

The Drovers Solar Farm

Appendix 2.4: Cumulative Schemes (Clean)

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2 Cumulative Schemes

2.1 Introduction

2.1.1 This appendix of the Environmental Statement (ES) presents how the methodology used in the Cumulative Effect Assessment (CEA) in relation to cumulative effects specifically, as set out in **ES Chapter 2: EIA Process and Methodology [APP/6.1]**, is applied in practice. The appendix provides responses gathered during the initial stages of consultation during non-statutory consultation, relevant legislation, planning policy and guidance and outlines the process for determining the long and short lists of cumulative schemes and whether the development meets the criteria for making the short list. The aspect chapters (**ES Chapters 6 to 16**) of this ES provide conclusions regarding the likelihood of cumulative effects where possible following their detailed assessments.

This appendix is supported by **ES Figure 2.1: Cumulative Schemes - within 25km [APP/6.3.2]** and **ES Figure 2.2: Cumulative Schemes – Countywide [APP/6.3]**.

2.1.2 Cumulative effects refer to potential impacts arising from two or more committed developments which are reasonably anticipated and/or consented, but not part of the baseline environment. These developments, if in proximity to the Scheme, may lead to cumulative effects on the same receptor.

2.1.3 Whilst there is no widely accepted methodology for assessing cumulative effects, two types of cumulative effects have been considered in the assessment in accordance with the assessment guidance set out in Planning Inspectorate Advice on cumulative effects assessment (Ref 2-1) these include:

- **In-combination effects** (or intra-project combined effects) – the inter-relationship and combination between different individual environmental residual (post-additional mitigation) effects, for example, noise, dust and visual, on one particular receptor. The in-combination effects assessment is presented in **ES Chapter 17: In-combination Effects [APP/6.1]**; and
- **Cumulative effects** multiple existing and/or approved developments generating additive effects which together have an increased effect on the same receptors. Each environmental topic chapter within the ES has considered and assessed the cumulative effects arising as a result of other existing or proposed development.

2.1.4 This document has been updated at Deadline 3 to review and update the long and short list submitted with the DCO Application. Table 2.3 presents the long list and short list of schemes as submitted with the DCO Application. This table has been reviewed and minor drafting corrections have been made to align the short list with those developments captured in the topic assessments. Table 2.4 presents additional schemes added to the long and short list following submission of the DCO Application to account for new additional developments which meet the long list threshold criteria for inclusion since DCO submission. The Applicant has also updated long list to account for specific development



requested by Sporle with Palgrave Parish Council during Issue Specific Hearing 1. The Applicant has also included the rationale for including or excluding developments from the short list within Table 2.3 and Table 2.4. The document references have not been updated from the original submission. Please refer to the **Guide to the Application [APP/1.3.4]** for the list of current versions of documents.



Consultation on Cumulative Effects

- 2.1.5 On 8 November 2024, the Applicant submitted a Scoping Opinion Request to the Planning Inspectorate (PINS) (see **ES Appendix 2.1: EIA Scoping Opinion Request [APP/6.4]**) in support of a request for a Scoping Opinion from PINS on behalf of the Secretary of State pursuant to Regulation 10 of the EIA Regulations.
- 2.1.6 A Scoping Opinion (see **ES Appendix 2.2: Scoping Opinion [APP/6.4]**) was adopted by PINS on 18 December 2024.
- 2.1.7 PINS consulted on the Scoping Report with the prescribed consultation bodies. Those responses were included with the Scoping Opinion issued by PINS. Any key matters raised in those responses have been responded to and covered in the individual technical chapters of the ES, where relevant. A summary of PINS consultation comments included in the Scoping Opinion relevant to cumulative effects are set out in **ES Appendix 2.3: Scheme Response to Scoping Opinion APP/6.4]**.
- 2.1.8 Further consultation in response to formal pre-application engagement was undertaken through the Preliminary Environmental Information Report (PEIR). Table 2-1 outlines the statutory consultation responses relating to cumulative effects and how these have been addressed throughout the ES. There has been consultation with Breckland Council, King's Lynn and West Norfolk Council and Norfolk County Council to introduce the Scheme, provide updates, and where possible hold focussed sessions to discuss environmental matters as part of the Scheme design. The Applicant sought to utilise the Statutory Consultation process as an opportunity for Councils to review the lists and provide any feedback.



