



Scotland England Green Link 2 - English Onshore Scheme

Environmental Statement:
Volume 2

Chapter 17: Cumulative and In-Combination Effects

May 2022

For: National Grid Electricity Transmission

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17. Cumulative Effects

17.1 Introduction

This chapter of the Environmental Statement (ES) considers the potential for cumulative intra-project effects (combinations of impacts from the English Onshore Scheme upon a single receptor) and cumulative inter-project effects (impacts from the English Onshore Scheme in combination with other relevant developments upon a single receptor). The cumulative effects assessment draws upon the results of the assessment of the proposed English Onshore Scheme as reported in chapters 7 to 16 of this ES, and information publicly available relating to the impacts of other identified cumulative schemes.

This chapter is supported by **Figure 17-2**, and should be read in conjunction with **Appendix 17A** (Long List of Developments).

17.1.1 Legislative and Policy Framework

17.1.1.1 EIA Regulations

Schedule 4 Part 5 of the 2017 EIA Regulations (Ref 17-1) requires the inclusion of a description of likely significant effects from the development on the environment, resulting from:

“e) the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources”

Schedule 4 Part 5 of the 2017 EIA Regulations also requires that the description of the likely significant effects should cover:

“the direct effects and any indirect, secondary, cumulative, trans-boundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the development.”

17.1.1.2 National Planning Policy Framework (NPPF)

The NPPF (Ref 17-2) paragraph 185 requires that cumulative effects are considered in decision-making:

“Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development”.

17.1.1.3 PINS Advice Note 17

The Planning Inspectorate (PINS) gives guidance for cumulative assessment (Ref 17-3). It states that:

“...applicants should, amongst other matters, consider mitigation for cumulative effects in consultation with other developers; assess cumulative effects on health; (...) consider positive and negative effects; and consider environmental limits (e.g. the potential for water quality effects to arise due to incremental changes in water quality)”.

17.2 Assessment Methodology

A range of public sector and industry-led guidance is available on the approach to assessing cumulative effects but at present there is no single, agreed industry standard method. Whilst the English Onshore Scheme is not a Nationally Significant Infrastructure Project (NSIP), the approach to the assessment of cumulative intra-project and inter-project effects broadly follows the guidance provided within PINS Advice Note 17 (Ref 17-3).

For the purpose of this ES, and following guidance set out in the Institute of Environmental Management and Assessment (IEMA) ‘Special Report - The State of EIA Practice in the UK’ (Ref 17-4), cumulative effects have been defined under two categories: intra-project effects and inter-project effects.

17.2.1 Intra-Project Effects

As outlined in **Chapter 1: Introduction**, the English Onshore Scheme forms one element of the wider Project, along with the Marine Scheme and Scottish Onshore Scheme. Due to the distance between the English Onshore Scheme and the Scottish Onshore Scheme, intra-Project cumulative effects to individual receptors will not occur, for example no property or ecological site would experience effects from both. Similarly, although there is a slight overlap of the English Onshore Scheme and Marine Scheme in the intertidal area between Mean High Water Springs and Mean Low Water Springs (as shown in **Figure 1-2**), as the HVDC cable reaches the landfall site (part of the English Onshore Scheme) via HDD, the works which could give rise to environmental impacts are physically separated and hence no significant intra-Project cumulative effects to individual receptors are predicted to occur. For receptors (such as agricultural land or protected species) where the resource or population could be considered as a whole across the entire Project, it is considered that there would be no significant cumulative effects due to the mitigation measures proposed by each element of the Project.

The separate EIA/EA reports produced for the English Onshore Scheme, Marine Scheme and Scottish Onshore Scheme provide an environmental assessment of each topic area for which potential environmental effects could arise from that element. Once the assessment of the other elements of the Project is complete, a Bridging Document will be prepared which considers the Project as a whole and summarises the main interactions of these three individual environmental assessments. The Bridging Document will be made available on the project website as soon as it is available, but as highlighted above, there are no significant in-combination impacts between the English Onshore Scheme, Marine Scheme or Scottish Onshore Scheme.

Intra-project effects can also derive from combinations of impacts from construction and/or operation of the English Onshore Scheme upon a single receptor or resource which, when acting together, would result in a new or different likely significant effect, or an effect of greater significance than one impact would result in when considered in isolation. This includes:

- Where potential impacts as a result of the proposed underground DC cable route and the proposed converter station may combine to affect the same receptor, such as the disruption of visual amenity from multiple views from an adjacent residential property; and
- Where a common receptor is being affected by two or more effects reported in different specialist assessments. An example would be where a local resident is affected by dust, noise and a loss of visual amenity during the construction of the scheme, with the result being a greater nuisance than each individual effect alone.

Where intra-project effects on common receptors may occur as a result of impacts from both the DC cable and the converter station, this is discussed in each of the specialist chapters (7 to 16). This is however also summarised in Section 17.3.

Where intra-project effects may occur through a common receptor being affected by two or more effects reported in different specialist assessments (e.g. the two separate impacts may interact or combine to result in an intra-project effect), the identification and assessment process has been undertaken in three key steps:

- The first step in the assessment has been to consider where there is the potential for an intra-project effect to occur;
- The second step has been to review the results of specialist assessments to identify potential common receptors and the residual effects which they are predicted to experience; and
- The final step has been an assessment of the intra-project effects on common receptors.

The English Onshore Scheme and the Marine Scheme are not considered to result in intra-project effects. Whilst there is overlap in the intertidal zone the potential effects which occur on common or shared receptors are as a result of the same activity, landfall installation. Effects occurring as a result of the same activity are not considered to be intra-project effects.

17.2.2 Identifying Significance

The significance of potential interactions between two or more effects on a common receptor have been identified by reviewing the topic conclusions within the environmental assessment topics identified in this ES, in order to establish where individual impacts may combine and result in likely significant

effects. It should be noted that where only one effect has been identified for a particular receptor or only one topic has identified effects on that receptor there is no common receptor and therefore no potential for an intra-project effect to occur.

Intra-project effects have therefore only been identified where more than one specialist assessment chapter has identified a residual effect of minor significance or greater on an individual or group of common receptors. Typically, receptors which are likely to experience an intra-project effect are those which are more sensitive to change, for example people, whilst those receptors which are more tolerant to change, for example aspects of the physical environment such as geology, are less likely to experience an intra-project effect.

The significance of intra-project effects upon environmental receptors and resources has been determined using professional judgement (with input provided from those responsible for the production of the individual topic assessments), and with reference to the significance matrix in **Table 5-5** within **Chapter 5: Approach to Environmental Assessment**. Typical descriptions for effects in the context of cumulative assessment are noted in **Table 17-1**.

Table 17-1: Typical descriptions of Significance Categories

Significance Category	Indicative Description ¹	Significant Effect?
Major (adverse or beneficial)	Where the cumulative impacts of the scheme result in a large scale change to a sensitive receptor, resulting in a highly significant (positive or negative) effect. A detrimental change will likely exceed accepted thresholds; conversely, a beneficial change will likely result in a major contribution to previously poor conditions or contributions to national targets. These effects may represent key factors in the decision-making process. Effects would be: <ul style="list-style-type: none"> widespread/ Large scale for a receptor of high value²; permanent for a receptor or receptors of high value; localised for a receptor or receptors of very high value; and temporary for a receptor or receptors of very high value. 	Yes
Moderate (adverse or beneficial)	Where the cumulative impacts of the scheme result in a medium scale change which, although not beyond an acceptable threshold, is still considered to be generally significant. Effects at this level can be considered to be material decision-making factors. Effects would be: <ul style="list-style-type: none"> permanent for a receptor or receptors of medium value; localised for a receptor or receptors of high value; and temporary for a receptor or receptors of high value. 	Yes, typically - but subject to application of professional judgement.
Minor (adverse or beneficial)	Where cumulative impacts of the scheme result in a small change that, whilst noteworthy, would not be significant (positive or negative). These effects may be raised as local issues and may be of relevance in the detailed design of a project but are not critical in the decision-making process. Effects would be: <ul style="list-style-type: none"> permanent for receptors of low value; localised for a receptor or receptors of medium or high value; and temporary for a receptor or receptors of medium or high value. 	No
Negligible	Where cumulative impacts of the scheme result in a very small scale change that is so small and unimportant that it is considered acceptable to disregard. Effects which are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error, these effects are unlikely to influence decision making irrespective of other effects.	No

¹ Adapted from Design Manual for Roads and Bridges (DMRB) Volume 11, Section 2, Part 5 HA205/08 (Ref 17-5)

² Note the term 'value' here refers to both intrinsic value and sensitivity.

17.2.3 Inter-Project Effects

Inter-project effects derive from the impacts from the English Onshore Scheme in combination with other relevant developments. These impacts may on an individual basis result in no significant effects, but when considered together with the impacts of other relevant developments, could result in a new or different likely significant effect or an effect of greater significance than the English Onshore Scheme's effect when considered in isolation.

In accordance with the approach contained within Advice Note Seventeen (Ref 17-3), the approach to cumulative assessment follows a staged approach, as summarised in Error! Reference source not found. and detailed below.

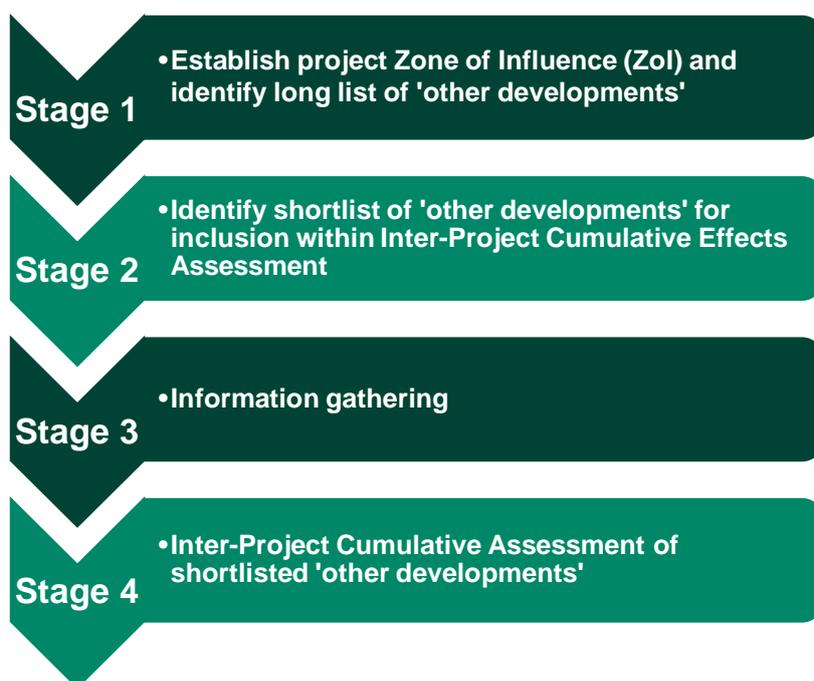


Figure 17-1: Staged approach to inter-project cumulative assessment

17.2.3.1 Stage 1: Establishing the long list of 'other development under construction and/or approved development'

This stage involved establishing the English Onshore Scheme's Zones of Influence (Zol) associated with the topic areas assessed, within which a long list of other planned developments and development allocations were identified.

In order to establish the other relevant existing developments and/or approved developments, the study area for each environmental topic considered within the specialist discipline chapters was used to define the Zol. This has been developed based on an assumption that sensitive receptors at the furthest extent of the study areas used in Chapters 7 to 16 of this ES would also be at the furthest extent of a theoretical study area for other development. The Zol is the combined area over which the English Onshore Scheme and other developments could have impacts on the same receptors. The respective study areas and Zols for each environmental discipline are documented in **Table 17-2**. The maximum search areas used to prepare the long list reflected the study areas used in the Ecology and Nature Conservation and Landscape and Visual discipline assessments, i.e. up to 6 km from the converter station site, and up to 4 km from the DC cable planning application boundary.

Table 17-2: Summary of Zone of Influence by environmental discipline

Environmental Discipline	Study Area		Zone of Influence	
	Converter Station	DC Cable Route	Converter Station	DC Cable Route
Ecology and Nature Conservation	Construction and operation: defined as the planning application boundary plus up to a 2 km radius for nationally and locally designated sites, notable habitats and protected species (shown on Figure 7-1 in Chapter 7: Ecology and Nature Conservation) and a 10 km radius for internationally designated sites. As reported effects on internationally designated sites from the English Onshore Scheme are negligible or minor adverse (not significant), the 10km radius has not been used in this case to inform the Zone of Influence.		Up to 4 km from the planning application boundary.	
Landscape and Visual Impact Assessment	Construction and operation: 3 km from the proposed converter station site boundary, subject to local variations based on the ZTV.	Construction and operation: the DC Cable planning application boundary plus up to a 1 km radius, subject to local variations based on the ZTV.	6 km from converter station site.	Up to 2 km from the planning application boundary.
Archaeology and Cultural Heritage	Construction and operation: 500 m from the planning application boundary for designated heritage assets and their settings.		1 km from the planning application boundary.	
Geology and Hydrogeology	Construction and operation: 400 m from the planning application boundary for receptors and sources of contamination.	Construction: 400 m from the planning application boundary for receptors and sources of contamination. Operation: No operational phase impacts have been identified for Sections 1 to 3 of the English Onshore Scheme which comprise the DC cable route only.	800 m from the planning application boundary.	
Hydrology and Land Drainage	Construction and operation: 250 m from the planning application boundary for direct hydrological impacts to receptors. This is extended to 2km from the planning application boundary for indirect hydrological impacts to water bodies and water dependent habitats; and to 5 km for indirect impacts to people, property and infrastructure.		500 m from the planning application boundary.	
Agriculture and Soils	Construction and operation: within the planning application boundary, excluding areas considered to be marine or intertidal which do not have the potential to contain soils or agricultural land.		The potential loss of best and most versatile agricultural land cumulatively has been assessed at a regional level.	
Noise and Vibration	Construction and operation: receptors within 500 m of the English Onshore Scheme planning application boundary.	Construction: receptors within 500 m of the English Onshore Scheme planning application boundary. Operation: As the DC cables will be underground, there will be no operation noise or vibration effects.	1 km from planning application boundary.	
Traffic and Transportation	Roads which may be utilised during construction, and upon which there is the potential for a significant impact. These are a variable distance from the English Onshore Scheme, and included based on predicted increases in traffic flows and sensitivity of areas.		Surrounding highway network as identified in Chapter 14: Traffic and Transport.	

