

**RWE Renewables UK Dogger Bank
South (West) Limited**

**RWE Renewables UK Dogger Bank
South (East) Limited**

Dogger Bank South Offshore Wind Farms

Environmental Statement

Volume 7

**Appendix 6-1 Onshore Cumulative Effects Assessment
Methodology**

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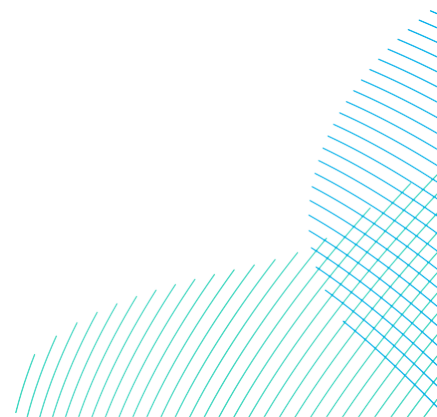
Annex

Annex A: Onshore Cumulative Effects Assessment Long List Schemes

Glossary

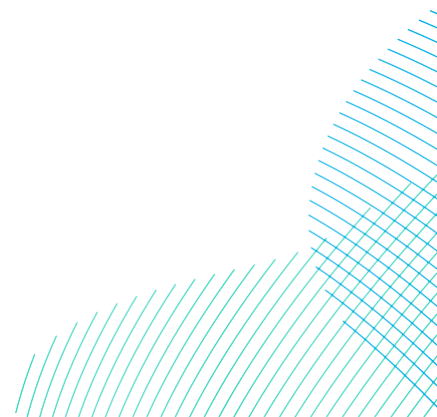
Term	Definition
Cumulative Effects	The combined effect of the Projects in combination with the effects of a number of different (defined cumulative) Schemes, on the same single receptor/resource.
Cumulative Effects Assessment (CEA)	The assessment of the combined effect of the Projects in combination with the effects of a number of different (defined cumulative) schemes, on the same single receptor/resource.
Cumulative impact	The combined impact of the Projects in combination with the effects of a number of different (defined cumulative) schemes, on the same single receptor / resource.
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for one or more Nationally Significant Infrastructure Projects (NSIP).
Environmental Impact Assessment (EIA)	A statutory process by which certain planned projects must be assessed before a formal decision to proceed can be made. It involves the collection and consideration of environmental information, which fulfils the assessment requirements of the EIA Directive and EIA Regulations, including the publication of an Environmental Statement (ES).
Landfall Zone	The generic term applied to the entire landfall area between Mean Low Water Spring (MLWS) and the Transition Joint Bays (TJBs) inclusive of all construction works, including the landfall compounds, Onshore Export Cable Corridor and intertidal working area including the Offshore Export Cables.
Mean High Water Springs (MHWS)	MHWS is the average of the heights of two successive high waters during a 24 hour period.

Term	Definition
Onshore Development Area	The Onshore Development Area for ES is the boundary within which all onshore infrastructure required for the Projects would be located including Landfall Zone, Onshore Export Cable Corridor, accesses, Temporary Construction Compounds and Onshore Converter Stations.
Projects Design (or Rochdale) Envelope	A concept that ensures the EIA is based on assessing the realistic worst-case scenario where flexibility or a range of options is sought as part of the consent application.
The Applicants	The Applicants for the Projects are RWE Renewables UK Dogger Bank South (East) Limited and RWE Renewables UK Dogger Bank South (West) Limited. The Applicants are themselves jointly owned by the RWE Group of companies (51% stake) and Masdar (49% stake).
The Projects	DBS East and DBS West (collectively referred to as the Dogger Bank South Offshore Wind Farms).



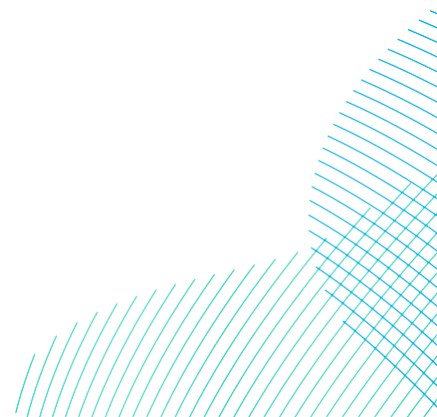
Acronyms

Term	Definition
AN17	Advice Note 17
CEA	Cumulative Effects Assessment
DBS	Dogger Bank South
DCO	Development Consent Order
ECC	Export Cable Corridor
EIA	Environmental Impact Assessment
ERYC	East Riding of Yorkshire Council
ES	Environmental Statement
MHWS	Mean High Water Springs
NPS	National Policy Statements
NSIP	Nationally Significant Infrastructure Project
PEIR	Preliminary Environmental Information Report
PINS	The Planning Inspectorate
SoS	Secretary of State
ZoI	Zone of Influence



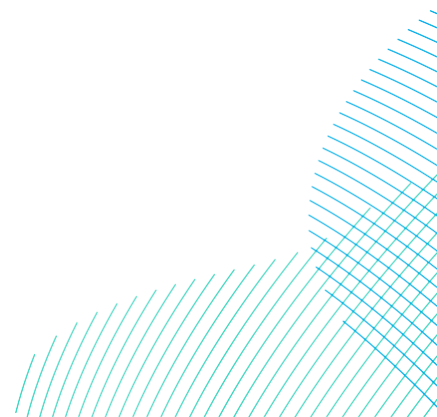
1 Introduction

1. A fundamental requirement of undertaking the Cumulative Effects Assessment (CEA) is to identify those schemes, plans and activities with which Dogger Bank South (DBS) East and DBS West offshore wind farms, collectively known as DBS offshore wind farms (herein ‘the Projects’) may interact to produce a cumulative effect. These interactions may arise within the construction, operation and maintenance phases. The objective of this Appendix is to provide details on the methodology for the Projects onshore CEA, the justification for the approach taken regarding cumulative impacts, and to detail the long list of schemes, plans and activities that have been considered within the onshore CEA. The approach for cumulative impacts is based upon the Planning Inspectorate (PINS) Advice Note Seventeen: Cumulative Effects Assessment (PINS, 2019). The approach to the CEA is intended to be specific to the Projects and takes into account the available knowledge of the environment and other activities around the Onshore Development Area. Due to the anticipated lifetime of the Projects (anticipated to be 30 years), it is not possible to undertake a meaningful assessment of potential cumulative effects for the decommissioning phase at this time, which is in line with common practice for Nationally Significant Infrastructure Projects (NSIPs). A decommissioning plan for the onshore works would be submitted prior to any decommissioning commencing.
2. The ES addresses the cumulative effects for both the onshore and offshore elements of the Projects. This Appendix details the methodology for the onshore CEA only. The methodology for the offshore CEA is detailed in **Volume 7, Appendix 6-2, Offshore Cumulative Effects Assessment Methodology (application ref: 7.6.6.2)**.