Table 2-1 Statutory Consultation Comments received in response to PEIR

Consultee, Date and Comments	How has the comment been addressed in the ES chapter	Location of response in ES Chapter
Breckland Council, Statutory Consultation comment in response to PEIR submitted May 2025 to July 2025 <i>'9.0 Cumulative Effects - 9.2 The vast development site is located within a rural area of Breckland. There are other significant consented and emerging nationally significant renewable energy projects in Breckland, including Hornsea Project Three, Norfolk Vanguard, Norfolk Boreas and Drovers Solar Farm (including area of overlap with High Grove in the current iterations). Breckland Council is of the opinion that these large-scale energy schemes present a high risk for significant cumulative impacts which must be adequately addressed as part of the ES.'</i>	ES Chapter 2: EIA Process and Methodology [APP/6.1] introduces the methodology used to identify and assess other developments that have the potential to cause cumulative effects with the Scheme. This Appendix outlines how that methodology has been applied to the CEA. A Cumulative Schemes list, within this Table 2-3, sets out the process and whether the development meets the criteria for making the short list for the cumulative effects assessment.	ES Chapter 2: EIA Process and Methodology [APP/6.1].
Breckland Council, Statutory Consultation comment in response to PEIR submitted May 2025 to July 2025 <i>'9.0 Cumulative Effects - 9.3 Chapter 2 of the PEIR sets out that a Cumulative Effects Assessment has been undertaken in accordance with PINS Advice on Cumulative Effects Assessment (September 2024). This encompasses both in combination effects - arising within the proposed development,</i>	The Applicant acknowledges Breckland Council's comments regarding the approach to the Cumulative Effects Assessment (CEA) as outlined in Chapter 2 of the PEIR. The CEA has been undertaken in accordance with the Planning Inspectorate's Advice Note on Cumulative Effects Assessment (September 2024), ensuring a	See aspect ES Chapters 6 to 17 [APP/6.2] of the ES.



<i>and inter-project interactions with other schemes in the area’.</i>	structured and proportionate methodology that reflects current best practice. The assessment encompasses both intra-project (in-combination) effects—where multiple environmental impacts from the Proposed Development may affect the same receptor—and inter-project cumulative effects, where impacts from the Proposed Development may interact with those of other existing or proposed schemes in the surrounding area.	
Breckland Council, Statutory Consultation comment in response to PEIR submitted May 2025 to July 2025 <i>‘9.0 Cumulative Effects - 9.4 Chapter 16 of the PEIR presents a summary of potential likely in-combination effects, stating that mitigation will be identified within the ES. The following significant in-combination effects are identified: Construction and Decommissioning Phase noise, vibration, and visual impact on Residential Properties and Public Rights of Way represented by Visual Receptor Groups 1, 2 and 3, as well as The Peddars Way and Norfolk Coastal Path, and Rebellion Way Cycle Route; Operational Phase noise and visual impact in the medium term on Residential Properties represented by Visual Receptor Groups 1 and 3, and Public Rights of Way represented by Visual Receptor Groups 1 and 2 Operational visual impact, cultural</i>	The Applicant acknowledges the Council’s comments on the summary of in-combination effects presented in Chapter 16 of the PEIR. The identification of potential significant in-combination effects across both the construction/decommissioning and operational phases—including noise, vibration, and visual impacts on residential receptors, users of Public Rights of Way (PRoW), and key heritage assets—has informed the further development of the Environmental Statement (ES). In response to these considerations, the ES presents a comprehensive assessment of in-combination effects, building upon the PEIR findings and	The in-combination effects assessment is presented in ES Chapter 17: In-Combination Effects [APP/6.2].



<i>heritage, and socio-economic impacts the medium and long term on Castle Acre Priory and Castle Acre Castle Operational long term noise and visual impact on Public Rights of Way represented by Visual Receptor Group 2’.</i>	incorporating updated baseline data, detailed technical assessments, and feedback from stakeholders.	
Breckland Council, Statutory Consultation comment in response to PEIR submitted May 2025 to July 2025 <i>‘9.0 Cumulative Effects - 9.5 The in-combination assessment has identified potential interactions identified for three receptor groups; human residential receptors, users of transport links including users of PRow, footpaths and cycle network and heritage assets. It is stated that when individual aspect assessments are complete, the assessment of potential in-combination effects on these receptors will be undertaken and the findings reported in the ES. The applicant has not yet assessed cumulative effects as a result of the proposed development interacting with other schemes. It is stated that the assessment will be included in the ES when further information regarding the proposed and other developments may be available. The Council therefore considers that the assessment is incomplete at this stage and reserves judgement on both the in combination and cumulative impacts.’</i>	The Applicant acknowledges the Council’s comments regarding the preliminary nature of the in-combination and cumulative effects assessment presented in the PEIR. The ES includes a full assessment of both in-combination and cumulative effects, in accordance with established guidance and reflecting the latest available information on other proposed and consented developments in the area. An updated assessment of in-combination effects will be undertaken as part of the ES and the findings reported in the ES. The aspect chapters (ES Chapters 6 to 16) of this ES provide conclusions regarding the likelihood of cumulative effects where possible following their detailed assessments undertaken as part of the EIA process. The cumulative effects assessment detailing the effects of the Scheme with other developments is	The in-combination effects assessment is presented in ES Chapter 17: In-combination Effects [APP/6.1]. See ES Chapters 6 to 16 [APP/6.2] for the assessment of cumulative effects.



