</li> </ul>	
	<ul> <li>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;</li> </ul>	
	<ul> <li>include the assessment of the remaining (known as 'residual') risk after risk reduction measures have been taken into account and demonstrate that these risks can be safely managed, ensuring people will not be exposed to hazardous flooding;</li> </ul>	
	<ul> <li>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. Information should include:</li> </ul>	
	I. Describe the existing surface water drainage arrangements for the site	

#### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	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.216	
	v. Explain and justify why the types of SuDS217 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	
	<ul> <li>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 lifetime without increasing flood risk elsewhere;</li> </ul>	
	identify and secure opportunities to reduce the causes and impacts of flooding overall during the period of construction; and	

#### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	be supported by appropriate data and information, including historical information on previous events.	
	5.8.16 Further guidance can be found in the Planning Practice Guidance Flood Risk and Coastal Change section which accompanies the NPPF219, TAN15 for Wales or successor documents.	
	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 Secretary of State to reach a decision on the application when it is submitted. The Secretary of State should advise applicants to undertake these steps where they appear necessary but have not yet been addressed.	
	5.8.20 If the EA, NRW or another flood risk management authority 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 authority's concerns.	
	5.8.21 The Sequential Test 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, 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.	

#### Part 4 - Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	5.8.23 Consideration of alternative sites should take account of the policy on alternatives set out in Section 4.2 above. All projects should apply the Sequential Test to locating development within the site.	
	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	
	5.8.25 In this NPS, the term SuDS refers to the whole range of sustainable approaches to surface water drainage management including, where appropriate:	
	source control measures including rainwater recycling and drainage	
	infiltration devices to allow water to soak into the ground, that can include individual soakaways and communal facilities	
	filter strips and swales, which are vegetated features that hold and drain water downhill mimicking natural drainage patterns	
	filter drains and porous pavements to allow rainwater and run-off to infiltrate into permeable material below ground and provide storage if needed	
	basins ponds and tanks to hold excess water after rain and allow controlled discharge that avoids flooding	
	flood routes to carry and direct excess water through developments to minimise the impact of severe rainfall flooding	
	5.8.26 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.	
	5.8.27 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.	
	5.8.28 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.	
	5.8.34 The applicant should take advice from the local authority emergency planning team, emergency services and, where appropriate, from the local	

#### Part 4 – Assessment Principles

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Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment		
	resilience forum when producing an evacuation plan for a manned energy project as part of the FRA. Any emergency planning documents, flood warning and evacuation procedures that are required should be identified in the FRA.			
	5.8.36 In determining an application for development consent, the Secretary of State should be satisfied that where relevant:			
	the application is supported by an appropriate FRA			
	the Sequential Test has been applied and satisfied 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			
	SuDS (as required in the next paragraph on National Standards) have been used unless there is clear evidence that their use would be inappropriate			
	• in flood risk areas the project is designed and constructed to remain safe and operational during its lifetime, without increasing flood risk elsewhere (subject to the exceptions set out in paragraph 5.8.18			
	• the project includes safe access and escape routes where required, as part of an agreed emergency plan, and that any residual risk can be safely managed over the lifetime of the development			
	<ul> <li>land that is likely to be needed for present or future flood risk management infrastructure has been appropriately safeguarded from development to the extent that development would not prevent or hinder its construction, operation or maintenance</li> </ul>			
	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 2010.224			
	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			

#### Part 4 - Assessment Principles

Part 4 – Assessment Principles			
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment	
	adoption of any SuDS features, any necessary access rights to property will need to be granted.		
	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.		
	5.8.42 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.		
5.9 Historic Environment	<ul> <li>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. The absence of designation for such heritage assets does not indicate lower significance.</li> <li>5.9.7 The Secretary of State should also consider the impacts on other non-designated heritage assets (as identified either through the development plan making process by plan-making bodies, including 'local listing', or through the application, examination and decision making process). This is on the basis of clear evidence that such heritage assets have a significance that merits consideration in that process, even though those assets are of lesser significance than designated heritage assets.</li> <li>5.9.10 As part of the ES the applicant should provide a description of the significance of the heritage assets affected by the proposed development including any contribution made by their setting. 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 their significance. As a minimum the applicant should have consulted the relevant Historic Environment Record (or, where the development is in English or Welsh waters, Historic England or Cadw)</li> </ul>	The pipeline route of the DCO Proposed Development has been selected to reduce the impact on the historic environment by avoiding where practicable designated heritage assets.  Non-designated and designated heritage assets have been included in the environmental impact assessment as identified within Part 5.9 and assessed against its value based on professional judgements informed by guidance and national policy, this is reported in <b>Chapter 8</b> of the ES [APP-060].  Consultation and ongoing engagement with heritage advisors of the local planning authority and Historic England identified the need for, scope and scale of archaeological evaluation in support of the application.  Chapter 8 of the ES contains the historic environment assessment undertaken for the DCO Proposed Development. The focus of the assessment is on buried heritage assets (archaeological remains and paleoenvironmental deposits) and above ground heritage assets (buildings, structures, monuments and landscapes of heritage interest), including the character and setting of designated heritage assets.  This visual impact to the landscape is considered further within Chapter 12 of the ES [APP-064] which further concludes that through the use of sufficient	

	DRAFT: Overarchin	g National Polic	y Statement for Energy	(EN-1)	(March 2023)
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#### Part 4 - Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	and assessed the heritage assets themselves using expertise where necessary according to the proposed development's impact.	mitigation, the impacts of the new above ground infrastructure can be mitigated.
	<ul> <li>5.9.11 Where a site on which development is proposed 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, accurate representative visualisations may be necessary to explain the impact.</li> <li>5.9.12 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. 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.</li> <li>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 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:  - relevant information with the application and, where applicable, relevant information submitted during the examination of the application;  - any designation records, including those on the National Heritage List for England;  - historic landscape character records;  - the relevant Historic Environment Record(s), and similar sources of information;  - representations made by interested parties during the examination process; and  - expert advice, where appropriate and when the need to understand the significance of the heritage asset should consider the particular nature of the significance of the heritage assets and the value that they hold for this and future generations. This</li> </ul>	These Chapters conclude that no significant residual effects are anticipated on any other heritage assets or their settings as a result of the construction or operation works.  Chapter 4 (section 4.3) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 5.9 (Historic Environment) of the NPS.  This demonstrates that the Applicant has complied with Part 5.9 of draft EN-1.

