

# Gate Burton Energy Park Environmental Statement

Volume 1, Chapter 16: Cumulative Effects and Interactions  
Document Reference: EN010131/APP/3.3  
January 2023

APFP Regulation 5(2)(a)  
Planning Act 2008  
Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

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# 16. Cumulative Effects and Interactions

## 16.1 Introduction

16.1.1 This chapter addresses the potential for effect interactions and cumulative effects. These effects result from incremental changes caused by other past, present and reasonably foreseeable plans and projects together (i.e. cumulatively) with the Scheme.

16.1.2 For this assessment, two types of effect are considered:

- **Effect Interactions** - the combined effect of individual impacts from the Scheme, which have been identified as part of the assessments reported within **Chapters 6 to 15** of this Environmental Statement (ES) [EN010131/APP/3.1], that are considered likely to result in a new or different likely significant effect, or an effect of greater significance, than any one of the impacts on their own. This can happen during construction for example, if a receptor is subjected to noise, dust, and visual impacts associated with site works; and
- **Cumulative Effects** – where there is the potential for two or more developments that are reasonably foreseeable and / or consented, but not yet forming part of the baseline environment, within close enough proximity to the Scheme to lead to cumulative effects on the same receptor. **Chapters 6 to 15** of this ES [EN010131/APP/3.1] assesses where there are cumulative effects and a summary is provided in this chapter. A detailed description of the assessment methodology for cumulative effects can be found in **Chapter 5: EIA Methodology** of the ES [EN010131/APP/3.1].

## 16.2 Consultation

16.2.1 A request for an EIA Scoping Opinion was sought from the Secretary of State through the Planning Inspectorate in 2021 as part of the EIA Scoping Process. Consultation responses in relation to Cumulative Effects and Interactions, to date, are presented in **ES Volume 3: Appendix 1-C [EN010131/APP/3.3]**, with the key themes summarised below:

**Table 16-2 Key Cumulative Consultation Themes**

Key Theme	Response
<b>Inclusion of other NSIP/Solar Schemes:</b> LPAs and Natural England requested that the ES should include an assessment with other NSIP solar schemes (in particular, Cottam and West Burton Solar Projects).	This chapter reports a summary of the results of the assessment with particular consideration given to any significant cumulative effects that are identified, and the need for mitigation. These effects are also reported within individual topic chapters as relevant. Given the proximity of the Scheme to the West Burton and Cottam Solar Projects, the Applicant and the developer of those projects have worked in partnership to identify areas where all projects can collaborate

Key Theme	Response
	to manage environmental effects as outlined in Section 16.5.5.
<b>Best and most versatile (BMV):</b> The need to assess cumulative loss of Best and Most Versatile (BMV) land with other solar developments. Natural England specifically referenced Little Crow Solar Farm and Six Hundreds Farm (Heckington Fen Solar Park).	A cumulative assessment of BMV is outlined in <b>Chapter 12: Socio-Economic and Land Use [EN010131/APP/3.1]</b> and summarised in Table 16-4.
<b>Housing demand:</b> The need to consider the impact on demand for housing by construction workers and the likely numbers of non-home-based workers required across all schemes	<b>Chapter 12: Socio-Economics and Land Use [EN010131/APP/3.1]</b> includes an assessment of construction workers on national and local employment, national and local Gross Value Added (GVA), local amenities (such as community services and temporary accommodations that would be required to potentially accommodate non-local construction workers). The assessment takes into consideration hotel rooms as well as Bed & Breakfast accommodation within the study area, the current level of remaining capacity and the impact of additional demand on this capacity.

16.2.2 A long list of cumulative developments was prepared and sent to Lincolnshire and Nottinghamshire County Council on the 01 November 2021. A response from Nottinghamshire County Council was received on the 5th April which noted a number of additional schemes which are part of the ‘County Matters’ sites/developments, including Sturton Quarry for example. Follow up requests were then sent on 30 June 2022 and 12 October 2022. No further schemes were requested to be included within the assessment.