	presented in each environmental aspect chapter of this ES.	
Breckland Council, Statutory Consultation comment in response to PEIR submitted May 2025 to July 2025 <i>'Cumulative Effects - 9.6 The Council supports the comments from the Inspectorate in the Scoping Opinion that recommend considering other developments as part of the cumulative effects assessment, "In addition to the High Grove solar farm proposal, the CEA should consider including the terrestrial components of the Norfolk Vanguard Offshore Wind Farm (OWF) and Norfolk Boreas OWF developments, and other non-solar developments which may have cumulative effects with the Proposed Development". The Council's Landscape Consultant is also of the view that the Vanguard & Boreas terrestrial works should be included as the development sites sit within the same Landscape Character Area. The suggestion to consult with local planning authorities and other statutory bodies on the relevant developments is also supported. It is noted and supported that the PEIR states the full assessments will be carried out in accordance with the guidance received from PINS.'</i>	The Applicant acknowledges the Council's support for the approach recommended by PINS in the Scoping Opinion regarding the scope of the Cumulative Effects Assessment (CEA). In line with this recommendation, the Applicant has considered the terrestrial components of the Norfolk Vanguard and Norfolk Boreas Offshore Wind Farm (OWF) developments have been as part of the cumulative assessment. In addition, other non-solar developments with the potential to result in cumulative effects have been identified and considered in accordance with current guidance and best practice. The PEIR set out the intended approach, which has been further developed in the ES to reflect feedback from the Council, statutory consultees, and PINS.	A Cumulative Schemes list below sets out the process and whether the development meets the criteria for making the short list for the cumulative effects assessment. See ES Chapters 6 to 16 [APP/6.2] for the assessment of cumulative effects.
Breckland Council, Statutory Consultation comment in response to PEIR submitted May 2025 to July 2025	At the time of the Statutory Consultation, the design of Scheme, including substation and Battery Energy Storage System (BESS)	See ES Chapter 5: The Scheme [APP/6.1] for a detailed breakdown of the Scheme components and



<i>'9.0 Cumulative Effects - 9.8 As outlined earlier in this response, Breckland Council has significant concerns regarding cumulative landscape impacts. Whilst indicative options have been provided for the zoning of the substations and BESS, the preferred layout and design of the project is unknown at the time of this statutory consultation. Similarly, the proposed detailed mitigation measures have not been finalised and presented. Furthermore, it is concerning that the project has reached the statutory consultation stage without a preliminary assessment of the cumulative impacts with other major energy projects (e.g. Norfolk Vanguard and Norfolk Boreas substation currently under construction at Necton and the proposed Highgrove Solar Farm along the length of the A47 towards Necton) having being undertaken.'</i>	zoning, was at an indicative stage to allow for flexibility and stakeholder input. For DCO submission, the layout and design have been further refined, taking into account environmental constraints, ongoing technical assessments, and feedback received through the statutory consultation process. These refinements are presented within the ES and are supported by updated and more detailed landscape and visual assessments. Detailed mitigation measures have also been developed and are presented within the ES.	description of development and Concept Masterplan, See Figure 5.1 [APP/6.3]. A Cumulative Schemes list, within Table 2.3 and 2.4 [APP/6.4], sets out the process and whether the development meets the criteria for making the short list for the cumulative effects assessment.
Breckland Council, Statutory Consultation comment in response to PEIR submitted May 2025 to July 2025 <i>'9.0 Cumulative Effects - 9.10 It is requested that the Examining Authority (ExA) implement a mechanism akin to those used for solar projects in other parts of the country (e.g. western Lincolnshire and the Outer Dowsing offshore wind proposal). This mechanism mandates that the applicant produces an inter-relationship report at the outset of their examination and update it at each subsequent deadline. Such a report is expected to enhance understanding of scheme interactions and the cumulative impact of development within the locality.'</i>	It is understood this comment is for the attention of the Examining Authority.	N/A



Breckland Council, Statutory Consultation comment in response to PEIR submitted May 2025 to July 2025 <i>‘9.0 Cumulative Effects - 9.11 In summary, the cumulative impact assessment remains a key concern, and the Council's overall position cannot be determined until more design details are fixed and a rigorous assessment is undertaken.’</i>	Since the statutory consultation, the design of the Scheme has progressed and has now been defined and are presented in full within the ES. These details have enabled a comprehensive and robust assessment of both cumulative and in-combination effects, undertaken in line with relevant planning policy, PINS guidance, and best practice.	See ES Chapter 5: The Scheme [APP/6.1] for a detailed breakdown of the Scheme components and description of development. See ES Chapters 6 to 16 [APP/6.2] for the assessment of cumulative effects
Sporle with Palgrave Parish Council, Statutory Consultation comment in response to PEIR submitted May 2025 to July 2025 <i>‘The level of adverse impact on this parish is only compounded by the likely cumulative effects of other nearby renewable energy projects planned or nearly completed including:</i> <i>The High Groves solar development of which there is at least 1000 acres within the parish</i> <i>The Jafa solar development to the west of Little and Great Dunhams and north east of Sporle</i> <i>The two National Grid substations at Necton and associated cable corridors from the offshore wind farms off the Norfolk coast</i> <i>A third National Grid substation which has not been sited as yet for the High Grove solar development and other connections that may be required</i>	ES Chapter 2: EIA Process and Methodology [APP/6.1] introduces the methodology used to identify and assess other developments that have the potential to cause cumulative effects with the Scheme, This Appendix outlines how that methodology has been applied to the CEA.	See ES Chapter 2: EIA Process and Methodology [APP/6.1]. A Cumulative Schemes list, at Table 2-3 and Table 2.4 [APP/6.4], sets out the process and whether the development meets the criteria for making the short list for the cumulative effects assessment.



<i>The Necton Greener Grid Park</i> <i>Shipdham airfield battery park and solar development</i> <i>Beeston solar development"</i>		
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2.2 Legislation, Planning Policy and Guidance

- 2.2.1 An overview of the legislation, planning policy and guidance against which the Scheme will be considered for the cumulative effects assessment is set out below.