#### Part 4 – Assessment Principles

art 4 - Assessment Finciples				
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment		
	understanding should be used to avoid or minimise conflict between their conservation and any aspect of the proposal.			
	5.9.23 The Secretary of State should consider the desirability of sustaining and, where appropriate, enhancing the significance of heritage assets, the contribution of their settings and the positive contribution that their conservation can make to sustainable communities and, including to their quality of life, their economic vitality, and to the public's enjoyment of these assets.			
	5.9.24 The Secretary of State should also consider 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 and landscaping (for example, screen planting).			
	5.9.33 Where there is evidence of deliberate neglect of, or damage to, a heritage asset, the Secretary of State should not take its deteriorated state into account in any decision.			
	5.9.34 When considering applications for development affecting the setting of a designated heritage asset, the Secretary of State should give appropriate weight to the desirability of preserving the setting such assets and 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 Secretary of State should give 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.			
5.10 Landscape and Visual	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.	Chapter 12 of the ES [APP-064] and its relevant appendices provide an assessment of the likely significant effects of the DCO Proposed Development on landscape character and visual amenity.		
	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.	The appendices contain an LVIA Methodology [APP-139]. Chapter 12 concludes that whilst all proposed mitigation will bring a reduction to the visual impact, some significant effects are expected to result on the landscape		
	5.10.6 Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant	character and sensitive views as a result of the construction phase of the DCO Proposed Development.		

#### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
Topion oney	constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.	Vegetation loss prior to construction would cause a primary impact on views during both construction and operation, though this is temporary and proposed
	5.10.7 National Parks, the Broads and AONBs have been confirmed by the government as having the highest status of protection in relation to landscape and natural beauty. Each of these designated areas has specific statutory purposes which help ensure their continued protection and which the Secretary of State	to be screened where required. It has been identified, however, that significant visual effects would be possible from residential properties close to the pipeline route and sections of Public Right of Way that are in close proximity to, or cross, the emerging route.
	should have regard to in their decisions.  5.10.8 The duty to have regard to the purposes of nationally designated areas also	The DCO Proposed Development will not impact any AONB's and Designated National Parks.
	applies when considering applications for projects outside the boundaries of these areas which may have impacts within them. The aim should be to avoid 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,	During operation, above ground infrastructure will be a more permanent fixture on the landscape. Mitigation is proposed as outlined within the REAC [CR1-109 and REP1-015] such as landscape planting found within the Outline Landscape and Ecological Mitigation Plan (OLEMP) [APP-229].
	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.	<b>Chapter 4 (section 4.3)</b> of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 5.10 (Landscape and Visual) of the NPS.
	5.10.11 Outside nationally designated areas, there are local landscapes that may be highly valued locally. 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, locally valued landscapes should not be used in themselves to refuse consent, as this may unduly restrict acceptable development.	This demonstrates that the Applicant has complied with Part 5.10 of draft EN-1.
	5.10.12 All proposed energy infrastructure is likely to have visual effects for many receptors around proposed sites.	
	5.10.13 The Secretary 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.	
	5.10.24 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 Secretary of State in judging the	

HyNet Carbon Dioxide Pipeline
Page 98 of 114

Part 4 – Assessment Principles			
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment	
	weight they should give to the assessed visual impacts of the proposed development.		
	5.10.25 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 Secretary of State may decide that the benefits of the mitigation to reduce the landscape and/or visual effects outweigh the marginal loss of function.		
	5.10.26 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.		
	5.10.27 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.		
5.11 Land Use including open space, green infrastructure and Green Belt	5.11.8 The ES (see <b>Section 4.2</b> ) 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. 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	ES Chapter 11 [APP-063] provides a detailed assessment of the land use impacts of the DCO Proposed Development. It concludes that no significant residual effects for Land and Soils associated with the Construction, Operational or Decommissioning Stages of the DCO Proposed Development are identified.  Chapter 16 of the ES [APP-068] summarises that there would be a residual impact associated with the DCO Proposed Development during construction on	
	ensure that they have considered the risk posed by land contamination and how it is proposed to address this.	impact associated with the DCO Proposed Development during construction on community receptors, PRoW's and green infrastructure. Mitigation is included to reduce its significance.	
	5.11.9 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. Applicants should use any upto-date local authority assessment or, if there is none, provide an independent	In addition to this, <b>Chapter 12</b> of the ES <b>[APP-064]</b> provides a detailed assessment of the visual impacts of the DCO Proposed Development. This chapter concludes that through appropriate mitigation, the magnitude of the construction can bring a reduction to potential impacts notwithstanding an acknowledgement of a permanent change.	