Environmental Discipline	Study Area		Zone of Influence	
	Converter Station	DC Cable Route	Converter Station	DC Cable Route
Socio-Economics, Recreation and Tourism	Within 500 m of the planning application boundary for private assets and PRoW.		1 km from planning application boundary.	
Waste and Materials	<p>Construction: The estimated materials availability and waste capacity data used in the Scheme assessment (Chapter 16: Material Assets and Waste) are based on future regional demand, including other significant projects within the Yorkshire and the Humber and North East of England regions.</p> <p>Operation: operational phase material and waste management issues are scoped out of the assessment as unlikely to result in significant effects (See Chapter 16: Material Assets and Waste).</p>		Not applicable.	

PINS Advice Note 17 notes that it is appropriate to consider the cumulative effects of the Scheme with existing developments and existing plans and projects that are ‘reasonably foreseeable’. As the Scheme is unlikely to commence construction until 2024 at the earliest, and commissioned in 2029, ‘reasonably foreseeable’ has been interpreted to include other development projects that are in planning. Therefore development projects were included in the long list where they are considered to be ‘major developments’ as defined by the Town and Country Planning (Development Management Procedure) Order (Ref 17-8) Part 1(2). The criteria for a ‘major development’ are:

- Employment proposals of 1,000 m² or more;
- Residential proposals with 10 or more houses or, where the number of houses is not known, a site area of 0.5 ha or more;
- Minerals or waste sites with an area of 1 ha or more; and
- Transport infrastructure proposals with an area of 1 ha or more.

Consideration was given to other developments that did not conform to the above criteria where these were in the immediate vicinity of the planning application boundary and were considered case-by-case as to whether they should be scoped in for cumulative assessment based on the scale and nature of the proposals. An initial review was undertaken to identify other development projects and development plan allocations that are likely to require consideration within the assessment of inter-project cumulative effects. This review considered applications submitted in the previous five years (between March 2017 and March 2022) using the National Infrastructure Planning website, and planning portals for East Riding of Yorkshire Council (ERYC) and Selby District Council (SDC) (Ref 17-6 and Ref 17-7, respectively) to produce a long-list of potential other developments. These other developments have been identified as they are of such a nature and proximity to the planning application boundary to have the potential to generate cumulative impacts when considered in context to the development of the English Onshore Scheme.

Table 17-3 is based on the Tier criteria as set out in Table 2 of Advice Note 17 (Ref 17-3), and shows the criteria used to assign a level of certainty to each development based on the availability of detail and information necessary for the assessment.

Table 17-3: Tier Criteria to assign certainty to other developments

Tier	Criteria
Tier 1	<ul style="list-style-type: none"> • under construction; • permitted application(s) but not yet implemented; • submitted application(s) but not yet determined

Tier	Criteria
Tier 2	<ul style="list-style-type: none"> projects on the Planning Inspectorate's Programme of Projects where a scoping report has been submitted.
Tier 3	<ul style="list-style-type: none"> projects on the Planning Inspectorate's Programme of Projects where a scoping report has not been submitted. identified in the relevant Development Plan (and emerging Development Plans – with appropriate weight being given as they move closer to adoption) recognising that there will be limited information available on the relevant proposals; identified in other plans and programmes (as appropriate) which set the framework for future development consents/approvals, where such development is reasonably likely to come forward.

A complete long-list of these other developments and their potential relationship with the English Onshore Scheme is included in **Appendix 17-A** and has been consulted on with ERYC and SDC to support the identification of any further relevant developments for inclusion in the long list.

17.2.3.2 Stage 2: Establishing a shortlist of 'other existing development and/or approved development'

Stage 2 involved a review of the long list of planned developments, to identify those developments to be taken forward for the assessment of cumulative effects. This included consideration for the nature and scale of the development, and potential temporal and/or spatial interactions with receptors also affected by the English Onshore Scheme in the relevant Zols. The application of professional judgement has been used to exclude those developments from further assessment which are unlikely to give rise to a significant cumulative effect.

The rationale for including or excluding each of the other developments for the shortlist is provided in the detail of the longlist (**Appendix 17-A**).

17.2.3.3 Stage 3: Information Gathering

This stage involved reviewing the available information relating to the shortlisted development(s), in order to establish the details of their likely environmental effects. In line with the PINS Advice Note 17, this included detail of:

- Proposed design and location information;
- Proposed programme of construction, operation and decommissioning; and
- Environmental assessments that set out baseline data and effects arising from the 'other existing development and/or approved development'.

Available information related to each of the shortlisted developments is detailed within the shortlist in **Section 17.3** and in **Table 17-4**.

17.2.3.4 Stage 4: Assessment

Those developments which had been identified through the preceding stages to have the potential to result in significant cumulative effects have been incorporated into the final assessment within this chapter, which involved identifying where effects are likely to occur and assessing the significance of those effects on environmental receptors and resources, taking into account any mitigation measures.

The developments incorporated into the final assessment are listed in **Section 17.3** of this chapter, and in **Table 17-4**.

The assessment was based on publicly available data from other proposed and committed developments and associated information which is currently in the public domain or has been provided to the Project. The assessment assumes that publicly available information is accurate; the assessment is also reliant on collaboration with a range of statutory consultees, neighbouring authorities and other developers to identify changes in information which may be pertinent to the assessment.

Where there were specific limitations associated with data, they are highlighted in the assessment.

17.3 Intra-project effects - Assessment

17.3.1 Effects between Project components

Intra-project effects relative to the English Onshore Scheme may occur as a result of installation of the underground DC cable route being completed simultaneously to:

- the installation of the subsea cable as part of the Marine Scheme; and/or
- the construction of the proposed converter station adjacent to Drax Power Station.

Due to the underground nature of the cable components of the Project, supported by the individual specialist assessments concluding that there will be no significant effects from the operation of the cable (as presented in chapter 7 to 16), there will be no potentially significant intra-project effects during operation.

17.3.1.1 Effects between the underground and subsea DC cables

As noted previously in the Chapter, whilst there is overlap in the intertidal zone the potential direct effects which occur on common or shared receptors in this area would be as a result of the same activity, landfall installation. Effects occurring as a result of the same activity are not considered to be intra-project effects.

The impact assessment of the English Onshore Scheme has concluded that installation of the cable at the landfall will not result in any significant adverse secondary or indirect effects. The siting of the landfall and routing of the underground and subsea cables have avoided designated and highly sensitive areas in the vicinity of the landfall, and the adoption of trenchless installation further minimises and avoids disturbance/displacement to receptors and users on the coastal and intertidal habitats. It is therefore concluded that there will be no significant combined (intra-project) effects with the construction (cable installation) of the English Onshore Scheme and the Marine Scheme.

17.3.1.2 Effects between the underground cable and converter station

The potential for intra-project effects as a result of the simultaneous installation of the underground DC and AC cables and construction of the converter station on a common environmental receptor or resource has been identified and assessed (where applicable) within each of the topic assessment chapters (Chapter 7 to 16) in this ES. In the assessment of Route Section 4, each assessment has considered the potential combined effects from relevant components of the English Onshore Scheme within the section (and in Section 3 where applicable).

Two disciplines have identified the potential for significant effects to occur in Route Section 4: Landscape and Visual Amenity (Chapter 8), and Noise and Vibration (Chapter 13). Whilst mitigation measures have been included within the design and project-specific mitigation identified to further reduce these potential impacts a residual effect is still likely. These effects are temporary only and for each of the effects further opportunities are available regarding the timing or phasing of works, which is subject to the appointed Contractor(s), to facilitate the further reduction of the magnitude of potential effects. Whilst there are also permanent potentially significant effects to visual amenity in views immediately adjacent to the converter station, these are as a result of the converter station in isolation, and not as an intra-cumulative effect between the converter station and DC cable route (due to the buried nature of the cable). Further detail is provided in the respective assessment chapters.

17.3.2 Effects between specialist topic assessments

An overview of where potential intra-project effects may interact or combine between specialist assessment topics may occur is provided in **Table 17-4**. It should be noted that an 'X' in the table denotes that a potential intra-project effect could occur, however, this does not mean that an intra-project effect will definitely arise.

Table 17-4: Overview of potential intra-project interactions between discipline topics

	Ch07 ECO	Ch08 LAN	Ch09 ARCH	Ch10 GEO	Ch11 HYDRO	Ch12 AGRI	Ch13 NOI	Ch14 TRA	Ch15 SOCIO	Ch16 MAT
Ch07 ECO		x			x	x	x			
Ch08 LAN			x						x	
Ch09 ARCH							x			
Ch10 GEO					x	x				x
Ch11 HYDRO						x				
Ch12 AGRI										x
Ch13 NOI								x	x	
Ch14 TRA									x	x
Ch15 SOCIO										
Ch16 MAT										

Potential common receptors have been identified following a review of the specialist chapters. **Table 17-5** provides a summary of the common receptors which have been identified, the potential interaction with other topics and their assessed significance of effect.

Table 17-5: Identification of potential common receptors

Topic	Potential Common Receptor(s)	Potential Interaction and significance of effect
Chapter 8: Landscape & Visual	Sensitive heritage assets Chapter 9: Archaeology and Cultural Heritage.	A review of the heritage assets within the study area, as well as the wider landscape, revealed that no intra-cumulative effects resulting from the English Onshore Scheme are predicted.
	Ecological receptors contributing to landscape value (Chapter 7: Ecology and Nature Conservation).	With the adoption of embedded and where required project specific mitigation, it is reasonable to conclude that once successfully established, the habitats identified within the English Onshore Scheme planning application boundary will be of at least the same or higher biodiversity value. When considered in combination with the habitat enhancements proposed at the converter and along the cable route including reinstatement of species poor hedgerow to species rich native hedgerows, it is concluded that the long-term residual effect of the construction phase of the English Onshore Scheme on habitats will therefore be Negligible (not significant) .

Topic	Potential Common Receptor(s)	Potential Interaction and significance of effect
Chapter 10: Geology and Hydrogeology	Soils during construction (Chapter 12: Agriculture & Soils).	The cumulative effects on soil quality have been determined in Chapter 12: Agriculture and Soils to be Negligible (not significant) .
Chapter 11: Hydrology and Land Drainage	Water dependent habitat (Chapter 7: Ecology and Nature Conservation).	Works will be completed transitionally across the route and therefore limiting activities surrounding each hydrology receptor. In addition, mitigation measures outlined within this chapter will be incorporated into the construction and operation of the components reducing or preventing impacts. Therefore, it has been determined that no intra-project cumulative effects on water resources and hydrology receptors are likely and any potential effects will be not significant .
	Impacts to local fluvial geomorphology (Chapter 10: Geology and Hydrogeology)	
Chapter 12: Agriculture and Soils	Loss of agricultural land (associated with ground-nesting birds) (Chapter 7: Ecology & Nature Conservation).	Given the relatively small amount of agricultural land affected (particularly considering the ubiquity of this habitat in the wider Humber region) and the temporary nature of the majority of effects, it is concluded that the magnitude of the potential effect with embedded mitigation is assessed as Negligible for ecological receptors. The significance of the potential effect is therefore minor adverse and not significant .
Chapter 13: Noise and Vibration	Changes in road traffic noise at noise sensitive receptors from construction traffic (Chapter 14: Traffic and Transport).	Changes in road traffic noise due to intra-project construction traffic are not of sufficient magnitude to result in changes from the assessment detailed in Section Error! Reference source not found. It is noted that traffic numbers have been predicted across all components of the English Onshore Scheme regardless and therefore consider intra-project effects as the basis of the assessment. Consequently, intra-project construction traffic results in a temporary Negligible effect (not significant) at all NSR.
	Noise sensitive ecological habitats or protected species (Chapter 7: Ecology and Nature Conservation).	Noise impacts associated with habitats and species is considered within Chapter 7: Ecology and Nature Conservation . This assessment concludes that the effect to habitats or protected species from noise impacts range from minor adverse to negligible (not significant) .
	Sensitive heritage assets Chapter 9: Archaeology and Cultural Heritage .	A review of the heritage assets within the study area, as well as the wider landscape, revealed that no intra-cumulative effects on assets from noise and vibration impacts are predicted.
Chapter 15: Socio-economics, recreation and tourism	Traffic impacts on sensitive socio-economic, recreational or tourism receptors (Chapter 14: Traffic and Transport).	The assessment reported within Chapter 15 has been undertaken for the English Onshore Scheme as a whole and therefore the effects defined in the chapter already take into account the intra-project cumulative effects. There are no intra-project cumulative effects on receptors related to socio-economic, recreational and tourism effects in the construction or operation phase.
	Noise and Vibration impacts on sensitive socio-economic, recreational or tourism receptors (Chapter 13: Noise and Vibration).	
	Visual impacts on sensitive socio-economic, recreational or tourism receptors (Chapter 8: Landscape and Visual Amenity).	