Legislation and Regulations

- Environmental Impact Assessment (EIA) Directive (EIA Directive 2014/52/EU, which amends EIA Directive 2011/92/EU) (Ref 2-2)
 - The requirement for cumulative effects assessment (CEA) is set out in the Environmental Impact Assessment (EIA) Directive (EIA Directive 2014/52/EU, which amends EIA Directive 2011/92/EU), making explicit reference for an assessment of the effects interactions between types of effect, and states that the EIA should 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”.
- This is transposed directly into domestic law through the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (Ref 2-3).
- Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (Ref 2-3)
 - The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (Ref 2-3) make explicit reference to the requirement for an assessment of the effect interactions between types of effects, and states that:
“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... the interaction between the factors referred to in sub-paragraphs (a) to (d)”.

Planning Policy

National Planning Policy

- National Policy Statements – National Policy Statements (NPS) set out the primary policy tests against which the application for a Development Consent Order (DCO) for the Scheme will be considered. Listed below are the details of the elements of NPS considered relevant to the cumulative effects assessment.
- The consideration of cumulative effects is addressed under each topic heading within Section 5 of the NPS EN-1: Overarching National Policy Statement for Energy



(November 2023) (Ref 3-4). Paragraph 4.3.3 of NPS EN-1 explains that the EIA Regulations require an assessment of the likely significant effects of the proposed project on the environment.

- NPS EN-3 (Ref 3-5), at Section 2.10 deals with solar development, including assessment of cumulative impacts. Particularly, paragraph 2.10.141 states that:

“where cumulative effects on the local road network or residential amenity are predicted from multiple solar farm developments, it may be appropriate for applicants for various projects to work together to ensure that the number of abnormal loads and deliveries are minimised, and the timings of deliveries are managed and coordinated to ensure that disruption to residents and other highway users is reasonably minimised”.

National Planning Policy Framework

- National Planning Policy Framework - The National Planning Policy Framework (NPPF) as revised in December 2024 sets out national planning policies that reflect priorities of the Government for operation of the planning system and the economic, social, and environmental aspects of the development and use of land. The NPPF has a strong emphasis on sustainable development, with a presumption in favour of such development. The NPPF has the potential to be considered important and relevant to the Secretary of State’s (SoS) consideration of the Scheme. Listed below provides details of the elements of the NPPF that are relevant to this chapter, and how and where they are covered in the ES.
- The NPPF includes considerations for cumulative effects on flood risk, ground conditions and pollution, sustainable use of materials, and climate change.

Local Planning Policy

2.2.2 The Scheme is located within the administrative areas of Norfolk County Council (NCC) and Breckland Council (BC), who are the host authorities. BC Local planning policy¹ which is considered relevant to cumulative effects is detailed below:

- GEN 01 Sustainable Development in Breckland:
‘The Local Plan will seek and enable development that improves the economic, social and environmental objectives of Breckland through the application of the following national and locally distinctive sustainable development principles:
Consideration of the cumulative impact of development, in particular, the impact on the environment’
- Response: Two types of cumulative effects have been considered in the assessment in accordance with the assessment guidance set out in Planning Inspectorate Advice on cumulative effects assessment (Ref 1-3) these include: in-combination effects and cumulative effects.

¹ Available at: <https://www.breckland.gov.uk/article/18011/Adoption>



- Policy TR 02 Transport Requirements:

‘Developments should be of high quality, sustainable in design, construction and layout as well as offering maximum flexibility in the choice of travel modes for all potential users. Proposals will be permitted that:

mitigate impacts on the local or strategic highway networks arising from the development itself, or the cumulative effects of development, through the provision of, or contributions towards, any relevant transport improvement deemed to be necessary, including those secured by legal agreement’

- Response: Relevant improvements to local highways are set out in **ES Appendix 9.2: Traffic Assessment [APP/6.4]**. **ES Chapter 9: Transport and Access [APP/6.2]** notes that all cumulative traffic flows associated with cumulative schemes, are already inherently accounted for within the TEM Pro growth factors which were utilised to generate the future baseline 2031 traffic flow scenario.
- Policy ENV 10 Renewable Energy Development:

‘The Council supports proposals for new renewable energy and low carbon development, subject to consideration of the impact of the development and whether this can be made acceptable. Proposals will be considered having regard to the extent to which there are:

adverse impacts on the local landscape, townscape or designated and non-designated heritage assets assessed in line with Policies ENV 05, ENV 07 and ENV 08 in the plan;

adverse effects on residential amenity by virtue of outlook / overbearing impact, traffic generation, noise, vibration, overshadowing, glare or any other associated detrimental emissions, during construction, operation and decommissioning;

an irreversible loss of the highest quality agricultural land;

cumulative impacts of renewable energy development on an area; and

adverse impacts upon designated wildlife sites; nature conservation interests; and biodiversity, assessed in line with Policies ENV 02 and ENV 03 in the plan’

- Response: See Table 5 Breckland Council – Table of Compliance within **Policy Compliance Document [APP/6.5]** for explanatory note of policy application to the Scheme.

