The Great Grid Upgrade

Sea Link

Sea Link

Volume 6: Environmental Statement

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Part 1 Introduction
Chapter 5 Appendix 1.5.A
Cumulative Effects Assessment Methodologies

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Contents

1.	Cumulative Effects Assessment Methodologies	1
1.1	Introduction	1
1.2	Regulatory and Planning Context	2
1.3	Consultation	3
1.4	Intra-Project Cumulative Effects	6
1.5	Inter Project Cumulative Effects	8
Refe	rences	18
	Table of Tables	
	Table 1.1 Comments raised in the scoping opinion Table 1.2 'Other Development' for inclusion in the inter-project cumulative effects assessment Table 5.3 Strategic plans which have been scoped out of the CEA Table 5.4 Inter-project cumulative effects - indicative screening matrix	3 10 10 15
	Table of Plates	
	Plate 1.1 Methodological approach to identifying intra-project cumulative effects Plate 1.2 Defining the ZOI	7 9

1. Cumulative Effects Assessment Methodologies

1.1 Introduction

- 1.1.1 When undertaking an assessment of environmental effects of a project, it is necessary to consider how various effects may interact, and also how the effects of the Proposed Project could accumulate with the effects of the other developments proposed within the same zone of influence. There are two types of cumulative effect:
 - Intra-project cumulative effects (sometimes referred to as combined or interactive
 effects) occur where a single receptor is affected by more than one source of effect
 arising from different aspects on the Proposed Project. An example of an intraproject effect would be where a local community is affected by dust, noise, and
 traffic disruption during the construction of the Proposed Project, with the result
 being a greater level of nuisance than each individual effect alone.
 - Inter-project cumulative effects occur as a result on the construction or operation of the Proposed Project in addition to any other contemporaneous development within the same zone of influence which individually might not be significant, but when considered together could create a significant cumulative effect.
- This appendix of the Environmental Statement (ES) outlines the methodologies used for the assessment of cumulative effects and how the methodologies have been applied to the assessment of effects within this ES.
- 1.1.3 This appendix should be read in conjunction with:
 - Application Document 6.2.2.12 Part 2 Suffolk Chapter 12 Suffolk Onshore Scheme Intra-Project Cumulative Effects;
 - Application Document 6.2.2.13 Part 2 Suffolk Chapter 13 Suffolk Onshore Scheme Inter-Project Cumulative Effects;
 - Application Document 6.2.3.12 Part 3 Kent Chapter 12 Kent Onshore Scheme Intra-Project Cumulative Effects;
 - Application Document 6.2.3.13 Part 3 Kent Chapter 13 Kent Onshore Scheme Inter-Project Cumulative Effects;
 - Application Document 6.2.4.10 Part 4 Marine Chapter 10 Intra-Project Cumulative Effects;
 - Application Document 6.2.4.11 Part 4 Marine Chapter 11 Inter-Project Cumulative Effects:
 - Application Document 6.3.1.5.B Appendix 1.5.B Inter-Project Cumulative Effects Initial Long List;
 - Application Document 6.3.1.5.C Appendix 1.5.C Inter-Project Cumulative Effects Short List:

- Application Document 6.3.2.12.A Appendix 2.12.A Suffolk Onshore Scheme Intra-Project Cumulative Effects Screening Tables;
- Application Document 6.3.2.13.A Appendix 2.13.A Suffolk Descriptions of Other Developments;
- Application Document 6.3.12.A Appendix 3.12.A Kent Onshore Scheme Intra-Project Cumulative Effects Screening Tables;
- Application Document 6.3.13.A Appendix 3.13.A Kent Descriptions of Other Developments; and
- Application Document 6.3.4.11.A Appendix 4.11.A Offshore Descriptions of Other Developments.

1.2 Regulatory and Planning Context

- The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (EIA Regulations) make explicit reference to the requirement for an assessment of the effect interactions between types of effect, and states that the EIA should contain
 - "The EIA must identify, describe and assess in an appropriate manner, in light of each individual case, the direct and indirect significant effects of the proposed development on the following factors-
 - ...(e) the interaction between the factors referred to in sub-paragraphs (a) to (d)."
- 1.2.2 Schedule 4 Paragraph 4 of EIA Regulations requires an Environmental Statement (ES) to include:
 - "A description of the likely significant effects of the development on the environment resulting from, inter alia:
 - ...(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...

The description of the likely significant effects on the factors specified in regulation 5(2) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the development."