## 16.3 Legislative Context

16.3.1 The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (Ref 15-1) make explicit reference to the requirement for an assessment of the effect interactions between types of effect, 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-*

*...(e) the interaction between the factors referred to in sub-paragraphs (a) to (d).”*

16.3.2 Schedule 4 paragraph 5 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 requires an ES to include:

16.3.3 *“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”.*

## 16.4 Assessment Methodology

### Effect Interactions

16.4.1 The assessment of effect interactions is based on the methodology described in **Chapter 5: EIA Methodology** of this ES [EN010131/APP/3.1] and considers the potential for several direct or indirect effects arising from the Scheme to give rise to an effect on a single receptor. There are no specific guidelines on how the assessment of effect interactions should be undertaken, and so the assessment is undertaken on a qualitative basis using the results of the individual assessments, informed by professional judgement.

### Cumulative Effects

16.4.2 The cumulative effects assessment methodology is based on The Planning Inspectorate’s Advice Note 17 (Ref 16-3) which identifies a four-stage approach, as follows:

- a. Stage 1 – establish the study area and identify a long list of ‘other development’ (the ‘development schedule’);
- b. Stage 2 – identify a shortlist of ‘other development’ for the cumulative impact assessment;
- c. Stage 3 – information gathering; and
- d. Stage 4 – assessment.

### Study Area

16.4.3 Table 16-1 sets out the Zone of Influence (Zol) for potential cumulative impacts with other developments and has been defined by each environmental topic. These individual Zols have subsequently been combined to define an overall Zol representing the search area within which other development has been identified.

**Table 16-1 Zol extents for assessment of potential cumulative impacts**

Environmental Topic	Zone of Influence (Zol)
Climate Change	N/A
Cultural Heritage	3km for Designated Assets, and consideration of assets of the highest significance within 5km. 500m where the Grid Connection Corridor is located beyond 3km.
Ecology and Nature Conservation	2km, or for sites of international biodiversity value within 10km

Environmental Topic	Zone of Influence (Zoi)
Water Environment	1km <sup>1</sup>
Landscape and Visual Amenity	8km
Noise and Vibration	Construction: 300m Operation: 500m
Transport and Access	Construction: See <b>ES Volume 2: Figure 13-1 [EN010131/1PP/3.2]</b> . Operation: N/A
Human Health	5 wards – Rampton and Sturton in Bassetlaw District, Lea, Stow and Torksey in West Lindsey District
Air Quality	Human receptors within 350m; and within 50m of the roads expected to be used by the construction phase traffic, and up to 500m from the site entrance(s). Ecological receptors are 50m; or 50m of the route(s) used by construction vehicles on the public highway, up to 500m from the site entrance(s).
Glint and Glare	Ground-based receptors, including residential, road and railway, within 1km. Aviation receptors within 30km, with detailed assessment for large international aerodromes within 20km, military aerodromes within 10km and 5km for small aerodromes.
Ground Conditions Major Accidents and Disasters Telecommunications, Television Reception and Utilities Waste and Recycling	N/A.

## 16.5 Assessment

### Effect Interactions

16.5.1 The combined effects of different environmental impacts from the proposed scheme on a single receptor may cause a greater (or lesser) effect than each effect in isolation. The potential for effect interactions is assessed in **Volume 3: Appendix 16-B, Effect Interactions Matrix [EN010131/APP/3.3]** and summarised within Table 16-2 and Table 16-3 below. No interactions were identified during operation.

<sup>1</sup> As water effects propagate downstream and flood risk can affect upstream receptors, a wider study area based on professional judgement has also been applied where relevant. The River Trent is considered the final receiving waterbody that could conceivably be affected.