Other Guidance

2.2.3 The assessment has been carried out in accordance with the following other guidance documents.

- Planning Inspectorate Advice on Cumulative Effects Assessment (Ref 3-1)
 - Planning Inspectorate Advice on Cumulative Effects Assessment (September 2024) provides a brief description of the legal context and obligations regarding cumulative effects under national planning policy and the EIA Regulations. It also offers an overview of the cumulative effects assessment process for Nationally Significant



Infrastructure Projects (NSIPs) and advice on a staged approach and the use of consistent templates for documenting the cumulative effects assessment within an applicant's Environmental Statement. The advice sets out guidance on the approach to CEA to which the methodology for the CEA for this ES is based on and has been adapted to fit the nature of the Scheme and the location in which it is based.

2.3 Assessment Methodology

- 2.3.1 The methodology for assessment has been developed in line with the relevant policy and appropriate industry guidance for assessing potential cumulative effects from the Scheme. CEA, outlined further in **ES Chapter 2: EIA Process and Methodology [APP/6.1]**.
- 2.3.2 The environmental information that underpins the cumulative effects assessment is taken from publicly available information from the following sources: submitted planning applications (local planning application search portals and NSIP listed on PINS' project page) and planning policy documents.

Establishing the Study Area

- 2.3.3 A topic based approach has been taken to identify the Zones of Influence (Zol) for identifying cumulative schemes that could present cumulative effects. The worst-case Zol for each environmental topic area is identified based on the extent of likely significant effects in line with industry specific guidance along with professional judgement and knowledge of the local area. Table 2.2 outlines the topics' Zol for potential cumulative effects with other developments, categorised by each environmental topic.
- 2.3.4 The largest Zol, in the case for this Scheme, 25km will represent the search area and was used to compile the long list of developments.

Table 2.2 Cumulative Effects Zone of Influence broken down by Environmental Topic

Topic	Zone of Influence (Zol)
Landscape and Visual	The extent of the landscape Visual Study Area is defined by the potential visual envelope arising from the Scheme based upon the Zone of Theoretical Visibility (ZTV) mapping and fieldwork. On the basis of ZTV modelling, a 3km Zol extending from the Site boundary.
Ecology and Biodiversity	The following search criteria were used to determine the Study Areas for Ecology and Biodiversity. These are typical distances used in ecological impact assessment for projects of this nature and scale and have been selected following the CIEEM guidelines on Ecological Impact Assessment.



	• International designated sites (e.g. Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar sites) were searched for within 25km of the Site boundary. • National statutory designated sites (e.g. Sites of Special Scientific Interest (SSSIs) were searched for within 5km of the Site boundary. • Local non-statutory designated sites were searched for within 2km of the Site boundary.
Cultural Heritage and Archaeology	The following search criteria were used to determine the Study Areas Cultural Heritage and Archaeology: • 5km from the Solar PV Site for higher grade heritage assets (e.g. World Heritage Sites, Scheduled Monuments, Grade I and Grade II* Listed Buildings). • 2km from the Solar PV Site boundary for remaining designated heritage assets (i.e. Grade II Conservation Areas). • 1km from the Solar PV Site for non-designated heritage asserts and Historic Environment Record (HER) entries.
Traffic and Transport	The extent of the road network, including the Strategic Road Network (SRN), local roads, and any areas where improvements or changes may be required to accommodate construction traffic (the Highway Works), that will be utilised to facilitate traffic movements associated with the Construction, operational, and decommissioning phases of the Scheme. Three potential access routes from the strategic road network (SRN). As detailed in ES Chapter 9: Traffic and Transport [APP/6.2] effects considered in the traffic and transport future year assessment are inherently cumulative by considering background strategic growth alongside cumulative schemes and increases in traffic in the Study Area through growth factors obtained from the Department for Transport TEMPRO NTM Database (2023). The growth factor up to the period 2031 suggests a potential 5% increase in flows. Due to the busy nature of the A1065 and scale of the increase in traffic associated with the growth factor above a circa 460 daily vehicles increase in flows along the A1605 in growth accounted for. At the time of writing, no information on the High Grove Solar construction programme or trip information it is considered likely that the typical daily vehicle trip generation would fall well within this along the A1065.
Noise and Vibration	1km from the Solar PV Site.



Soils and Agriculture	The majority of 'other existing development and/or approved development' established by the long list comprise permanent, irreversible development of land (agricultural or otherwise). For cumulative developments which are allocated through local policy, or where planning consent has been granted, the resultant loss of any BMV land has been accepted in planning terms and therefore considered as part of the baseline environment. Therefore, it is not considered necessary to consider cumulative effects on BMV agricultural land from allocated or approved cumulative developments which are not NSIPs in Norfolk are not considered further in the cumulative effects assessment on BMV agricultural land. Norfolk (NSIP applications only).
Water Resources	The Zol is based on the hydrological and hydrogeological connectivity of water bodies located downstream of the Scheme. On this basis, a 5km Zol extending from the Site boundary.
Climate	Not applicable, as detailed in ES Chapter 13: Climate Change [APP/6.2] greenhouse gas emissions are not restricted to a geographical area. Effects considered in the climate assessment are inherently cumulative by drawing from projections of the future baseline and therefore it is not necessary to consider cumulative effects from specific cumulative schemes.
Socio-economics	England – The cumulative effects assessment for socio-economics and human health considers the impact of Tier 1 and 2 cumulative schemes. Where this assessment relies on other technical chapters, the Committed Developments are considered within the study areas of those chapters, ensuring consistency with the assessment of the Scheme's direct effects on socio-economics and human health
Human Health	
Air Quality	In accordance with the IAQM construction dust guidance the following Study Areas have been applied for construction dust emissions: • 250m from the Site boundary (based on the worst-case assumption that construction activities would occur at the Scheme boundary).
Glint and Glare	The following Study Areas have been applied: • 1km from the Solar PV Site for residential dwellings and road users; and



	• 5km and 10km for licenced and unlicenced aviation infrastructure.
Telecommunications, Utilities and Television Receptors	Adjacent to the Order limits.
Waste	Norfolk.
Electromagnetic Fields	Order limits.

