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EN010154

6.1 Environmental Statement

Chapter 12: Socio-Economics and Land Use

VOLUME

6

Planning Act 2008 (as amended)

Regulation 5(2)(a)

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended)

18 July 2025

Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulation 2009 (as amended)

Fosse Green Energy

Development Consent Order 202[ ]

6.1 Environmental Statement

Chapter 12: Socio-Economics and Land Use

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Rev 1	18 July 2025	DCO Submission
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12. Socio-Economics and Land Use

12.1 Introduction

12.1.1 This chapter provides a baseline report and presents the findings of an assessment of the likely significant effects from Socio-Economics and Land Use as a result of the Proposed Development. For more details about the Proposed Development, refer to **Chapter 3: The Proposed Development** of this Environmental Statement (ES) **[EN010154/APP/6.1]**.

12.1.2 This chapter identifies and proposes measures to address the potential impacts and likely significant effects of the Proposed Development on Socio-Economics and Land Use during the construction, operation, and decommissioning phases of the Proposed Development. This includes consideration of the potential for impacts with regards to:

a. Employment;
b. Gross Value Added (GVA);
c. The local accommodation sector;
d. Public Rights of Way (PRoW);
e. Agricultural land;
f. Tourism/Recreation
g. Residential properties, community facilities and businesses; and
h. Development land.

12.1.3 This chapter is supported by the following figures in **[EN010154/APP/6.2]**:

a. **Figure 12-1: 60-Minute Drive Time from the Site Boundary**;
b. **Figure 12-2: 30-Minute Drive Time from the Site Boundary**;
c. **Figure 12-3: Study Area - 500m**;
d. **Figure 12-4: Study Area - 2km**; and
e. **Figure 12-5: Agricultural Land Classification for the Principal Site**.

12.1.4 This chapter is supported by the following appendices **[EN010154/APP/6.3]** of this ES and other Volume 7 documents **[EN010154/APP/7.16]**:

a. **Appendix 12-A: Socio-Economics Policy and Legislation**;
b. **Appendix 12-B: Agricultural Land Classification Report**;
c. **Appendix 12-C: Minerals Safeguarding Assessment**; and
d. **Framework Employment, Skills and Supply Chain Plan**.

12.2 Legislation and Planning Policy

12.2.1 There is no applicable legislation specific to the assessment of Socio-Economics and Land Use. Planning policy and guidance relating to Socio-Economics and Land Use, and pertinent to the Proposed Development is presented in **Appendix 12A: Socio-Economics and Land Use Policy and Legislation** and is summarised below.

National Planning Policy

12.2.2 The National Policy Statement (NPS) EN-1 (Ref 12-4) designated in January 2024, includes a number of requirements relating to socio-economics with particular reference to paragraphs:

a. 4.1.5, 4.1.6 and 4.1.7 in relation to adverse effects and benefits;

b. 5.13 in relation to socio-economics; and

c. 5.11.12 in relation to impacts on Best and Most Versatile (BMV) land.

12.2.3 NPS EN-3 (Ref 12-5) includes additional consideration of socio-economic impacts associated specifically with solar photovoltaic generation, in paragraphs 2.48.13 to 2.48.15 regarding Agricultural Land Classification (ALC).

12.2.4 The National Planning Policy Framework (NPPF) (Ref 12-6) contains several relevant sections, with particular reference to *Section 6: Building a strong, competitive economy* (paragraphs 85-89), *Section 12: Achieving well designed places* (paragraphs 131-141) and *Section 15: Conserving and enhancing the natural environment* (paragraph 187, in relation to impacts on best and most versatile agricultural land) and *Section 17* (Facilitating the sustainable use of minerals).

12.2.5 National Economic Development Policy (Ref 12-7) refers to the Government's Industrial Strategy White Paper ambitions to increase productivity and drive growth. Clean Growth is highlighted as providing an opportunity lead the world in the development, manufacture and use of low carbon technologies.

12.2.6 Planning Practice Guidance (PPG) (Ref 12-8) refers to guidance on planning and the economy and the potential future needs of the population in terms of economic development, jobs and employment opportunities.

Regional Guidance

12.2.7 The Greater Lincolnshire Local Enterprise Partnership Local Industrial Strategy (Ref 12-9) refers to aspirations to pioneer the industrial decarbonisation sector, building upon local industrial specialisms. Reference is also made to employment and skills ambitions. The Proposed Development will help contribute to the aims of the Local Industrial Strategy.

Local Planning Policy

12.2.8 The Central Lincolnshire Local Plan (2023) (Ref 12-10) includes Policy S2 (Growth Levels and Distribution), Policy S14 (Renewable Energy), S5

(Development in the Countryside), Policy S48 (Walking and Cycling Infrastructure), Policy S0 (Community Facilities), and Policy S67 Best and Most Versatile Agricultural Land which are of relevance to socio-economics and land use. The Central Lincolnshire Local Plan has informed the assessment methodology for the socio-economics and land use assessment. The Proposed Development will also contribute to the aims of the Central Lincolnshire Local Plan.

12.3 Consultation

12.3.1 A scoping exercise was undertaken in June 2023 to establish the content, approach and method of the Environmental Impact Assessment (EIA). A request for an EIA Scoping Opinion was issued to the Secretary of State through the Planning Inspectorate (hereafter 'the Inspectorate') in June 2023. Comments were received in July 2023 in the EIA Scoping Opinion and the Applicant's responses in relation to Socio-Economics and Land Use are summarised in **Table 12-1** and **Table 12-2**, respectively.

Table 12-1: Scoping Opinion Responses (Socio-Economics and Land Use)

Consultee	Summary of comment	How matter has been addressed	Location of response
The Inspectorate	The ES should scope in effects on Mineral Safeguarding Areas (MSAs) and should include a figure to identify MSAs. The ES should demonstrate that the Minerals Planning Authority has been consulted.	An assessment of the effects of the Proposed Development on MSAs has been included in the assessment of development land and within **Appendix 12-C: Minerals Safeguarding Assessment [EN010154/APP/6.3]**. **Figure 1** of the **Appendix 12-C: Minerals Safeguarding Assessment [EN010154/APP/6.3]** shows the DCO Site boundary and the overlap with MSAs. The Minerals Planning Authority have provided comments at the Scoping Stage and during the Statutory Consultation which have been taken into account within **Appendix 12-C: Minerals Safeguarding Assessment [EN010154/APP/6.3]**.	**Section 12.7** of this ES Chapter **[EN010154/APP/6.1]**. **Appendix 12-C: Minerals Safeguarding Assessment [EN010154/APP/6.3]**
The Inspectorate	The ES should provide details of the study areas that will be used to consider socio-economic and land-use effects.	**Table 12-3** of this ES **[EN010154/APP/6.1]** provides the relevant geographic study area for each socio-economic and land use effect and provides justification for why each study area is chosen.	**Table 12-3** of this ES Chapter **[EN010154/APP/6.1]**
The Inspectorate	The ES should include an assessment of effects on soil resources. The ES should include an outline soil management plan.	Impacts on soil are covered under the agricultural land assessment in this chapter of the ES **[EN010154/APP/6.1]**. A **Framework Soil Management Plan** has been prepared and is submitted with the DCO Application **[EN010154/APP/7.10]**.	**Section 12.7** of this ES Chapter **[EN010154/APP/6.1]**.