- The Overarching National Policy Statement for Energy (NPS EN-1) Part 4.3 (Department for Energy Security and Net Zero, 2023) states the following in relation to requirements for the assessment of cumulative effects:
 - "The Regulations require an assessment of the likely significant effects of the proposed project on the environment, covering the direct effects and any indirect, secondary, cumulative, transboundary, short, medium, and long-term, permanent and temporary, positive and negative effects at all stages of the project, and also of the measures envisaged for avoiding or mitigating significant adverse effects.

The Secretary of State should consider how the accumulation of, and interrelationship between, effects might affect the environment, economy, or community as a whole, even though they may be acceptable when considered on an individual basis with mitigation measures in place."

- Policy SCLP3.4 Proposals for Major Energy Infrastructure Projects in the Suffolk Coastal Local Plan (East Suffolk Council, 2020) states that:
 - "Proposals for Major Energy Infrastructure Projects access the plan area and the need to mitigate the impacts arising from these will have regard to the following policy requirement.....m) cumulative impacts of projects are taken into account and do not cause significant adverse impacts."
- There are no equivalent policies in the other relevant Local Plans set out in Application Document 6.2.1.2 Part 1 Introduction Chapter 2 Regulatory and Planning Context albeit cumulative effects are dealt with in topic specific or development specific policies. These are detailed where relevant within the technical Chapters (Application Document 6.2.2.1 to 6.2.2.11, Application Document 6.2.3.1 to 6.2.3.11 and Application Document 6.2.4.1 to 6.2.4.9).

1.3 Consultation

Scoping

A Scoping Report (National Grid, 2022) for the Proposed Project was issued to Planning Inspectorate (PINS) on 24 October 2022 and a Scoping Opinion (Planning Inspectorate, 2022) was received from the Secretary of State on 1 December 2022. Table 1.1 sets out the comments raised in the Scoping Opinion specifically in relation to the Cumulative Effects Assessment (CEA) and explains how these have been addressed in the ES. The Scoping Opinion took account of responses from prescribed consultation bodies, relevant statutory undertakers, Local Authorities, and non-prescribed consultation bodies as appropriate.

Table 1.1 Comments raised in the scoping opinion

ID	Inspectorate's comments	Response
2.2.1	The Inspectorate queries whether the yes/no arrows in this flowchart image are correct. For example, where a receptor 'is impacted by more than one type of effect' at stage 1 pre-screening stage, whether it should be carried forward to the stage 2 screening stage. The ES should clarify the approach.	The flowchart image now found in this appendix (Plate 1.1) has been amended to reflect this change. An outline methodology and approach for each Stage 1,2 & 3 is given below.
3.12.2	Table 2.13.1 omits potential intracumulative/intra-project effects on receptors arising from multiple impacts. For example, impacts from traffic and transport and noise on ecological receptors and landscape and visual impacts on non-designated heritage assets. This table is also inconsistent with the pre-screening Table 3.13.1 for the Kent Onshore Scheme without explanation why. For example, landscape	The pre-screening tables have been reviewed and updated as part of the production of Application Document 6.2.2.12 Part 2 Suffolk Chapter 12 Suffolk Onshore Scheme Intra-Project Cumulative Effects; Application Document 6.2.3.12 Part 3 Kent Chapter 12 Kent Onshore Scheme Intra-Project Cumulative Effects; and Application Document