2 Policy and Legislative Context

3. The Planning Act 2008 underpins the consenting regime for certain types of development classed as NSIPs. The Secretary of State (SoS) for the department of Energy Security and Net Zero (DESNZ) has confirmed that the Projects will require development consent under the Planning Act. The Infrastructure Planning (Environmental Impact Assessment) Regulations (2017) implemented the requirements of the Environmental Impact Assessment (EIA) Directive (Directive 2014/52/EU) into UK law in relation to DCO applications.
4. The overarching National Policy Statement (NPS) for Energy (EN-1) and the NPS for Renewable Energy Infrastructure (EN-3) both identify the requirement to address the maximum potential adverse impacts. Matters considered to affect the maximum adverse impact are topic impacts, inter-relationships between topics, and cumulative impacts. The maximum adverse scenario, or envelope, is termed the Design (or 'Rochdale') Envelope.
5. The Planning Inspectorate has produced 'Advice Note Nine: Rochdale Envelope' (2018) setting out the views of the Planning Inspectorate regarding how this approach should be used in the context of the Planning Act 2008. The well understood concept of the Rochdale Envelope approach involves ensuring that any EIA is based on assessing the realistic worst-case scenario where flexibility, or a range of options is sought as part of the consent application. This guidance reinforces that in order to ensure a robust application of the Rochdale Envelope principle to the EIA process, this principle must also be applied to cumulative as well as individual effects.
6. The Planning Inspectorate have produced 'Advice Note Seventeen: Cumulative Effects Assessment' (PINS, 2019), which provides guidance on a staged process that can be used for cumulative effects assessments for NSIPs. Advice Note Seventeen (AN17) details a four-step process that can be followed by developers, and which has been applied here.

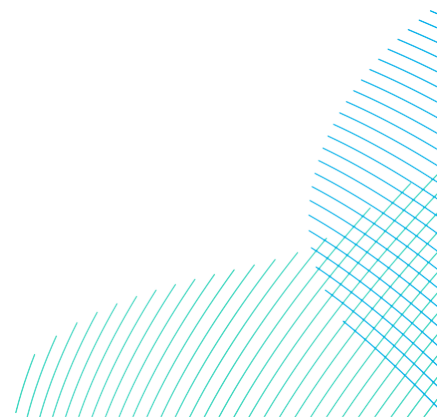


3 Consultation

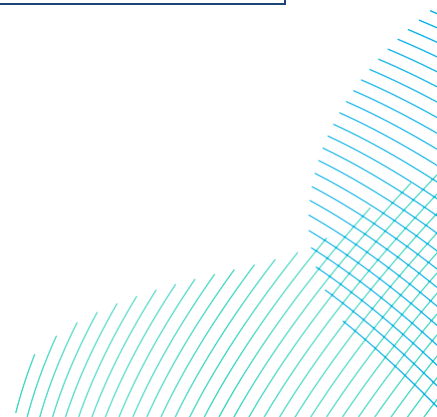
7. As part of the Environmental Statement (ES) for the Projects, consultation in relation to cumulative effects has been undertaken with various statutory and non-statutory authorities and stakeholders as part of the evidence plan process and Expert Topic Group (ETG) meetings. A record of the key areas of consultation is provided within **Volume 7, Chapter 7 Consultation (application ref: 7.7)**. Consultation to date is also summarised in the topic-specific ES chapters.
8. A summary of responses from the Planning Inspectorate relevant to the CEA from the Scoping Opinion (PINS, 2018) are provided in **Table 6-1-1**.

Table 6-1-1 The Planning Inspectorate Scoping Comments Relating to the CEA for Onshore Topics (September 2022)

Planning Inspectorate Reference ID	Comment	Response to Issue Raised and/or Where Considered in this Appendix
2.4.1	The ES should clearly explain which other developments will be assumed to be under construction or operational as part of the assessment of the future baseline, with and without the Projects.	Each ES chapter identifies the potential future baseline. The CEA identifies those schemes that may be under construction or operation at the same time as the Projects.