Consultee	Summary of comment	How matter has been addressed	Location of response
The Inspectorate	The ES should include details on how the baseline will be established for recreational receptors and community facilities.	**Table 12-3** of this ES **[EN010154/APP/6.1]** provides details on the study area for community facilities and recreational facilities. **Section 12.4** identifies the methodology for assessing effects on these receptors. **Section 12.5** identifies the community facilities and recreational facilities within 2km of the DCO Site, based on desktop research.	**Table 12-3** of this ES Chapter **[EN010154/APP/6.1]**, as well as **Sections 12.4** and **12.5.**
The Inspectorate	The methodology for assessing agriculture land should be clearly defined in the ES. Effects on agricultural land from the Grid Corridor should also be considered.	The methodology for assessing agricultural land and effects on agricultural land from the Cable Corridor has been set out in **Section 12.4.**	**Section 12.4** of this ES Chapter **[EN010154/APP/6.1]**,
The Inspectorate	The soils/ALC survey should consider Natural England TIN049 Guidance and should be used to support the assessment on BMV land in the ES.	An ALC survey has been undertaken of the Principal Site to inform the assessment of Best and Most Versatile (BMV) agricultural land and is presented in **Appendix 12-B** of this ES **[EN010154/APP/6.1]**. Natural England's Guidance was considered during the ALC survey undertaken of the Principal Site.	**Section 12.5** and **Section 12.7** of this ES Chapter **[EN010154/APP/6.1]**.
The Inspectorate	The ES should consider the effects of the Proposed Development on employment and businesses; on the amenity and access of recreational receptors; impacts on employment in the local farming industry; and impacts on BMV agriculture land.	Impacts of the Proposed Development on employment generation are assessed in **Section 12.7**. Impacts on GVA generation reflect the wider impact on businesses and the economy is assessed in **Section 12.7**. Impacts on recreational receptors and visitor attractions are assessed in **Section 12.7**. A reduction in farming employment is assessed as part of the assessment of employment during operation. Impacts from the Proposed	**Section 12.7** of this ES Chapter **[EN010154/APP/6.1]**.

Consultee	Summary of comment	How matter has been addressed	Location of response
		Development on BMV agriculture land are also assessed in **Section 12.7**.	
The Inspectorate	The ES should identify and assess impacts on agricultural land uses.	Impacts on agricultural land are assessed in **Section 12.7** of this ES **[EN010154/APP/6.1]**.	**Section 12.7** of this ES Chapter **[EN010154/APP/6.1]**.
The Inspectorate	The ES should assess the impact of the Proposed Development on the future use of agricultural land.	Impacts on agricultural land uses during operation and following decommissioning of the Proposed Development are assessed in **Section 12.7**.	**Section 12.7** of this ES Chapter **[EN010154/APP/6.1]**.
The Inspectorate	The ES should consider the potential effects of the Proposed Development on local recreational facilities, including the Witham Valley Country Park, local circular walking routes within the area of the park and public rights of way.	Impacts on recreational receptors and PRoW are assessed in **Section 12.7**. The assessment considers the recreational facilities within 2km of the DCO Site, including parks that form the Witham Valley Country Park Area.	**Section 12.7** of this ES Chapter **[EN010154/APP/6.1]**.
Lincolnshire County Council	From an economic growth perspective, the range of the topics in the scoping document appears reasonable, and will be able to comment in further detail as the project progresses.	Impacts on economic growth are assessed through GVA impacts in **Section 12.7**.	**Section 12.7** of this ES Chapter **[EN010154/APP/6.1]**.
Coleby Parish Council	Cleaning and maintenance processes will be necessary to ensure that the solar panels maintain effectiveness which will provide substitute job opportunities making up for loss of employment in local agriculture.	Operational employment is assessed in Section 12.7. Jobs created during operation are accounted for and there are no job losses in agricultural employment.	**Section 12.7** of this ES Chapter **[EN010154/APP/6.1]**.
North Kesteven District Council	There is no indication of what the proposed level of investment in the	The impact of the Proposed Development on the economy is assessed through GVA	**Section 12.7** of this ES Chapter **[EN010154/APP/6.1]**.

Consultee	Summary of comment	How matter has been addressed	Location of response
	DCO Site is and the value to the national and local economy.	generation during construction, which is assessed in **Section 12.7**.	
North Kesteven District Council	The chapter does not indicate how many people will be employed during the construction phase.	Construction employment generation is assessed in **Section 12.7**.	**Section 12.7** of this ES Chapter **[EN010154/APP/6.1]**.
North Kesteven District Council	There is no indication of whether this will create local employment opportunities. No reference to apprenticeship opportunities, or indeed how local construction firms might be able to benefit from this development.	Local employment is assessed as part of the employment generation assessment during construction, operation and decommissioning in **Section 12.7**. It is assumed that 45% of workers will come from within a 60-minute drive time of the DCO Site. Training opportunities are identified in the Framework Employment, Skills and Supply Chain Plan accompanying this ES **[EN010154/APP/7.16]**.	**Section 12.7** of this ES Chapter **[EN010154/APP/6.1]**.
North Kesteven District Council	There is no indication of the level of construction workforce associated with the Proposed Development. Economic benefits and apprenticeships are not provided.	An assessment of the construction workforce is located in Section 12.7. GVA benefits to the economy are also located in Section 12.7. Further economic benefits can be found in the Framework Employment, Skills and Supply Chain Plan accompanying this ES **[EN010154/APP/7.16]**.	**Section 12.7** of this ES Chapter **[EN010154/APP/6.1]**.
North Kesteven District Council	Operational employment is not considered in the scoping chapter.	Operational employment impacts, including the loss of agricultural jobs, can be found in **Section 12.7** of this ES **[EN010154/APP/6.1]**.	**Section 12.7** of this ES Chapter **[EN010154/APP/6.1]**.
North Kesteven District Council	Impacts on tourism and the local visitor economy are not considered in the scoping chapter.	Impacts on the amenity of visitor attractions have been assessed in **Section 12.7** of this ES **[EN010154/APP/6.1]**.	**Section 12.7** of this ES Chapter **[EN010154/APP/6.1]**.

Consultee	Summary of comment	How matter has been addressed	Location of response
North Kesteven District Council	The scoping chapter does not consider impacts on visitor accommodation providers. Operational employment and re-training for agricultural workers is not considered.	Impacts on the amenity of visitor accommodation providers has been assessed in **Section 12.7** of this ES **[EN010154/APP/6.1]**. Operational employment is also considered in **Section 12.7**. Further information on training and employment can be found in the **Framework Employment, Skills and Supply Chain Plan [EN010154/APP/7.16]**.	**Section 12.7** of this ES Chapter **[EN010154/APP/6.1]**.
North Kesteven District Council	Employment, economic benefits and training provision is not considered in the scoping chapter.	Employment and GVA generation is provided in **Section 12.7**. Further information on training and employment can be found in the Framework Employment, Skills and Supply Chain Plan accompanying this ES **[EN010154/APP/7.16]**.	**Section 12.7** of this ES Chapter **[EN010154/APP/6.1]**.
North Kesteven District Council	The Applicant may consider calculating economic benefits using LM3 multipliers.	Economic benefits arising from the Proposed Development, including additional local income, supplier purchase and long-term developments effects, are assessed in **Section 12.7** of this ES **[EN010154/APP/6.1]**. The assessment applies the HCA Additionality Guide (Ref 12-11) 'ready reckoner' composite multipliers in respect of employment. This represents recognised guidance used to estimate employment benefits as part of the economic appraisal of projects. It also aligns with other assessments of such benefits of solar projects in England and Wales. Whilst it is recognised that calculating economic benefits using LM3 multipliers represents an approach to estimating economic benefits	**Section 12.7** of this ES Chapter **[EN010154/APP/6.1]**.