#### Part 4 - Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	assessment to show whether the existing open space, sports and recreational buildings and land is surplus to requirements.	The pipeline route has been designed to avoid built development and proposed major development allocations in adopted and emerging local plans.
	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.	Existing land use of open space, sports and recreational facilities is not affected during the operational stage of the DCO Proposed Development, due to the fact that the pipeline would be mainly located below ground and
	<ul> <li>5.11.11 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.</li> <li>5.11.12 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)</li> <li>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.</li> <li>5.11.20 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</li> </ul>	operating impacts are minimal.  The pipeline must cross the Cheshire West and Chester Council (CWCC) Green Belt in order to reach the Wales border. As per Chapter 5 of the Planning Statement [REP1-013] the DCO Proposed Development has established "very special circumstances" that demonstrate that the harm to the Green Belt is outweighed by the benefits of the DCO Proposed Development.  Statutory and non-statutory consultation has been completed and the views of the consultees have been given full consideration when selecting the pipeline route as identified within the Consultation Report [APP-031] and the Chapter 4 of the ES [APP-056] on consideration of alternatives.  The DCO Proposed Development crosses grades 1, 2 and 3 agricultural land. This is assessed in ES Chapter 11 [APP-063], which concludes that there will be a net loss of agricultural land through the permanent acquisition of land for above ground infrastructure and land designated for mitigation delivery.  Mitigation is proposed, but this does not remove the impact which is acknowledged and considered on balance to be acceptable given the scale of loss.  Chapter 4 (section 4.3) of the Planning Statement [REP1-013] provides an
	meaning of Green Belt policy (see paragraph 5.11.35 below).  5.11.21 However, infilling or redevelopment of major developed sites in the	assessment of the DCO Proposed Development against Part 5.10 (Land use including Open Space, Green Infrastructure and Green Belt) of the NPS.
	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 criteria253 on such developments in Green Belts.	This demonstrates that the Applicant has complied with Part 5.11 of draft EN-1.
	5.11.12 Moreover an applicant may be able to demonstrate that particular energy infrastructure, such as an underground pipeline, may be considered an "engineering operation" and regarded as not inappropriate 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	

HyNet Carbon Dioxide Pipeline
Page 100 of 114

Part 4 – Assessment Princ				
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment		
	show that the physical characteristics of a proposed overhead line in 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.			
5.12 Noise and Vibration	5.12.5 Factors that will determine the likely noise impact include:	Chapter 15 of the ES [APP-067] and its relevant appendices reports the		
	- the inherent operational noise from the proposed development, and its characteristics;	outcome of the assessment of likely significant environmental effects arising from the DCO Proposed Development on noise and vibration during the construction, operation and decommissioning stages. Significant impacts		
	- the proximity of the proposed development to noise sensitive premises (including residential properties, schools and hospitals) and noise sensitive areas (including	caused from likely noise effects arising from the DCO Proposed Development construction activities are proposed to be accordingly mitigated as part of the development of the Detailed Design.		
	- the proximity of the proposed development to quiet places and other areas that are particularly valued for their soundscape or landscape quality;	The Noise Policy Statement for England and other relevant national policies, regulations, guidance and standards have been considered in the		
	- the proximity of the proposed development to sites where noise may have an adverse impact on protected species or other wildlife.  5.12.6 Where noise impacts are likely to arise from the proposed development, the	environmental assessment of the potential noise and vibration impacts generated by the DCO Proposed Development. A noise and vibration assessment [CR1-036] has informed the EIA.  Where the pipeline is to be constructed in urban areas the noise impacts are		
	- a description of the noise generating aspects of the development proposal leading to noise impacts, including the identification of any distinctive tonal, impulsive, low frequency or temporal characteristics of the noise;	not considered to be significantly more impactful compared to the typically rural route. Good practice measures will be used to minimise the impact on the closest properties, however, there may be some noise impacts temporarily during construction.		
	- identification of noise sensitive receptors and noise sensitive areas that may be affected;	As per paragraph 5.12.10, some noise impacts will be controlled through environmental permits and parallel tracking is encouraged where noise impacts		
	- the characteristics of the existing noise environment;	determined by an environmental permit interface with planning issues. The		
	<ul> <li>a prediction of how the noise environment will change with the proposed development;</li> </ul>	Applicant is engaging with relevant bodies such as the EA (see SoCG [REP1-024]), NRW (see SoCG [REP1-025]) and Natural England (see SoCG [REP1-022]) to establish any required permits. The Applicant has also submitted an		
	- in the shorter term such as during the construction period;	Other Consents and Licences Document [REP1-011] which will updated		
	- in the longer term during the operating life of the infrastructure;	throughout the examination.		
	- at particular times of the day, evening and night (and weekends) as appropriate, and at different times of the year.	Anticipated likely noise impacts are raised in the ES as significant. Effects arise from the DCO Proposed Development's construction and decommissioning		
	- an assessment of the effect of predicted changes in the noise environment on any noise sensitive receptors, including an assessment of any likely impact on health and well-being where appropriate, and noise-sensitive areas.	activities, this established in <b>Chapter 15 [APP-067].</b> In the most part, significant impacts caused from noise effects arising from construction activities will be adequately mitigated through measures detailed in the Noise and Vibration Management Plan. The production of a Noise and Vibration Management Plan and agreement with the Local Authorities will be		

#### Part 4 - Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	- measures to be employed in mitigating the effects of noise using best available techniques to reduce noise impacts.	secured as part of the consolidated CEMP as a DCO requirement. This is considered to reduce the overall impact.
	5.12.7 The nature and extent of the noise assessment should be proportionate to the likely noise impact.	Whilst in most part the construction of the DCO Proposed Development would accord with the objectives of Part 5.11 of EN-1 and Part 2.21 of EN-4, in some
	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.	localised areas along the route the construction and (potential) decommissioning activities will give rise to residual noise effects which would conflict with Part 5.11 of EN-1 and Part 2.20.
	5.12.9 Operational noise, with respect to human receptors, should be assessed using the principles of the relevant British Standards137 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 Standards138 and other guidance which also give examples of mitigation strategies.	
	5.12.10 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/or the SNCB as necessary and in particular regarding assessment of noise on protected species or other wildlife. The 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 considered.	
	5.12.5 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.	
	5.12.7 The Secretary of State should not grant development consent unless they are satisfied that the proposals will meet the following aims, through the effective management and control of noise:	
	- 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;	