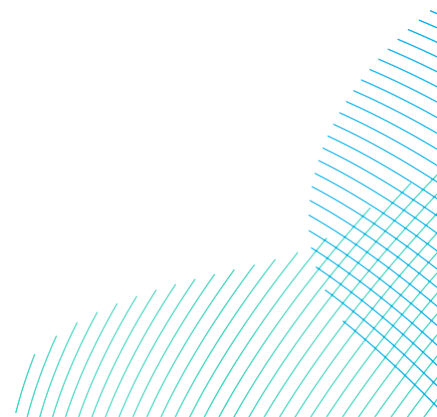


<p>2.4.2</p>	<p>Cumulative Impact Assessment (CIA)</p> <p>It is noted that Paragraph 126 states ‘<i>Only projects / schemes which are reasonably well defined and sufficiently advanced to provide information on which to base a meaningful and robust assessment will be included in the CIA.....Where possible RWE Renewables will use as-built project / scheme parameter information (if available) as opposed to consented parameters to reduce over-precaution (inaccuracies) in the cumulative assessment</i>’.</p> <p>The Inspectorate advises that where projects / schemes are not fully defined, the worst-case scenario available should be used in the assessment. The parameters applied in relation to existing projects / schemes should also represent the worst-case, taking into account the circumstances around what is legally secured for those projects / schemes. The level of precaution associated with the outcomes of the cumulative assessment should be explained in the ES. The Inspectorate does not agree that a high degree of precaution is equitable to inaccuracies in an assessment.</p> <p>In general, the description of the approach to the cumulative impact assessment within each aspect chapter of the Scoping Report is very limited. The Inspectorate expects the ES to specifically identify how impacts could combine and to provide an assessment of their significance, in accordance with the advice in the Inspectorate’s National Infrastructure Advice Note 17.</p>	<p>This appendix sets out the approach to the CEA. Annex A, of this appendix, contains the long list of schemes which have been formulated based on the worst-case scenario available for the schemes listed where limited public information is available.</p> <p>The ES identifies how impacts could combine and assesses their significance.</p> <p>Topic-specific assessments are included in the relevant ES chapters (see Volume 7, Chapters 8 to 30 (application ref: 7.8 to 7.30)).</p>
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4 Definitions of Cumulative Effects for the Projects

9. For the purpose of the CEA process, cumulative effects are defined as effects upon certain receptors/resources from the Projects when considered alongside other proposed schemes and any other reasonably foreseeable schemes and activities. This includes all schemes that result in a comparative or ongoing effect.
10. In-combination effects are defined as the combined effect of the Projects, with the effects from a number of different schemes, on the integrity of European Sites designated for their nature conservation value. In-combination effects are presented within the **Volume 6, Report to Inform the Appropriate Assessment Report to Inform the Appropriate Assessment (RIAA) (application ref: 6.1)**. Cumulative effects therefore apply in the EIA, whilst in-combination effects apply to the RIAA in Habitat Regulation Assessment terms but are also reported in the ES.
11. These definitions are consistent with the definition provided by the Planning Inspectorate in AN17 and have been applied consistently throughout the ES.



5 Approach to Cumulative Effects Assessment

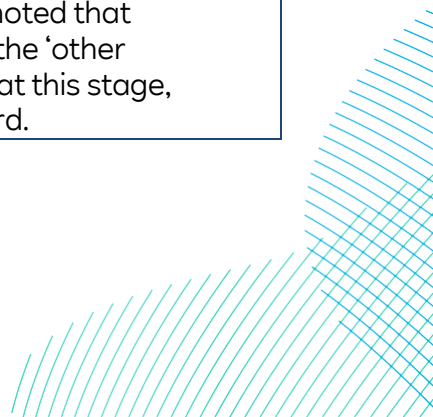
5.1 Overview

12. In the past, there has been a lack of guidance for CEA, and past projects have consequently tended to adopt different methods for assessment. The Planning Inspectorate produced Advice Note Seventeen: Cumulative Effect Assessment, to provide guidance on a staged process that can be used for CEAs for NSIPs (summarised in **Table 6-1-2**). In addition to AN17, the approach to cumulative assessment for the Projects has also taken into account the Cumulative Impacts Assessment Guidelines issued by RenewableUK and the Planning Inspectorate Advice Note Nine: Rochdale Envelope.

Table 6-1-2 Stages and Activities Involved in the CEA Process (Taken from the Planning Inspectorate AN17).

CEA Stage	Activity
Stage 1 – Establish a Long list of other developments and the Project’s Zone of Influence (Zol).	<p>The Projects undertake a desk study to identify the Zol for the development for the topics that are proposed to be scoped into the EIA. The Zol analysis is documented (i.e. table of topics and Zol), with supporting GIS.</p> <p>The long list of other plans and schemes /activities is drawn up through a desk study of planning applications, development plan documents, relevant development frameworks and any other available sources such as through the EPP and ETG process, to identify ‘other development’ within the Zol.</p> <p>Information on each scheme (development type, when occurring, etc.) is documented, along with the certainty or tier assigned to the ‘other development’ (i.e. confidence it will take place in the current form and when it will take place in relation to the scheme).</p> <p>AN17 notes that the Project should then consult with the relevant planning authority/authorities and statutory consultees regarding the long list.</p>
	<p>Based upon the Projects Zol of 5km, it has been identified that potential developments that need considering as part of the onshore CEA are restricted to those within the East Riding of Yorkshire Council (ERYC) and Hull City Council (HCC). To determine a ‘long list’ of possible schemes for inclusion in the CEA the following actions have been carried out:</p>

CEA Stage	Activity
	<ul style="list-style-type: none"> • Review of the ERYC Local Plan; • Review of the ERYC planning portal (latest review is October 2023); • Review of HCC planning portal (latest review is December 2023); • Review of the Planning Inspectorate’s NSIP Projects website; and • Discussion of potential schemes for specific inclusion in the CEA at ETG meetings in November and December 2023. <p>These processes have identified 45 potential schemes which form the ‘long list’ based on the criteria in Table 6-1-3. In order to attribute an element of certainty to the CEA each scheme has been assigned a Tier reflecting their current status within the planning and development process. This approach allows appropriate weight to be given to each scenario (tier) when considering the potential cumulative impact. The proposed tier structure is intended to ensure that there is a clear understanding of the level of confidence in the cumulative assessments provided in the Projects ES. An explanation of each tier is included in Table 6-1-4.</p> <p>The full list of schemes and relevant tiers assigned can be found in Annex A. The location of the schemes, relative to the Onshore Development Area is provided in Figure 6-1-1 and included as the distance to the nearest point of the Onshore Development Area within Annex A.</p>
<p>Stage 2 – Identify a shortlist of other developments for the CEA (Screening of the long list)</p>	<p>The Planning Inspectorate have provided inclusion/exclusion threshold criteria, against which the potential for ‘other development to give rise to significant cumulative effects by virtue of overlaps in temporal scope, the scale and nature of the ‘other developments’ and/or receiving environment, or any other relevant factors is assessed. From this assessment, a shortlist of ‘other developments’ to be included in the CEA is produced. It is noted that documented information on each of the ‘other development’ is likely to be high level at this stage, outlining the key issues to take forward.</p>