Consultee	Summary of comment	How matter has been addressed	Location of response
		from projects, in this instance, as it is necessary to estimate net employment to understand the extent of net benefit of the Proposed Development once additionality factors have been accounted for, it would only provide an additional measure of benefit and not an alternative approach. As such it is not necessary to include this calculation to robustly identify significant effects in relation to employment and economic benefits for this Proposed Development.	
Wellingore Parish Council	Impacts on residential properties should be considered.	Impacts on the amenity of residential properties have been considered through a multidisciplinary approach in **Section 12.7**. Chapters including **Chapter 10: Landscape and Visual Amenity** of the ES **[EN010154/APP/6.1]** have been considered when assessing impacts on residential properties.	**Section 12.7** of this ES Chapter **[EN010154/APP/6.1]**.
North Kesteven District Council	There is limited reference in the scoping chapter to the continued agricultural use of the DCO Site.	Impacts on agricultural use during operation and decommissioning have been assessed in **Section 12.7**.	**Section 12.7** of this ES Chapter **[EN010154/APP/6.1]**.
North Kesteven District Council	We suggest that the applicant should also identify a mechanism by which any changes in agricultural activity can be secured through the DCO process.	Impacts on agriculture have been assessed in **Section 12.7**.	**Section 12.7** of this ES Chapter **[EN010154/APP/6.1]**.

12.3.2 Further consultation in response to formal pre-application engagement was undertaken through the Preliminary Environmental Information (PEI) Report, issued in October 2024. **Table 12-2** outlines the statutory consultation responses relating to the Socio-Economics and Land Use assessment and how these have been addressed through the ES. The **Potential Main Issues for Examination [EN010154/APP/7.11]**, **Consultation Report [EN010154/APP/5.1]** and **Consultation Report Appendices [EN010154/APP/5.2]** provide further detailed responses, as relevant, to the feedback received during statutory consultation.

Table 12-2: Statutory Consultation Responses (Socio-Economics and Land Use)

Consultee	Summary of comment	How matter has been addressed	Location of response
North Kesteven District Council	£9.6m contribution to the local economy should be adjusted to include any the impact on the farm business.	It has been assessed that there would be no loss of employment resulting from the removal of agricultural land and farm businesses are not expected to be adversely impacted by the Proposed Development such that there would be a loss to the local economy.	**Section 12.7** of this ES Chapter **[EN010154/APP/6.1]**.
North Kesteven District Council	The Applicant should provide a Framework Employment, Skills, and Supply Chain Plan and the Council would like to be involved in discussion on a Community Funding.	The Applicant is exploring a community benefit fund which would provide a sum of money per megawatt (MW) per year in line with guidance. The Applicant is currently investigating how a community benefit fund could be managed and delivered independently. Information on maximising the economic benefits to the local community can be found in **Framework Employment, Skills and Supply Chain Plan[EN010154/APP/7.16**].	**Framework Employment, Skills and Supply Chain Plan [EN010154/APP/7.16]**
North Kesteven District Council	The ES should draw upon the Council's published Solar Energy Community Benefit Policy.	The Applicant notes this policy and will seek to consult North Kesteven District Council and other relevant councils in the further development of a community benefit strategy.	**Framework Employment, Skills and Supply Chain Plan [EN010154/APP/7.16]**
Lincolnshire County Council	The Applicant should explore with the potential for local communities (including the wider Lincolnshire area) to benefit from the Proposed Development.	The Applicant is exploring a community benefit fund which would provide a sum of money per megawatt (MW) per year in line with guidance. The Applicant is currently investigating how a	**Framework Employment, Skills and Supply Chain Plan [EN010154/APP/7.16]**

		It is noted that the Applicant is working with North Kesteven District Council to develop plans for a community fund, Lincolnshire County Council would like to be involved with those discussions.	community benefit fund could be managed and delivered independently. To maximise the economic benefits to the local community a **Framework Employment, Skills and Supply Chain Plan [EN010154/APP/7.16]** identifies potential opportunities for activities relating to skills, supply chain and employment which the Applicant could take forward post-consent.	
Lincolnshire Council	County	The Study Area for the Proposed Development is evidenced to have significant shortages of energy supply. The Applicant should explore opportunities that will support local businesses and communities to access the energy they need to achieve their growth and net zero ambitions.	The grid connection agreement allows for import and export directly into the National Grid, which will then be distributed across the network where required. Although the Proposed Development will not be able to technically or safely generate electricity into communities, all users of electricity will indirectly benefit from its production. Should the Proposed Development be consented, the Applicant will provide a sum of money per megawatt (MW) per year in line with guidance. Whilst this does not form part of the DCO application and does not comprise a benefit in the context of the planning balance, it does comprise a benefit of the Proposed Development to the wider community.	**Framework Employment, Skills and Supply Chain Plan [EN010154/APP/7.16]**
Lincolnshire Council	County	The Applicant should consider engaging with local skills providers.	Statutory and non-statutory consultees were provided with the opportunity to comment on the proposals during the statutory consultation. Their feedback was subsequently considered in the final design of the Proposed Development, as set	**Chapter 4: Alternatives and Design Evolution** of the ES **[EN010154/APP/6.1]**

			out in **Chapter 4: Alternatives and Design Evolution of the ES [EN010154/APP/6.1].** The **Framework Employment, Skills and Supply Chain Plan [EN010154/APP/7.16]** identifies a range of local schools, colleges, and training organisations in the local area.	**Framework Employment, Skills and Supply Chain Plan [EN010154/APP/7.16]**
Lincolnshire Council	County	Accessibility of employment sites to rural communities should be addressed.	Employment opportunities are considered within **Chapter 12: Socio-Economics and Land Use** of the ES **[EN010154/APP/6.1]** and the **Framework Employment, Skills and Supply Chain Plan [EN010154/APP/7.16]**. However, the Applicant acknowledges that given the technical complexity of some elements of the Proposed Development, local employment is not always possible. The Applicant will continue to work with contractors who have policies in place to encourage local employment where suitable.	**Section 12.7** of this ES Chapter **[EN010154/APP/6.1]**. **Framework Employment, Skills and Supply Chain Plan [EN010154/APP/7.16]**
Lincolnshire Council	County	The ES should consider an approach that prepares the local labour market for the forthcoming opportunities.	Employment opportunities are considered within **Chapter 12: Socio-Economics and Land Use** of the ES **[EN010154/APP/6.1]** and the **Framework Employment, Skills and Supply Chain Plan [EN010154/APP/7.16]**. However, the Applicant acknowledges that given the technical complexity of some elements of the Proposed Development, local employment is not always possible. The Applicant will continue to work with contractors who have policies in place to encourage local employment where suitable.	**Section 12.7** of this ES Chapter **[EN010154/APP/6.1]**. **Framework Employment, Skills and Supply Chain Plan [EN010154/APP/7.16]**
Thorpe on the Hill Parish Council		The potential Community Benefit fund could take up to 10 years to pay out as	The community benefits delivered by the Proposed Development will be considered	