- 2.3.5 As such, a 25km (in relation to **ES Chapter 7: Ecology and Biodiversity [APP/6.2]**) is the largest Zol relevant to the search of development and is considered sufficient to capture any potential significant cumulative effects and forms the Search Area for cumulative schemes.

Impact Assessment Methodology

- 2.3.6 The assessment of cumulative effects is based on the methodology described in **Chapter 2: EIA Process and Methodology [APP/6.1]**. This methodology has been developed in accordance with Planning Inspectorate advice on cumulative effects assessment (Ref. 2-1) on the assessment of cumulative effects. A four-stage approach has been adopted for this assessment:
- Stage 1 – Establishing the long list of ‘other existing development and/or approved development’
 - Stage 2 – Establishing a shortlist of ‘other existing development and/or approved development’
 - Stage 3 – Information gathering; and
 - Stage 4 – Assessment.
- 2.3.7 The identified cumulative schemes have been categorised into tiers based on the classification provided in the Planning Inspectorate’s Advice on Cumulative Effects Assessment. The three tiers, as detailed in **ES Chapter 2: EIA Process and Methodology [APP/6.1]**, range from Tier 1 (most certain) to Tier 3 (least certain), indicating a decreasing level of certainty for the implementation of each development.
- 2.3.8 This appendix sets out the process for determining the long and short lists of cumulative schemes and whether the development meets the criteria for making the short list and has been consulted upon as part of pre-application discussions with Breckland Council and Kings Lynn and West Norfolk Council and Norfolk District Council as part of Statutory Consultation.



Assumptions and Limitations

- 2.3.9 The list of developments considered has been reviewed as far as reasonably practicable since undertaking the preliminary cumulative effects assessment to account for any changes in the status of developments.
- 2.3.10 The Zol is based on the worst-case Study Area of the individual specialist topics.
- 2.3.11 It is noted that High Grove Solar Farm DCO (which at the time of submission of this DCO Application is at the pre-application stage) is proposed to the south of the Scheme. It is further noted that part of the High Grove Solar Farm Scheme, specifically an area of the cable corridor, is currently proposed within the Order limits of the Scheme. The Applicant is actively engaging with the developer of High Grove Solar Farm. It is intended that ongoing collaboration and information sharing between the two projects will ensure that assessments are cognisant of each other and minimise likely significant effects arising in combination and cumulatively as far as reasonably practicable.
- 2.3.12 The cumulative effects assessment presented in the aspect chapters of this ES (**ES Chapters 6-16 [APP/6.2]**) relies on environmental information reported by third-party developers for their schemes. The available information varies between schemes, and therefore there is a high degree of uncertainty in the cumulative effects reported. In addition, the review of the available information and assessments are at an early stage.

Mitigation Measures

- 2.3.13 The approach to mitigation measures has been outlined within **ES Chapter 2: EIA Process and Methodology [APP/6.1]**.
- 2.3.14 A summary of all mitigation measures and how they will be secured, either inherently through the Scheme design, or through control documents, or requirements within the DCO, are set out in the **Commitments Register [APP/6.5]**, which will be kept under review as the Scheme progresses.

2.4 Cumulative Effects Assessment

Stage 1 – Establishing the long list of ‘other existing development and/or approved development’

- 2.4.1 Stage 1 focuses on identifying relevant developments and land allocations within the Zol that could generate significant cumulative effects. A ‘preliminary long list’ of cumulative developments was prepared and discussed with Breckland Council and Kings Lynn and West Norfolk and Norfolk District Council to review the and provide any feedback. The final list, along with the inclusionary criteria, is presented in the ES.
- 2.4.2 The long list is based on up to a 25km area of search which aligns with the Study Area for ecology and biodiversity as outlined in Table 2.2 and the likely maximum range of any potential significant effects.