**Table 16-2 Potential effect interactions during construction**

Receptor	Description of potential effect interactions	Residual significance of effect determined through EIA		Effect interactions	Additional Mitigation Proposed?
<b>Landscape and Visual Amenity receptors also affected by Noise and Vibration</b>					
		Landscape and Visual	Noise and Vibration		
Vehicle users, Outdoor workers / Farmers, Recreational users at Viewpoint 8 (View northwest from Marton Road)	These receptors will experience moderate adverse visual effects due to the presence of construction	Moderate (adverse)	Minor (adverse)	<b>No significant effect interactions:</b> The potential increase in noise from construction activities may further disturb receptors who have sight of the construction works.	No additional mitigation is proposed, as the effect interaction will be temporary, and mitigation has already been included as part of the design.
Recreational users, Vehicle users, Residents at Viewpoint 9 (View west from Marton Road, Willingham by Stow)	plant and machinery, in addition to minor adverse noise effects created during the construction. The combination of these impacts has the potential to result in effect interactions.	Moderate (adverse)	Minor (adverse)		
<b>Landscape and Visual Amenity receptors also affected with Transport and Access</b>					
		Landscape and Visual	Transport and Access		
Vehicle users, Residents at Viewpoint 10-1 (View	These receptors will experience	Moderate	Minor	<b>No significant effect interactions:</b> With	No additional



Receptor	Description of potential effect interactions	Residual significance of effect determined through EIA		Effect interactions	Additional Mitigation Proposed?
northwest from B1241 (Kexby Lane)	minor to moderate adverse visual effects coupled with minor effects on this transport link.	(adverse)	(adverse)	embedded mitigation as set out in the Construction Traffic Management Plan (CTMP) it is not considered the effects would be more than those presented in each assessment.	mitigation is proposed.
Vehicle users, Residents at Viewpoint 10-2 (View west from B1241 (Kexby Lane))		Moderate (adverse)	Minor (adverse)		
Pedestrians, Vehicle users, Residents at Viewpoint 11 (View east from B1241 (Kexby Lane) at eastern entry to Knaith Park)	The combination of these impacts has the potential to result in effect interactions.	Minor (adverse)	Minor (adverse)		

**Landscape and Visual Amenity receptors also affected with Socioeconomics and Land use, Transport and Access and Human Health**

		Landscape and Visual	Socioeconomics and Land use	Transport and Access	Human Health		
Vehicle users, Recreational users at Viewpoint 22 (View west from Cottam Road / Outgang Lane along Grid Connection Corridor). This viewpoint is also representative of Users of PRow T SouthLeverton BOAT16.	Receptors at this viewpoint experience a moderate adverse effect and are also susceptible to minor effects from Socio-economic, Transport and access and Human Health.	Moderate (adverse)	Minor (adverse)	Minor (adverse)	Minor (adverse)	<b>No significant effect interactions:</b> Visual effects due to the construction on the Grid Connection Corridor along with effects from PRow diversions. With embedded mitigation such as the <b>Outline PRow Management Plan</b> [EN010131/APP/7.8]	No additional mitigation proposed.

Receptor	Description of potential effect interactions	Residual significance of effect determined through EIA	Effect interactions	Additional Mitigation Proposed?
	The combination of these impacts has the potential to result in effect interactions.		effects are not considered to further intensify.	

**Table 16-3 Potential effect interactions during decommissioning**

Receptor	Description of potential effect interactions	Residual significance of effect determined through EIA			Effect interactions	Additional Mitigation Proposed?
<b>Landscape and Visual Amenity receptors also affected with Noise and Vibration</b>						
		<b>Landscape and Visual</b>	<b>Noise and Vibration</b>			
Vehicle users, Outdoor workers / Farmers, Recreational users at Viewpoint 8 (View northwest from Marton Road)	These receptors will experience moderate adverse visual effects due to the presence of decommissioning plant and machinery, in addition to minor adverse noise effects created during the construction. The combination of these impacts has the potential to result in effect interactions.	Moderate (adverse)	Minor (adverse)		<b>No significant effect interactions:</b> The potential increase in noise from decommissioning activities may disturb some receptors who have sight of the works.	No additional mitigation proposed
Recreational users, Vehicle users, Residents at Viewpoint 9 (View west from Marton Road, Willingham by Stow)		Moderate (adverse)	Minor (adverse)			
Recreational users, Vehicle users, Residents at Viewpoint 9 (View west from Marton Road, Willingham by Stow)		Moderate (adverse)	Minor (adverse)			
<b>Socioeconomic and Land use receptors also affected by Transport and Access and Human Health</b>						
		<b>Socioeconomics and Land use</b>	<b>Transport and Access</b>	<b>Human Health</b>		
Users of PRoW T SouthLeverton BOAT16	Users of this PRoW experience minor adverse effects from Socio-economic, Transport and Access and Human Health. The combination of these	Minor (adverse)	Minor (adverse)	Minor (adverse)	<b>No significant effect interactions:</b> With embedded mitigation such as the Outline PRoW Management Plan [EN010131/APP/7.8] effects are not	No additional mitigation proposed