ID	Inspectorate's comments	Response
	and visual impacts on designated heritage assets are included in Table 3.13.1 (Kent Onshore Scheme) but not present in Table 2.13.1 (Suffolk Onshore Scheme). The ES should appropriately justify where impacts are omitted from the intracumulative assessment or else include them in the assessment.	6.2.4.10 Part 4 Marine Chapter 10 Intra-Project Cumulative Effects. These chapters and their supporting appendices provide justification where potential intra-project cumulative effects have been screened out.
3.12.3	Table 2.13.3 is inconsistent with Appendix 1.5.A in terms of projects taken to Stage 2 for assessment. The ES should ensure that these lists are consistent and effort is made to agree them with relevant statutory consultees.	The Suffolk Onshore Scheme long list of Projects found in Application Document 6.2.2.13 Part 2 Suffolk Chapter 13 Suffolk Onshore Scheme Inter-Project Cumulative Effects has been reviewed in light of stakeholder comments and any new or changes to the status of the other developments included and is consistent with those projects identified as being taken forward to stage 2 in Application Document 6.3.1.5.B Appendix 1.5.B Inter Project Cumulative Effects Long List.
4.12.2	Table 3.13.1 omits potential intracumulative/intra-project effects on receptors arising from multiple impacts. For example, impacts from traffic and transport and noise on ecological receptors and landscape and visual impacts on non-designated heritage assets. This table is also inconsistent with the pre-screening Table 3.13.1 without explanation why, for example, landscape and visual impacts on designated heritage assets are included in Table 3.13.1 but not in Table 2.13.1. The ES should appropriately justify where impacts are omitted from the intracumulative assessment or else include them in the assessment.	The pre-screening tables have been reviewed and updated as part of the production of Application Document 6.2.2.12 Part 2 Suffolk Chapter 12 Suffolk Onshore Scheme Intra-Project Cumulative Effects; Application Document 6.2.3.12 Part 3 Kent Chapter 12 Kent Onshore Scheme Intra-Project Cumulative Effects; and Application Document 6.2.4.10 Part 4 Marine Chapter 10 Intra-Project Cumulative Effects. These chapters and their supporting appendices provide justification where potential intra-project cumulative effects have been screened out.
4.12.3	Table 2.13.3 is inconsistent with Appendix 1.5.A in terms of projects taken to Stage 2 for assessment. The ES should ensure that these lists are consistent and agreed with relevant statutory consultees.	The Kent Onshore Scheme long list of Projects found in Application Document 6.2.3.13 Part 3 Kent Chapter 13 Kent Onshore Scheme Inter-Project Cumulative Effects has been reviewed in light of stakeholder comments and any new or changes to the status of the other developments included and is consistent with those

ID	Inspectorate's comments	Response
		projects identified as being taken forward to Stage 2 in Application Document 6.3.1.5.B Appendix 1.5.B Inter Project Cumulative Effects Initial Long List.
5.10.2	The Scoping Report has based the ZOI for cumulative offshore effects on the basis of the maximum distance over which marine mammals are expected to be disturbed during construction. The Applicant's attention is drawn to the comments from the MMO and Natural England in Appendix 2 of this Opinion, which highlight the possibility that the effects of underwater noise could extend over a greater area for fish species and marine mammals. The Applicant should seek to agree the ZOI for the offshore cumulative effects assessment with relevant stakeholders and if necessary, establish different ZOI for different aspects and different phases of the Proposed Development.	The Zones of Influence (ZOI) have been revisited as part of this assessment to take account of any changes to the study areas of the environmental topic chapters from comments received from stakeholders as part of scoping and ongoing engagement. Application Document 6.2.4.11 Part 4 Marine Chapter 11 Inter-Project Cumulative Effects presents the ZOI that has been applied.

Statutory Consultation

The draft long list and the draft short list were consulted on during statutory consultation which took place over an eight-week period from 24 October 2023 to 18 December 2023. A number of comments on the CEA were received, and these comments and the responses are presented in **Application Document 6.14 Environmental Scoping Report**.

LPA consultation on short list

In addition, meetings were held with Kent LPAs (Thanet District Council, Kent County Council and Dover District Council) on the 12 November 2024 and Suffolk LPAs (Suffolk County Council and East Suffolk Council) on 20 November 2024 to discuss and, where possible, agree the short list. Ten additional development/applications were raised for review and resulted in an additional three developments being added to the short list, presented in Application Document 6.3.1.5.C Appendix 1.5.C Inter-Project Cumulative Effects Short List. The LPAs raised no further queries or concerns with the short list and have indicated that the cumulative effects assessment methodology is appropriate.

1.4 Intra-Project Cumulative Effects

Approach and Methodology

- There is no established EIA methodology for assessing and quantifying the effects of a number of individual impacts on the same receptors.
- Some environmental topics consider receptors that are not considered by any other topics and so intra-project cumulative assessment is unlikely to be necessary. Examples include buried archaeology and protected species.
- Other receptors may be considered by multiple topics, and as such intra-project cumulative effects are more likely to occur. Receptors considered in multiple chapters include local residents, communities, and businesses.
- The assessment of intra-project cumulative effects has been undertaken using a three-stage approach. The first stage consists of a pre-screening exercise to determine whether a receptor is exposed to more than one type of effect. Those receptors identified as experiencing more than one type of effect were taken through to the second stage. The second stage consisted of a screening exercise to identify the significance each type of effect has on each receptor. Those receptors exposed to two or more types of effect, with a significance of effect greater than negligible, were taken forward to the third stage. The third stage is the main intra-project assessment, which considers if the combination of individual effects is likely to lead to overall effects of greater significance.
- 1.4.5 This three-stage approach is described in more detail in the following section and the approach is illustrated in Plate 1.1 below.