Topic	Potential Receptor(s)	Common	Potential Interaction and significance of effect
Chapter 16: Waste and Materials	Sensitive geological receptors (Chapter 10: Geology and Hydrogeology).		The assessment reported within Chapter 16 has been undertaken for the English Onshore Scheme as a whole and therefore the effects defined in the chapter already take into account the intra-project cumulative effects.
	Removal of BMV soils during construction (Chapter 12: Agriculture & Soils).		The residual significant effects after implementation of the relevant mitigation, for use of material resources and generation and management of waste will remain the same as stated in the assessment and is given below: <ul style="list-style-type: none"> • Material resource use: Minor Adverse and Not Significant; and • Generation and management of waste: Minor Adverse and Not Significant.
	Waste removal traffic (Chapter 14: Traffic and Transport).		The material required to be imported to site for access construction, site establishment and the fill material for the converter station site has been accounted for within the transport assessment. The waste generated, given the predicted limited quantities are regarded to be covered by the 20% uplift of traffic movement estimates accounted for the traffic assessment and therefore have been assessed as necessary by other disciplines. The traffic assessment concludes that the increase in traffic during both the construction and operational phases will have a Negligible impact , which would not be significant for all of the potential traffic and transport related potential effects.

Based on **Table 17-5**, no potentially significant intra-project cumulative effects have been identified as a result of the English Onshore Scheme.

17.4 Inter-Project Effects - Assessment

17.4.1 Identification of Other Developments

A complete long-list of other developments and their potential relationship with the English Onshore Scheme is included in **Appendix 17A**, and has been issued to the relevant consultees for feedback and identification of any further relevant developments for inclusion in the long list.

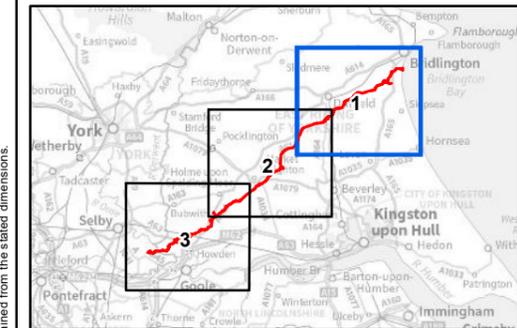
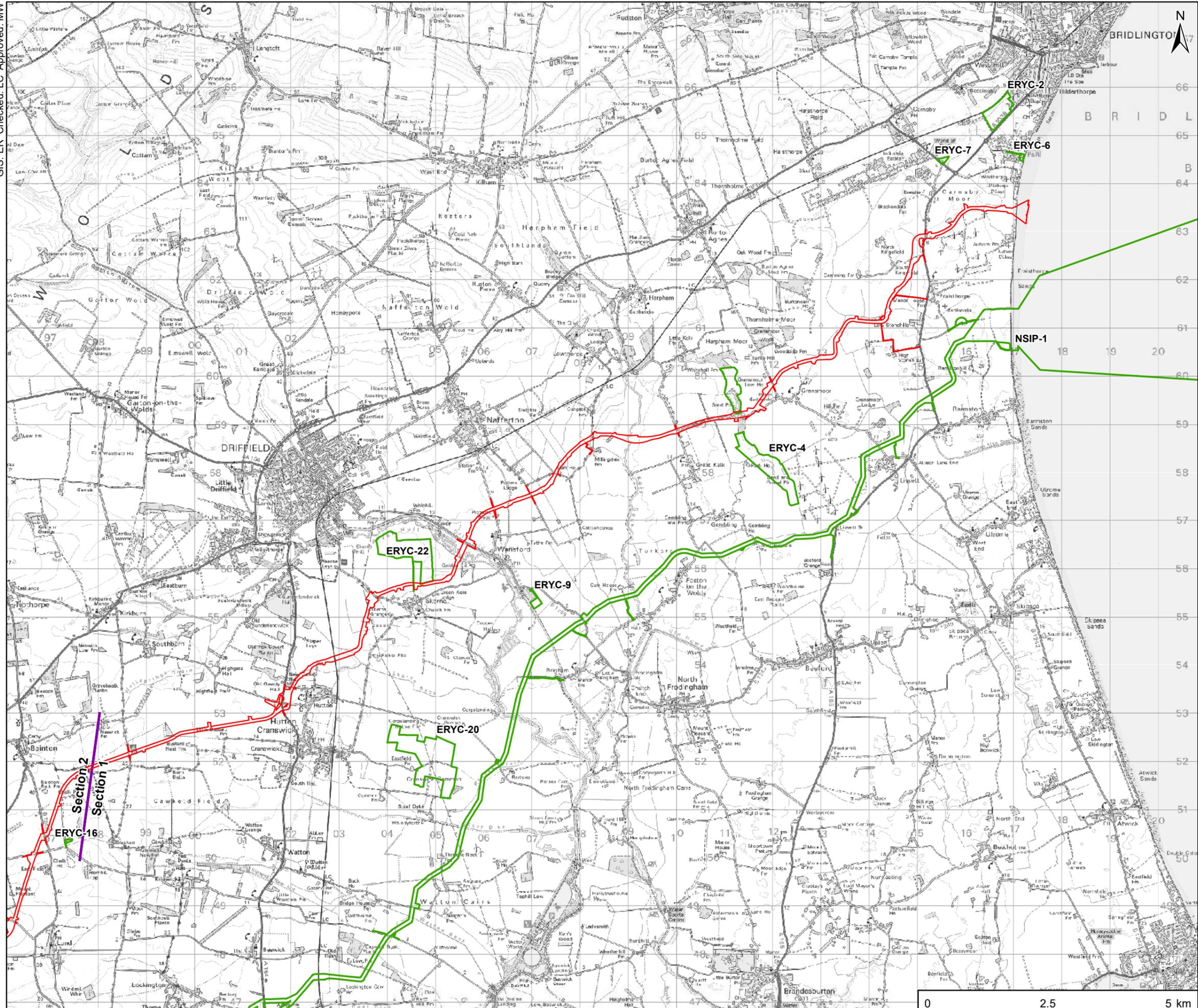
A total of 27 other developments were identified for inclusion within the shortlist. These are listed below, shown in **Figure 17-2** and described in further detail in **Table 17-6**:

- NSIP-1: Hornsea Project Four Offshore Windfarm (Generating Stations);
- NSIP-4: Drax Bioenergy with Carbon Capture and Storage (BECCS);
- NSIP-9: Humber Low Carbon Pipelines;
- ERYC-2: Erection of 470 dwellings with associated infrastructure, open space and landscaping;
- ERYC-3: Erection of 175 dwellings;
- ERYC-4: Extension of excavation area to Gransmoor Quarry and remediation to lake following ceasing of operation;
- ERYC-6: Siting of 28 chalets (14 twin units), creation of footpath and associated parking and landscaping following demolition of commercial and leisure buildings;
- ERYC-7: Change of use of land for siting of 46 static caravans etc;

- ERYC-9: Change of use of land and excavation works to create access from Driffield Canal and form a 22 berth marina for mooring leisure boats with access and car park;
- ERYC-13: Erection of 40 dwellings and associated access, parking, landscaping and infrastructure;
- ERYC-15: Change of use of existing buildings and land to provide a holiday park, artisan workshops with associated retail, artisan bakery, delicatessen, boulangerie, offices, craft pods, workshop, café/tearooms, farm shop, tackle shop display, exhibition and fishing lake including associated alterations to farm house and buildings, operational development, landscaping, vehicular access and drainage;
- ERYC-16: Installation of a ground mounted solar PV array;
- ERYC-18: Erection of up to 40 dwellings;
- ERYC-20: Construction of a solar farm and battery storage facility together with all associated works, equipment and necessary infrastructure;
- ERYC-22: Installation and operation of a solar farm with associated infrastructure, including photovoltaic panels, mounting frames, transformers/inverters, substation, access tracks, pole mounted CCTV cameras and fencing;
- ERYC-35: Erection of 600 dwellings with associated access, parking and infrastructure;
- SE-1: Development of an energy storage facility including battery storage containers; substations; power conversion systems; transformers and associated switchgear; HVAC equipment; communications and grid compliance equipment; temporary construction compound; CCTV; fencing; infrared lighting; access, drainage and landscaping works and associated development;
- SE-2: Demolition of Drax Power Ltd Flue Gas Desulphurisation (FGD) plant and associated restoration works;
- SE-3: Construction of battery energy storage system to provide energy balancing services to the National Grid including bund and landscaping;
- SE-4: Development of ground-mounted solar farm including associated infrastructure;
- SE-5: Development of a battery storage facility, associated infrastructure, access and grid connection;
- SE-8: Erection of 45 No dwellings with associated infrastructure (Camblesforth, North Yorkshire);
- SE-14: Development of an existing horticultural facility for indoor farming and agri-tech, including the construction of 3 No halls with associated process, service and administration buildings, landscaping, access improvements and additional car park access and associated infrastructure following partial demolition of existing buildings;
- SE-16: 5 wind turbines;
- SE-17: 50 mw battery storage system (BESS) on land off Barlow Common Road;
- SE-18: HGV park and welfare building and warehouse to serve existing Sedamyl UK Ltd plant and employment unit with associated landscaping, infrastructure works and vehicular, pedestrian circulation; and
- SE-20: Barlow Ash Mound, North West of Drax Power Station.

The cumulative assessment undertaken for each of these other developments is shown in **Table 17-6**.

- KEY
- Planning Application Boundary
 - Route Section Break
 - Cumulative Development Boundary
 - Tier 1

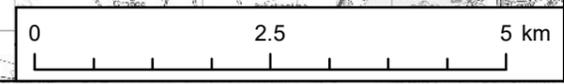


TITLE
**Figure 17-2
Cumulative Sites - Short-list**

REFERENCE
SEGL2_T_ES_17-2_v2_20220524

SHEET NUMBER
1 of 3

DATE
24/05/2022



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Coordinate System: British National Grid

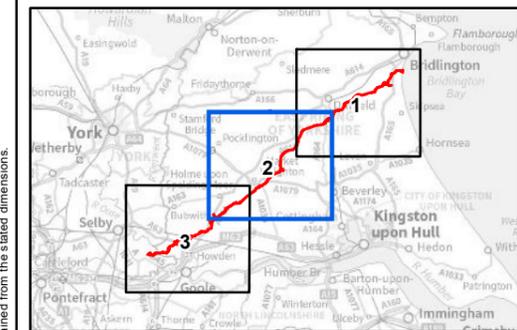
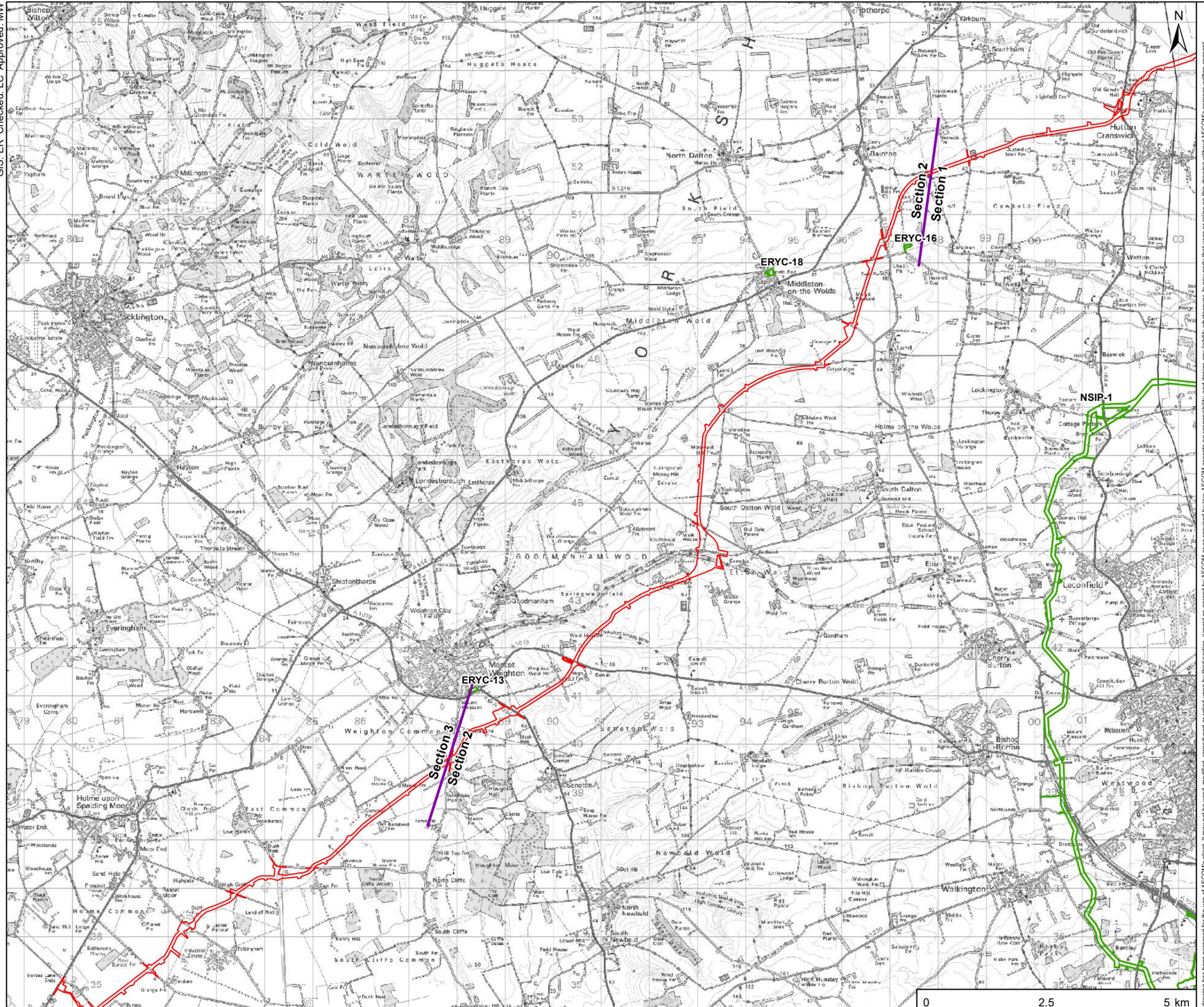
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PROJECT
Scotland England Green Link 2

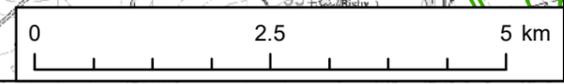
- KEY
- Planning Application Boundary
 - Route Section Break
 - Cumulative Development Boundary
 - Tier 1