<b>Receptor</b>	<b>Description of potential effect interactions</b>	<b>Residual significance of effect determined through EIA</b>	<b>Effect interactions</b>	<b>Additional Mitigation Proposed?</b>
	impacts has the potential to result in effect interactions.		considered to further intensify.	

## Cumulative Effects

- 16.5.2 The assessment of cumulative effects arising from the Scheme in combination with other proposed Schemes (inter-project effects) is based upon a review of current submitted planning applications as well as a study of planning policy documents.
- 16.5.3 Chapters 6 to 15 of the ES present an assessment of cumulative effects derived from their own shortlist of schemes, based on the shortlist of cumulative schemes presented in **ES Volume 3: Appendix 16-A [EN010131/APP/3.3]** and shown on **Figure 16-1 [EN010131/APP/3.2]**.
- 16.5.4 A summary of each assessment is presented below in Table 16-4. Table 16-4 should be read in conjunction with the Cumulative Assessments provided within Chapters 6 to 15.

### Shared Gate Burton Energy Park, Cottam Solar and West Burton Solar Mitigation

- 16.5.5 Given the proximity of the Scheme with West Burton and Cottam Solar Projects, the Applicant and the developer of those projects have worked in partnership to identify areas where all projects can collaborate to manage environmental effects. A key example of this approach is the commitment to a Shared Grid Connection Corridor as outlined in **Chapter 3: Alternatives and Design Evolution [EN010131/APP/3.1]**. Other commitments to joint mitigation are identified below:
- **Chapter 7: Cultural Heritage [EN010131/APP/3.1]** within the Shared Grid Connection Corridor, a joint approach to archaeological mitigation. This will streamline the mitigation and achieve a consistent approach within the shared area.
  - **Chapter 9: Water Environment [EN010131/APP/3.1]** joint consultation with the Environment Agency and Trent Valley Internal Drainage Board for the purpose of pre-construction permits and consents should these be required;
  - **Chapter 11: Noise and Vibration and Chapter 15: Other Environmental Issues – Air Quality [EN010131/APP/3.1]** a commitment to co-ordinated monitoring, and a Joint Community Liaison Group during construction of the Shared Grid Connection Corridor;
  - **Chapter 12: Ecology and Nature Conservation [EN010131/APP/3.1]** for the purpose of the Shared Grid Connection Corridor, the **Framework Construction Environmental Management Plan (CEMP) [EN010131/APP/7.3]** includes a commitment to working together where there is overlap in surveys, pre-construction mitigation and monitoring between projects; and
  - **Chapter 13: Traffic and Transport [EN010131/APP/3.1]**, a Joint Construction Traffic Management Plan which is outlined in Annex E of the Framework CTMP. The Joint CTMP will include mitigation such as timing of

HGV movements, staff travel routes and timings, coordination of deliveries, and shared banksmen provided at access points and PRow.