	the fund is based upon income derived from power generation. During this period, it is likely that house prices in the village will be adversely impacted and amenities damaged.	alongside Solar Energy UK standard guidance, which is yet to be released. However, it is currently assumed this will take the form of annual payments as opposed to a one-off lump sum. In 2014, the Centre for Economics and Business Research and Renewable UK conducted a study of over one million homes in the UK to analyse the effect of wind farms on house prices. It found that onshore wind farms had no impact on the value of residential properties within a 5km radius. Given solar panels are less obtrusive than wind turbines, we are confident that local property prices will not be affected by the Proposed Development.	
North Kesteven District Council	The ES uses a 30-minute drive time Study Area to consider the impact of the construction phase of the Proposed Development on the availability of serviced accommodation. The Applicant should consider that the serviced accommodation closest to the Proposed Development will experience a greater impact.	The socio-economics assessment has been undertaken in accordance with relevant guidance detailed in **Appendix 12A: Socio-Economics and Land Use Policy and Legislation [EN010154/APP/6.3]**. The assessment of effects has used a worst-case scenario, and therefore this may mean the impacts have been overestimated. A **Framework Employment, Skills and Supply Chain Plan [EN010154/APP/7.16]** has been submitted as part of the DCO application which details the opportunities for businesses and labour during the construction phase and opportunities for education, training and apprentices in the renewable energy sector.	**Appendix 12A: Socio-Economics and Land Use Policy and Legislation [EN010154/APP/6.3]** Framework Employment, Skills and Supply Chain Plan **[EN010154/APP/1.1]**

		Impacts on the visitor economy in respect of impacts on local visitor accommodation, visitor attractions and recreation have been assessed.	
North Kesteven District Council	The Applicant may consider calculating economic benefits using LM3 multipliers.	The socio-economics assessment has been undertaken in accordance with relevant guidance detailed in **Appendix 12A: Socio-Economics and Land Use Policy and Legislation [EN010154/APP/6.3]**. The assessment of effects has used a worst-case scenario, and therefore this may mean the impacts have been overestimated. A **Framework Employment, Skills and Supply Chain Plan [EN010154/APP/7.16]** has been submitted as part of the DCO application which details the opportunities for businesses and labour during the construction phase and opportunities for education, training and apprentices in the renewable energy sector. Impacts on the visitor economy in respect of impacts on local visitor accommodation, visitor attractions and recreation have been assessed.	**Appendix 12A: Socio-Economics and Land Use Policy and Legislation [EN010154/APP/6.3]** **Framework Employment, Skills and Supply Chain Plan [EN010154/APP/1.1]**
Natural England	Natural England advises that a commitment should be made to return all agricultural land to its current ALC grade following decommissioning.	The 60-year operational life of the Proposed Development is set out in the **Draft Development Consent Order (DCO) [EN010154/APP/3.1]**. The **Framework Soil Management Plan [EN010154/APP/7.10],** secured by Requirement 15 in the **Draft DCO [EN010154/APP/3.1]** contains industry standard good practice measures to reduce impacts on soil which will ensure that the ALC grade will be unaltered through operation and	**Draft DCO [EN010154/APP/3.1]** **Framework Soil Management Plan [EN010154/APP/7.10]** **Decommissioning Environmental Management Plan (DEMP) [EN010154/APP/7.9]**

		decommissioning of the Proposed Development. A post-restoration survey of agricultural land would be undertaken, as per commitments in the **Decommissioning Environmental Management Plan [EN010154/APP/7.9].**	
Natural England	Recommendation that Agricultural Land Classification (ALC) survey of entire site boundary should be undertaken including the cable corridor.	An ALC Survey of the Cable Corridor has not been undertaken at this stage. Given the need to maintain flexibility in the cable corridor (e.g. because of the planning application recently submitted to North Kesteven District Council for the Brant Battery Energy Storage System (Reference Ref: 25/0533/FUL) and existing overhead lines), if any best and most versatile land is detected, it will not be able to be avoided. However, when applying IEMA's significance criteria this will not constitute a significant effect. Therefore, it is not deemed essential to undertake this survey at this stage as it would not change the significance of effect or location of the Proposed Development's Cable Corridor. This approach aligns with other, consented solar Nationally Significant Infrastructure Projects. This position has been discussed with Natural England in a meeting held on 20 February 2025.	**Chapter 12: Socio-Economics and Land Use [[EN010154/APP/6.1]**
North Kesteven District Council	The operational lifespan of the Proposed Development is 60-years and therefore is difficult to perceive as temporary. The ES should consider the implications for the restorations of the land back to agricultural use after decommissioning.	Impacts on the quality of soil structure and development of soil organic matter are addressed in **Section 12.7**. The Proposed Development will not be permanently changed to industrial use and once the infrastructure is removed, the land will return	**Framework DEMP [EN010154/APP/7.9]** **Chapter 12: Socio-economics and Land Use [EN010154/APP/6.1]**

		to its previous use in accordance with the **Framework DEMP [EN010154/APP/7.9]**	
Carlton le Moorland Parish Council	The ES does not fully quantified or addressed and the full cost of any decommissioning.	A detailed **Decommissioning Management Plan [EN010154/APP/7.8]** will be prepared and agreed with the relevant authorities at that time of decommissioning, in advance of the commencement of decommissioning works, and would include timescales and transportation methods. The Applicant is committed to setting aside money for decommissioning the Proposed Development.	**Framework DEMP [EN010154/APP/7.8]**
Thorpe on the Hill Parish Council	The ES should consider the impact of the Proposed Development on house prices as it will damage the attractiveness and appeal of Thorpe on the Hill's rural location and amenities.	In terms of property value, impacts on property prices are not a material consideration under section 104 of the Planning Act 2008, which sets out the matters the Secretary of State must have regard to, which includes the relevant National Policy Statements (NPS), which in this case are NPS EN-1, NPS EN-3 and NPS EN-5. None of these policy documents consider property prices, and it therefore should not be a factor which is considered by the Secretary of State when determining the Application for development consent.	
Natural England	The Application should explore opportunities to enhance the existing PRoWs through and around the Proposed Development.	A **Framework Public Rights of Way Management Plan (Framework PRoW-MP) [EN010154/APP/7.14]** has been prepared to outline how PRoW will be managed by the Applicant.	**Framework PRoW Management Plan [EN010154/APP/7.14]**