TITLE
**Figure 17-2
Cumulative Sites - Short-list**

REFERENCE
SEGL2_T_ES_17-2_v2_20220524

SHEET NUMBER DATE
2 of 3 24/05/2022

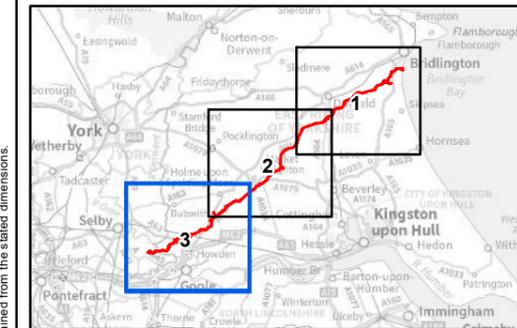
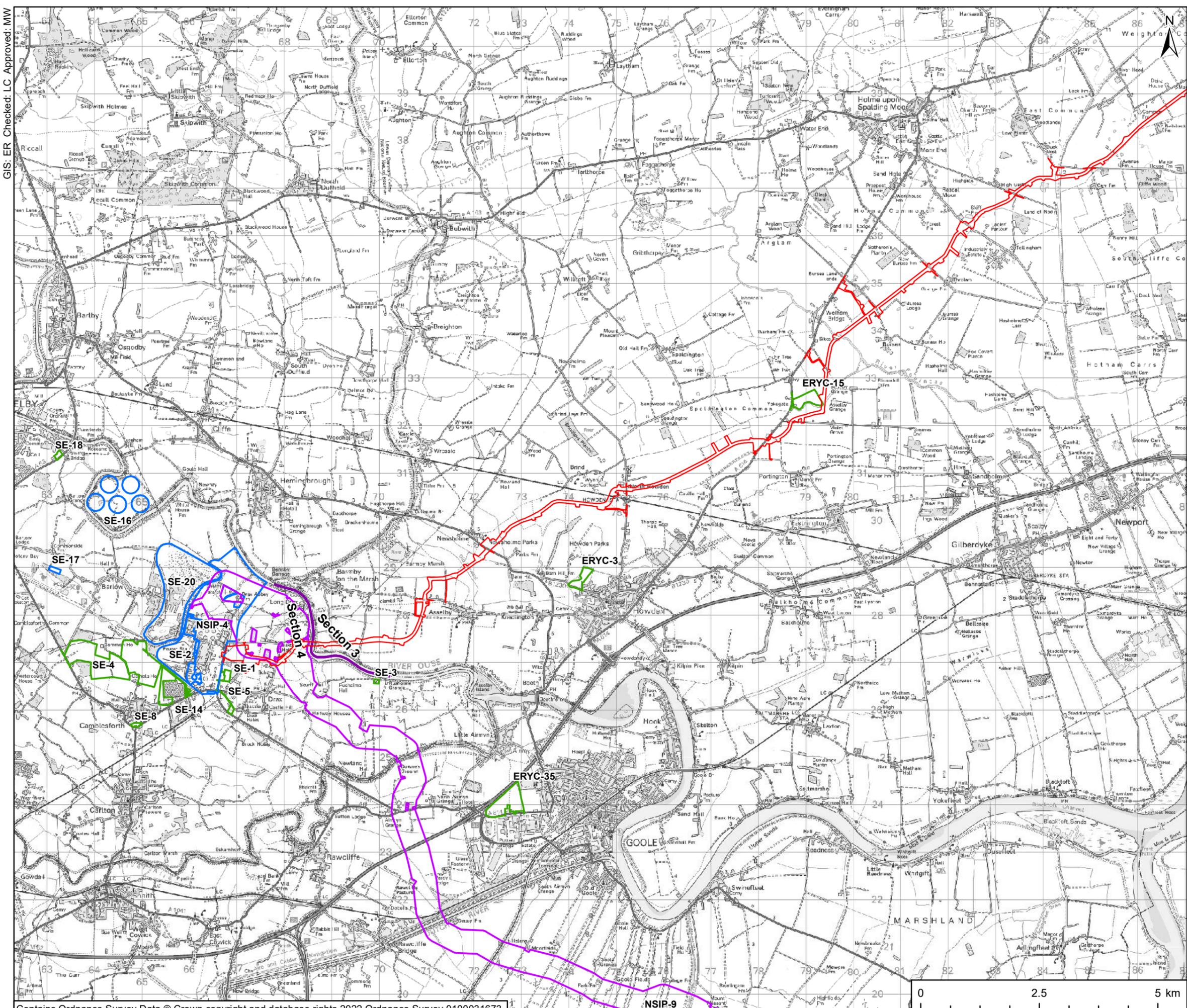


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PROJECT
Scotland England Green Link 2

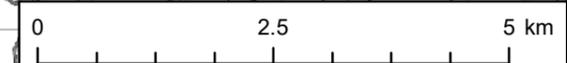
- KEY**
- Planning Application Boundary
 - Route Section Break
 - Cumulative Development Boundary**
 - Tier 1
 - Tier 2
 - Tier 3



TITLE
Figure 17-2
Cumulative Sites - Short-list

REFERENCE
SEGL2_T_ES_17-2_v2_20220524

SHEET NUMBER 3 of 3
DATE 24/05/2022



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17.4.2 Inter-Project Assessment

The assessment of the identified short-list of other developments is provided in **Table 17-6**. Where topics have been scoped out on the basis of exclusion from their respective Zols (outlined in **Table 17-2**), this has been stated within the assessment description.

An assessment of shared heritage receptors in **Chapter 9: Archaeology and Cultural Heritage** found no cumulative effects on the setting of designated and non-designated heritage assets, or direct physical impacts on any single asset. These are therefore not reported in **Table 17-6**.

An assessment of shared receptors in **Chapter 10: Geology and Hydrogeology** found no significant inter-project cumulative effects would occur as a result of the English Onshore Scheme and other proposed/ committed developments within its immediate area. These are therefore not reported in **Table 17-6**.

The cumulative hydrology and drainage assessment of the other developments and the English Onshore Scheme, as reported in **Chapter 11: Hydrology and Land Drainage**, has considered relevant pathways for impacts to shared receptors. The findings of the assessment identified that where there is simultaneous construction of the English Onshore Scheme and the other developments associated increases in local traffic increases the risk of runoff mobilising pollution (increased dust, fuel spills, oils, lubricants, soil and wear from tyres and brakes) from the individual haul routes combining into the same surface water receptors. This may lead to reduced water quality within the local watercourses. Each of these other developments have been, or will be, subject to an environmental assessment where impacts would be appropriately mitigated, and demonstrate compliance with national and local planning policy. On this basis, and given that no potentially significant effects have been identified as a result of the English Onshore Scheme in isolation, there are not considered to be any significant cumulative effects on hydrology or water quality. These are therefore not reported in **Table 17-6**.

Regional cumulative impacts (ERYC and SDC) from loss of BMV agricultural land area related to the English Onshore Scheme, combined with other developments defined in the Short List (**Table 17-6**), have been assessed within **Chapter 12: Agriculture and Soils**. These are therefore not reported in **Table 17-6**.

Forecasted construction traffic levels reported in **Chapter 14: Traffic and Transport** incorporate other committed developments considered relevant within the area (excluding NSIPs), and form part of the baseline for assessment. The cumulative effects of these are therefore not reported on individually in **Table 17-6**. An assessment of cumulative impacts on the road network from the English Onshore Scheme in combination with NSIPs identified in the shortlist is provided in **Table 17-6** where these have the potential to result in a significant effect.

Cumulative construction traffic noise effects for the English Onshore Scheme as a whole have also been assessed in **Chapter 13: Noise and Vibration**, based on the construction traffic assessment. Changes in noise due to cumulative construction traffic is unlikely to cause noise increase to be over 1 dB. Where this noise increase is experienced at residential receptors, this would not be significant. Consequently, cumulative construction traffic noise effects are equivalent to residual effects presented in **Chapter 13: Noise and Vibration** and not significant. Inter-project operational noise effects from building services noise would also not likely be significant, as it is expected the cumulative developments will be designed to achieve operational noise limits at the nearest noise sensitive receptor to each development. These effects are therefore not reported on in **Table 17-6**. An assessment of the cumulative effects of construction noise for each development where relevant is provided in **Table 17-6**.

Regional cumulative impacts on local economy and GVA during construction and operation have been assessed in **Chapter 15: Socio-economics, Recreation and Tourism**. The overall cumulative effect on residential properties, business premises, community facilities, visitor attractions and open space from other developments in combination with the English Onshore Scheme is likely to remain as is for the English Onshore Scheme in isolation and therefore would not be significant. As a result these are not reported on in **Table 17-6**. The assessment in this chapter therefore considers the inter-project cumulative effect on PRoWs only.

Table 17-6: Cumulative assessment of Shortlisted other developments.

Other Development Details			Stage 3	Stage 4		
ID	Tier	Application Reference	Applicant for 'other development' and brief description	Assessment of Cumulative Effect with project	Proposed mitigation applicable to project including any apportionment	Residual cumulative effect
NSIP-1	Tier 1	EN010098	<p>Title: Hornsea Project Four Offshore Windfarm (Generating Stations) Description: Development of the Hornsea Project Four offshore wind farm. This is within the western area of the former Hornsea known as Zone 4, under the Round 3 offshore wind licencing arrangements. The landfall area and pipeline are located between Bridlington and Hornsea. This project is currently under construction and may potentially be complete prior to construction commencing on the English Onshore Scheme. Approximately 530 m south of proposed landfall site.</p>	<p>Ecology & Nature Conservation Due to the spatially discrete nature of the works in a broad habitat area and the limited species or number of bird assemblages using the area, the predicted cumulative effects upon coastal ecological receptors (birds and habitat) is unlikely to be significant.</p> <p>Landscape and Visual The landfall installation of both projects occur within a similar parts of the same landscape character areas (LCA 20C Bridlington to Hornsea Coast, LCA 19C North Holderness Open Farmland). Construction activity associated with the landfalls will temporarily influence the character along the foreshore. Away from the foreshore, the temporary loss of agricultural land will be localised and the open nature of the landscape will result in limited cumulative loss of hedgerows, trees or other vegetation elements. Both projects are also proposed to be installed within LCA 18A River Hull Corridor and LCA 16E Lund Sloping Farmland however separation between the projects is greater in these locations and there will be limited intervisibility. Overall the introduction of the temporary and short term construction of the English Onshore Scheme into this cumulative baseline scenario will not result in a significant cumulative landscape effect. Where cable laying vessels are operating simultaneously, these will be visible in seaward views (from View Point (VP) 1). In combination views of construction of the landfall and associated construction compounds would not be experienced although combined views in succession would be possible for the short term duration of construction works. These would not result in a significant cumulative visual effect.</p> <p>Noise and Vibration</p>	<p>Opportunities to schedule works to avoid potentially significant HGV numbers on Carr Lane will be discussed in consultation with the Hornsea Project 4 developer. Further review of traffic routeing and phasing of the cable installation will also be considered by the appointed Contractor to potentially further reduce vehicle movements associated with the English Onshore Scheme and adopted within the Construction Traffic Management Plan (CTMP) as appropriate.</p>	Minor Adverse (not significant).

Other Development Details			Stage 3	Stage 4		
				<p>Communications should be undertaken with the Cumulative Scheme so that, where practicable, works can be scheduled to minimise the exposure of sensitive receptors to significant adverse cumulative levels of construction noise for extended periods of time due to simultaneous activities on adjacent sites. Mitigation measures set out within the agreed CEMP will be applied during all construction activities to reduce adverse levels of cumulative construction noise and vibration as far as reasonably practicable. Given that these measures are applied at this cumulative scheme, it is unlikely that there will be an additive noise effect so cumulative construction noise effects are likely to be not significant.</p> <p>Socio-economics, Recreation and Tourism</p> <p>Footpath BARMF02 which may be affected by the neighbouring Hornsea 4 Export Cable falls within the buffer zone of influence yet will not be affected by the English Onshore Scheme. Therefore, the overall cumulative assessment on public rights of way is assessed to be no greater than the English Onshore Scheme in isolation and would be not significant.</p> <p>Traffic and Transport</p> <p>The impact of the Hornsea 4 development is centred around Route Section 1 with the construction vehicle routing of this scheme mainly between Driffield and Hull and as such use alternative routes to the English Onshore Scheme. From the assessment, the B1249 would likely experience the greatest uplift in cumulative vehicle movements (and HGV% increase), however this increase does not meet the criteria to likely result in significant impact. Furthermore it is noted as the Hornsea 4 development is currently being construction overlapping construction periods of the two schemes is unlikely.</p> <p>Assessment of inter-project cumulative effects from this development with the English Onshore Scheme has been scoped out for Geology & Hydrogeology, Agriculture & Soils and Hydrology & Drainage topics, due to being situated outside their respective Zones of Influence (Zols, Table 17-2).</p>		