**Table 16-4 Summary of the cumulative effects identified within each of the technical chapters 6 to 15 of this Environmental Statement**

Potential Impact	Potential for Cumulative Effects	Relevant Cumulative Schemes	Cumulative Effect
<p><b>6. Climate Change</b> - Consideration of cumulative effects have been scoped out of the Climate Change assessment, on the basis that the assessments included within this chapter (GHG emissions and ICCI) are inherently cumulative assessments due to the global nature of climate. Refer to Chapter 6: Climate Change of this Environmental Statement for further information.</p>			
<p><b>7. Cultural Heritage</b></p>			
<p>Landscape setting on heritage assets.</p>	<p>The proposed Cottam Solar Project and West Burton Solar Project will contribute to the impact identified in this assessment on the Grade I listed Church of St Mary at Stow (1146624) through additional development within its wider landscape setting. However, it is not considered that the combined impact of these projects, either individually or together in combination with the Scheme, would raise the assessed level of impact reported in this ES.</p> <hr/> <p>The Stow Park Road Residential Development will contribute to the impact identified in this assessment on the non-designated heritage asset (MLI52472; AEC015) through additional physical impacts to the asset. The asset comprises a series of ditches and linear features which represent an Iron Age / Romano-British field system, which extend outside of the Scheme boundary towards the north-west, extending into the redline boundary of the other development. However, it is not considered that the combined impact of these projects, either individually or together in combination with the Scheme, would raise the assessed level of impact reported in this ES.</p>	<p>All planning applications listed in <b>ES Volume 3: Appendix 16-A [EN010131/APP/3.3]</b> of this ES, with particular reference to:</p> <ul style="list-style-type: none"> <li>• Cottam Solar Project</li> <li>• Stow Park Road Residential Development</li> </ul>	<p><b>No significant cumulative effects:</b> No cumulative effects are anticipated during construction, operation, or decommissioning.</p>
<p><b>8. Ecology and Nature Conservation</b></p>			

Potential Impact	Potential for Cumulative Effects	Relevant Cumulative Schemes	Cumulative Effect
<p>Temporary loss of hedgerows during construction within the Order limits (for access and grid connection cables and new fence lines).</p> <p>Temporary loss of habitat during construction used by the breeding bird (skylark) assemblage across the Scheme.</p> <p>Permanent loss of an outlier sett.</p>	<p>The schemes identified in <b>ES Volume 3: Appendix 16-A [EN010131/APP/3.3]</b> which were considered to have the potential to interact cumulatively with the Scheme have been reviewed. It is considered that the West Burton Solar Project and the Cottam Solar Project have the potential to result in cumulative effects where the overall loss of arable farmland has the potential to reduce nesting and foraging habitat for Skylark. Both projects identify Skylark as requiring additional mitigation.</p>	<p>All planning applications listed in <b>ES Volume 3: Appendix 16-A [EN010131/APP/3.3]</b> of this ES, with particular reference to:</p> <ul style="list-style-type: none"> <li>West Burton Solar Project</li> <li>Cottam Solar Project</li> </ul>	<p><b>No significant cumulative effects:</b> No cumulative effects are anticipated during construction, operation, or decommissioning. It is assumed that there will be no significant cumulative effects arising from the three projects, on the assumption that sufficient mitigation will be provided for both the Scheme and Cottam and West Burton projects.</p>

## 9. Water Environment

<p>Potential pollution of Seymour/Marton Drain Catchment WFD waterbody and tributaries from construction site runoff containing pollutants and fine sediment; chemical spillages; increased flood risk during construction.</p>	<p>Potential for overlap between construction of adjacent schemes and construction of this Scheme. Thus, there is potential for short term, temporary construction related pollutants generated from both the Scheme and adjacent developments to impact on watercourses in the study area. It is assumed that standard and good practice mitigation is implemented on the construction sites through their respective CEMPs and as per the conditions of the relevant planning permission, environmental permits and licences, as is being proposed for this Scheme.</p>	<ul style="list-style-type: none"> <li>Demolition of Cottam Power Station</li> <li>West Burton Solar Project</li> <li>Cottam Solar Project</li> <li>Redevelopment of Cottam Power Station.</li> <li>Stow Park Road Residential Development</li> <li>Willingham Road Residential Development</li> </ul>	<p><b>No significant cumulative effects:</b> No cumulative effects are anticipated during construction or decommissioning. Provided that all mitigation measures are implemented for all schemes, cumulative impacts from the scheme and nearby schemes will not be anticipated to produce any significant effects.</p>
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## 10. Landscape and Visual Amenity