#### Part 4 – Assessment Principles

Tanis/Dalism			
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment	
	- where possible, contribute to improvements to health and quality of life through the effective management and control of noise.		
	5.11.10 When preparing the development consent order, the Secretary 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.		
	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 requirements 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: reduction of noise at point of generation and containment of noise generated;		
	- lay-out: where possible, optimising the distance between source and noise- sensitive receptors and/or incorporating good design to minimise noise transmission through screening by natural or purpose built barriers or other buildings;		
	<ul> <li>administrative: using planning conditions/obligations to restrict activities allowed on the site at certain times and/or specifying permissible noise limits/noise levels and late at night, and taking into account seasonality of wildlife in nearby designated sites.</li> </ul>		
	- insulation: mitigating the impact on areas likely to be affected by noise including through noise insulation when the impact is on the building.		
5.13 Socio-economic Impacts	5.13.2 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 <b>Section 4.2</b> ).	The DCO Proposed Development is considered to address matters related to financial and technical viability required within policy as demonstrated by the supporting Needs Case for the DCO Proposed Development [APP-049]. The	
	5.13.4 The applicant's assessment should consider all relevant socio-economic impacts, which may include:	Funding Statement [APP-029] demonstrates the DCO Proposed Development is financially viable and funding is not an impediment to delivery.	
	- the creation of jobs and training opportunities. Applicants may wish to provide information on the sustainability of the jobs created, included where they will help to develop the skills needed for the UK's transition to Net Zero	Chapter 16 of the ES [APP-068] and its relevant appendices provides an assessment of the likely significant effects of the DCO Proposed Development on Population and Human Health. It has been identified that potential effects are expected during construction. These effects relate to traffic affecting	

#### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
	- 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;  - 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, 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.  5.13.5 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.  5.13.9 The 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 Secretary of State considers to be both relevant and important to its decision.  5.13.10 The Secretary 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 infrastruct	communities in rural and urban areas, noise and vibration, visual, community severance and change in access. There are no significant effects anticipated during operation.  Consideration of the potential impact of the DCO Proposed Development has informed the selection of the pipeline route, design and construction. The impact of the pipeline has been assessed as part of the ES [APP-053 to APP-060, AS-025, APP-062 to APP-072].  Chapter 4 (section 4.3) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 5.13 (Socio-Economic) of the NPS.  This demonstrates that the Applicant has complied with Part 5.13 of draft EN-1.

HyNet Carbon Dioxide Pipeline
Page 104 of 114

Part 4 – Assessment Principles			
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment	
5.13 Traffic and Transport	5.14.5 If a project is likely to have significant transport implications, the applicant's ES (see <b>Section 4.2</b> ) should include a transport appraisal. The DfT's Transport Analysis Guidance and Wels Governments WelTAG provides guidance on modelling and assessing the impacts of transport schemes, or any successor to such methodology.	Chapter 17 of the ES [APP-069] and its relevant appendices include an assessment of the likely significant effects of the DCO Proposed Development on the environment in respect of Traffic and Transport. This Chapter identifies a number of sensitive receptors and potential effects which are limited exclusively to the construction period of the DCO Proposed Development, and	
	5.14.6 Applicants should consult National Highways and Highways Authorities as appropriate on the assessment and mitigation.	would therefore, by definition, be exclusively temporary in nature, with no permanent effects likely. Some temporary effects would be likely to last longer than others and it is considered appropriate to reflect the predicted duration of	
	5.14.7 The applicant should prepare a travel plan including demand management and measures to mitigate transport impacts. The applicant should also provide details of proposed measures to improve access by active, public and transport to:	than others and it is considered appropriate to reflect the predicted duration of effects when determining the likelihood of significant effects. Operation and decommissioning of the proposed pipeline are not likely to be significant for transport effects and this is supported by the Transport Assessment [CR1-	
	<ul> <li>reduce the need for parking associated with the proposal;</li> <li>contribute to decarbonisation of the transport network;</li> <li>reduce the need to travel; and</li> <li>secure behavioural change and modal shift through an offer of genuine modal choice and to mitigate transport impacts.</li> </ul>	O42].  Consultation has been ongoing with both Flintshire County Council (FCC) and Cheshire West and Chester Council (CWCC) Highways Authorities. This consultation has included sharing the scope and conclusions of the transport assessment.	
	<ul> <li>5.14.8 The assessment should also consider any possible disruption to services and infrastructure (such as road, rail and airports)</li> <li>5.14.9 If additional transport infrastructure is needed or proposed, it should always include good quality walking, wheeling and cycle routes, and associated facilities (changing/storage etc) needed to enhance active transport provision.</li> <li>5.14.10 Applicants should discuss with network providers the possibility of cofunding by government for any third-party benefits. Guidance has been issuedin 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.</li> </ul>	The DCO Proposed Development does not propose to provide any improvement to, new or additional permanent highway infrastructure. There are temporary measures, diversions etc. which will be introduced during construction. This will be agreed with the highways authorities.  Mitigation measures are outlined in the Outline Construction Traffic Management Plan (OCTMP) [CR1-117 . Traffic management will be used to mitigate any residual constraints identified along construction traffic routes, as set out in the OCTMP [CR1-117]. This includes the use of restrictions such as speed limit reductions, one-way systems, and traffic signals. The need for these measures has been determined on a case-by-case basis to address identified local risks.	
	5.14.8 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.	Trenchless crossing techniques will be utilised to restrict the disturbance to major public highways. Construction compounds will also be used to manage construction traffic and delivery of materials and resources. These facilities will allow works to progress smoothly without reliance on peak time deliveries of staff and materials.  Chapter 4 of the ES [APP-056] provides a logistical assessment of route selection. A key consideration was to avoid and/or reduce adverse environmental effects, maintain operational efficiency and cost-effective design	

	DRAFT: Overarching	ı National Policy	y Statement for Energy	(EN-1)	(March 2023)
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#### Part 4 - Assessment Principles