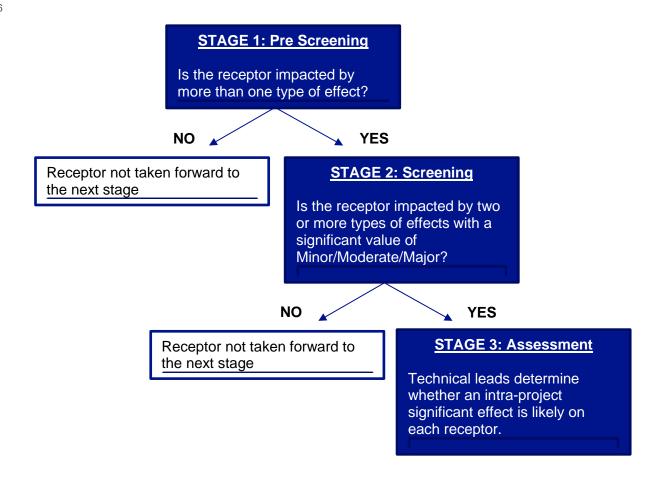


Plate 1.1 Methodological approach to identifying intra-project cumulative effects

Stage 1 pre-screening

- The assessment considers residual effects only i.e. the effects which remain after the application of all committed mitigation. Residual effects are presented in Section 11 of each of the technical chapters in **Application Document 6.2.2.1** to **6.2.2.11**, **Application Document 6.2.3.1** to **6.2.3.11** and **Application Document 6.2.4.1** to **6.2.4.9**.
- 1.4.8 Where this stage identifies that either there was only one type of effect for a particular receptor, or only one topic has identified effects on that receptor, it is considered that there is no potential for an intra-project effect to occur and the receptor was not taken forward to screening Stage 2.
- The pre-screening assessments are presented in Application Document 6.2.2.12 Part 2 Suffolk Chapter 12 Suffolk Onshore Scheme Intra-Project Cumulative Effects; Application Document 6.2.3.12 Part 3 Kent Chapter 12 Kent Onshore Scheme Intra-Project Cumulative Effects; and Application Document 6.2.4.10 Part 4 Marine Chapter 10 Intra-Project Cumulative Effects. They are also presented in Application Document 6.3.2.12.A Appendix 2.12.A Suffolk Onshore Scheme Intra-Project Cumulative Effects Screening Tables and Application Document 6.3.12.A Appendix 3.12.A Kent Onshore Scheme Intra-Project Cumulative Effects Screening Tables.

Stage 2 screening assessment

- 1.4.10 Where a potential for an intra-project effect was identified at Stage 1 the receptors were through to Stage 2.
- The Stage 2 assessment identifies the residual effects for each receptor screened in, during Stage 1 and provides a conclusion whether there is a potential for the Proposed Project to result in a significant intra-project effect. As set out in Plate 1.1, only residual effects with a significance value of minor or greater are considered to have the potential to add to other effects to the extent that an intra-project cumulative effect could arise.
- The Stage 2 screening assessments are presented in Application Document 6.3.2.12.A Appendix 2.12.A Suffolk Onshore Scheme Intra-Project Cumulative Effects Screening Tables and Application Document 6.3.12.A Appendix 3.12.A Kent Onshore Scheme Intra-Project Cumulative Effects Screening Tables.

Stage 3 intra-project effects assessment

- 1.4.13 Where the potential for an intra project effect was identified at Stage 2, consideration has been given to whether there would be a cumulative effect and if so whether that effect is likely to be significant.
- The Stage 3 assessment considers whether that effect would be of the same or greater significance than the constituent effects. Each type of receptor taken through to this stage is considered in turn and using professional judgement a view has been reached as to whether there would be a likely cumulative effect and if so whether that effect would be of the same or greater significance than the constituent effects. Given that the types of effects are often very different (e.g. noise and air quality impacts on the same residential receptor), an integrated quantitative assessment is generally not possible and it is has therefore been necessary to apply professional judgement in determining the level of significance.
- The assessment of intra-project cumulative effects is presented in Application
 Document 6.2.2.12 Part 2 Suffolk Chapter 12 Suffolk Onshore Scheme IntraProject Cumulative Effects; Application Document 6.2.3.12 Part 3 Kent Chapter 12
 Kent Onshore Scheme Intra-Project Cumulative Effects; and Application
 Document 6.2.4.10 Part 4 Marine Chapter 10 Intra-Project Cumulative Effects.