Other Development Details			Stage 3	Stage 4		
NSIP-4	Tier 2	EN010120	<p>Title: Drax Bioenergy with CCS</p> <p>Description: Post combustion carbon capture technology at up to two of the existing 600 MWe biomass power generating units at the Drax Power Station in Selby, North Yorkshire. Immediately adjacent to proposed converter station site</p>	<p>Ecology & Nature Conservation</p> <p>Whilst the Drax BECCS plant is proposed within very close proximity to the converter station, based upon the ecological receptors identified it is not considered that there would be significant cumulative effects from the Drax BECCS project. There may be an additional level of disturbance to protected species i.e nesting birds and displacement of foraging bats during construction however it is assumed that similar good practice mitigation measures would be adopted to further minimise any temporary effects during construction. No operational cumulative effects are likely.</p> <p>Landscape and Visual</p> <p>The construction activity associated with the underground DC cable route and converter station of the English Onshore Scheme will result in localised loss of agricultural land and the limited removal of field boundary vegetation. This combined with the simultaneous construction of the Drax Bioenergy with CCS schemes will concentrate the temporary change in landscape characteristics within a small part of LCA 15 Camblesforth Farmland centred around the existing infrastructure of Drax Power Station which is already a characteristic of this LCA. Overall, the introduction of the construction of the English Onshore Scheme into this cumulative baseline scenario will result in a cumulative effect that is not significant due to the limited geographical extent within a small part of the LCA.</p> <p>Once operational the converter station in combination with the cumulative scenario will concentrate infrastructure around Drax Power Station complex which exerts a strong influence on the character of the landscape, limiting the geographical extent of change in the LCA and retaining the intrinsic character and quality of the wider LCA. Operational cumulative effects are therefore also not likely to be significant.</p> <p>Visual: simultaneous construction plant and activity from the construction of the converter station with the Drax BECCS project will slightly intensify the construction operations present for a temporary period of time. This, however, is not considered to be any greater than the individual effect of the English Onshore Scheme in isolation. Once operational the</p>	<p>The potentially significant impact associated with visual amenity as a result of the English Onshore Scheme is not possible to mitigate for the closest visual receptors. Cumulative effects are not regarded to be any greater than the effects of the English Onshore Scheme in isolation and therefore no further mitigation is necessary.</p>	<p>Moderate Adverse (Significant)*</p> <p>*Note that the cumulative impact is predicted to be no greater than the English Onshore Scheme in isolation. Moderate Adverse effects have been identified on the visual amenity of receptors in close proximity to the proposed converter station (to the east), in a worst case scenario. All other effects are not significant.</p>

Other Development Details			Stage 3	Stage 4		
				<p>introduction of the converter station into the cumulative baseline scenario will result in a noticeable change in the composition of the view. However, as with construction effects the cumulative effects will be no greater than the effects in isolation.</p> <p>Noise and Vibration Communications should be undertaken with the Cumulative Scheme so that, where practicable, works can be scheduled to minimise the exposure of sensitive receptors to significant adverse cumulative levels of construction noise for extended periods of time due to simultaneous activities on adjacent sites. Mitigation measures set out within the agreed CEMP will be applied during all construction activities to reduce adverse levels of cumulative construction noise and vibration as far as reasonably practicable. Given that these measures are applied at this cumulative scheme, it is unlikely that there will be an additive noise effect so cumulative construction noise effects are likely to be not significant.</p> <p>Socio-economics, Recreation and Tourism no additional cumulative impact on users of PRoWs.</p> <p>Traffic and Transport The traffic assessment also noted increases in total traffic on New Road at Drax which were close to the threshold of being significant. It is however noted that the assessment includes a 20% uplift in estimated vehicle numbers and therefore given the robust approach to assessment there are no likely significant impacts at this part of the local highway network. A worst case traffic impact assessment (2026) shows a minor or negligible cumulative (non-significant) impact at all link roads assessed.</p>		
NSIP-9	Tier 3	N/A	<p>Title: Humber Low Carbon Pipelines Applicant: National Grid Carbon (NGC) Description: Construction of carbon dioxide (to facilitate CCUS) and hydrogen (H2) transportation pipelines</p>	<p>Due to the limited information available on this potential cumulative effects can not be readily quantified. Given the phase of the scheme in the development planning process it is considered unlikely that the construction programmes for these schemes would overlap for an extended period of time. Should these schemes be constructed simultaneously there is the potential for disturbance from noise and visual amenity to adjacent residential properties, as well as fauna such as water vole and otter within watercourses. The potential risk of</p>	<p>Opportunities to schedule works to avoid overlapping or sequential construction programmes between the English Onshore Scheme and the Humber Low Carbon developer should be sought for</p>	<p>Moderate Adverse (Significant)* *Note that the cumulative impact is predicted to be no greater than the</p>

Other Development Details			Stage 3	Stage 4		
			<p>between Drax in North Yorkshire and Easington in East Riding of Yorkshire, connecting various emitters and generators in the Humber. The application will include associated infrastructure comprising pipeline internal gauge (PIG) traps, a multi-junction, block valves, a compressor station and associated works.</p> <p>Potential route corridor of scheme intersects with route/converter station of English Onshore Scheme at Drax</p>	<p>pollution and/or sedimentation of local watercourses, as well as and vehicle numbers on the local highway network are likely to also increase. However these risks are temporary and can readily be mitigated through common good practice construction management and are unlikely to result in potentially significant cumulative effects.</p> <p>The Humber Low Carbon Pipeline may require the development of permanent above ground infrastructure (AGI). There is therefore potential for cumulative effects on landscape character and visual amenity of surrounding properties and recreational land users. The potential for cumulative effects is however entirely dependent on the scale and location of these AGIs given the effectiveness of existing vegetation at screening views, and therefore this can not be fully quantified at this time.</p>	<p>cabling and pipeline works around west of the River Ouse. This will support in minimizing the extent of visual disturbance to residential receptors in the near vicinity. However cumulative effects are not regarded to be any greater than the effects of the English Onshore Scheme in isolation and therefore no further mitigation is necessary.</p>	<p>English Onshore Scheme in isolation. Moderate Adverse effects have been identified on the visual amenity of receptors in close proximity to the proposed converter station (to the east), in a worst case scenario. All other effects are not significant.</p>
ERYC-2	Tier 1	20/01338/STREM 14/03565/STOUT	<p>Location: Land North Of Strawberry Fields, Kingsgate, Bridlington</p> <p>Description: Erection of 470 dwellings with associated infrastructure, open space and landscaping.</p> <p>Approximately 1.5 km north of the underground DC cable route.</p>	<p>Ecology & Nature Conservation</p> <p>There are no potential impact pathways to ecological receptors between the English Onshore Scheme and this scheme based on receptors identified and/or the distance between the schemes. Therefore there are no potentially significant cumulative effects.</p> <p>Landscape and Visual</p> <p>The projects are not of similar nature or scale with limited intervisibility such that significant cumulative effects are unlikely.</p> <p>Assessment of inter-project cumulative effects from this development with the English Onshore Scheme has been scoped out for all other topics, due to being situated outside their respective Zols (Table 17-2).</p>	<p>No further mitigation identified. The design mitigation measures, including good construction practices, as implemented in the Outline CEMP for the English Onshore Scheme, and the assumed adoption of similar good practices are regarded sufficient.</p>	<p>Negligible (not significant)</p>

Other Development Details			Stage 3	Stage 4		
ERYC-3	Tier 1	17/02265/STOUT 19/04158/STREM	<p>Applicant: Location: Land West Of Howden Parks Selby Road Howden East Riding Of Yorkshire</p> <p>Description: Erection of 175 dwellings following Outline Permission Approximately 1.3 km east of the underground DC cable route</p>	<p>Ecology & Nature Conservation</p> <p>There are no potential impact pathways to ecological receptors between the English Onshore Scheme and this scheme based on receptors identified and/or the distance between the schemes. Therefore there are no potentially significant cumulative effects.</p> <p>Landscape and Visual</p> <p>The projects are not of similar nature or scale with limited intervisibility such that significant cumulative effects are unlikely.</p> <p>Assessment of inter-project cumulative effects from this development with the English Onshore Scheme has been scoped out for all other topics, due to being situated outside their respective Zols (Table 17-2).</p>	No further mitigation identified. The design mitigation measures, including good construction practices, as implemented in the Outline CEMP for the English Onshore Scheme, and the assumed adoption of similar good practices are regarded sufficient.	Negligible (not significant)
ERYC-4	Tier 1	20/00300/CME	<p>Applicant: Location: Land South Of Gransmoor Quarry Kelk Lane Gransmoor East Riding Of Yorkshire</p> <p>Description: Extension of excavation area to Gransmoor Quarry and remediation to lake following ceasing of operation Overlapping / adjacent to underground DC cable route</p>	<p>Ecology & Nature Conservation</p> <p>An ecological impact assessment (EclA) of the extension of Gransmoor Quarry was undertaken in 2020 which concluded that the project will result in Low Residual Impact upon Barf Hill woodland and bats, which are the likely shared receptors for cumulative effects between this scheme and the English Onshore Scheme. Mitigation measures including the delivery of a Biodiversity Enhancement Management Plan which includes habitat creation and restoration measures. Considering the commitments to mitigation and the temporary nature of the English Onshore Scheme potential cumulative effects are not likely to be significant.</p> <p>Landscape and Visual</p> <p>Construction of the underground DC cable route will occur within the same part of LCA 18E (Kelk Beck Farmland) as the extended workings of Gransmoor quarry. However, the limited direct loss or change to landscape elements will be localised and whilst construction activity associated with the DC cable route will result in a temporary change in land use and limited removal of vegetation, the combined effect on the landscape characteristics of this LCA is not likely to be significant.</p> <p>There will be no in combination views of the English Onshore Scheme and the quarry extension from the nearest VP (VP2) but there will be in succession views from this VP along with</p>	No further mitigation identified. The design mitigation measures, including good construction practices, as implemented in the Outline CEMP for the English Onshore Scheme, and the assumed adoption of similar good practices are regarded sufficient.	Minor Adverse (not significant)

Other Development Details			Stage 3	Stage 4		
				<p>the potential for occasion sequential views depending on the movement of walkers using the local PRoW network. However, frequent intervening vegetation associated with field boundaries and existing screen planting around the existing quarry will partially screen the in succession and sequential cumulative effects experienced and therefore these cumulative visual effects are not likely to be significant.</p> <p>Noise and Vibration Communications should be undertaken with the Cumulative Scheme so that, where practicable, works can be scheduled to minimise the exposure of sensitive receptors to significant adverse cumulative levels of construction noise for extended periods of time due to simultaneous activities on adjacent sites. Mitigation measures set out within the agreed CEMP will be applied during all construction activities to reduce adverse levels of cumulative construction noise and vibration as far as reasonably practicable. Given that these measures are applied at this cumulative scheme, it is unlikely that there will be an additive noise effect so cumulative construction noise effects are likely to be not significant.</p> <p>Socio-economics, Recreation and Tourism No additional cumulative impact on users of PRoWs.</p>		
ERYC-6	Tier 1	20/03551/PLF	<p>Location: South Shore Holiday Village. 1st Avenue, Wilsthorpe, YO15 3QN</p> <p>Description: Siting of 28 chalets (14 twin units), creation of footpath and associated parking and landscaping following demolition of commercial and leisure buildings. Approximately 750 m north of the underground DC cable route.</p>	<p>Ecology & Nature Conservation There are no potential impact pathways to ecological receptors between the English Onshore Scheme and this scheme based on receptors identified and/or the distance between the schemes. Therefore there are no potentially significant cumulative effects.</p> <p>Landscape and Visual The projects are not of similar nature or scale with limited intervisibility such that significant cumulative effects are unlikely.</p> <p>Noise and Vibration Communications should be undertaken with the Cumulative Scheme so that, where practicable, works can be scheduled to minimise the exposure of sensitive receptors to significant adverse cumulative levels of construction noise for extended periods of time due to simultaneous activities on adjacent sites. Mitigation measures set out within the agreed CEMP</p>	No further mitigation identified. The design mitigation measures, including good construction practices, as implemented in the Outline CEMP for the English Onshore Scheme, and the assumed adoption of similar good practices are regarded sufficient.	Minor Adverse (not significant)

Other Development Details			Stage 3	Stage 4		
				<p>will be applied during all construction activities to reduce adverse levels of cumulative construction noise and vibration as far as reasonably practicable. Given that these measures are applied at this cumulative scheme, it is unlikely that there will be an additive noise effect so cumulative construction noise effects are likely to be not significant.</p> <p>Socio-economics, Recreation and Tourism No additional cumulative impact on users of PRoWs. Assessment of inter-project cumulative effects from this development with the English Onshore Scheme has been scoped out for all other topics, due to being situated outside their respective Zones of Influence (Zols, Table 17-2).</p>		
ERYC-7	Tier 1	20/02567/PLF	<p>Location: Carnaby Farm Shop and Café Corner, Moor Lane, YO15 3QG Description: Change of use of land for siting of 46 static caravans etc Approximately 700 m north of the underground DC cable route.</p>	<p>Ecology & Nature Conservation There are no potential impact pathways to ecological receptors between the English Onshore Scheme and this scheme based on receptors identified and/or the distance between the schemes. Therefore there are no potentially significant cumulative effects.</p> <p>Landscape and Visual The projects are not of similar nature or scale with limited intervisibility such that significant cumulative effects are unlikely.</p> <p>Noise and Vibration Communications should be undertaken with the Cumulative Scheme so that, where practicable, works can be scheduled to minimise the exposure of sensitive receptors to significant adverse cumulative levels of construction noise for extended periods of time due to simultaneous activities on adjacent sites. Mitigation measures set out within the agreed CEMP will be applied during all construction activities to reduce adverse levels of cumulative construction noise and vibration as far as reasonably practicable. Given that these measures are applied at this cumulative scheme, it is unlikely that there will be an additive noise effect so cumulative construction noise effects are likely to be not significant.</p> <p>Socio-economics, Recreation and Tourism No additional cumulative impact on users of PRoWs.</p>	<p>No further mitigation identified. The design mitigation measures, including good construction practices, as implemented in the Outline CEMP for the English Onshore Scheme, and the assumed adoption of similar good practices are regarded sufficient.</p>	<p>Minor Adverse (not significant)</p>