Part 4 – Assessment Principles			
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment	
	<ul> <li>5.14.9 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.</li> <li>5.14.10 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.</li> <li>5.14.11 The IPC may attach requirements to a consent where there is likely to be substantial HGV traffic that:</li> <li>control numbers of HGV movements to and from the site in a specified period</li> </ul>	solutions, and consideration of other relevant matters such as available land planning policy. A three-stage appraisals process was developed to identify the preferred route option, which included development of strategic corridors, then route options and then finally, refinement of the preferred route option and siting which best achieves the appraisal criteria.  Chapter 4 (section 4.3) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 5.13 (Traffic and Transport) of the NPS.  This demonstrates that the Applicant has complied with Part 5.13 of draft EN-1.	
	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, 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.  5.14.12 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.		
5.15 Resource and Waste Management	5.15.1 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	Waste management regulations will be adhered too. Waste will be disposed of in a way that is least damaging to the environment and to human health. The DCO Application is submitted with the Other Consents and Licences Document [REP1-011] which sets out other environmental licences, consents, and permits (that sit outside of the DCO) including waste, that would be required to	
	5.15.4 All large infrastructure projects are likely to generate 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 Permit, the EA will require the	build, operate and maintain the DCO Proposed Development.  Chapter 14 of the ES [APP-066] and its relevant appendices reports the outcome of the assessment of the likely significant environmental effects of the DCO Proposed Development on Material Assets and Waste. This Chapter concludes that the assessment of material resource consumption and waste	

DRAFT: Overarching National Policy Statement for Energy (EN-1)	(March 2022)
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Part 4 – Assessment Princ	rt 4 - Assessment Principles			
Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment		
	application to demonstrate that processes are in place to meet all relevant EP requirements.  5.15.8 The applicant should set out the arrangements that are proposed for managing any waste produced and prepare a report that sets out the sustainable management of waste and use of resources throughout any relevant demolition, excavation and construction activities  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  5.15.15 The Secretary of State should be satisfied that:  • any such waste will be properly managed, both on-site and off-site  • 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	generation and disposal to landfill demonstrates that the DCO Proposed Development will have no significant adverse environmental effects. As such, no additional mitigation measures are required.  Chapter 4 (section 4.3) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 5.14 (Resource and Waste Management) of the NPS.  This demonstrates that the Applicant has complied with Part 5.14 of draft EN-1.		
5.16 Water Quality and Resources	<ul> <li>5.16.3 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, 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)</li> <li>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.</li> <li>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.</li> <li>5.16.7 The ES should in particular describe:</li> </ul>	Initial assessments of groundwater and surface water quality and resource, fluvial geomorphology and flood risk have been carried out in order to identify the potential significant effects associated with the construction, operation and decommissioning of the DCO Proposed Development on potentially sensitive receptors.  The pipeline route was selected and designed to reduce the impact on flood risk, avoiding high levels of flood risk with the whole route within FZ1.  Chapter 18 of the ES (Water Resource and Flood Risk) [APP-070] and its associated appendices assess the likely significant effects of the DCO Proposed Development on Water Resources and Flood Risk. This chapter concludes that significant impacts are likely during the construction phase, rather than the operation or decommissioning phases. Embedded mitigation is proposed to remove any adverse impacts regarding water resource and flood risk.  The DCO Proposed Development is supported with a FRA [APP-166 and APP-167] for flood risk areas in England and a FCA [AS-004 to AS-006] for Wales.		

#### Part 4 – Assessment Principles

Topic/Policy	NPS Requirement (Relevant Policy Text)	Compliance Assessment
Topic/Policy  I a series of the series of th	NPS Requirement (Relevant Policy Text)  • 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  • 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 Abstraction Licensing Strategies) and also demonstrate how proposals minimise the use of water resources and water consumption in the first instance  • 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  • 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  • how climate change could impact any of the above in the future  • any cumulative effects  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, designated areas for storage and unloading, with appropriate drainage facilities, should be clearly marked.  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.  5.16.12 The Secretary of State will need to give impacts on the water environment more weight where a project would have an adverse effect on the	Compliance Assessment  Ongoing engagement with the EA, NRW, the local authorities and Natural England informed the assessment of flood risk.  These documents are considered to be in accordance with paragraph 5.7.5 of EN-1 which sets out the minimum requirements in addition to supplementary guidance documents Planning Policy Statement 25 (PPS25), TAN15 for Wales (or the latest versions since the adoption of EN-1).  Mitigation measures and management plans are secured through the REAC [CR1-109 and REP1-015].  Chapter 4 (section 4.3) of the Planning Statement [REP1-013] provides an assessment of the DCO Proposed Development against Part 5.15 (Water Quality and Resources) of the NPS.  This demonstrates that the Applicant has complied with Part 5.15 of draft EN-1.

#### **TABLE 2-4 ACCORDANCE WITH DRAFT NPS EN-4**

DRAFT: National Policy Statement for G	Gas Supply Infrastructure and Gas and	Oil Pipelines (EN-4) (March 2023)
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Part 2 - Assessment and Technology-Specific Inform	ation
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Policy	Policy	Policy
2.3 Climate Change Adaption	<ul> <li>2.3.4 As climate change is likely to increase risks to some of this infrastructure, from flooding or rising sea levels for example, applicants should in particular set out how the proposal would be resilient to: <ul> <li>increased risk of flooding;</li> <li>effects of rising sea levels and increased risk of storm surge;</li> <li>higher temperatures;</li> <li>increased risk of earth movement, costal erosion, or subsidence from increased risk of flooding and drought; and</li> <li>any other increased risks identified in the applicant's assessment.</li> </ul> </li> <li>2.2.3 The resilience of the project to climate change should be assessed in the Environment Statement (ES) accompanying an application. For example, future increased risk of flooding should be covered in the flood risk assessment.</li> </ul>	Climate change adaption has been considered when designing and selecting the route option. The risk of flooding, effect of greenhouse gas emissions to the atmosphere, and embedded carbon have been considered as part of the design and assessment of impact and mitigation. This is further expanded on in ES Chapter 7 [APP-059] and ES Chapter 10 [APP-062] and their associated appendices. Climate Change has also been considered cumulatively across each chapter of the ES, wherein the inter-dependencies are assessed. Where a combined impact is considered, it is mitigated or justified accordingly.  The design of the pipeline has considered those measures to make the pipeline more resilient and safer to climate change, there are no significant impacts on climate change resulting from the laying of this pipeline.  Generally, the use of pipelines offers a betterment on emissions given alternative means of transport such as tanker via road.  Compliance with the Climate Change Adaptation policy in Part 4.8 of EN-1 has been covered in Chapter 4 (section 4.2) of the Planning Statement [REP1-013].  The Applicant also explains in Chapter 4 that the DCO Proposed Development accords with Part 2.3 of draft EN-4.
2.4 Consideration of "good design" for energy infrastructure	<ul> <li>2.4.1 The Planning Act 2008 requires the Secretary of State to have regard, in designating an NPS, to the desirability of good design.</li> <li>2.4.2 Applicants should consider the criteria for good design set out in EN-1 Section 4.6 at an early stage when developing projects.</li> </ul>	The DCO Proposed Development will utilise best practice through the available technology, industry standards and construction techniques to minimise impacts and local inconvenience appropriately and effectively as demonstrated within <b>Chapter 3</b> of the Environmental Statement [APP-055]. The design development process included the identification of mitigation commitments, both for mitigation embedded in the design and also good practice mitigation. There will be a number of permanent BVS and AGI locations across the pipeline route which will typically consist of a fenced compound, cathodic protection transformer rectifier cabinets and some above ground connection. <b>Chapter 12</b> of the ES [APP-064] concludes that with the application of mitigation these would not give rise to a significant adverse impact in terms of their visual prominence.