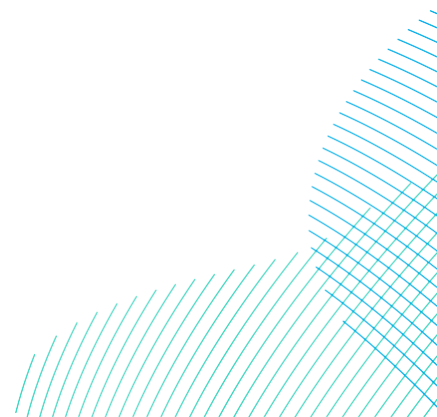


CEA Stage	Activity
	<p>Following on from the Stage 1 long list a consideration of effect-receptor pathways, data confidence and temporal and spatial scales has allowed the selection of the relevant schemes for a topic-specific cumulative shortlist which is presented within each of the topic-specific onshore ES Chapters.</p> <p>Predicted cumulative effects predominantly relate to direct effects, however a topic-specific buffer (Table 6-1-6) around the Onshore Development Area was selected to ensure that the indirect impacts on each specific topic were also appropriately included. It is considered unlikely that significant effects greater than this distance would occur given the impacts under assessment.</p>
<p>Stage 3 – Information gathering</p>	<p>All available information on the ‘other developments’ within the shortlist generated at Stage 2 is collated to inform the CEA.</p> <p>At this stage (i.e. ES), information is of high level unless explicitly discussed with the relevant planning authority (ERYC and HCC). The information collected on each development is presented in Annex A.</p>
<p>Stage 4 - Assessment</p>	<p>The Project reviews each of the ‘other developments / schemes’ in turn to assess whether cumulative effects may arise, which in turn produces topic-specific shortlists (for the topic-specific CEA study area) that are referred to and considered within each technical onshore chapter (see Volume 7, Chapters 18 to 30 (application ref: 7.18 to 7.30)). This should also include, where relevant, consideration of any mitigation measures where significant adverse cumulative effects are identified and should clearly signpost to the relevant means of securing mitigation (e.g. DCO requirements and associated mitigation plans).</p> <p>While not to be used as a means to shift the burden of mitigation, it may be appropriate to ascertain the contribution of each development to the effect (done via professional judgement). However, it may be useful during the consultation with other developers to identify means to jointly address mitigation of significant</p>



CEA Stage	Activity
	<p>adverse cumulative effects and the means to ensure delivery.</p> <p>The CEA has been undertaken in two phases, where:</p> <ul style="list-style-type: none"> • Phase one is where each of the potential effects that are subject to assessment alone have been reviewed against the potential for cumulative effects to occur; and • Phase two is where a CEA of each of the other developments on the shortlist has taken place for those effects where it is considered that potential cumulative effects could occur. <p>The CEA also includes, where relevant, consideration of any mitigation measures where adverse cumulative effects are identified and signposts to the relevant means of securing mitigation.</p>

13. The following sections sets out the Projects approach to completing Stages 1 to 3, incorporating development of the long list, tiering of schemes and development of the topic-specific shortlists. These shortlists have been considered in detail in each of the topic-specific onshore ES chapters as part of the cumulative assessment process (Stage 4).



5.2 Stage 1 - Establish the Zols and Identify Long List of 'Other Development'

5.2.1 Approach to the Long List

14. Under the first stage of the onshore CEA, a long list of relevant schemes, plans and activities occurring within the study area, 5km from the Onshore Development Area, as shown on **Figure 6-1-1**, has been developed from the sources described below. Planning consent granted within the last three years, or applications that have been made and have yet to be determined have been considered.
15. **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** adopts a different approach to CEA. Recognising the extents of the traffic and transport study area (over 150km) a proportionate approach has been adopted whereby relevant highway authorities (East Riding of Yorkshire Council, Hull City Council and National Highways) have been engaged to identify if there are any schemes that they consider could act cumulatively with the Projects. Through the ETGs (summarised in **Volume 7, Appendix 24-1 (application ref: 7.24.24.1)**), the relevant highway authorities have identified four schemes that they consider should be included as part of the CEA (in addition to those already accounted for in the traffic model) namely:
 - A164 and Jocks Lodge Junction Improvement Scheme;
 - A63 Castle Street Improvement;
 - Hornsea Four Offshore Windfarm; and
 - Proposed Beverly Household Recycling Centre (application refused however kept in CEA longlist due to professional judgement and stakeholder request).
16. Proposed or planned development information has been collated from within ERYC and HCC local authority boundaries and has been based on publicly available information available at the time of preparation. The long list, landward of Mean High Water Springs (MHWS) for the onshore CEA, has been produced based on the scale of other schemes and the potential for them to interact with the Projects. Any schemes submitted for planning permission post-October 2023 have not been considered for inclusion in the ES. Any schemes which fall within the intertidal zone would be considered within the Offshore CEA (**Volume 7, Appendix 6-2 (application ref: 7.6.6.2)**).

17. The CEA long list for onshore schemes is presented in **Annex A** of this document. All onshore schemes considered are based on the Zol criteria listed in **Table 6-1-3**. These long list schemes are presented in **Figure 6-1-1**. This long list is then further refined at Stage 2 through a screening process specific to each of the onshore technical assessments included in the ES.

Table 6-1-3 CEA Onshore Long List Zol Criteria.