<p>Effects to visual receptors and landscape character.</p>	<p>There is potential for cumulative construction and operational effect on landscape character and</p>	<ul style="list-style-type: none"> <li>West Burton Solar Project</li> </ul>	<p><b>No significant cumulative effects:</b> Minor adverse effects on</p>
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Potential Impact	Potential for Cumulative Effects	Relevant Cumulative Schemes	Cumulative Effect
	<p>visual amenity from the addition of the Scheme with other schemes.</p> <p>The cumulative assessment is set out in <b>ES Volume 3: Appendix 10-H [EN01031/APP/3.3]</b>. The assessment should be read in combination with the following <b>ES Volume 2, Figures [EN01031/APP/3.2]</b>:</p> <ul style="list-style-type: none"> <li>• Figure 10-13: Cumulative ZTV (with Surface Features) - Gate Burton with Cottam Solar Project;</li> <li>• Figure 10-14: Cumulative ZTV (with Surface Features) - Gate Burton with West Burton Solar Project;</li> <li>• Figure 10-15: Cumulative ZTV (with Surface Features) - Gate Burton with Tillbridge Solar; and</li> <li>• Figure 10-17: Photosheets - Cumulative C1-C5 (Compressed).</li> </ul>	<ul style="list-style-type: none"> <li>• Cottam Power Station Redevelopment</li> <li>• Tillbridge Solar</li> </ul>	<p>landscape character during construction for the following projects: West Burton Solar Project, Cottam Solar Project, Cottam Power Station demolition, and Stow Park Road Residential Development.</p> <p><b>No significant cumulative effects:</b> During operation, cumulative effects on landscape character from the Scheme and Cottam Solar Project or Tillbridge Solar are considered Minor adverse.</p> <p><b>Significant Cumulative effects:</b> Cumulative effects with West Burton Solar Project are Moderate adverse which is considered significant.</p> <p><b>Significant Cumulative effects:</b> West Burton Solar Project, Cottam Solar Project, Tillbridge Solar and the Scheme has as a combined cumulative impact on landscape of Moderate adverse, which is considered significant. See <b>ES Volume 3: Appendix 10-H [EN01031/APP/3.3]</b>.</p>

### 11. Noise and Vibration

Any overlapping of construction phases between the Scheme and adjacent developments has the	Due to these nearby schemes being located within 500m of the Scheme, this may result in some interactive construction noise if constructed at the same time as the Scheme.	<ul style="list-style-type: none"> <li>• Cottam Power Station demolition</li> <li>• West Burton Solar Project</li> </ul>	<p><b>No significant cumulative effects:</b> Based on the distances from key project components to cumulative developments, it is considered that any overlapping of</p>
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Potential Impact	Potential for Cumulative Effects	Relevant Cumulative Schemes	Cumulative Effect
potential to contribute to cumulative effects.		<ul style="list-style-type: none"> <li>Cottam Power Station Redevelopment</li> <li>Stow Park Road Residential Development</li> </ul>	construction phases between the Scheme and other developments would not result in any cumulative effects at common noise-sensitive receptors.
Interaction of operational noise from the Scheme and other nearby developments.	There is potential for operational noise from the Scheme and the cumulative schemes to interact, causing cumulative effects on nearby receptors.		<b>No significant cumulative effects:</b> Given the requirement for new developments to achieve operation noise standards, and the relative distance between cumulative developments and the Scheme, operational noise effects from the Scheme will remain unchanged from the residual effects.
<b>12. Socio-Economics and Land-Use</b>			
Increase in construction-related employment demand.	The combined effect of the construction of the cumulative developments is likely to bring considerable additional employment to the local economy.	All planning applications listed in <b>ES Volume 3: Appendix 16-A [EN010131/APP/3.3]</b> of this ES.	<b>No significant cumulative effects:</b> The overall cumulative effect from the generation of construction workers is likely to remain as temporary minor beneficial effect on the economy of the study area, which is not considered significant.
Increase in employment opportunities during operation.	If all the schemes are to be realised there will be considerable additional employment demand from some of the cumulative schemes. Most cumulative schemes, however, will not generate considerable operational employment due to their nature as infrastructure or utilities projects.		<b>No significant cumulative effects:</b> Negligible for employment generation during operation.
Increase in generation of Gross Value Added (GVA) from construction employment	The overall cumulative effect from the generation of GVA from construction is likely to remain temporary minor beneficial on the local economy,	All planning applications listed in <b>ES Volume 3: Appendix 16-A</b>	<b>No significant cumulative effects:</b> The overall cumulative effect from the generation of GVA