**HyNet Carbon Dioxide Pipeline** National Policy Statement Tracker

		The design development process includes the identification of mitigation commitments, for mitigation embedded in design and also good practice mitigation, this is secured through the REAC [CR1-109 and REP1-015] and OCEMP [CR1-119 and REP1-017]. Compliance with the Consideration of Good Design policy in Part 4.6 of EN-1 has already been covered in Chapter 4 (section 4.2) of the Planning Statement [REP1-013].  The Applicant also explains in Chapter 4 that the DCO Proposed Development accords with Part 2.4 of draft EN-4.
2.5 Hazardous Substances	<ul> <li>2.5.1 Section 4.13 of EN-1 sets out the regime for obtaining hazardous substances consent from the IPC where it is required.</li> <li>2.5.2 All establishments wishing to hold stocks of certain hazardous substances, which include oil and gas, above a threshold quantity must consult the Hazardous Substances Authority, which is usually the local planning authority, and the Health and Safety Executive (HSE) at pre-application stage. In the case of natural gas, the threshold is 15 tonnes.</li> <li>2.5.3 The HSE will consult the Environment Agency (EA) in England, and Natural Resources Wales (NRW) in Wales, who are the COMAH competent authorities alongside the HSE for non-nuclear activities.</li> </ul>	The Pipeline Safety Regulations define a 'major accident hazard pipeline' as one which conveys a dangerous fluid, and which has the potential to cause an accident.  The Applicant has engaged and will continue to engage with the HSE with respect to compliance with hazardous substances legislation as shown within the Consultation Report [APP-031].  Where it is required, other consents have been shown in the Other Consents and Licences Document [REP1-011]. The Applicant knows of no reason as to why these would not be secured.  Compliance with the Hazardous Substances policy in Part 4.13 of EN-1 has already been covered in Chapter 4 (section 4.2) of the Planning Statement [REP1-013].  The Applicant also explains in Chapter 4 that the DCO Proposed Development accords with Part 2.4 of draft EN-4.
2.21 Gas and Oil Pipelines: Applicant Assessment	2.21.1 When designing the route of new pipelines applicants should research relevant constraints including proximity of existing and planned residential properties, schools and hospitals, railway crossings, major road crossings, below surface usage and proximity to environmentally sensitive areas, main river and watercourse crossings.	A large number of options for the route of the new pipeline were identified and considered, and a sifting process carried out based on environmental, planning and engineering factors. The number of corridor options has been reduced to a single preferred corridor which will be further consolidated through detailed design.
	2.21.2 Applicants should undertake desktop studies in the first instance, followed up by consulting the appropriate authority, operator, or conservation body if necessary.	The Applicant is considered to have demonstrated the most viable and least harmful route through options appraisal as demonstrated within the <b>Chapter 4</b> of the ES <b>[APP-056]</b> in compliance with Part 4.4 of EN-1 and Part 2.21 of EN-4.
	2.21.3 Undetected underground cavities from mine workings, abandoned industrial sites and other activities, such as waste disposal, or other utilities' services (water, telecommunication, etc.) could have an effect on the integrity and safety of a	

pipeline. The effects might include collapse of underground tunnels, damage to utility services and pollution of water courses.

- 2.21.4 Applicants should undertake desktop surveys to identify historic or current mine workings, underground cavities serving industrial usage, the nature of any made ground, waste sites, unexploded ordnance, utility services and any other below surface usage when assessing routes for a pipeline.
- 2.21.5 When choosing a pipeline route, applicants should seek to avoid or minimise adverse effects from usage below the surface.

#### **Noise and Vibration**

- 2.21.17 The applicant will need to identify all the noise and vibration sensitive receptors likely to be affected during these phases and consider any associated pipeline maintenance or protection that may be additionally required
- 2.21.18 During the pre-construction phase there could be vibration effects from seismic surveys. During construction, tasks may include site clearance, soil movement, ground excavation, tunnelling, trenching, pipe laying and welding, and ground reinstatement.
- 2.21.19 In addition, increased HGV traffic may be generated on local roads by the movement of materials. These types of noise and vibration impacts will need to be assessed.
- 2.21.21 A new gas pipeline may require an above ground installation such as a gas compression station on the route of the pipeline to boost transmission line pressure; these should be outside of protected landscapes wherever possible.