Type of Scheme or Activity	Zol Criteria
Energy generation infrastructure	Installations larger than domestic scale within the local authority area of ERYC or HCC
Building/housing developments	Developments of more than five dwellings/units within the local authority area of ERYC or HCC
Roads	Major or main road installation or upgrades within the local authority area of ERYC or HCC
Cable and pipelines	Major cable and pipeline installations and upgrades within the local authority area of ERYC or HCC
National Grid enabling works	Any works within the local authority area of ERYC or HCC
Coastal protection works	Any works within the local authority area of ERYC or HCC
Agriculture works	Any works within the local authority area of ERYC or HCC

18. All schemes, plans, and activities within the search areas defined in the table above have been identified through a desktop study using, amongst others, the following data sources:
- Planning Inspectorate, National Infrastructure Planning Portal (<https://infrastructure.planninginspectorate.gov.uk/projects/>);
 - ERYC Planning website (<https://newplanningaccess.eastriding.gov.uk/newplanningaccess/>);
 - HCC Planning website (<https://www.hullcc.gov.uk/padcbc/publicaccess-live/search.do?action=simple>); and

- Developer and project proponent websites (e.g. <https://nationalhighways.co.uk/our-roads/yorkshire-and-north-east/a63-castle-street/>).
- Additionally, The Applicants have been in contact with National Highways and National Grid to obtain information for specific CEA schemes, where information was not available in the public domain. This includes:
 - A63 Castle Street Improvement;
 - Proposed Birkhill Wood National Grid Substation;
 - Creyke Beck Substation Extension;
 - Humber Low Carbon Pipelines; and
 - North Humber to High Marnham Grid Upgrade.

5.2.2 Tiered Approach

19. In assessing the potential for cumulative effects from the Projects, it is important to consider that schemes, predominantly those ‘proposed’, may or may not be taken forward for development. Therefore, there is a need to build in some consideration of certainty (or uncertainty) with respect to the potential impacts which might arise from such proposals, in line with the approach set out by the Planning Inspectorate in AN17. For example, schemes which are already under construction are more likely to contribute to cumulative effects than those development applications that are not yet submitted. It is also important to consider overlapping future construction periods given the long construction period of the Projects. Overlapping operational phases of other schemes and the Projects are also considered for example in regards to traffic and transport cumulative operational effects.
20. For these reasons, all of the relevant long list plans and schemes have been allocated into ‘tiers’, reflecting their current status within the planning and development process. This allows the cumulative impact assessment to present several scenarios if required, reflecting the varying levels of certainty of an activity proceeding and therefore the potential for impacts to arise that might act cumulatively with the impacts arising from the Projects. Appropriate weight may therefore be given to each scenario (tier) in the decision-making process when considering the potential cumulative impacts associated with the Projects. For example, it may be considered that greater weight be attributed to tier 1 than tier 2.

21. In accordance with the Planning Inspectorate AN17, the proposed tiering structure is described in **Table 6-1-4**. The tiers are listed in descending order of level of detail likely to be available (and certainty of effects arising). It is noted in the Planning Inspectorate AN17 that where other schemes are expected to be completed before the construction of the proposed NSIP and the effects of those schemes are fully determined, effects arising from them should be considered as part of the baseline and may be considered as part of assessment in the construction and operational phase (noting that the assessment should clearly distinguish between schemes forming part of the baseline and those in the CEA).

Table 6-1-4 Description of Tiers of Other Developments Considered for CEA (Adapted from PINS AN17).

Tiers	Development Stage
Tier 1	Scheme under construction
	Permitted applications, whether under the Planning Act 2008 or other regimes, but not yet implemented.
	Submitted applications, whether under the Planning Act 2008 or other regimes, but not yet determined.
Tier 2	Schemes on the Planning Inspectorate's Programme of Schemes where a Scoping Report has been submitted and/or Town and Country Planning Act (1990) planning permission route where a scoping report has been submitted.
Tier 3	Schemes on the Planning Inspectorate's Programme of Schemes where a Scoping Report has not been submitted and/or Town and Country Planning Act (1990) planning permission route 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 much information on any relevant proposals will be limited.
	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.

22. The tiering allocated to each of the long list schemes is indicated as part of the long list presented in **Annex A**.

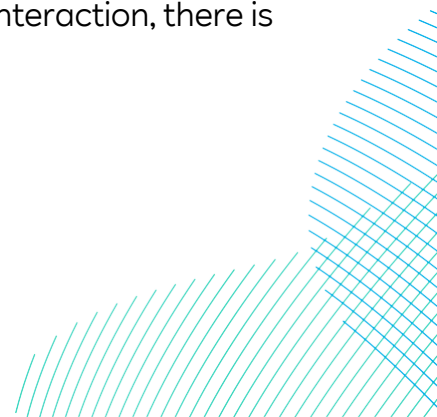
5.3 Stage 2 – Screening of Long List (Interactions)

23. Having developed the Projects long list, all schemes, plans and activities have been screened based on the level of detailed information available and the potential interaction with the Projects, whether this interaction be temporal and/or spatial and where a potential pathway exists. This screening has produced EIA topic-specific shortlists of schemes to be considered further within the CEA as part of each EIA topic chapter. It should be noted that this process may have screened a scheme in for one EIA topic but screened it out for another. The individual shortlists are presented in each technical topic chapter of the ES (**Volume 7, Chapters 8 to 30 (application ref: 7.8 to 7.30)**). The screening process has applied the criteria presented in **Table 6-1-5**.

Table 6-1-5 CEA Long List Screening Criteria.

Scheme Screened-in	Scheme Screened-out
<ul style="list-style-type: none"> • Scheme is considered as part of the baseline environment but has ongoing effects; • Potential for an impact-receptor pathway to exist; • Potential for a spatial effect interaction to exist; and/or • Potential for temporal effect interaction exists. 	<ul style="list-style-type: none"> • Scheme included as part of the baseline environment (therefore not a consideration in the CEA); • Low data confidence (meaningful assessment cannot be undertaken); • No potential impact-receptor pathway exists; • No potential for a spatial effect interaction; and/or • No potential for a temporal effect interaction.

24. During the screening process, the steps above have been followed in the defined order to allow a clear justification for screening schemes in / out. Definitions of relevance to **Table 6-1-5** comprise:
- **Spatial effect interaction:** The impacts on a receptor from the Projects and one or more other plans / schemes have a geographical overlap. For example, noise from construction operations at the Projects could overlap with those of another onshore construction scheme, if it is sufficiently close to the Projects. If there is no spatial interaction, there is no potential for a cumulative effect.