Other Development Details			Stage 3	Stage 4		
				Assessment of inter-project cumulative effects from this development with the English Onshore Scheme has been scoped out for all other topics, due to being situated outside their respective Zols (Table 17-2).		
ERYC-9	Tier 1	21/00216/STPLF	<p>Location: Land south east of Wansford Trout Farm, Y025 8JJ</p> <p>Description: Change of use of land and excavation works to create access from Driffield Canal and form a 22 berth marina for mooring leisure boats with access and car park. Approximately 930 m east of the underground DC cable route.</p>	<p>Ecology & Nature Conservation</p> <p>There are potential indirect effects (water quality and pollution risk) upon Driffield Canal and watercourses linking to the English Onshore Scheme via the local hydrology network (including the River Hull Headwaters SSSI). Additional indirect disturbance effects upon associated ecological receptors including otter, water vole, breeding birds and fish may also increase were the schemes are constructed at the same time; although considering the adoption of good working practices and the English Onshore Scheme's commitment to HDD installation below the River Hull these would not likely be significant.</p> <p>Landscape and Visual</p> <p>(scoped out) - the projects are not of similar nature or scale with limited intervisibility such that significant cumulative effects are unlikely.</p> <p>Noise and Vibration</p> <p>Communications should be undertaken with the Cumulative Scheme so that, where practicable, works can be scheduled to minimise the exposure of sensitive receptors to significant adverse cumulative levels of construction noise for extended periods of time due to simultaneous activities on adjacent sites. Mitigation measures set out within the agreed CEMP will be applied during all construction activities to reduce adverse levels of cumulative construction noise and vibration as far as reasonably practicable. Given that these measures are applied at this cumulative scheme, it is unlikely that there will be an additive noise effect so cumulative construction noise effects are likely to be not significant.</p> <p>Socio-economics, Recreation and Tourism</p> <p>No additional cumulative impact on users of PROWs.</p> <p>Assessment of inter-project cumulative effects from this development with the English Onshore Scheme has been scoped out for Agriculture & Soils and Hydrology & Drainage</p>	No further mitigation identified. The design mitigation measures, including good construction practices, as implemented in the Outline CEMP for the English Onshore Scheme, and the assumed adoption of similar good practices are regarded sufficient.	Minor Adverse (not significant)

Other Development Details			Stage 3	Stage 4		
				topics topics, due to being situated outside their respective Zones of Influence (Zols, Table 17-2).		
ERYC-13	Tier 1	20/02502/REM	<p>Location: Land north of Houghton Close, Market Weighton, YO43 3FZ</p> <p>Description: Erection of 40 dwellings and associated access, parking, landscaping and infrastructure following Outline approval 19/04199/OUT (all matters to be considered) (AMENDED PLANS)</p> <p>Approximately 230 m north of the underground DC cable route.</p>	<p>Ecology & Nature Conservation</p> <p>There are no potential impact pathways to ecological receptors between the English Onshore Scheme and this scheme based on receptors identified and/or the distance between the schemes. Therefore there are no potentially significant cumulative effects.</p> <p>Landscape and Visual</p> <p>The projects are not of similar nature or scale with limited intervisibility such that significant cumulative effects are unlikely.</p> <p>Noise and Vibration</p> <p>Communications should be undertaken with the Cumulative Scheme so that, where practicable, works can be scheduled to minimise the exposure of sensitive receptors to significant adverse cumulative levels of construction noise for extended periods of time due to simultaneous activities on adjacent sites. Mitigation measures set out within the agreed CEMP will be applied during all construction activities to reduce adverse levels of cumulative construction noise and vibration as far as reasonably practicable. Given that these measures are applied at this cumulative scheme, it is unlikely that there will be an additive noise effect so cumulative construction noise effects are likely to be not significant.</p> <p>Socio-economics, Recreation and Tourism</p> <p>No additional cumulative impact on users of PRoWs.</p> <p>Assessment of inter-project cumulative effects from this development with the English Onshore Scheme has been scoped out for the Agriculture & Soils topic, due to being situated outside its Zone of Influence (ZoI, Table 17-2).</p>	No further mitigation identified. The design mitigation measures, including good construction practices, as implemented in the Outline CEMP for the English Onshore Scheme, and the assumed adoption of similar good practices are regarded sufficient.	Minor Adverse (not significant)
ERYC-15	Tier 1	19/04161/STPLF	<p>Location: Yoke Gate Farm, Holme Road, Spaldington, DN14 7NA</p> <p>Description: Change of use of existing buildings and land to provide a holiday park, artisan</p>	<p>Ecology & Nature Conservation</p> <p>Were this and the English Onshore Scheme to be constructed at the same time there would likely be increased effects upon the receiving watercourse (Featherbed Drain) from indirect potential water quality and noise/lighting disturbance to otter/water vole/bats supported by the watercourse. However, assuming that appropriate pollution</p>	No further mitigation identified. The design mitigation measures, including good construction practices, as implemented in the Outline CEMP for the English Onshore	Minor Adverse (not significant)

Other Development Details			Stage 3	Stage 4	
			<p>workshops with associated retail, artisan bakery, delicatessen, boulangerie, offices, craft pods, workshop, café/tearooms, farm shop, tackle shop display, exhibition and fishing lake including associated alterations to farm house and buildings, operational development, landscaping, vehicular access and drainage.</p> <p>Overlapping / Adjacent to the underground DC cable route</p>	<p>prevention measures are adopted by the scheme to address potential effects upon the watercourse and associated fauna (otter/water vole and foraging bats) the potential for temporary cumulative effects are unlikely to be significant given the local receptors present.</p> <p>Landscape and Visual</p> <p>If the construction periods overlap construction activity will occur within the same localised part of LCA 7B Eastington Farmland. The addition of construction activity associated with the DC cable route will temporarily influence the local landscape character with the temporary loss of agricultural land and limited removal of field boundary vegetation in combination with the limited change in land use associated with the construction of cumulative scheme ERYC-15.</p> <p>Overall, as a result of the temporary and short term nature of the English Onshore Scheme cumulative effects are not likely to be significant.</p> <p>There could be visual receptors with views of the baseline cumulative scenario and the construction of the underground DC cable route if the construction periods overlap. However, given the temporary and short term duration of construction works associated with the underground DC cable route and the presence of intervening vegetation particularly along the tributary of the River Foulness, the cumulative visual effects are not likely to be significant.</p> <p>Noise and Vibration</p> <p>Communications should be undertaken with the Cumulative Scheme so that, where practicable, works can be scheduled to minimise the exposure of sensitive receptors to significant adverse cumulative levels of construction noise for extended periods of time due to simultaneous activities on adjacent sites. Mitigation measures set out within the agreed CEMP will be applied during all construction activities to reduce adverse levels of cumulative construction noise and vibration as far as reasonably practicable. Given that these measures are applied at this cumulative scheme, it is unlikely that there will be an additive noise effect so cumulative construction noise effects are likely to be not significant.</p> <p>Socio-economics, Recreation and Tourism</p>	<p>Scheme, and the assumed adoption of similar good practices are regarded sufficient.</p>

Other Development Details			Stage 3	Stage 4		
				No additional cumulative impact on users of PRoWs.		
ERYC-16	Tier 1	21/01568/PLF	<p>Location: Horn Hill Poultry Farm Middleton Road Kilnwick East Riding Of Yorkshire YO25 9TS</p> <p>Description: Installation of a ground mounted solar PV array.</p> <p>Approximately 720 m east of the underground DC cable route.</p>	<p>Ecology & Nature Conservation</p> <p>There are no potential impact pathways to ecological receptors between the English Onshore Scheme and this scheme based on receptors identified and/or the distance between the schemes. Therefore there are no potentially significant cumulative effects.</p> <p>Landscape and Visual</p> <p>If the construction periods overlap construction activity associated with the English Onshore Scheme and the solar PV array will occur within the same very localised part of LCA 13D North Wolds Plateau Farmland. The addition of construction activity associated with the DC cable route will temporarily influence the local landscape character with the temporary loss of agricultural land and limited removal of field boundary vegetation in combination with the limited change in land use associated with the construction of the solar PV array. Overall, the introduction of the temporary and short term construction of the English Onshore Scheme into this cumulative baseline scenario is unlikely to result in a significant cumulative effect.</p> <p>Noise and Vibration</p> <p>Communications should be undertaken with the Cumulative Scheme so that, where practicable, works can be scheduled to minimise the exposure of sensitive receptors to significant adverse cumulative levels of construction noise for extended periods of time due to simultaneous activities on adjacent sites. Mitigation measures set out within the agreed CEMP will be applied during all construction activities to reduce adverse levels of cumulative construction noise and vibration as far as reasonably practicable. Given that these measures are applied at this cumulative scheme, it is unlikely that there will be an additive noise effect so cumulative construction noise effects are likely to be not significant.</p> <p>Socio-economics, Recreation and Tourism</p> <p>No additional cumulative impact on users of PRoWs.</p> <p>Assessment of inter-project cumulative effects from this development with the English Onshore Scheme has been</p>	<p>No further mitigation identified. The design mitigation measures, including good construction practices, as implemented in the Outline CEMP for the English Onshore Scheme, and the assumed adoption of similar good practices are regarded sufficient.</p>	<p>Minor Adverse (not significant)</p>

Other Development Details			Stage 3	Stage 4		
				scoped out for all other topics, due to being situated outside their respective Zones of Influence (Zols, Table 17-2).		
ERYC-18	Tier 1	21/02765/STOUT	<p>Location: Land East Of Sunnyside Barn Station Road Middleton On The Wolds East Riding Of Yorkshire YO25 9UQ</p> <p>Description: Outline - Erection of up to 40 dwellings (access to be considered).</p> <p>Approx. 1.3km north of the underground DC cable route.</p>	<p>Ecology & Nature Conservation</p> <p>There are no potential impact pathways to ecological receptors between the English Onshore Scheme and this scheme based on receptors identified and/or the distance between the schemes. Therefore there are no potentially significant cumulative effects.</p> <p>Landscape and Visual</p> <p>The projects are not of similar nature or scale with limited intervisibility such that significant cumulative effects are unlikely.</p> <p>Assessment of inter-project cumulative effects from this development with the English Onshore Scheme has been scoped out for all other topics, due to being situated outside their respective Zols (Table 17-2).</p>	No further mitigation identified. The design mitigation measures, including good construction practices, as implemented in the Outline CEMP for the English Onshore Scheme, and the assumed adoption of similar good practices are regarded sufficient.	Negligible (not significant)
ERYC-20	Tier 1	19/04321/STPLF	<p>Location: Land North East Of Eastfield Farm Stockbridge Lane Hutton Cranswick East Riding Of Yorkshire YO25 9RB</p> <p>Description: Construction of a solar farm and battery storage facility together with all associated works, equipment and necessary infrastructure.</p> <p>Approx. 1.4km south east of the underground DC cable route.</p>	<p>Ecology & Nature Conservation</p> <p>There are no potential impact pathways to ecological receptors between the English Onshore Scheme and this scheme based on receptors identified and/or the distance between the schemes. Therefore there are no potentially significant cumulative effects.</p> <p>Landscape and Visual</p> <p>The projects are not of similar nature or scale with limited intervisibility such that significant cumulative effects are unlikely.</p> <p>Assessment of inter-project cumulative effects from this development with the English Onshore Scheme has been scoped out for all other topics, due to being situated outside their respective Zones of Influence (Zols, Table 17-2).</p>	No further mitigation identified. The design mitigation measures, including good construction practices, as implemented in the Outline CEMP for the English Onshore Scheme, and the assumed adoption of similar good practices are regarded sufficient.	Negligible (not significant)
ERYC-22	Tier 1	20/01962/STPLF	<p>Location: Field At Grid Reference 504139 456454 Back Lane Skerne East Riding Of Yorkshire YO25 8NQ</p> <p>Description: Installation and operation of a solar farm with associated</p>	<p>Ecology & Nature Conservation</p> <p>There are potential cumulative impacts regarding indirect effects upon the River Hull SSSI given the proximity of the scheme. Water quality and greater levels of noise and vibration disturbance to birds within areas water quality, as well as otter mobility where interface with the same watercourse. However, while detailed proposals for this scheme are not available, it is assumed standard good</p>	No further mitigation identified. The design mitigation measures, including good construction practices, as implemented in the Outline CEMP for the English Onshore	Minor Adverse (not significant)

Other Development Details			Stage 3	Stage 4	
			<p>infrastructure, including photovoltaic panels, mounting frames, transformers/inverters, substation, access tracks, pole mounted CCTV cameras and fencing. Overlapping / Adjacent to the underground DC cable route.</p>	<p>construction practices will be adopted and the temporary/transitional nature of the English Onshore Scheme potential cumulative effects, should these schemes be developed concurrently, are unlikely to be significant.</p> <p>Landscape and Visual The construction of a short section of the underground DC cable route will run adjacent to the construction of the solar farm to the north of Skerne within the same part of the landscape. The addition of construction activity associated with the underground DC cable route will temporarily influence a very localised part of LCA 18A with the temporary loss of agriculture land and limited removal of trees or other vegetation. Overall, the introduction of the temporary and short term construction of the English Onshore Scheme along with the construction of the solar farm will be minor and not result in a significant cumulative effect.</p> <p>Visual receptors within the wider study area including from the northern edge of Skerne and from the local network of PRow have the potential to experience in combination and sequential views of the construction associated with both projects where this is undertaken simultaneously. Construction activity associated with the English Onshore Scheme will be temporary and of a short duration with intervening vegetation partially screening views. Overall, the addition of the English Onshore Scheme into this cumulative baseline will not likely result in a significant cumulative visual effect.</p> <p>Noise and Vibration Communications should be undertaken with the Cumulative Scheme so that, where practicable, works can be scheduled to minimise the exposure of sensitive receptors to significant adverse cumulative levels of construction noise for extended periods of time due to simultaneous activities on adjacent sites. Mitigation measures set out within the agreed CEMP will be applied during all construction activities to reduce adverse levels of cumulative construction noise and vibration as far as reasonably practicable. Given that these measures are applied at this cumulative scheme, it is unlikely that there will be an additive noise effect so cumulative construction noise effects are likely to be not significant.</p>	<p>Scheme, and the assumed adoption of similar good practices are regarded sufficient.</p>