#### Biodiversity, Landscape and Visual

- 2.21.25 These comprise the effects upon specific landscape elements within and adjacent to the pipeline route, such as grasslands, field boundaries (hedgerows, hedge banks, drystone walls, fences), trees, woodlands, and watercourses.
- 2.21.26 There will also be temporary visual and landscape impacts caused by the need to access the working corridor and to remove flora and soil.
- 2.21.27 The working width of the pipeline will vary depending on the surrounding terrain. Temporary impacts could include large excavations where deep pits are needed for boring beneath rivers, roads, and sensitive features.
- 2.21.28 The considerations in this section also apply to any pipeline maintenance or protection that may be additionally required and associated impacts.
- 2.21.31 The application should also include proposals for reinstatement of the pipeline route as close to its original state as possible and take into account any

Following Statutory consultation some detailed design refinement to reduce the impact of the pipeline has been undertaken and this route is now proposed in this DCO Application.

#### **Noise and Vibration**

**Chapter 15** of the ES **[APP-067]** and its relevant appendices reports the outcome of the assessment of likely significant environmental effects arising from the DCO Proposed Development on noise and vibration during the construction, operation and decommissioning phases. Significant impacts caused from likely noise effects arising from the DCO Proposed Development construction activities are proposed to be accordingly mitigated as part of the development of the Detailed Design.

The Noise Policy Statement for England and other relevant national policies, regulations, guidance and standards have been considered in the environmental assessment of the potential noise and vibration impacts of generated by the DCO Proposed Development. A noise and vibration assessment [CR1-036] has informed the EIA.

Where the pipeline is to be constructed in urban areas the noise impacts are not considered to be significantly more impactful compared to the typically rural route. Good practice measures will be used to minimise the impact on the closest properties, however, there may be some noise impacts temporarily during construction.

Ongoing engagement and consultation with the EA, Local Authorities and Natural England will be undertaken to discuss approach.

#### Biodiversity, Landscape and Visual

Chapter 12 of the ES [APP-064] and its relevant appendices provide an assessment of the likely significant effects of the DCO Proposed Development on landscape character and visual amenity. The appendices contain the Landscape and Visual Impact Assessment (LVIA) Methodology [APP-140]. Chapter 12 concludes that whilst all proposed mitigation will bring a reduction to the visual impact, some significant effects are expected to result on the landscape character and sensitive views as a result of the construction phase of the DCO Proposed Development.

Vegetation loss prior to construction would cause a primary impact on views during both construction and operation, though this is temporary and proposed to be screened where required. It is proposed to reinstate land to its former use where possible.

During operation, above ground infrastructure will be a more permanent fixture on the landscape. Mitigation is proposed as outlined within the REAC **[CR1-**

requirements for agreements with the landowner to access areas for aftercare and management work.

#### Water Quality and Resource

- 2.21.37 Constructing pipelines creates corridors of surface clearance and excavation that can potentially affect watercourses, aquifers, water abstraction and discharge points, areas prone to flooding and ecological receptors. Pipeline impacts could include:
- · inadequate or excessive drainage;
- interference with groundwater flow pathways;
- · mobilisation of contaminants already in the ground;
- · the introduction of new pollutants;
- flooding;
- disturbance to water ecology;
- · pollution due to silt from construction; and
- disturbance to species and their habitats
- 2.21.38 Impacts during construction should be avoided as far as possible through route selection or mitigated if unavoidable and ground should be reinstated after construction.
- 2.21.40 Where the project is likely to have effects on water resources or water quality, for example impacts on groundwater recharge or on existing surface water or groundwater abstraction points, or on associated ecological receptors, the applicant should provide an assessment of the impacts in line with Section 5.16 of EN-1 as part of the ES.
- 2.21.41 Where the project is likely to give rise to effects on water quality, for example through siltation or spillages, discharges from maintenance activities or the discharge of disposals such as wastewater or solvents, the applicant should provide an assessment of the impacts

#### Soil and Geology

- 2.21.44 Applicants must assess the stability of the ground conditions associated with the pipeline route and incorporate the findings of that assessment in the ES (see Section 4.2 of EN-1) as appropriate.
- 2.21.45 Desktop studies, which include known geology and previous borehole data, can form the basis of the applicant's assessment.

**109 and REP1-015]** such as landscape planting. Whilst this will take time to fully screen any infrastructure, it is considered that it will reduce the impact of the DCO Proposed Development over time. The Landscape and Ecological Mitigation Plan **[APP-230]** highlights the proposed screening.

Compliance with the Biodiversity policy in Part 5.13 of EN-1 and the Landscape policy in Part 5.9 of EN-1 has already been covered in **Chapter 4 (section 4.2)** of the Planning Statement [REP1-013].

#### **Water Quality and Resource**

**Chapter 18** of the ES **[APP-070]** and its associated appendices assess the likely significant effects of the DCO Proposed Development on Water Resources and Flood Risk. This chapter concludes that significant impacts are likely during the construction phase, rather than the operation or decommissioning phases. Embedded mitigation is proposed to remove any adverse impacts regarding water resource and flood risk.

The DCO Proposed Development is supported with a FRA [APP-166 and APP-167] for flood risk areas in England and a FCA [AS-004 to AS-006] for Wales. Ongoing engagement with the EA, NRW, the local authorities and Natural England informed the assessment of flood risk.

These documents are considered by the Applicant to be in accordance with paragraph 5.7.5 of EN-1 which sets out the minimum requirements in addition to supplementary guidance documents Planning Policy Statement 25 (PPS25), TAN15 for Wales (or the latest versions since the adoption of EN-1).

#### **Soil and Geology**

The predominant soils are freely draining slightly acid to acid loamy soils with more limited areas of freely draining lime-rich soils along with more limited areas of freely draining lime-rich soils and seasonally waterlogged loamy and clayey soils. The area of soil mapped as peat is relatively small.

The DCO Proposed Development has looked at a range of impacts relating to land contamination, geology, soils (type and quality) and mineral resource. Trenchless construction techniques including Horizontal Direction Drilling is proposed as part of the DCO Proposed Development.

**Chapter 11** of the ES **[APP-063]** provides a detailed assessment of the land use impacts of the DCO Proposed Development. It concludes that no significant residual effects for Land and Soil associated with the Construction, Operational or Decommissioning phases of the DCO Proposed Development are identified. A loss of agricultural land is acknowledged as permanent.