1.5 Inter Project Cumulative Effects

1.5.1 This section outlines the approach to the assessment of inter-project cumulative effects.

Approach and Methods

The methodology used for the assessment of Cumulative Effects follows the guidance within the Planning Inspectorate's 'Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment' (Planning Inspectorate, 2024). This document outlines a methodology which can be used to assess inter-project cumulative effects. It provides guidance about the type and scale of other developments that should be considered in the assessment of cumulative effects with other projects. The approach is in four stages, as outlined below:

Stage 1

- The first step of Stage 1 is to identify a ZOI within which an initial long list of other relevant projects can be identified.
- The ZOI has been based off the largest study area of the environmental topic chapters, as the maximum area within which potential effects of the Proposed Project could occur. This has then been doubled to take account of potential ZOIs of these 'other developments'. It is considered that doubling the maximum study area is sufficient to identify the 'initial long list' of 'other developments' whose ZOIs may overlap with the area within which the Proposed Project could result in a potential effect, therefore the area within which inter-project cumulative effects could feasibly occur. This is illustrated on Plate 1.2. Professional judgement has also been applied so that this approach does not lead to a hard 'cut off' when identifying projects on the 'long list'.

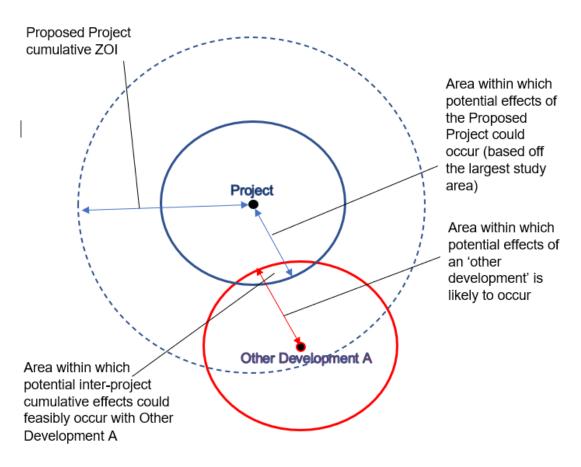


Plate 1.2 Defining the ZOI

- The ZOI for the Proposed Project was undertaken at the scoping stage but has now been updated as part of this CEA to take account of any changes to the study areas of the environmental topic chapters from comments received from stakeholders as part of scoping.
- Where the ZOI has been amended and / or additional projects have been added to the long list these are highlighted within Application Document 6.2.2.13 Part 2 Suffolk Chapter 13 Suffolk Onshore Scheme Inter-Project Cumulative Effects; Application Document 6.2.3.13 Part 3 Kent Chapter 13 Kent Onshore Scheme Inter-Project Cumulative Effects; and Application Document 6.2.4.11 Part 4 Marine Chapter 11 Inter-Project Cumulative Effects.

The long list has been determined under the three tiers as set out in Planning Inspectorate's 'Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment' (Planning Inspectorate, 2024) and which are detailed in Table 1.2. Consideration to 'other plans and programmes' is given below.

Table 1.2 'Other Development' for inclusion in the inter-project cumulative effects assessment

Development
Under Construction
Permitted permission(s) not yet implemented
Submitted application(s) not yet determined
Projects on the Planning Inspectorate's Programme of Projects where a scoping report has been submitted+
Projects on the Planning Inspectorate's Programme of Projects where a scoping report has not been submitted
Identified in the relevant Development Plan
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

⁺ Scoping at the scoping stage under the Town and Country Planning Act have also been included within this tier.

Table 5.3 Strategic plans which have been scoped out of the CEA

Strategic Plan	Year
East Suffolk Council - Nature Conservation Supplementary Planning Guidance	September 1998

Table 5.3 below outlines 'other plans and programmes' (or 'strategic plans') that have been identified but have not been included in the Inter-Project Cumulative Effects Assessment, as they do not contain well-defined spatial allocations. However, where relevant, these plans are mentioned within Section 2 of each of the technical chapters in Application Document 6.2.2.1 to 6.2.2.11, Application Document 6.2.3.1 to 6.2.3.11 and Application Document 6.2.4.1 to 6.2.4.9.

Where relevant some of these plans have also been considered in the planning statement (Application Document 7.1 Planning Statement).