Other Development Details			Stage 3	Stage 4		
				<p>Socio-economics, Recreation and Tourism No additional cumulative impact on users of PRoWs.</p>		
ERYC-35	Tier 1	22/00702/STREM 15/00305/STOUT	<p>Location: Land North Of The Acres Rawcliffe Road Goole East Riding Of Yorkshire.</p> <p>Description: Erection of 600 dwellings with associated access, parking and infrastructure (access, appearance, landscaping, layout and scale to considered) following outline approval 15/00305/STOUT. 4km from underground DC cable route.</p>	<p>Assessment of inter-project cumulative effects from this development with the English Onshore Scheme has been scoped out for all topics, due to being situated outside their respective Zols (Table 17-2) or not impact pathways being identified.</p>	<p>No further mitigation identified. The design mitigation measures, including good construction practices, as implemented in the Outline CEMP for the English Onshore Scheme, and the assumed adoption of similar good practices are regarded sufficient.</p>	<p>Negligible (not significant)</p>
SE-1	Tier 1	2020/1357/FULM	<p>Location: Land Off New Road Drax Selby North Yorkshire.</p> <p>Description: Lakeside battery storage (immediately south of site).</p> <p>Development of an energy storage facility including battery storage containers; substations; power conversion systems; transformers and associated switchgear; HVAC equipment; communications and grid compliance equipment; temporary construction compound; CCTV; fencing; infrared lighting; access, drainage and</p>	<p>Ecology & Nature Conservation There are no potential impact pathways to ecological receptors between the English Onshore Scheme and this scheme based on receptors identified and/or the distance between the schemes. Therefore there are no potentially significant cumulative effects.</p> <p>Landscape and Visual The construction activity associated with the underground DC cable route and converter station of the English Onshore Scheme will result in localised loss of agricultural land and the limited removal of field boundary vegetation. This combined with the simultaneous construction of the battery storage scheme will concentrate the temporary change in landscape characteristics within a small part of LCA 15 Camblesforth Farmland centred around the existing infrastructure of Drax Power Station which is already a characteristic of this LCA. Overall, the introduction of the construction of the English Onshore Scheme into this cumulative baseline scenario will result in a cumulative effect that is not significant due to the limited geographical extent within a small part of the LCA.</p>	<p>No further mitigation identified. The design mitigation measures, including good construction practices, as implemented in the Outline CEMP for the English Onshore Scheme, and the assumed adoption of similar good practices are regarded sufficient.</p>	<p>Minor Adverse (not significant)</p>

Other Development Details			Stage 3	Stage 4
			<p>landscaping works and associated development. Approximately 230 m south of the proposed converter station site.</p>	<p>Once operational the converter station in combination with the cumulative scenario will concentrate infrastructure around Drax Power Station complex which exerts a strong influence on the character of the landscape, limiting the geographical extent of change in the LCA and retaining the intrinsic character and quality of the wider LCA. Operational cumulative effects are therefore also not likely to be significant.</p> <p>Simultaneous construction plant and activity from the construction of the converter station with the battery storage facility will be largely screened by intervening vegetation. This, however, is not considered to be any greater than the individual effect of the English Onshore Scheme in isolation. Once operational the converter station will be seen in the immediate context of Drax Power Station and associated cumulative developments and partially screened by intervening vegetation. As with construction effects the cumulative effects will be no greater than the effects in isolation.</p> <p>Noise and Vibration</p> <p>Communications should be undertaken with the Cumulative Scheme so that, where practicable, works can be scheduled to minimise the exposure of sensitive receptors to significant adverse cumulative levels of construction noise for extended periods of time due to simultaneous activities on adjacent sites. Mitigation measures set out within the agreed CEMP will be applied during all construction activities to reduce adverse levels of cumulative construction noise and vibration as far as reasonably practicable. Given that these measures are applied at this cumulative scheme, it is unlikely that there will be an additive noise effect so cumulative construction noise effects are likely to be not significant.</p> <p>Socio-economics, Recreation and Tourism</p> <p>No additional cumulative impact on users of PROWs.</p> <p>Assessment of inter-project cumulative effects from this development with the English Onshore Scheme has been scoped out for all other topics, due to being situated outside its Zol (Table 17-2).</p>

Other Development Details			Stage 3	Stage 4		
SE-2	Tier 1	2020/0994/FUL	<p>Location: Drax Power Station, New Road, Drax, Selby, YO8 8PQ</p> <p>Description: Demolition of Drax Power Ltd Flue Gas Desulphurisation (FGD) plant and associated restoration works. Adjacent.</p>	<p>Ecology & Nature Conservation</p> <p>There are no potential impact pathways to ecological receptors between the English Onshore Scheme and this scheme based on receptors identified and/or the distance between the schemes. Therefore there are no potentially significant cumulative effects.</p> <p>Landscape and Visual</p> <p>The construction activity associated with the underground DC cable route and converter station of the English Onshore Scheme will result in localised loss of agricultural land and the limited removal of field boundary vegetation. This combined with the simultaneous construction of the FGD demolition scheme will concentrate the temporary change in landscape characteristics within a small part of LCA 15 Camblesforth Farmland centred around the existing infrastructure of Drax Power Station which is already a characteristic of this LCA. Overall, the introduction of the construction of the English Onshore Scheme into this cumulative baseline scenario will result in a cumulative effect that is not significant due to the limited geographical extent within a small part of the LCA.</p> <p>Once operational the converter station in combination with the cumulative scenario will concentrate infrastructure around Drax Power Station complex which exerts a strong influence on the character of the landscape, limiting the geographical extent of change in the LCA and retaining the intrinsic character and quality of the wider LCA. Operational cumulative effects are therefore also not likely to be significant.</p> <p>Visual: simultaneous construction plant and activity from the construction of the converter station with the FGD demolition will be largely screened by intervening vegetation. This, however, is not considered to be any greater than the individual effect of the English Onshore Scheme in isolation. Once operational there will be no change from the impacts associate with the converter station in isolation as the demolition works will not likely materially change the setting of Drax Power Station.</p> <p>Noise and Vibration</p>	<p>No further mitigation identified. The design mitigation measures, including good construction practices, as implemented in the Outline CEMP for the English Onshore Scheme, and the assumed adoption of similar good practices are regarded sufficient.</p>	<p>Minor Adverse (not significant)</p>

Other Development Details			Stage 3	Stage 4		
				<p>Communications should be undertaken with the Cumulative Scheme so that, where practicable, works can be scheduled to minimise the exposure of sensitive receptors to significant adverse cumulative levels of construction noise for extended periods of time due to simultaneous activities on adjacent sites. Mitigation measures set out within the agreed CEMP will be applied during all construction activities to reduce adverse levels of cumulative construction noise and vibration as far as reasonably practicable. Given that these measures are applied at this cumulative scheme, it is unlikely that there will be an additive noise effect so cumulative construction noise effects are likely to be not significant.</p> <p>Socio-economics, Recreation and Tourism No additional cumulative impact on users of PRoWs.</p>		
SE-3	Tier 1	2021/0601/FUL	<p>Location: Rusholme Grange Rusholme Lane Newland Selby North Yorkshire YO8 8PW</p> <p>Description: Construction of battery energy storage system to provide energy balancing services to the National Grid including bund and landscaping. Approximately 280 m south of the underground DC cable route.</p>	<p>Ecology & Nature Conservation There are no potential impact pathways to ecological receptors between the English Onshore Scheme and this scheme based on receptors identified and/or the distance between the schemes. Therefore there are no potentially significant cumulative effects.</p> <p>Landscape and Visual English Onshore Scheme and the battery storage facility are located within a similar and small part of LCA 5 Ouse Valley. Should these be constructed at the same time, the temporary loss of agriculture land and limited removal of field boundary vegetation may temporarily and for a short duration influence the landscape character. Overall, the introduction of the temporary and short term construction of the English Onshore Scheme into this cumulative baseline scenario is unlikely to result in a potentially significant cumulative effect.</p> <p>Visual: there are unlikely to be cumulative visual effects as the battery storage facility will be largely screened by intervening vegetation. Cumulative effects are not considered to be any greater than the individual effect of the English Onshore Scheme in isolation.</p> <p>Noise and Vibration Communications should be undertaken with the Cumulative Scheme so that, where practicable, works can be scheduled to minimise the exposure of sensitive receptors to significant</p>	No further mitigation identified. The design mitigation measures, including good construction practices, as implemented in the Outline CEMP for the English Onshore Scheme, and the assumed adoption of similar good practices are regarded sufficient.	Minor Adverse (not significant)

Other Development Details			Stage 3	Stage 4		
				<p>adverse cumulative levels of construction noise for extended periods of time due to simultaneous activities on adjacent sites. Mitigation measures set out within the agreed CEMP will be applied during all construction activities to reduce adverse levels of cumulative construction noise and vibration as far as reasonably practicable. Given that these measures are applied at this cumulative scheme, it is unlikely that there will be an additive noise effect so cumulative construction noise effects are likely to be not significant.</p> <p>Socio-economics, Recreation and Tourism No additional cumulative impact on users of PROWs.</p>		
SE-4	Tier 1	2021/0788/EIA	<p>Location: Land north and south of Camela Lane, Camblesforth, Selby Description: Development of ground-mounted solar farm including associated infrastructure. approximately 2.5km west of the proposed converter station site.</p>	<p>Ecology & Nature Conservation There are no potential impact pathways to ecological receptors between the English Onshore Scheme and this scheme based on receptors identified and/or the distance between the schemes. Therefore there are no potentially significant cumulative effects.</p> <p>Landscape and Visual The construction activity associated with the underground DC cable route and converter station of the English Onshore Scheme will result in localised loss of agricultural land and the limited removal of field boundary vegetation. This combined with the simultaneous construction of the solar farm scheme will concentrate the temporary change in landscape characteristics within a small part of LCA 15 Camblesforth Farmland centred around the existing infrastructure of Drax Power Station which is already a characteristic of this LCA. Overall, the introduction of the construction of the English Onshore Scheme into this cumulative baseline scenario will result in a cumulative effect that is not significant due to the limited geographical extent within a small part of the LCA.</p> <p>Once operational the converter station in combination with the cumulative scenario will concentrate infrastructure around Drax Power Station complex which exerts a strong influence on the character of the landscape, limiting the geographical extent of change in the LCA and retaining the intrinsic character and quality of the wider LCA. Operational</p>	<p>No further mitigation identified. The design mitigation measures, including good construction practices, as implemented in the Outline CEMP for the English Onshore Scheme, and the assumed adoption of similar good practices are regarded sufficient.</p>	<p>Minor Adverse (not significant)</p>

Other Development Details			Stage 3	Stage 4		
				<p>cumulative effects are therefore also not likely to be significant.</p> <p>Visual: there are unlikely to be cumulative visual effects as the solar farm will be largely screened by intervening vegetation. Cumulative effects are not considered to be any greater than the individual effect of the English Onshore Scheme in isolation.</p>		
SE-5	Tier 1	2021/1089/FULM	<p>Location: Land Off Hales Lane Drax Selby North Yorkshire</p> <p>Description: Development of a battery storage facility, associated infrastructure, access and grid connection</p> <p>Approx. 400m from the proposed converter station site.</p>	<p>Ecology & Nature Conservation</p> <p>There are no potential impact pathways to ecological receptors between the English Onshore Scheme and this scheme based on receptors identified and/or the distance between the schemes. Therefore there are no potentially significant cumulative effects.</p> <p>Landscape and Visual</p> <p>The construction activity associated with the underground DC cable route and converter station of the English Onshore Scheme will result in localised loss of agricultural land and the limited removal of field boundary vegetation. This combined with the simultaneous construction of the battery storage scheme will concentrate the temporary change in landscape characteristics within a small part of LCA 15 Camblesforth Farmland centred around the existing infrastructure of Drax Power Station which is already a characteristic of this LCA. Overall, the introduction of the construction of the English Onshore Scheme into this cumulative baseline scenario will result in a cumulative effect that is not significant due to the limited geographical extent within a small part of the LCA.</p> <p>Once operational the converter station in combination with the cumulative scenario will concentrate infrastructure around Drax Power Station complex which exerts a strong influence on the character of the landscape, limiting the geographical extent of change in the LCA and retaining the intrinsic character and quality of the wider LCA. Operational cumulative effects are therefore also not likely to be significant.</p> <p>Visual: there are unlikely to be cumulative visual effects as the battery storage facility will be largely screened by intervening vegetation. Cumulative effects are not considered</p>	No further mitigation identified. The design mitigation measures, including good construction practices, as implemented in the Outline CEMP for the English Onshore Scheme, and the assumed adoption of similar good practices are regarded sufficient.	Minor Adverse (not significant)

Other Development Details			Stage 3	Stage 4		
				<p>to be any greater than the individual effect of the English Onshore Scheme in isolation.</p> <p>Noise and Vibration</p> <p>Communications should be undertaken with the Cumulative Scheme so that, where practicable, works can be scheduled to minimise the exposure of sensitive receptors to significant adverse cumulative levels of construction noise for extended periods of time due to simultaneous activities on adjacent sites. Mitigation measures set out within the agreed CEMP will be applied during all construction activities to reduce adverse levels of cumulative construction noise and vibration as far as reasonably practicable. Given that these measures are applied at this cumulative scheme, it is unlikely that there will be an additive noise effect so cumulative construction noise effects are likely to be not significant.</p> <p>Socio-economics, Recreation and Tourism</p> <p>No additional cumulative impact on users of PROWs.</p>		
SE-8	Tier 1	2021/0512/FULM	<p>Location: Street Record Selby Road Camblesforth North Yorkshire</p> <p>Description: Erection of 45 No dwellings with associated infrastructure. 2.2km from proposed converter station site.</p>	<p>Ecology & Nature Conservation</p> <p>There are no potential impact pathways to ecological receptors between the English Onshore Scheme and this scheme based on receptors identified and/or the distance between the schemes. Therefore there are no potentially significant cumulative effects.</p> <p>Landscape and Visual</p> <p>The projects are not of similar nature or scale with limited intervisibility such that significant cumulative effects are unlikely.</p> <p>Assessment of inter-project cumulative effects from this development with the English Onshore Scheme has been scoped out for all other topics, due to being situated outside their respective Zols (Table 17-2).</p>	No further mitigation identified. The design mitigation measures, including good construction practices, as implemented in the Outline CEMP for the English Onshore Scheme, and the assumed adoption of similar good practices are regarded sufficient.	Negligible (not significant)
SE-14	Tier 1	2021/0120/FULM	<p>Location: P3P Energy Management Brigg Lane Camblesforth Selby North Yorkshire YO8 8HD</p> <p>Description: Development of an existing horticultural facility for indoor farming</p>	<p>Ecology & Nature Conservation</p> <p>There are no potential impact pathways to ecological receptors between the English Onshore Scheme and this scheme based on receptors identified and/or the distance between the schemes. Therefore there are no potentially significant cumulative effects.</p> <p>Landscape and Visual</p>	No further mitigation identified. The design mitigation measures, including good construction practices, as implemented in the Outline CEMP for the English Onshore	Minor Adverse (not significant)