2.21.47 The assessment should cover the options considered for installing the pipeline and weigh up the impacts of the means of installation.

2.21.48 Where the applicant proposes to use horizontal directional drilling (HDD) as the means of installing a pipeline under a National or International Site and mitigating the impacts, the assessment should cover whether the geological conditions are suitable for HDD.

2.21.49 When considering any application where the pipeline goes under a designated area of geological or geomorphological interest, the applicant should submit details of alternative routes, which either bypass the designated area or reduce the length of pipeline through the designated area to the minimum possible, and the reasons why they were discounted.

2.21.50 Applicants should consult with the relevant statutory consultees at an early stage.

## 2.22 Natural Gas and Oil Pipelines: Mitigation Requirements

2.22.1 Where it is not considered practicable to select a route that avoids below surface usage, applicants must demonstrate in the ES that mitigating measures will be put in place to avoid adverse effects both on other below ground works and on the pipeline.

#### **Noise and Vibration**

2.22.3 Noise mitigation measure applicants should consider for gas and oil pipelines, in particular their associated above-ground installations, include screening or enclosure of compressors and pumps.

#### **Biodiversity, Landscape and Visual**

2.22.6 Mitigation measures to protect the landscape, visual amenity and ecology could include reducing the working width required for the installation of the pipeline to reduce the impact on the landscape where it will not be possible to fully reinstate the route.

2.22.7 In circumstances where the habitat to be crossed contains ancient woodland, ancient or veteran trees, trees subject to a Tree Preservation Order, or hedgerows subject to the Hedgerows Regulations 1997, the applicant should consider whether it would be feasible to use HDD under the ancient woodland or thrust bore under the protected tree or hedgerow and the Secretary of State should consider requiring this, where not included in the proposal.

#### **Water Quality and Resources**

2.22.8 Mitigation measures to protect the water environment could include techniques for crossing rivers and managing surface water before and after

The Environmental Statement [APP-055] outlines the respective impacts and mitigation within each chapter. The design development process included the identification of mitigation commitments, both for embedded mitigation and through best practice.

All mitigation measures are set out in the Register of Environmental Actions and Commitments (REAC) [CR1-109 and REP1-015].

#### **Noise and Vibration**

To reduce the risk of nuisance or environmental incident, which includes noise, vibration and air quality, the OCEMP [REP1-017 and CR1-119] sets out a number of measures to be implemented.

Chapter 15 of the ES [APP-067] and its relevant appendices reports the outcome of the assessment of likely significant environmental effects arising from the DCO Proposed Development on noise and vibration during the construction, operation and decommissioning stages. Significant impacts caused from likely noise effects arising from the DCO Proposed Development construction activities are proposed to be accordingly mitigated as part of the development of the Detailed Design.

#### Biodiversity, Landscape and Visual

The Applicant considers alternatives at Chapter 3 of the ES [APP-056], and the Environmental Statement Addendum supporting Change Request 1 [CR1-124] and demonstrates that the Order Limits are the only suitable location to deliver the DCO Proposed Development. A number of options for the route of the new pipeline were identified and considered, and a sifting process carried out based on environmental, planning and engineering factors. The number of corridor

construction, including restoring vegetation and using sustainable drainage systems to control run-off.

#### Soil and Geology

- 2.22.10 Mitigation measures to minimise any adverse effects on soil and geology should include measures to ensure that residual impacts on the surface are minor, for example some differential vegetation growth.
- 2.22.11 Mitigation measures should include appropriate treatment of soil (and in particular topsoil) during site construction and other infrastructure activity (and appropriate soil storage and reinstatement in line with the principles and practices outlined in the Code of Practice for the Sustainable Management of Soils on Construction Sites and the Agricultural Land Classification which provides guidelines on soil handling and restoration criteria and land quality.
- 2.22.12 Where HDD is proposed, the applicant should provide an alternative plan for installing the pipeline in the event that HDD fails. Such alternative means could include open cut, micro-tunnelling and tunnelling.

options has been reduced to a single preferred corridor which will be further consolidated through detailed design.

This visual impact to the landscape is considered further within **Chapter 12** of the ES **[APP-064]** which further concludes that through the use of sufficient mitigation (screening, planting around the BVS's and AGI's), the impacts of the new above ground infrastructure can be mitigated.

These Chapters conclude that no significant residual effects are anticipated on any other heritage assets or their settings as a result of the construction or operation works.

#### **Water Quality and Resources**

The pipeline route was selected and designed to reduce the impact on flood risk, avoiding high levels of flood risk with the whole route within FZ1.

**Chapter 18** of the ES **[APP-070]** and its associated appendices assess the likely significant effects of the DCO Proposed Development on Water Resources and Flood Risk. This chapter concludes that significant impacts are likely during the construction phase, rather than the operation or decommissioning phases. Embedded mitigation is proposed to remove any adverse impacts regarding water resource and flood risk.

The DCO Proposed Development is supported with a Flood Risk Assessment (FRA) [APP-166 and APP-167] for flood risk areas in England and a Flood Consequences Assessment (FCA) [AS-004 to AS-006] for Wales.

#### Soil and Geology

The DCO Proposed Development has looked at a range of impacts relating to land contamination, geology, soils (type and quality) and mineral resource. Trenchless construction techniques including Horizontal Direction Drilling is proposed as part of the DCO Proposed Development.

**Chapter 11** of the ES **[APP-063]** provides a detailed assessment of the land use impacts of the DCO Proposed Development. It concludes that no significant residual effects for Land and Soil associated with the Construction, Operational or Decommissioning phases of the DCO Proposed Development are identified. A loss of agricultural land is acknowledged as permanent.

All mitigation measures can be found in the ES [APP-053 to APP-060, AS-025, APP-062 to APP-072] and REAC [CR1-109 and REP1-015] with Consultation with relevant stakeholders recorded in the Consultation Report [APP-032].