Strategic Plan	Year
East Suffolk Council - Historic Environment Supplementary Planning Documents (SPD)	June 2021
East Suffolk Council - Sustainable Construction SPD	April 2022
East Suffolk Council - Coastal Adaptation SPD	September 2023
Kent County Council - Kent Design Guide SPD	December 2006
Suffolk Coast & Heaths Area of Outstanding Natural Beauty Management Plan	Published in 2023
Suffolk's Local Transport Plan (2011-2031)	2011
Suffolk's Nature Strategy	2015
East Suffolk Air Quality Strategy 2021	2021
Suffolk County Council (SCC) Energy Infrastructure Policy	2023
East Suffolk Economic Strategy 2022-2027	2022
East Suffolk Visitor Economy Strategy 2022-2027	2022
East Suffolk Cultural Strategy 2023-2028	2023
East Suffolk Cycling and Walking Strategy (2022)	Adopted October 2022
Suffolk County Council's (SCC) Energy and Climate Adaptive Infrastructure Policy (2023)	2023
Planning a development in a flood zone	2024
Kent County Council Framing Kent's Future – Our Council Strategy 2022 to 2026	2022
Thanet Coast and Sandwich Bay SPA, Strategic Access Mitigation and Monitoring Strategy	Made in September 2021
Kent Drainage and Planning Policy Statement	Adopted January 2016
Safeguarding Supplementary planning Document	Adopted in April 2017
Local Transport Plan 4: Delivering Growth without Gridlock (2016-2031)	2016
Thanet District Transport Strategy (2015-2031)	Published 2017
Dover Transport Strategy (2017)	2017
Freight Action Plan Kent (2017)	2017

Strategic Plan	Year
Kent Environment Strategy	Published 2016
Kent and Medway Energy and Low Emissions Strategy	Adopted January 2021
South East Local Enterprise Partnership (SELEP) Economic Recovery and Renewal Strategy, 2021	2021
South East Local Enterprise Partnership (SELEP) Coast to Capital LEP, Enterprise M3 LEP, Local Energy Strategy	2019
KCC, Kent and Medway Growth and Infrastructure Framework (GIF), 2018 Update	2018
KCC Rights of Way Improvement Plan 2018-2028 (Kent County Council, 2018)	2018
Economic Growth Strategy for Thanet, 2016	2016
Kent County Council (KCC) A 2050 Picture of Kent and Medway	2018
UK Marine Policy Statement	March 2011
East Inshore and East Offshore Marine Plans	Published April 2024
South East Inshore Marine Plan	Published June 2021
Regional Water Resources Plan for Eastern England	Published December 2023

- In order to determine the long list, threshold criteria were applied. These criteria established the developments that would progress through to the cumulative effects assessment. This consisted of:
 - Development Consent Order (DCO) applications for Nationally Significant Infrastructure Projects (NSIPs) in England, contained in the Register of Applications on the National Infrastructure Planning website (Planning Inspectorate, 2024):
 - local authority planning applications that represent 'major developments', the
 definitions and thresholds for which are set out in (The Town and Country Planning
 (Development Management Procedure) (England) Order 2015, 2015), as amended;
 - any major development projects being progressed through other statutory procedures; and
 - allocations identified in the adopted and emerging development plans of the local planning authorities.
- 'Major developments' are defined as development involving any one or more of the following (The Town and Country Planning (Development Management Procedure) (England) Order 2015, 2015):
 - The winning and working of minerals or the use of land for mineral-working deposits;
 - waste development;

- the provision of dwelling houses where:
 - the number of dwelling houses to be provided is 10 or more; or
 - the development is to be carried out on a site having an area of 0.5 hectares or more and it is not known whether the development falls within sub-paragraph (c)(i);
- the provision of a building or buildings where the floor space to be created by the development is 1,000 square metres or more; and
- development carried out on a site having an area of 1 hectare or more.