Potential Impact	Potential for Cumulative Effects	Relevant Cumulative Schemes	Cumulative Effect
	resulting in a temporary minor beneficial effect (and negligible for Scenario 2), which are both not considered significant.	<b>[EN010131/APP/3.3]</b> of this ES.	from construction is likely to remain temporary minor beneficial on the local economy.
Temporary disruptions of PRow during the construction phase of the Scheme.	The overall cumulative effect on PRow is likely to remain temporary minor adverse. Therefore, there are likely to be no significant cumulative effects.	All planning applications listed in <b>ES Volume 3: Appendix 16-A</b> <b>[EN010131/APP/3.3]</b> of this ES.	<b>No significant cumulative effects:</b> No cumulative effects are anticipated during construction, operation and decommissioning.
Effects on PRow during operation.	No PRow that intersect the Order Limits of the Scheme are expected to be affected during the operation of adjacent schemes of West Burton and Cottam Solar Projects. Therefore, it is expected that there will be a permanent negligible effect, which is not considered significant.		

### 13. Transport and Access

Increased traffic flows.	<p>Any overlaps between the construction vehicle trips associated with the Scheme and other schemes are likely to be primarily confined to wider strategic routes. Other schemes are not likely to contribute to the effects on transport and access receptors (including the A156, Kexby Lane, Willingham Road, Marton Road, and the A1500 in Lincolnshire and Cottam Road, Headstead Bank, Broad Lane, Cow Pasture Lane and Town Street in Nottinghamshire) identified in this chapter and therefore the effects are <b>not significant</b>.</p> <p>The opportunity to combine mitigation such as by consolidating trips in order to reduce the impact on local roads will be considered for the West Burton Solar Project, Cottam Solar Project and Tillbridge Solar schemes in order to reduce</p>	<ul style="list-style-type: none"> <li>• West Burton Solar Project</li> <li>• Cottam Solar Project</li> <li>• Tillbridge Solar Scheme</li> </ul>	<b>No significant cumulative effects:</b> No cumulative effects are anticipated during construction, operation and decommissioning.
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Potential Impact	Potential for Cumulative Effects	Relevant Cumulative Schemes	Cumulative Effect
	cumulative impacts during the construction phase.		
<b>14. Human Health</b>			
Access to Healthcare Services and other Social Infrastructure	The assessment undertaken in Chapter 14: Human Health of this Environmental Statement [EN010131/APP/3.1] is inherently cumulative as the traffic data which the assessment is based on includes the change in traffic generated by other committed developments.	All planning applications listed in <b>ES Volume 3: Appendix 16-A [EN010131/APP/3.3]</b> of this ES.	<b>No significant cumulative effects:</b> No cumulative effects on access to people in relation to access to healthcare services, social infrastructure impacts and accessibility and active travel impacts.
Accessibility and Active Travel	From a non-motorised user environment perspective, changes in traffic flows have already been assessed as part of Chapter 13: Transport and Access and in the assessment presented within Chapter 15: Human Health and are therefore inherent as part of the assessment presented in the chapter. It is therefore concluded that the potential cumulative effects on non-motorised users will be the same as is the case for the Scheme when assessed in isolation.		
Access to Work and Training	The construction phases of the Scheme and other cumulative developments would both be expected to generate employment. Despite this increase in employment opportunities, as this is anticipated to be in the construction and decommissioning phase, the overall cumulative effect is assessed to remain at temporary minor beneficial effect (not significant).		
<b>15. Other Environmental Topics</b>			
Waste: Increased waste to recycling plants and landfill.	It is likely that the waste generated by the Scheme during Operation and Decommissioning would be managed by specialist regional or national facilities,	All planning applications listed in <b>ES Volume 3:</b>	<b>No significant cumulative effects:</b> It is not considered that the Scheme and the cumulative