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- 2.4.3 These developments have been screened to assess their potential interaction with the Scheme, focusing on their ability to generate likely significant cumulative effects. This initial screening step considers the development's scale and potential to cause significant environmental impacts, its location, and how its timeline aligns with the Scheme's programme.
- 2.4.4 The long list was developed with consideration to the following criteria:
- Within Zone of Influence (25km)
 - Meets thresholds for EIA Development
 - Developments currently not yet complete and operational (reasonable effort has been made to determine this from publicly available online sources)
 - Local and regional authority applications with extant permission (cases since 31/01/2020)
 - Development listed on the National Infrastructure Planning online map
 - Strategic developments identified in the relevant Development Plan (and emerging Development Plans); and
 - Development identified in other plans and programmes which set the framework for future development consents/approvals, where such development is reasonably likely to come forward.
- 2.4.5 The long list, at end of this appendix at Table 2-3 and Table 2.4, of developments excludes small-scale planning applications (such as house extensions, cosmetic changes to buildings, works to trees, and the erection of advertisement signs and fencing) as these are considered developments of insufficient scale or type to result in cumulative effects with the Scheme. This appendix presents the identified long list of existing and/or approved developments within the search area and sets out the threshold criteria applied to identify the short list of existing and/or approved developments for each environmental topic.
- 2.4.6 Minor developments, defined as less than 150 dwellings or less than 0.5ha for industrial/commercial premises, have not been included in the long list unless they fall within the Scheme boundary or are permitted developments associated with the Scheme. These are deemed too small in scale and nature to have any significant effects through effects interactions with the Scheme.
- 2.4.7 Searches for relevant 'other developments' were conducted online. Searches were undertaken for planning authorities, which are within 25 km of the Order limits.
- 2.4.8 The long list, see Table 2.3, has been further refined following consultation with the relevant local planning authorities to ensure that all developments with the potential to cause significant cumulative effects, when considered alongside the proposed Scheme. Further, see Table 2.4 for the additional schemes added to the long list following submission of the DCO Application.



- 2.4.9 Within the longlist, developments meeting the criteria for Stage 2 have been assessed by the environmental topics to inform their cumulative assessment.

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

- 2.4.10 A long list of cumulative schemes has been prepared and discussed with Breckland, Kings Lynn and West Norfolk and Norfolk County Councils. The final shortlist has been used by environmental topics to inform their cumulative assessments for DCO Application along with the criteria for inclusion presented in this appendix below.
- 2.4.11 During this stage, any developments that are unlikely to result in significant cumulative impacts have been excluded.
- 2.4.12 The justification of inclusion of cumulative developments within the final short list of cumulative developments has been presented in individual ES Chapters (**ES Chapters 6 to 16 [APP/6.2]**). The rationale for including or excluding developments from the long list is based on the example provided in Matrix 1, Annex 1 of the Planning Inspectorate's Advice on Cumulative Effects Assessment [Ref 2-6].

Stage 3 - Information Gathering

- 2.4.13 This stage focusses on the gathering of environmental information, where available, for the other developments outlined within the shortlist. Details gathered include:
- Proposed design and location information
 - Proposed programme of construction, operational and decommissioning; and
 - Environmental assessments that set out baseline data and effects arising from the other existing and, or approved development

Stage 4: Assessment of Likely Cumulative Likely Effects

- 2.4.14 The assessment includes a list of those developments considered to have the potential to generate a cumulative effect together with the Scheme. Cumulative effects have been assessed in each individual topic chapter and, for each ES Chapter where significant cumulative effects are possible with another development this is documented in **ES Chapter 18: Summary of Effects [APP/6.2]**, alongside any mitigation and monitoring measures where appropriate and relevant. Where mitigation and, or monitoring is secured and delivered is set out in the **Commitments Register [APP/6.5]**.
- 2.4.15 The criteria for determining the significance of any cumulative effect has been based upon:
- The duration of effect, i.e. will it be temporary or permanent
 - The extent of effect, e.g. the geographical area of an effect
 - The type of effect, e.g. whether additive or synergistic
 - The frequency of the effect



- The 'value' and resilience of the receptor affected; and
- The likely success of mitigation.

2.4.16 In reporting the overall significance of cumulative effects, the relative contributions different projects make to a cumulative effect have been considered to whether the cumulative effect is significant. For example, where a large-scale project is predicted to result in significant effects and a smaller proposed development would not have significant effects, the cumulative assessment will only conclude there is a significant cumulative effect if effects from both projects together are of greater significance than the larger project in isolation. Care is taken to not simply define such effects as being cumulative, but rather to focus on the nature and scale to which genuine cumulative effects might result.

2.4.17 Where significant cumulative effects are identified, the assessment will identify measures to reduce or avoid these, as well as any necessary monitoring arrangements.

2.5 Cumulative Effects Assessment Summary

2.5.1 An assessment of the cumulative effects of the Scheme along with these other developments is presented in each technical chapter of the ES (**ES Chapters 6-16 [APP/6.2]**).



References

- Ref 2-1 Planning Inspectorate (2024) Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment. Available from: <https://www.gov.uk/guidance/nationally-significant-infrastructure-projectsadvice-on-cumulative-effects-assessment>
- Ref 2-2 Environmental Impact Assessment (EIA) Directive (EIA Directive 2014/52/EU, which amends EIA Directive 2011/92/EU)
- Ref 2-3 The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017
- Ref 6-4 EN-1: Overarching National Policy Statement for Energy (November 2023)
- Ref 2-5 EN-3: National Policy Statement for renewable energy infrastructure (November 2023)
- Ref 2-6 Planning Inspectorate (2025) Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment. [online] GOV.UK. Available at: <https://www.gov.uk/guidance/nationally-significant-infrastructure-projectsadvice-on-cumulative-effects-assessment>



Appendix 1: Table 2.3 Cumulative Schemes and Table 2.4 Examination Review - Additional Schemes added to the long list following submission of the DCO Application

Table 2-4 Examination Review - Additional Schemes added to the long list following submission of the DCO Application