Stage 2

- The Scoping report identified a 'long list' of other developments to be taken forward to the inter-project cumulative impact assessment. Within this assessment this 'long list' has been revisited to take account of any changes to the ZOI and the 'initial long list' identified as part of Stage 1 and stakeholder feedback received through the scoping opinion. Where there have been changes to the 'long list' these are set out within Application Document 6.2.2.13 Part 2 Suffolk Chapter 13 Suffolk Onshore Scheme Inter-Project Cumulative Effects; Application Document 6.2.3.13 Part 3 Kent Chapter 13 Kent Onshore Scheme Inter-Project Cumulative Effects; and Application Document 6.2.4.11 Part 4 Marine Chapter 11 Inter-Project Cumulative Effects.
- In accordance with Planning Inspectorate's 'Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment' (Planning Inspectorate, 2024), the following documents include matrices based on 'Matrix 1' within the guidance which summarises Stage 1 and 2: Application Document 6.2.2.13 Part 2 Suffolk Chapter 13 Suffolk Onshore Scheme Inter-Project Cumulative Effects; Application Document 6.2.3.13 Part 3 Kent Chapter 13 Kent Onshore Scheme Inter-Project Cumulative Effects; and Application Document 6.2.4.11 Part 4 Marine Chapter 11 Inter-Project Cumulative Effects.
- In order to determine the short list, the method outlined in Advice Note 17 was applied to the long list. Temporal scope, scale and nature of the development and any other relevant factors (including if either the Proposed Project or the Long List developments reported only negligible effects) were considered and professional judgement used to assess whether significant cumulative effects were more likely to arise cumulatively with the Proposed Project. The Stage 2 tables are presented within Application Document Number 6.2.2.13 Suffolk Onshore Scheme Inter-Project Cumulative Effects and Application Document Number 6.2.3.13 Kent Onshore Scheme Inter-Project Cumulative Effects.
- Developments on the short list which are (i) already under construction, (ii) are expected to be fully operational by the time that the Proposed Project construction activities commence and (iii) where operational and maintenance activities are minor, have been considered as part of the future baseline conditions. Further details on such developments and how baseline conditions will evolve over time for each of the technical topics can be found in the technical chapters: **Application Document 6.2.2.1** to **6.2.2.11**, **Application Document 6.2.3.1** to **6.2.3.11** and **Application Document 6.2.4.1** to **6.2.4.9**.

- For developments on the short list which are not already under construction and the construction phases are expected to have been completed prior to the start of the Proposed Project construction activities, given the potential for delays in consenting and subsequent construction commencement, these developments are retained on the short list and assessed through the CEA. A worst-case scenario would be that the construction of some larger developments which are currently expected to have been completed prior to the start of the Proposed Project construction activities have their programmes delayed, such that there is greater overlap between construction of these major projects and the Proposed Project than is currently anticipated.
- This short list was kept under review throughout the preparation of the ES and has been updated as required. Given the need to finalise the ES, only those developments identified up to the end of November 2024 have been considered.
- Developments within the study area that are not considered further as part of the cumulative assessment are listed in:
 - Application Document 6.2.2.13 Part 2 Suffolk Chapter 13 Suffolk Onshore Scheme Inter-Project Cumulative Effects;
 - Application Document 6.2.3.13 Part 3 Kent Chapter 13 Kent Onshore Scheme Inter-Project Cumulative Effects; and
 - Application Document 6.2.4.11 Part 4 Marine Chapter 11 Inter-Project Cumulative Effects.

Stage 3

- Stage 3 involved information gathering about the shortlisted projects, including design, location, programme, operation and decommissioning information and reported environmental effects.
- A description of all shortlisted projects and their various elements is provided in Application Document 6.3.2.13.A Appendix 2.13.A Descriptions of Other Developments, Application Document 6.3.13.A Appendix 3.13.A Descriptions of Other Developments and Application Document 6.3.4.11.A Appendix 4.11.A Descriptions of Other Developments.

Stage 4

- At Stage 4, technical specialists undertook the cumulative effects assessment for the 'short list' of developments, where a development was taken through to Stage 4 for that topic.
- 1.5.22 The criteria for determining the significance of any cumulative effect was based on:
 - the duration of effect (temporary or permanent);
 - the extent of effect, (the geographical area and aspect of an effect);
 - the type of effect, (synergistic, antagonistic or additive);
 - the frequency of the effect;
 - the resilience of the receptor affected; and
 - the likely impact/success of mitigation proposed.

- In determining the significance of a cumulative effect each topic makes reference to topic specific standards and guidance as outlined in each of the technical chapters:

 Application Document 6.2.2.1 to 6.2.2.11, Application Document 6.2.3.1 to 6.2.3.11 and Application Document 6.2.4.1 to 6.2.4.9. Professional judgement has been applied in determining whether the combination of effects from two developments could result in a significant effect overall. As a guide and to aid consistency and transparency of how professional judgement has been applied, a 'significance matrix' has been developed, as presented in Table 5.4.
- The table illustrates the combinations of effect significance that require the most consideration in judging if cumulative effects are likely, and those where further consideration has not been considered necessary. In applying this approach, it is theoretically possible for two 'minor' effects to be sufficiently additive to generate a significant cumulative effect, though it is also possible and probably more likely that any cumulative effect would remain as a minor effect. However, in all cases, professional judgement has been applied to each assessment.