Lincolnshire County Council	The ES should consider the importance of limiting impact to PRoW and permissible footpaths with regard to public health benefits as they are used not only for the enjoyment of local people but also by visitors to the County.	As stated within the **Framework PRoW Management Plan [EN010154/APP/7.14]** the PRoW will be managed throughout the construction phase to ensure that existing routes can continue to be used throughout the duration of the proposed works.	**Framework PRoW Management Plan [EN010154/APP/7.14]**
Lincolnshire County Council	The Applicant should consider producing a Skills, Employment and Supply Chain Plan via a DCO requirement and potentially a s106 agreement for funding towards education and skills as an additional benefit to the proposals.	A **Framework Employment, Skills and Supply Chain Plan [EN010154/APP/7.16]** has been submitted as part of the DCO application.	**Framework Employment, Skills and Supply Chain Plan [EN010154/APP/7.16]**
North Kesteven District Council	The ES should consider Central Lincolnshire Policy S10: 'Supporting a Circular Economy'.	A **Framework CEMP** covering waste management/resource efficiency aspects accompanies the DCO application. A Site Waste Management Plan will be prepared by the Principal Contractor in accordance with a Requirement of the DCO.	**Framework CEMP [EN010154/APP/7.7]**
North Kesteven District Council	The PEIR identified no adverse for skills, employment, and supply and proposed no mitigation. The Applicant should consider a Skills, Employment, and Supply Chain Management Plan provided via a DCO requirement and potentially a s106 agreement for funding towards education and skills as an additional benefit to the pro-posals.	A **Framework Employment, Skills and Supply Chain Plan [EN010154/APP/7.16]** has been submitted as part of the DCO application.	**Framework Employment, Skills and Supply Chain Plan [EN010154/APP/7.16]**

Lincolnshire County Council		LCC is extremely concerned with the potential for visual degradation of the countryside and the consequent impact on the visitor economy which is worth £2.9bn to Lincolnshire.	Impacts on the amenity of visitor attractions have been assessed in **Section 12.7** of **Chapter 12 [EN010154/APP/6.1].**	**Section 12.7** of this ES Chapter **[EN010154/APP/6.1]**.

12.4 Assessment Methodology

12.4.1 This section sets out the scope and methodology for the assessment of the Socio-Economics and Land Use impacts of the Proposed Development.

Study Area

12.4.2 The impacts of the Proposed Development with respect to Socio-Economics and Land Use are considered at varying spatial levels according to the likely extent of the effect under consideration. This approach is consistent with the Homes and Communities Agency (HCA), now known as Homes England, guidance entitled 'Additionality Guide, A Standard Approach to Assessing the Additional Impact of Projects, 4th Edition' (Ref 12-11).

12.4.3 The DCO Site, including the maximum areas of the Cable Corridor, is located within the administrative area of North Kesteven District Council in the county of Lincolnshire. This represents the maximum extent of land being considered. **Chapter 2: The Site and Surroundings** of this ES **[EN010154/APP/6.1]** provides a description of the DCO Site and its surroundings, which mainly consists of agricultural fields.

Local Economy and Employment

12.4.4 The potential economic impacts arising from the Proposed Development are considered relative to a 60-minute drive time from the DCO Site (as can be seen in **Figure 12-1** of this ES **[EN010154/APP/6.2]**), as this represents the principal labour market catchment area for the Proposed Development (Travel to Work Area). However, although not assessed in this ES**,** potential economic impacts that arise outside the 60-minute drive time Study Area would still generate a positive impact.

12.4.5 The potential impacts on the local accommodation sector as a result of the Proposed Development are considered relative to both a 30-minute and 60-minute drive time. The 30-minute drive time (as can be seen in**, Figure 12-2** of this ES **[EN010154/APP/6.2]**) has been added to consider a worst-case scenario in which all of the construction workers require accommodation within a 30-minute radius of the DCO Site.

Public Rights of Way

12.4.6 The assessment of effects on PRoW users considers resources which could be affected by closures and diversions of routes. The Study Area therefore comprises all PRoW and existing permissive paths located within the DCO Site (including along the Cable Corridor) or those that are likely to be impacted by the work within the DCO Site Boundary (within 500m of the DCO Site, as seen in **Figure 12-3** of this ES **[EN010154/APP/6.2]**).

Local Land Use

12.4.7 The Study Area for land use impacts on residential properties, local businesses, open space, visitor attractions, recreational facilities and community facilities considers receptors that could be directly or indirectly affected by the Proposed Development. The receptors that could be impacted are likely to be those within 500m of the DCO Site Boundary (as seen in

Figure 12-3 of this ES **[EN010154/APP/6.2]**), and within 2km of the DCO Site Boundary (as can be seen in **Figure 12-4** of this ES **[EN010154/APP/6.2]**), for community facilities, visitor attractions and recreational facilities.

12.4.8 Effects on development land (including consideration of Mineral Safeguarding Areas (MSAs)) within and up to 500m radius (as can be seen in **Figure 12-3** of this ES **[EN010154/APP/6.2]**) from the DCO Site are assessed in this ES Chapter. Development land refers to sites on which there are planning applications, planning permissions and local plan allocations. Effects on development land have considered direct (land-take) and indirect (access) impacts on/the delivery of any development proposals or allocations both within and adjacent to the Site Boundary.

Agricultural Land and Soils and Agricultural Land Uses

12.4.9 Impacts on agricultural land and soils, and consideration of impacts on agricultural land use consider land that falls within the DCO Site and Cable Corridor. This land would be directly impacted by the Proposed Development during its construction and operational phases.

Study Area Summary

12.4.10 **Table 12-3** presents the different components of the socio-economics and land use effects assessment for this ES **[EN010154/APP/6.1]**, the geographical scale at which each component is assessed, and the rationale behind these geographical scales.

Table 12-3: Study Area

Impact	Geographical Area of Impact	Rationale for Impact
Employment generation during construction phase, operational phase, and decommissioning phase (direct, indirect and induced impacts)	60-minute travel area	Research by Chartered Institute of Personnel and Development (CIPD) found that 90% of national employees commuted for 60 minutes or less each way. This was reported by CIPD in the 2018 Employee outlook 'Employee views on working life'.
Gross Value Added (GVA)[1] during construction phase		
Accommodation Services	30- and 60-minute travel area (drive time estimated using GIS data, based on the DCO Site and indicative DCO Site access points).	Professional judgement and experience from other similar proposals in England and Wales.

[1] Gross Value Added (GVA) is the measure of the value of goods and services produced in an area, industry or sector of an economy.

Impact	Geographical Area of Impact	Rationale for Impact
PRoW	Within, and up to 500m radius from the DCO Site and beyond this where routes extend outside this radius.	Professional judgement and experience from other similar proposals in England and Wales.
Agriculture and soils	The DCO Site	Professional judgement and experience from other similar proposals in England and Wales.
Local amenities- Residential Properties	500m radius from the DCO Site.	Professional judgement and location of sensitive receptors for impacts arising from the Proposed Development as informed by other assessments from similar developments.
Local amenities- Business Premises	500m radius from the DCO Site.	Professional judgement and location of sensitive receptors for impacts arising from the Proposed Development as informed by other assessments from similar developments.
Local amenities- Community Facilities	2km radius from the DCO Site.	Professional judgement and location of sensitive receptors for impacts arising from the Proposed Development as informed by other assessments from similar developments. Community facilities are likely to be accessed by residents from a wider catchment, especially in rural areas, owing to a tendency for provision to be sparse. A wider radius of 2km has been considered for this receptor in order to fully appreciate the effect of potential severance on access to these facilities.
Local amenities - Visitor Attractions	2km radius from the DCO Site.	Professional judgement and location of sensitive receptors for impacts arising from the Proposed Development as informed by other assessments from similar proposals. Visitor Attractions are likely to be accessed by residents from a wider catchment. A wider radius of 2km has therefore been considered for this receptor in order to fully appreciate the effect of potential severance on access to these facilities.
Local amenities - Recreational Facilities	2km radius from the DCO Site.	Professional judgement and location of sensitive receptors for impacts arising from the Proposed Development as

Impact	Geographical Area of Impact	Rationale for Impact
		informed by other assessments from similar proposals. Recreational facilities are likely to be accessed by residents from a wider catchment. A wider radius of 2km has therefore been considered for this receptor in order to fully appreciate the effect of potential severance on access to these facilities.
Development land	500m radius from the DCO Site.	Professional judgement and experience from other similar proposals in England and Wales.