Development of details												
No	Project/Planning Reference	Applicant for 'other development' and brief description	Distance to Site (all approximated)	Status of Project	Tier	FFRMA List (2016)	Progress to Stage 2	Stage 1 Construction (2015-2019)	Stage 2 Operation (2015-2019)	Recommendation (2015-2019)	Order and nature of development (likely to meet a significant deficit?) (Para 16)	Examination Review
												Notes
SDP Applications in Norfolk												
1A	SN010009	Walspole Flexible Generation Limited Generating Stations: Up to 250M generation capacity comprising flexible thermal generation and associated battery energy storage systems. This project is at the pre-application stage. No documents are available on the FPD website	12km west (using postcode, Google Maps and OS map)	This application stage.	Tier 3	No	N/A	Not known	Not known	Not known	Yes	N/A
1A	SN020027	Norwich to Tibby - National Grid Electricity Transmission (NGET) - Onshore elements Proposed to reinforce the 660KV high voltage power network in East Anglia to include a new 660KV connection substation in the Tanning district. This project is at the examination stage.	17km	This project is at the examination stage.	Tier 1	No	N/A	Not known The applicant has submitted a 2022-2023 construction programme of works through the NGET's 2022-2023 application process. A 2023-2024 construction programme is also being considered.	Not known Likely based on construction programme of works.	Not known No. There are currently no specific plans to decommission the Project. It is expected that the decommissioning of the Project would continue for as long as there is a business case for doing so and that any decommissioning activity would be undertaken into the future. From the Project Description at 15.	Yes	N/A
1A	SN010039	Esplanade - Sheringham and Dudgeon Extension Projects Sheringham Extension Project has a maximum installed capacity of 227MW, while Dudgeon Extension Project has a maximum installed capacity of 602MW. Joint export cable system, offshore and onshore, connecting to the national grid transmission network at Norwich Main substation. This project is at the pre-examination stage.	28km	Application granted Aug 2024.	Tier 2	No	N/A	Not known The applicant has submitted a 2022-2023 construction programme of works through the NGET's 2022-2023 application process. A 2023-2024 construction programme is also being considered.	Not known	Not known	Yes	N/A
1A	SN020080	Hermes Project Three Offshore Wind Farm - Onshore Hermes Project Three (S&L) Ltd Development of the Hermes Project Three offshore wind farm with an approximate capacity of up to 2,400MW off the coast of Norfolk. This is within the area known as Zone 4, under the Round 3 offshore wind licensing arrangements established by The Crown Estate	35km	Application granted Dec 2020	Tier 1	No	N/A	Construction commenced March 2022 2023-2024 construction programme of works through the NGET's 2022-2023 application process. A 2023-2024 construction programme is also being considered.	Not known Likely based on construction programme of works.	Not known Design life of 25 years - from construction commencement from 2025 - (the decommissioning sequence will generally be the reverse of the construction sequence). Decommissioning (likely to be undertaken in the future).	Yes	N/A
Local Planning Authority Planning Applications												
18	PL/2023/1755/F	Low Carbon Solar Park 15.1a - Construction and operation of a solar photovoltaic farm with battery storage and associated infrastructure, including inverters, substations, security perimeter, fencing, access roads and drainage	Immediately adjacent and the cable route of the development overlaps with the Order Limits of the Scheme	Decision issued - Granted (aligned with conditions Nov 2023)	Tier 1			Unknown	Unknown	Unknown		N/A
18	PL/2023/176/DCO	Crown Chicken Ltd - Request for a formal Scoping Opinion from the LPA under Part 8 of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (The Assessment of Environmental Impact)	10km	Scoping Opinion issued - Feb 2026	Tier 1			Unknown	Unknown	Unknown		N/A
18	PL/2023/134/SCR	Screening Opinion for a Solar PV development (Application - Renewable Energy (ECoAgent))	8km	Screening Opinion issued - November 2023	Tier 1			Unknown	Unknown	Unknown		N/A
18	PL/2023/598/SCR	Environmental Impact Assessment Screening Request for a no. replacement poultry breeder sheds and ancillary development	10km	Application - Granted (EIA Development - Screening Opinion) Aug 2023	Tier 1	Yes	Yes	Not Known	Not Known	Not Known		N/A
18	22007048/F	Construction and operation of a solar farm comprising an array of ground-mounted solar photovoltaic (PV) panels and containerised batteries and associated infrastructure	23km	Appeal Granted - Aug 2023	Tier 1	Yes	Yes	Not Known	Not Known	Not Known		N/A
18	18/0228/DOF	Outline Application: Up to 350 homes with a neighbourhood centre, associated landscaping, parking and supporting infrastructure	14km	Committee Stage/Recommendation Stage (Meeting Decision - Application withdrawn Feb 2023)	Tier 1	Yes	Yes	Not Known	Not Known	Not Known		N/A
18	23/02128/F	Extension to silica sand extraction operations with progressive restoration without compliance with planning (conditions 2 (approved plans), 7 (restoration plan) and 8 (scheme of works)) of decision APP/2020/0423/23882	15km	Permission Granted - Nov 2023	Tier 1	Yes	Yes	Not Known	Not Known	Not Known		N/A
18	23/02128/F	Proposed extension of Grandcourt Quarry for the extraction of industrial sand with progressive restoration to nature conservation.	15km	Permission Granted - Nov 2023	Tier 1	Yes	Yes	Not Known	Not Known	Not Known		N/A



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