- **Temporal effect interaction:** The impacts from the Projects and one or more other plans / schemes have the potential to occur at the same time. If there is no temporal interaction, there is no potential for a cumulative effect.
 - **Potential impact-receptor pathway:** There is the potential that a pathway exists whereby an impact could have an effect on a receptor. For example, construction dust could have an impact on water receptors, but noise could not have an effect on geology and ground condition receptors.
25. Only where there is the potential for both spatial and temporal interaction between effects at the Projects and one or more other plans /schemes, has a cumulative impact been taken forward for consideration in the CEA. The screening of the long list will identify those schemes screened in or out for further consideration on the basis of one or more of the preceding criteria into a topic-specific shortlist. The shortlist identifies all the schemes, plans, and activities that have the potential to give rise to cumulative effects when considered alongside the worst-case potential impacts arising from the Projects but does not identify the differences in impact ranges for different environmental receptors.

5.4 Stage 2 – Topic-Specific Screening of Long List (Impact Ranges)

26. The screened long list identifies all of the other plans / schemes and activities that might give rise to cumulative effects when considered alongside the potential impacts arising from the Projects but does not identify the differences in impact ranges for different environmental receptors. In order to focus the topic-specific CEAs presented in the ES chapters, the screened long list was subject to further topic-specific screening to identify those relevant plans/ and activities within the Zols of the Projects for each topic. The topic-specific screening distances used to refine the screened long list into topic-specific shortlists are provided in **Table 6-1-6**.

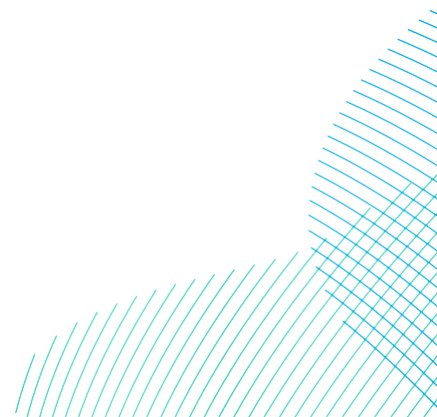
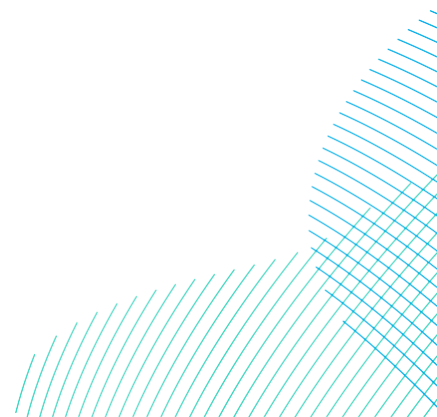
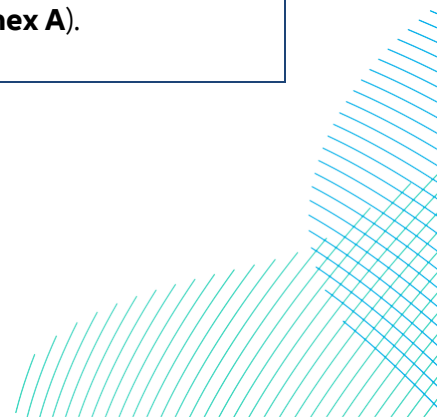


Table 6-1-6 Topic-Specific Screening Ranges. Applied to the Long List, Specific to Each EIA Receptor Topic

EIA Topic	Maximum Extent of Effect
Terrestrial Ecology and Ornithology	<p>A maximum search area of 5km has been selected for onshore ecology. This is in order to consider highly mobile bat and bird species.</p> <p>For other protected species and habitats, a maximum extent of impact is 2km, taking into consideration potential pathways (i.e. connecting habitats between schemes) as well as temporal overlap on shared habitat resources.</p>
Geology and Ground Conditions	<p>With regards to the CEA the predicted effects predominantly relate to direct effects. A 1km buffer was selected to ensure that the indirect impacts on geology and ground conditions were appropriately included. It is considered unlikely that significant effects greater than this distance would occur given the impacts under assessment.</p>
Flood Risk and Hydrology	<p>Due to the inter-connected nature of surface hydrological system, activities in one part of a surface catchment have the potential to affect other parts of the catchment in which they take place and also affect other connected catchments downstream. For the purposes of this assessment, all river water body catchments (identified by the Environment Agency for the purposes of the Water Framework Directive) in which construction or operational activities would take place have been used to define the maximum theoretical extent of scheme impacts. It is considered unlikely that potential impacts on surface water receptors would occur outside of these catchments.</p>
Land Use	<p>Whilst most predicted effects relate to direct effects due to direct spatial overlap, the 1km buffer was selected to ensure that indirect effects on land use were appropriately included. It is considered unlikely that significant effects greater than this distance would occur given the impacts under assessment and the nature of this topic.</p>



EIA Topic	Maximum Extent of Effect
Onshore Archaeology and Cultural Heritage	A 5km buffer has been identified for the CEA to ensure indirect (non-physical i.e. visual historic environmental effects) cumulative effects can be appropriately identified and assessed. It is considered unlikely that significant effects greater than these distances would occur given the impacts under assessment and the nature of this topic.
Landscape and Visual Impact (LVIA)	The Landscape and LVIA Study Area for the CEA was defined as a 5km radius from the Onshore Development Area. This considers the potential intervisibility of other planned schemes with the Projects at operation. It also considers a 5km radius for potential inter-visibility of substation structures with other tall structures from other planned development such as proposed onshore wind farms or overhead power lines.
Traffic and Transport	<p>Schemes that have not been considered as resulting in likely cumulative significant effects for traffic and transport are as a result of the following broad considerations:</p> <ul style="list-style-type: none"> • No traffic and transport assessment (e.g. a Transport Assessment or Environmental Statement traffic and transport chapter have been provided in support of the planning application for the scheme). • The scheme is residential development and as such, changes in traffic flows would be captured within the baseline traffic forecasts as part of the Trip End Model Presentation Programme (commonly known as TEMPRo). • Where there would be no temporal overlap between the Projects and other schemes; or • Where there is no spatial overlap between the Projects traffic and transport study area and the other developments traffic and transport study area. <p>All other schemes have been considered based on the maximum extent of effect for the other onshore EIA topics and the Zol for the long list (Annex A).</p>