Sources of Information

12.4.11 The following sources of information have been used to inform the baseline and preliminary assessment presented within this chapter.

12.4.12 Relevant policy has been considered at the local, regional and national levels to identify the key socio-economic and land use issues of relevance to the Proposed Development as detailed in **Section 12.2**. This included the adopted Central Lincolnshire Local Plan (Ref 12-10), and any relevant NPS (Ref 12-4; Ref 12-5) and NPPF (Ref 12-6) requirements.

12.4.13 Baseline data illustrating the existing socio-economic conditions within and surrounding the DCO Site, including employment and the economy, has been collected through a desk-based research exercise using publicly available sources, documents, and web-based applications. These sources are listed below.

12.4.14 Sources of information include:

a. Ministry of Housing, Community and Local Government (2019) English Indices of Deprivation (2019) (Ref 12-12);

b. Lincolnshire County Council, Online PRoW map (Ref 12-26);

c. Office for National Statistics (ONS) (2023) 2021 Census Data (Ref 12-13);

d. ONS (2024) Regional Gross Value Added (balanced) by Industry: local authorities by ITL1 Region (Ref 12-16);

e. ONS, (2024), Regional Gross Value Added (balanced) by Industry: All ITL Regions (Ref 12-17);

f. ONS (2024) UK Business Register and Employment Survey (Ref 12-18);

g. ONS (2023) Annual Population Survey (October 2023-September 2024) (Ref 12-19);

h. ONS (2023) Annual Population Survey (January 2023 to December 2023) (Ref 12-21);

i. CoStar (2025) (Ref 12-31); and

j. ONS (2012) Census 2021 (Ref 12-20).

Agricultural Land Classification (ALC) Survey

12.4.15 An ALC survey has been undertaken for the Principal Site, as deemed necessary to determine the ALC quality of the land. The socio-economics and land use assessment in this ES **[EN010154/APP/6.1]** reflect where relevant the findings of the ALC survey in the assessment of agricultural land.

12.4.16 The soil survey of a defined Cable Corridor is proposed to be undertaken post-consent, secured in the **Framework CEMP [EN010154/APP/7.7]**. The restoration to pre-construction condition of the soil resource is included in the **Framework Soil Management Plan [EN010154/APP/7.10]** which is secured under the **Framework CEMP [EN010154/APP/7.7]**). Survey of the Cable Corridor would not provide additional information to avoid BMV land because the proposed NatPower Brant BESS scheme (a cumulative scheme discussed in **Chapter 15: Cumulative Effects and Interactions**, and shown on **Figure 15-2** of this ES **[EN010154/APP/6.2]**) is located within the Cable Corridor and will therefore have a shared cable corridor; flexibility is needed at this stage to ensure both the Proposed Development and this scheme are deliverable. It is also necessary to avoid above ground environmental constraints. Planning guidance requires conservation of BMV land reflecting its importance for agricultural production. Whether the corridor would be in BMV or non-BMV land, it would be restored to the same grade through the measures and controls contained within the **Framework Soil Management Plan [EN010154/APP/7.10]**, which is secured in the **Framework CEMP [EN010154/APP/7.7]**). The cable will require excavation of a trench approximately 3m wide by up to 3m deep, which is below the depth of agricultural cultivation, and the disruption to agricultural land would be short-term and temporary, with no permanent loss of BMV land.

Scope of the Assessment

12.4.17 The following potential impacts have been considered as part of this ES **[EN010154/APP/6.1]** for the Proposed Development for which an assessment is provided in **Section 12.7** of this chapter:

a. During the construction phase:
   i. Temporary employment generation;
   ii. GVA generation;
   iii. Impacts on temporary accommodation from construction workforce;
   iv. PRoW and permissive paths;
   v. Tourism/recreation; and
   vi. Local amenities and land use (agricultural land use and soils; residential properties; business premises; community facilities; and development land).

b. During operation (and maintenance):
   i. Permanent employment generation;

ii. PRoW and permissive paths;

iii. Tourism/recreation; and

iv. Local amenities and land use (agricultural land use and soils; residential properties; business premises; community facilities; and development land).

c. During decommissioning activities:

i. Temporary employment generation and permanent job loss;

ii. PRoW and permissive paths;

iii. Tourism/recreation; and

iv. Local amenities and land use (agricultural land use and soils; residential properties; business premises; community facilities; and development land).

Impact Assessment Methodology

12.4.18 There is currently no statutory guidance on the methodology for undertaking assessments of socio-economic and land use effects. The assessment follows best practice methodology and professional judgement from other assessments undertaken on comparable energy infrastructure projects.

12.4.19 Guidance related to soil resources and agricultural land has been developed by the Institute of Environmental Management and Assessment (IEMA) (Ref 12-35). The guidance is not prescriptive but offers a reference document in the form of a land and soil handbook, to allow interpretation by soil specialists appropriate to the sensitivity of the environment.

12.4.20 This section sets out the scope and methodology for the socio-economics and land use assessment of the Proposed Development.

12.4.21 The Proposed Development has the potential to have a range of temporary and permanent socio-economic and land use effects. For the purposes of this ES **[EN010154/APP/6.1]**, based on professional judgement and experience, as well as national planning policy, due consideration is given to the Proposed Development in terms of effects on the following:

a. Employment generation (temporary and long-term) related to agricultural industries as well as induced employment created through increased spending across the Study Area;

b. GVA from construction employment and activities;

c. Impacts on local accommodation facilities from influx of temporary workers;

d. Agricultural land and soils including assessment of the potential temporary and permanent loss, including reference to the results of the ALC survey (presented in **Appendix 12-B** of this ES **[EN010154/APP/6.3]**) and

e. Local amenities and land use (including impacts on residential properties, business properties, tourism/visitor attractions, recreational facilities and open space, including PRoW and permissive paths, community facilities

and development land (including summary of assessment of MSAs, presented in **Appendix 12-C [EN010154/APP/6.3]**).

Additionality Assumptions

12.4.22 As mentioned in **Table 12-3**, the economic impact of the Proposed Development is considered relative to a 60-minute travel time (car or road-based public transport) to or from the Proposed Development in any direction. In accordance with research, this is considered a reasonable timeframe to use as a baseline within which workers would commute to the Proposed Development.

12.4.23 Additionality[2] has been calculated by considering the overall job gains to the area, then factoring in the level of leakage, number of displaced jobs and multiplier effects, such as supply chains and worker spending related jobs. These assumptions have been informed by the HCA Additionality Guide (Ref 12-11).