Potential Impact	Potential for Cumulative Effects	Relevant Cumulative Schemes	Cumulative Effect
	and that such facilities would be developed over the operational period in response to demand generated by the UK-wide PV industry. The capacity of such facilities is not expected to be influenced by other non-solar energy projects in the surrounding area. Therefore, no cumulative waste impacts have been identified for the Scheme.	<b>Appendix 16-A [EN010131/APP/3.3]</b> of this ES.	schemes would give rise to any significant effects.
Air Quality: Increase in traffic emissions	There is the potential for cumulative impact of roads emissions from construction vehicles. The Cottam and West Burton Solar projects have similarly scoped out the impact of construction vehicle emissions, but assuming each of those schemes have a similar number of vehicles as Gate Burton, there could potentially be a peak weekly average of 198 vehicle movements on local roads. To mitigate any potential effects, a joint CTMP will be produced in order to manage the construction traffic appropriately. If, once contractors are appointed there are likely to be more than 100 construction HGV movements per day, which is the IAQM criteria for further assessment, then a detailed air quality assessment will be undertaken, and appropriate further mitigation identified.	<ul style="list-style-type: none"> <li>West Burton Solar Project</li> <li>Cottam Solar Project</li> </ul>	<b>No significant cumulative effects:</b> No cumulative effects are anticipated during construction, operation and decommissioning.
Glint and Glare	It is anticipated that the cumulative developments will be designed to ensure that there will be effective screening to prevent glint and glare effects from other individually planned solar farms, and therefore cumulative effects would be unlikely.	All planning applications listed in <b>ES Volume 3: Appendix 16-A [EN010131/APP/3.3]</b> of this ES.	<b>No significant cumulative effects:</b> No cumulative effects are anticipated during construction, operation and decommissioning.
Major Accidents and Disasters	No plans or projects identified in <b>ES Volume 3: Appendix 16-A [EN010131/APP/3.3]</b> are considered in combination to impact important Major Accidents and Disasters as identified in this assessment. Therefore, the main potential for	All planning applications listed in <b>ES Volume 3: Appendix 16-A</b>	<b>No significant cumulative effects:</b> No cumulative effects are anticipated during construction, operation and decommissioning.

Potential Impact	Potential for Cumulative Effects	Relevant Cumulative Schemes	Cumulative Effect
	Major Accidents and Disasters impacts during construction, operation and decommissioning of the Scheme is considered within the Scheme boundary itself.	[EN010131/APP/3.3] of this ES.	
Telecommunications Television Reception and Utilities	The Scheme has been assessed to have no effect on telecommunication, television, or utilities. It is expected that the other solar developments included within the cumulative schemes shortlist would also have no effect on telecommunications and television reception and would adhere to the same mitigation as set out above to reduce the risk of damaging utilities.	All planning applications listed in <b>ES Volume 3: Appendix 16-A [EN010131/APP/3.3]</b> of this ES.	<b>No significant cumulative effects:</b> No cumulative effects are expected on telecommunications, television reception, or utilities.

## 16.6 References

- Ref 16-1 Her Majesty's Stationary Office (HMSO) (2017) The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.
- Ref 16-2 Directive 2011/92/EU of the European Parliament and of the Council (2011) on the assessment of the effects of certain public and private projects on the environment.
- Ref 16-3 The Planning Inspectorate (2015), Advice note seventeen: Cumulative effects assessment relevant to nationally significant infrastructure projects.