Other Development Details			Stage 3	Stage 4
			<p>and agri-tech, including the construction of 3 No halls with associated process, service and administration buildings, landscaping, access improvements and additional car park access and associated infrastructure following partial demolition of existing buildings 1km from proposed converter station site</p>	<p>The construction activity associated with the underground DC cable route and converter station of the English Onshore Scheme will result in localised loss of agricultural land and the limited removal of field boundary vegetation. This combined with the simultaneous construction of the farming halls will concentrate the temporary change in landscape characteristics within a small part of LCA 15 Camblesforth Farmland centred around the existing infrastructure of Drax Power Station which is already a characteristic of this LCA. Overall, the introduction of the construction of the English Onshore Scheme into this cumulative baseline scenario will result in a cumulative effect that is not significant due to the limited geographical extent within a small part of the LCA.</p> <p>Once operational the converter station in combination with the cumulative scenario will concentrate infrastructure around Drax Power Station complex which exerts a strong influence on the character of the landscape, limiting the geographical extent of change in the LCA and retaining the intrinsic character and quality of the wider LCA. Operational cumulative effects are therefore also not likely to be significant.</p> <p>Visual: there are unlikely to be cumulative visual effects as the farming units will be largely screened by intervening vegetation. Cumulative effects are not considered to be any greater than the individual effect of the English Onshore Scheme in isolation.</p> <p>Noise and Vibration</p> <p>Communications should be undertaken with the Cumulative Scheme so that, where practicable, works can be scheduled to minimise the exposure of sensitive receptors to significant adverse cumulative levels of construction noise for extended periods of time due to simultaneous activities on adjacent sites. Mitigation measures set out within the agreed CEMP will be applied during all construction activities to reduce adverse levels of cumulative construction noise and vibration as far as reasonably practicable. Given that these measures are applied at this cumulative scheme, it is unlikely that there will be an additive noise effect so cumulative construction noise effects are likely to be not significant.</p> <p>Socio-economics, Recreation and Tourism</p>
				<p>Scheme, and the assumed adoption of similar good practices are regarded sufficient.</p>

Other Development Details			Stage 3	Stage 4		
				No additional cumulative impact on users of PROWs.		
SE-16	Tier 2	2021/0348/SCN	<p>Location: Newlands Farm Turnham Lane Cliffe Selby North Yorkshire YO8 6EB</p> <p>Description: EIA Screening opinion request for 5 wind turbines</p> <p>3.1km from proposed converter station site</p>	<p>Ecology & Nature Conservation</p> <p>There are no potential impact pathways to ecological receptors between the English Onshore Scheme and this scheme based on receptors identified and/or the distance between the schemes. Therefore there are no potentially significant cumulative effects.</p> <p>Landscape and Visual</p> <p>The converter station and wind farm (SE-16) will only likely appear in succession from broader views, typically from the north and east, and occasionally sequentially for users of the likes of the Trans Pennine Trail. Overall, the cumulative visual effects from the are not likely to be significant.</p> <p>Visual: some in-combination or sequential effects may be experienced from views to the north, and along the Trans Pennine Way. Increased construction activity will be seen in the context of the existing Drax Power Station and are unlikely to be significant. Once operational the converter station will be seen in the context of Drax Power Station and sequential views will be partially screened through intervening vegetation. There cumulative visual effects not considered to be any greater than the individual effect of the English Onshore Scheme in isolation.</p>	No further mitigation identified. The design mitigation measures, including good construction practices, as implemented in the Outline CEMP for the English Onshore Scheme, and the assumed adoption of similar good practices are regarded sufficient.	Minor Adverse (not significant)
SE-17	Tier 2	2022/0287/SCN	<p>Location: Land Adjacent Barlow Common Barlow Common Road Barlow Selby North Yorkshire</p> <p>Description: EIA scoping opinion for a 50 mw battery storage system (BESS) on land off Barlow Common Road Land Adjacent Barlow Common Barlow Common Road Barlow Selby North Yorkshire</p> <p>3.9km from proposed converter station site</p>	<p>Ecology & Nature Conservation</p> <p>There are no potential impact pathways to ecological receptors between the English Onshore Scheme and this scheme based on receptors identified and/or the distance between the schemes. Therefore there are no potentially significant cumulative effects.</p> <p>Landscape and Visual</p> <p>The construction activity associated with the underground DC cable route and converter station of the English Onshore Scheme will result in localised loss of agricultural land and the limited removal of field boundary vegetation. This combined with the simultaneous construction of the battery storage scheme will concentrate the temporary change in landscape characteristics within a small part of LCA 15 Camblesforth Farmland centred around the existing infrastructure of Drax Power Station which is already a</p>	No further mitigation identified. The design mitigation measures, including good construction practices, as implemented in the Outline CEMP for the English Onshore Scheme, and the assumed adoption of similar good practices are regarded sufficient.	Minor Adverse (not significant)

Other Development Details			Stage 3	Stage 4		
				<p>characteristic of this LCA. It is noted that the will occupy a small parcel of land to the west of Barlow on the opposite side of the power station complex from the English Onshore Scheme. Overall, the introduction of the construction of the English Onshore Scheme into this cumulative baseline scenario will result in a cumulative effect that is not significant due to the limited geographical extent within a small part of the LCA.</p> <p>Once operational the converter station in combination with the cumulative scenario will concentrate infrastructure around Drax Power Station complex which exerts a strong influence on the character of the landscape, limiting the geographical extent of change in the LCA and retaining the intrinsic character and quality of the wider LCA. Operational cumulative effects are therefore also not likely to be significant.</p> <p>Visual: there are unlikely to be cumulative visual effects as the battery storage facility will be largely screened by intervening vegetation. Cumulative effects are not considered to be any greater than the individual effect of the English Onshore Scheme in isolation.</p>		
SE-18	Tier 1	2022/0153/FULM	<p>Location: Land Adjacent To A63 And East Common Lane Barlow Selby North Yorkshire</p> <p>Description: HGV park and welfare building and warehouse to serve existing Sedamyl UK Ltd plant and employment unit with associated landscaping, infrastructure works and vehicular, pedestrian circulation at Land Adjacent To A63 And East Common Lane Barlow Selby North Yorkshire</p> <p>5.3km from proposed converter station site</p>	<p>Assessment of inter-project cumulative effects from this development with the English Onshore has been scoped out for all topics, due to being situated outside their respective Zols, or there being no potential cumulative effect pathways identified during the assessment (Table 17-2).</p>	<p>No further mitigation identified. The design mitigation measures, including good construction practices, as implemented in the Outline CEMP for the English Onshore Scheme, and the assumed adoption of similar good practices are regarded sufficient.</p>	<p>Negligible (not significant)</p>

Other Development Details			Stage 3	Stage 4		
SE-20	Tier 2	2022/0107/NYSO	<p>Location: Drax Power Station Drax North Yorkshire</p> <p>Description: Consultation on NY/2022/0027/SCO request for EIA scoping opinion for Barlow Ash Mound, North West of Drax Power Station 1km from proposed converter station site</p>	<p>Ecology & Nature Conservation</p> <p>There are no potential impact pathways to ecological receptors between the English Onshore Scheme and this scheme based on receptors identified and/or the distance between the schemes. Therefore there are no potentially significant cumulative effects.</p> <p>Landscape and Visual</p> <p>The construction activity associated with the underground DC cable route and converter station of the English Onshore Scheme will result in localised loss of agricultural land and the limited removal of field boundary vegetation. This combined with the simultaneous construction of the ash mound scheme will concentrate the temporary change in landscape characteristics within a small part of LCA 15 Camblesforth Farmland centred around the existing infrastructure of Drax Power Station which is already a characteristic of this LCA. Overall, the introduction of the construction of the English Onshore Scheme into this cumulative baseline scenario will result in a cumulative effect that is not significant due to the limited geographical extent within a small part of the LCA.</p> <p>Once operational the converter station in combination with the cumulative scenario will concentrate infrastructure around Drax Power Station complex which exerts a strong influence on the character of the landscape, limiting the geographical extent of change in the LCA and retaining the intrinsic character and quality of the wider LCA. Operational cumulative effects are therefore also not likely to be significant.</p> <p>Visual: simultaneous construction plant and activity from the construction of the converter station with the Barlow Ash Mound project will slightly intensify the construction operations present for a temporary period of time. This, however, is not considered to be any greater than the individual effect of the English Onshore Scheme in isolation. Once operational the introduction of the converter station into the cumulative baseline scenario will not likely result in a noticeable change in the composition of the surrounding views. Cumulative effects are therefore not likely to be any greater than the effects in isolation.</p>	<p>No further mitigation identified. The design mitigation measures, including good construction practices, as implemented in the Outline CEMP for the English Onshore Scheme, and the assumed adoption of similar good practices are regarded sufficient.</p>	<p>Minor Adverse (not significant)</p>

Other Development Details			Stage 3	Stage 4	
				<p>Noise and Vibration</p> <p>Communications should be undertaken with the Cumulative Scheme so that, where practicable, works can be scheduled to minimise the exposure of sensitive receptors to significant adverse cumulative levels of construction noise for extended periods of time due to simultaneous activities on adjacent sites. Mitigation measures set out within the agreed CEMP will be applied during all construction activities to reduce adverse levels of cumulative construction noise and vibration as far as reasonably practicable. Given that these measures are applied at this cumulative scheme, it is unlikely that there will be an additive noise effect so cumulative construction noise effects are likely to be not significant.</p> <p>Socio-economics, Recreation and Tourism</p> <p>No additional cumulative impact on users of PRowS.</p>	

17.5 Summary of Cumulative Assessment

A cumulative assessment has been undertaken of both intra-project and inter-project effects. Intra-project effects have considered the impact of multiple environmental topics on the same receptor (i.e., the potential for a combined impact of increased disturbance (such as noise) and reduced visual amenity on walkers and visitors). Inter-project effects have considered the potential cumulative impacts from the simultaneous development of the English Onshore Scheme with other projects or activities that are both reasonably foreseeable in terms of delivery and are geographically located in a position where environmental impacts could act together to create an effect on a receptor that is more (or less) significant overall than the effect of individual developments alone. A systematic review of projects either already within or known to soon enter the planning system were reviewed by each of the specialists to determine potential cumulative impacts.

Whilst there is the potential for combined effects at some receptors during the construction and operational phases, it is considered that the significance of combined effects would be no greater than the significance of any individual effect. The mitigation measures and commitments identified in the Outline CEMP and the embedded mitigation measures built into the English Onshore Scheme design remain appropriate and that, as a minimum, the other developments identified would adopt standard good practice measures during construction to avoid, or reduce potential impacts from the scheme in isolation. Therefore no further measures are proposed because of the combined effects assessment.

The impact assessment has concluded that English Onshore Scheme alone, and in combination with the Marine Scheme, will **not result in any significant cumulative effects**.

Of the identified cumulative developments that have the potential to result in cumulative inter-project effects when taken into consideration with the English Onshore Scheme, it is considered that the significance of combined effects would be no greater than the significance of any individual effect already identified as a result of the English Onshore Scheme. The traffic assessment, however did note that increases in total traffic on New Road at Drax were close to the threshold of being significant in considering the proposed development of the Drax BECCS project. It is however noted that the assessment includes a 20% uplift in estimated vehicle numbers and therefore given the robust approach to assessment there are **no likely significant impacts** on the local highway network with other projects in the vicinity of Drax.

It is recognised that there is the potential for a number of projects to be developed in the vicinity of Drax that vary in scale and likely timing of their development. NGET is committed to working with other developers in the area, along with SDC and NYCC, to reduce cumulative effects as far as possible.

17.6 References

Ref 17-1 Town and Country Planning (Environmental Impact Assessment) Regulations 2017

Ref 17-2 Ministry of Housing, Communities and Local Government (2021). National Planning Policy Framework (NPPF).

Ref 17-3 Planning Inspectorate (PINS) (2019). Advice Note 17: Cumulative effects assessment relevant to nationally significant infrastructure projects. Available at:
<https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2015/12/Advice-note-17V4.pdf>

Ref 17-4 The Institute of Environmental Management and Assessment (IEMA) (2011). Special Report - The State of EIA Practice in the UK.

Ref 17-5 Design Manual for Roads and Bridges (DMRB) Volume 11, Section 2, Part 5 HA205/08 (Highways Agency) 2008

Ref 17-6 East Riding of Yorkshire Public Access. Available at:
<https://newplanningaccess.eastriding.gov.uk/newplanningaccess/>. Last visited 09.03.2021.

Ref 17-7 Selby District Council Public Access. Available at:
<https://public.selby.gov.uk/online-applications/>. Last visited 09.03.2021.

Ref 17-8 Ministry of Housing, Communities and Local Government (2015b). Town and Country Planning (Development Management Procedure) Order. 15th April 2015. Available at: https://www.legislation.gov.uk/uksi/2015/595/pdfs/uksi_20150595_en.pdf