12.4.24 The values that have been allocated within the construction, operational and decommissioning phases' additionality formula, are outlined in **Table 12-4,** enabling the tailored calculation of the net additional employment and economic impacts. Justification for the values have been given and are summarised in the right-hand column of **Table 12-4**.

Table 12-4: Construction, Operational and Decommissioning Phases Economic Additionality Assumptions Scale

Additionality Factor	Value	Justification
Leakage (% of jobs that benefit those residents outside of the Study Area area).	55%	This is the proportion of jobs taken by people who live outside of the Study Area, defined as a 60-minute travel area. Based on professional judgment and other similar proposals, given the specialised nature of the construction, operation and maintenance roles, this has been estimated to be 55%.
Displacement (% of jobs that account for a reduction in related jobs in the Study Area).	25%	For the purpose of this assessment, a low level of displacement of 25% of the gross employment opportunities created has been assumed, in line with the HCA Additionality Guide (Ref 12-11). This level of displacement reflects that there are expected to be some displacement effects, although these are only to a limited extent. This displacement level is assessed as appropriate for the construction, operation and decommissioning of the Proposed Development, as used in other comparable solar proposals.
Multiplier (further economic activity associated with the additional local income, supplier purchase and	1.5	The multiplier is a composite figure which takes into account both the indirect jobs created across the Study Area (60-minute travel area) based on supply chain activity but also the induced employment created through increased spending across the

[2] Additionality is defined as the extent to which something happens as a result of an intervention that would not have occurred in the absence of the intervention.

Additionality Factor	Value	Justification
longer-term development effects).		Study Area. The HCA Additionality Guide (Ref 12-11) provides a 'ready reckoner' of composite multipliers. The Study Area is likely to have 'average' supply linkages and induced effects based on the scale of its economy. Therefore, a 'medium' multiplier of 1.5 is determined from the HCA guidance to be the most appropriate measure.

Significance Criteria

12.4.25 The assessment of potential socio-economic effects uses the effect significance terms and definitions described within **Chapter 5: EIA Methodology** of this ES **[EN010154/APP/6.1]**. Where practicable, socio-economic impacts have been appraised against relevant national standards, such as those provided by the Department for Energy Security and Net Zero and HCA. Where relevant standards do not exist, professional experience and expert judgement have been used to assess the scale and nature of the effects of the Proposed Development against baseline conditions.

12.4.26 The assessment aims to be objective and quantifies effects as far as practicable. However, some effects can only be evaluated on a qualitative basis. Effects are defined as follows:

a. **Beneficial** classifications of significance indicate an advantageous or beneficial effect on an area, which may be minor, moderate, or major in effect;

b. **Negligible** classifications of significance indicate imperceptible effects on an area;

c. **Adverse** classifications of significance indicate a disadvantageous or adverse effect on an area, which may be minor, moderate, or major in effect; and

d. **No effect** classifications of significance indicate that there are no effects on an area, resource or receptor.

12.4.27 The geographical scales considered to assess significance are described in **Table 12-3**.

12.4.28 Duration of effect is also considered, with more weight given to long-term and permanent changes than to temporary ones. Permanent effects are those which are unable to be reversed following decommissioning. Reversible long-term effects endure throughout the Proposed Development but cease once decommissioned. Temporary effects are those associated with the construction or decommissioning works only. For the purposes of this assessment, short-term effects are of one year or less, medium-term effects are of one to five years, and long-term effects are for over five years.

12.4.29 For socio-economics there is no accepted definition of what constitutes a significant (or not significant) socio-economic effect. It is however recognised that 'significance' reflects the relationship between the scale of effect (magnitude) and the sensitivity (or value) of the affected area, resource or receptor. As such the significance criteria of socio-economic effects has been

assessed based on expert judgment and professional experience of the author, and relies on the following considerations:

a. **Sensitivity of resources/receptors:** specific values in terms of sensitivity are not attributed to socio-economic resources / receptors due to their diverse nature and scale; however, the assessment takes account of the qualitative (rather than quantitative) 'sensitivity' of each receptor and, in particular, their ability to respond to change based on recent rates of change and turnover (if appropriate);

b. **Magnitude of impact:** this entails consideration of the size of the effect on people or business in the context of the area in which effects will be experienced; and

c. **Scope for adjustment:** the socio-economic assessment is concerned in part with economies. These adjust themselves continually to changes in supply and demand, and the scope for the changes brought about by the Proposed Development to be accommodated by market adjustment will therefore be a criterion in assessing significance.

12.4.30 Criteria for receptor sensitivity and impact magnitude have been set out below (although specific sensitivity values are not attributed to socio-economics receptors as explained above), which have been grouped as follows: economic impacts, local amenities, land use impacts, PRoW, and agricultural land. The significance of effect matrix has been provided in **Table 12-14**, following the receptor sensitivity and impact magnitude criteria.

Economic Impacts

12.4.31 The following criteria have been set to assess the effects on socio-economic receptors in relation to employment, GVA and temporary accommodation which have been grouped together as economic impacts.

12.4.32 **Table 12-5** identifies the sensitivity criteria that have been used to inform the assessment on socio-economic receptors relating to employment, GVA and temporary accommodation, in conjunction with the magnitude criteria set out above to establish the significance of the identified effects.

Table 12-5: Economic Impact Sensitivity Criteria

Sensitivity	Description
High	Businesses, workers or residents who have little or no capacity to experience the impact without incurring an economic loss or have capacity to experience an economic gain.
Medium	Businesses, workers or residents that have some capacity to experience the impact without incurring a change on their economic well-being.
Low	Businesses, workers or residents that generally have good capacity to experience impacts without incurring a change on their economic well-being.
Very low	Businesses, workers or residents that are resilient to impacts on their economic well-being.

12.4.33 **Table 12-6** identifies the magnitude of impact criteria which have been used to assess the socio-economic receptors relating to employment, GVA and temporary accommodation.

Table 12-6: Economic Impact Magnitude Criteria

Magnitude	Description
High	An impact that is expected to have considerable adverse or beneficial socio-economics effects. Such impacts will typically affect large numbers of businesses, workers or residents.
Medium	An impact that will typically have a noticeable effect on a moderate number of businesses, workers or residents, and will lead to a small change to the Study Area's baseline socio-economic conditions.
Low	An impact that is expected to affect a small number of businesses, workers or residents or an impact that may affect a larger number of receptors but does not materially alter the Study Area's baseline socio-economic conditions.
Very low	An impact which has very little change from baseline conditions where the change is barely distinguishable, approximating to a "no change" situation.

Public Rights of Way

12.4.34 The following criteria have been set to assess the effects on users of PRoW focusing on the impact of disruption to existing routes and the resulting changes in journey lengths and times and local travel patterns.

12.4.35 **Table 12-6** identifies the sensitivity criteria that have been used to inform the assessment on PRoW, in conjunction with the magnitude criteria set out above to establish the significance of the identified effects.

Table 12-7: Public Rights of Way Impact Sensitivity Criteria

Sensitivity	Description
High	PRoW is of high importance with limited potential to substitute with other route options to access with the wider network or community infrastructure.
Medium	PRoW is of medium importance with good potential to substitute with other route options to access with the wider network or community infrastructure; or PRoW is of high importance with alternative routes available; or PRoW is of low importance with limited potential to substitute with other route options to access with the wider network or community infrastructure.
Low	PRoW is of minor importance and with alternative routes available; or PRoW is of very low importance with moderate potential to substitute with other route options to access with the wider network or community infrastructure.
Very low	PRoW is of negligible importance and/or with alternative routes easily available.