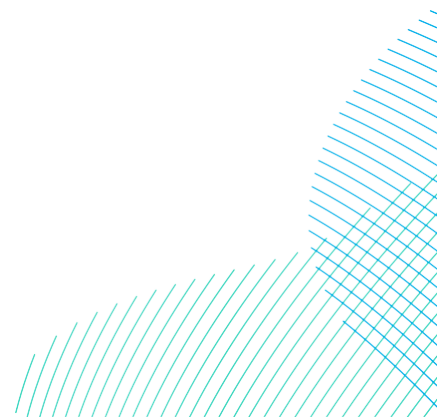
EIA Topic	Maximum Extent of Effect
Noise	<p>Construction noise: schemes within 300m of a noise sensitive receptor (within 100m for the construction vibration assessment).</p> <p>Construction road traffic noise: schemes that have the potential to use road traffic links included in the construction road traffic noise assessment of which the maximum extent of effect is in accordance with the traffic and transport maximum extent of effect as detailed above.</p> <p>Schemes within 500m from a noise sensitive receptor for the operational noise assessment.</p>
Air Quality	<p>The maximum extent of impact for air quality are the same as those for Traffic and Transport. In addition, Natural England's SSSI Impact Risk Zones (5km radius) for all designated sites screened into the air quality assessment have been considered.</p> <p>For the Construction Dust Assessment, a 700m buffer from the Onshore Development Area was considered.</p>
Human Health	<p>Dependent on a case by case basis which is consistent with the interrelated technical disciplines set out in other technical chapters of the ES.</p>
Socioeconomics	<p>Schemes of regional significance as agreed with the relevant local authorities.</p>
Tourism and Recreation	<p>3.5km ZoI. The analysis focuses on those schemes with potential for overlaps in construction activity or where operational activity may have effects on the tourism economy or individual receptors. 3.5km is considered appropriate as beyond that impacts to tourism and recreational receptors are not considered likely.</p>
Climate Change	<p>Not applicable</p>

27. These topic-specific ranges have been applied to the long list presented in **Annex A** to identify relevant shortlist schemes to be taken forward to the topic-specific CEA presented in each ES chapter (summary shortlist tables are presented in each of the onshore ES topic chapters (see **Volume 7, Chapters 18 to 30 (application ref: 7.18 to 7.30)**)).



5.5 Stage 3 (Information Gathering) and Stage 4 (Assessment)

28. Following on from the production of the topic-specific shortlists, EIA topics authors have undertaken an information gathering exercise in relation to all plans / schemes / activities that have been screened in for each particular topic. This information gathering has then been used to inform the CEA that are presented within each EIA topic chapter.
29. The CEA are provided in each of the topic chapters in **Volume 7, Chapters 8 to 30 (application ref: 7.8 to 7.30)** of the ES and utilise topic-specific criteria and rationales for individual assessments which are not repeated here.
30. In terms of the scope of impacts that have been assessed within the CEA, these were the same impacts assessed for the Projects alone in the main EIA assessments. Any effect that has been concluded to be of **negligible** significance (in EIA terms) for the Projects alone, would make no material contribution to any potential cumulative effect, and was therefore scoped out of the CEA. Effects of greater than negligible significance for the Projects alone have been considered cumulatively.