Table 5.4 Inter-project cumulative effects - indicative screening matrix

Significance for development 1	Significance for development 2	Cumulative effect possible/likely	Likely significance of cumulative effect
Major	Major	Yes - Likely	Likely to be major - likely to require additional mitigation over and above the major effect of each development alone.
Major	Moderate	Yes - Likely	Likely to be major - likely to require additional mitigation over and above the major effect of each development alone.
Major	Minor	Yes - Unlikely	Considered on a case-by-case basis, applying professional judgement
Major	Negligible	No potential for cumulative effects Negligible effects have no realistic potential to be additive.	N/A
Moderate	Moderate	Yes - Likely	Considered on a case by case basis, applying professional judgement. The overall effect may be considered to remain moderate or become major.
Moderate	Minor	Yes - Unlikely	Considered on a case by case basis, applying professional judgement. It is likely that the effect will remain moderate, however

Significance for development 1	Significance for development 2	Cumulative effect possible/likely	Likely significance of cumulative effect
			there is some potential for a major cumulative effect to occur.
Moderate	Negligible	No potential for cumulative effects. Negligible effects have no realistic potential to be additive.	N/A
Minor	Minor	Yes - Unlikely	Considered on a case by case basis, applying professional judgement. It is possible that a moderate cumulative effect (significant) could occur but is more likely that the effect would remain minor.
Minor	Negligible	No potential for cumulative effects. Negligible effects have no realistic potential to be additive.	No potential for cumulative effects.
Negligible	Negligible	No potential for cumulative effects. Negligible effects have no realistic potential to be additive.	No potential for cumulative effects.

- For each of the developments taken forward to the shortlist of 'other development' for a topic, the effects of the Proposed Project alone on the identified shared receptor are detailed. This information is based upon the residual effects (taking into account committed mitigation) as presented in Section 11 of each of the technical chapters in Application Document 6.2.2.1 to 6.2.2.11, Application Document 6.2.3.1 to 6.2.3.11 and Application Document 6.2.4.1 to 6.2.4.9. The table also presents the effects on the shared receptors from the 'short listed' 'other developments'; this information has been obtained from third-party information provided with the planning applications for those developments or other publicly available information/data.
- 1.5.26 Where publicly available information/data information is not available, professional judgement has been used to identify the potential for significant cumulative effects where possible. In some instances, information is lacking to the extent that a view on the likelihood of significant cumulative effects cannot be reached with any degree of certainty. Where this is because an application has yet to be submitted, it is considered reasonable for the cumulative effects with the 'other development' to be assessed as part of the application for that 'other development'. Where information is lacking because the other development was not an EIA development, then it can reasonably be

concluded that there was considered to be no risk of cumulative effects occurring, as the potential for cumulative effects is a factor considered in the screening of projects under the EIA Regulations.

In accordance with Planning Inspectorate's 'Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment' (Planning Inspectorate, 2024), Application Document 6.2.2.13 Part 2 Suffolk Chapter 13 Suffolk Onshore Scheme Inter-Project Cumulative Effects; Application Document 6.2.3.13 Part 3 Kent Chapter 13 Kent Onshore Scheme Inter-Project Cumulative Effects; and Application Document 6.2.4.11 Part 4 Marine Chapter 11 Inter-Project Cumulative Effects includes Matrix 2 which summarises Stage 3 and 4.

Assessment of total cumulative effects

The Stage 4 assessment provides a cumulative assessment for each topic with each of the other individual developments taken through to Stage 3 and 4. Due to the large number of other developments assessed, a further assessment has been undertaken which considers an overall cumulative effect with the Proposed Project with all other developments together on shared receptors. This assessment of total cumulative effects is presented in Application Document 6.2.2.13 Part 2 Suffolk Chapter 13 Suffolk Onshore Scheme Inter-Project Cumulative Effects; Application Document 6.2.3.13 Part 3 Kent Chapter 13 Kent Onshore Scheme Inter-Project Cumulative Effects; and Application Document 6.2.4.11 Part 4 Marine Chapter 11 Inter-Project Cumulative Effects.

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