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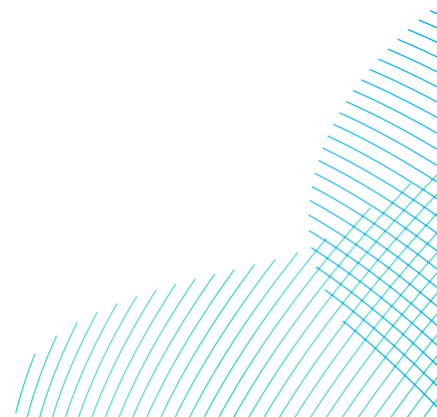
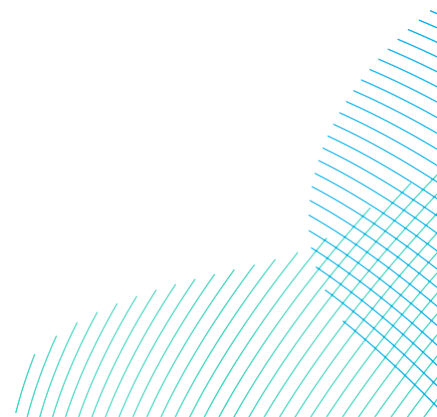
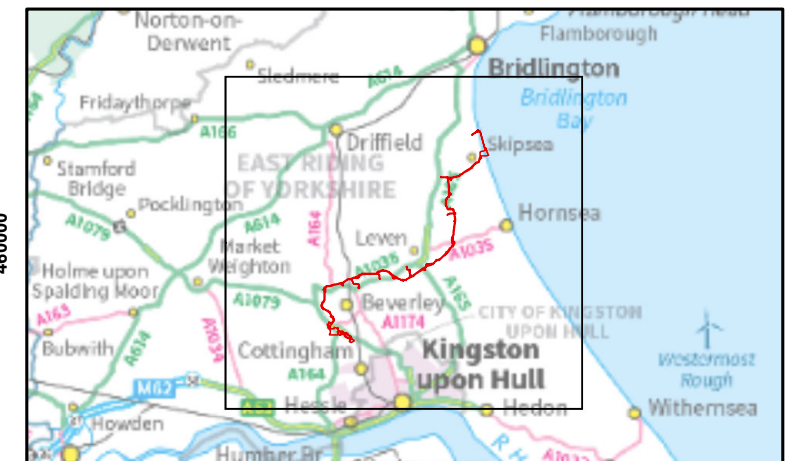
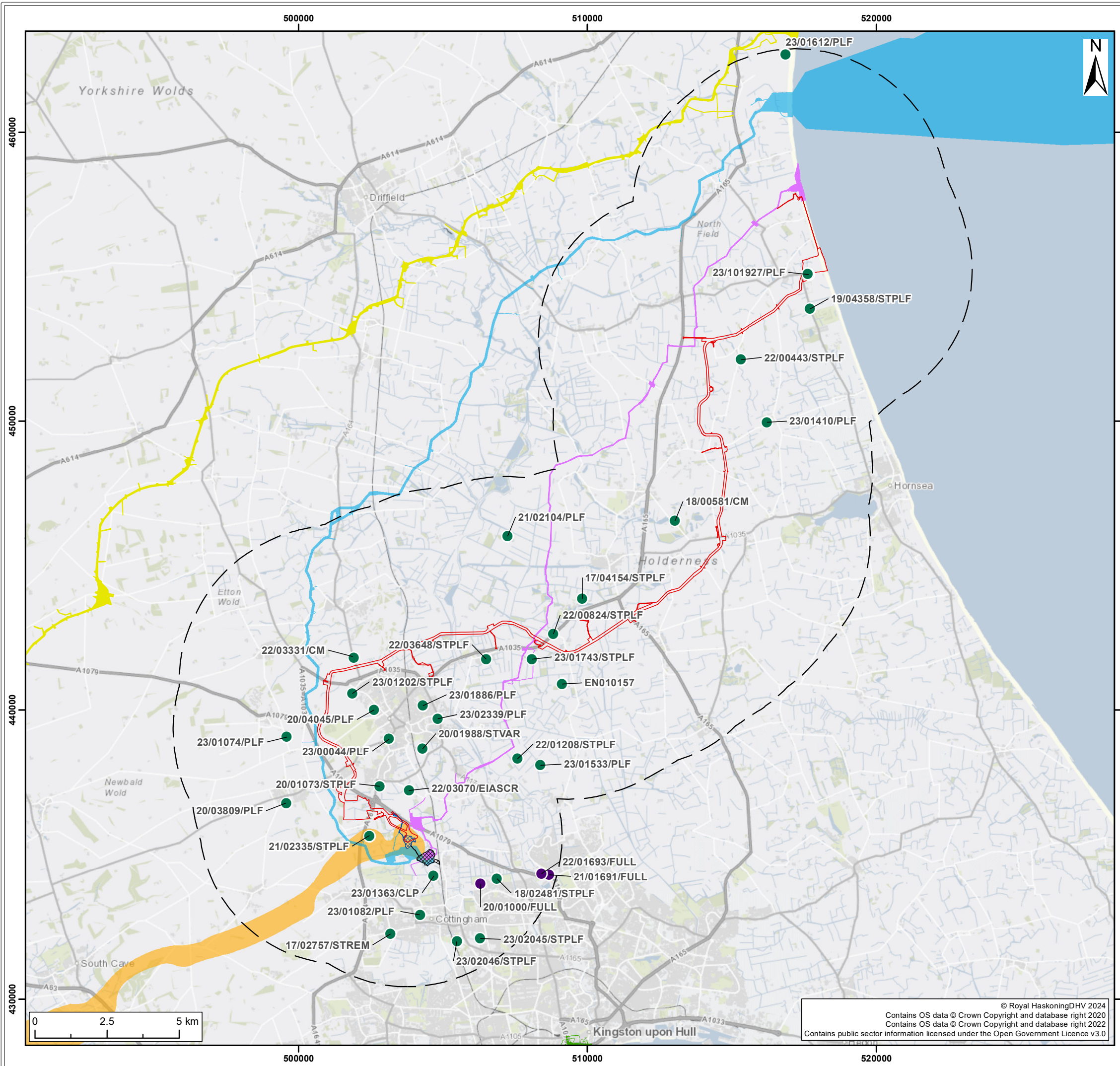


Figure 6-1-1

Onshore Cumulative Effects Assessment Schemes Long List





- Legend:
- Onshore Development Area
 - Onshore Development Area 5km Buffer
 - Hornsea 4 Offshore Wind Farm
 - Dogger Bank A & B Offshore Wind Farm
 - Scotland England Green Link 2 (SEGL2)
 - North Humber to High Marnham grid upgrade - Scoping Boundary
 - A63 Castle Street Improvement
 - Creyke Beck Substation Extension
 - Proposed Birkhill Wood National Grid Substation
 - East Riding Planning Application
 - Hull CC Planning Application

* Dogger Bank D and the Continental Link Multi-purpose Interconnector are not shown on Figure 6-1-1 as route alignments were not available at the time of production

SUI	REV	DATE	DESCRIPTION	DRW	CHK	APR
S4	P03	23/04/2024	Suitable for stage approval	SB	JB	ND
S3	P02	05/02/2024	Suitable for review and comment	SB	ND	OC
S2	P01	01/11/2023	Suitable for information	SB	ND	OC

Title:
Onshore Cumulative Effects Assessment Schemes Longlist

Figure: 6-1-1 | Drawing No: PC2340-RHD-ON-ZZ-DR-Z-0545

Co-ordinate system: British National Grid | Page Size: A3 | Scale: 1:130,000

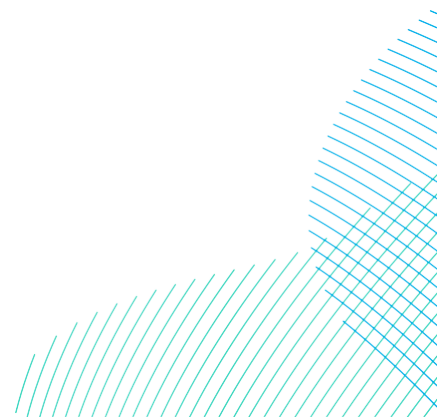
Project: Dogger Bank South Offshore Wind Farms | Report: Cumulative Effects Assessment



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Annex A

Onshore Cumulative Effects Assessment Long List Schemes



**RWE Renewables UK Dogger
Bank South (West) Limited**

**RWE Renewables UK Dogger
Bank South (East) Limited**

**Windmill Hill Business Park
Whitehill Way
Swindon
Wiltshire, SN5 6PB**