12.4.36 **Table 12-8** identifies the magnitude of impact criteria which have been used to assess the impacts on PRoW.

Table 12-8: Public Rights of Way Magnitude Criteria

Magnitude	Description
High	Substantial increase/decrease in journey length and/or travel patterns and increased/decreased opportunities for users to access the wider network and/or community infrastructure.
Medium	Noticeable increase/decrease in journey length and/or travel patterns and increased/decreased opportunities for users to access the wider network and/or community infrastructure.
Low	Slight increase/decrease in journey length and/or travel patterns and increased/decreased opportunities for users to access the wider network and/or community infrastructure
Very low	A negligible increase, no change, or a decrease in journey length and/or travel patterns and no increase or decrease in opportunities for users to access the wider network and/or community infrastructure.

Agricultural Land

12.4.37 This section outlines the criteria that have been set to assess the effects on agricultural land and soils receptors.

12.4.38 Best and Most Versatile (BMV) agricultural land is a strategic, finite, and irreplaceable national resource with longstanding policy protection to prevent the unnecessary loss of such land to non-agricultural development. As set out in Natural England Technical Information Note TIN049 (TIN049) (Ref 12-22), land in ALC Grades 1, 2 and Subgrade 3a are considered to be the nation's best and most versatile land. Paragraph 2.10.29 of the NPS for Renewable Energy Infrastructure (EN-3) (Ref 12-5) states that 'poorer quality land should be preferred to higher quality land avoiding the use of "Best and Most Versatile" agricultural land where possible'. Paragraph 188 of the NPPF (Ref 12-6) directs that planning should consider the economic and other benefits of the BMV agricultural land. Policy S67 of the Central Lincolnshire Local Plan (Ref 12-10) establishes the specific conditions under which BMV land may be developed, including (where feasible) that when a development has ceased its useful life the land will be restored to its former use. TIN049, NPS EN-3 and the NPPF do not seek to enforce continuity of agricultural production or any specific agricultural management.

12.4.39 For all practical intents and purposes, agricultural land cannot be created or translocated, nor can a compensatory area of land have its ALC grade enhanced. There is therefore no viable potential for beneficial effect or mitigation with regard to agricultural land quality.

12.4.40 The IEMA guidelines (Ref 12-35) provide threshold areas for the permanent sealing of land or land quality downgrading that have been adopted for assessment of the Proposed Development. Long-term reversible development presents a low-impact magnitude, following the IEMA guidelines. The magnitude of change criteria are presented in **Table 12-9**.

Table 12-9: Magnitude Criteria - Agricultural Land

Magnitude	Threshold

High	Permanent irreversible loss (including permanent sealing or land quality downgrading) or permanent improvement of one or more soil functions or soil volumes (due to remediation or restoration) over >20 ha of agricultural land.
Medium	Permanent irreversible loss (including permanent sealing or land quality downgrading) or permanent improvement of one or more soil functions or soil volumes (due to remediation or restoration) over >5 ha and <20 ha of agricultural land.
Low	Permanent irreversible loss (including permanent sealing or land quality downgrading) or permanent improvement of one or more soil functions or soil volumes (due to remediation or restoration) <5 ha. Temporary loss / reduction of one or more soil function(s) and restriction to current or approved future use (e.g., through degradation, compaction, erosion of soil resource).
Very low	No discernible loss / reduction of soil function(s) that restrict current or approved future use.

12.4.41 The sensitivity of the DCO Site is determined by the ALC conditions. The sensitivity of BMV land is high for Grades 1 and 2 land and medium for Subgrade 3a, as set out in **Table 12-10**.

Table 12-10: Receptor Sensitivity Criteria - Agricultural Land

Sensitivity	Agricultural Land
High	Agricultural land predominantly in Grades 1 and 2
Medium	Agricultural land in Subgrade 3a
Low	Agricultural land containing in Subgrade 3b
Very low	Agricultural land in Grades 4 and 5

12.4.42 The criteria for determining impact magnitude and sensitivity of agricultural soils are combined in a matrix of significance of effects, presented in **Table 12-14**.

Local Amenities and Development Land

12.4.43 The following criteria have been set to assess the effects on local amenities which for this Proposed Development comprise residential properties, business premises, visitor attractions, recreational facilities, community facilities and development land.

12.4.44 **Table 12-11** identifies the sensitivity criteria that have been used to inform the assessment of effects relating to local amenities, which in conjunction with the

magnitude criteria set out in **Table 12-11** has been used to establish the significance of the identified effects.

Table 12-11: Local Amenities Impact Sensitivity Criteria

Sensitivity	Description
High	Amenity or land use is of high importance and rarity with limited potential for substitution or access to alternatives.
Medium	Amenity or land use is of medium importance and rarity with moderate potential for substitution or access to alternatives.
Low	Amenity or land use is of low importance and rarity with alternatives available.
Very low	Amenity or land use is of very low importance and rarity with alternatives available.

12.4.45 The magnitude of change on local amenities (residential properties, business premises, visitor attractions, recreational facilities and community facilities) is assessed by appraising the level of impact on the receptor and the permanency of change arising from the Proposed Development based on the residual effects assessment findings of environmental topics, namely, noise and vibration, visual, air quality and transport. This considers whether or not when two or more adverse effects occur at the same time on the same receptor or group of receptors (for residential properties, a minimum of five properties) as concluded by separate topics there is the potential for an in-combination significant effect on the receptor's amenity or enjoyment. **Table 12-12** identifies the magnitude of impact criteria which have been used to assess the impacts on local amenities and land use.

Table 12-12: Local Amenities Impact Magnitude Criteria

Magnitude	Description
High	An impact that permanently or long term affects the integrity and value of a facility or land use; or that considerably enhances the value and quality of a facility or land use. Generally, this will equate to where three or more moderate or major significance residual effects are identified with at least two or more effects being of major significance on a receptor from across the following environmental topics findings; noise, air quality, transport, or visual.
Medium	An impact that causes a noticeable negative effect on the value of a facility or land use, but where its recovery is possible with no permanent or long-term impacts; or an impact that leads to some noticeable improvement in key characteristics and features of the facility or land use. Generally, this will equate to where two or more moderate or major significance residual effects are identified with at least one effect being of major significance on a receptor from across the following environmental topics findings; noise, air quality, transport, or visual.
Low	An impact that has some negative effect on the value of a facility or land use, but a recovery is expected in the short-term with no change to its integrity; or an impact that has some beneficial impact on the attributes of the facility or land use. Generally, this will equate to where two residual effects which are not worse than moderate in significance are identified on a receptor from

Magnitude	Description
	across the following environmental topics findings; noise, air quality, transport, or landscape and visual.
Very low	An impact which is a very small loss or benefit from baseline conditions where the change is barely distinguishable, approximating to a "no change" situation. Generally, this will equate to either where only one moderate or major significance residual effect is identified on a receptor from across the following environmental topics findings; noise, air quality, transport, or visual, or where all of these findings are minor adverse or negligible. An impact which is a very minor loss or benefit from baseline conditions where the change is barely distinguishable, approximating to a "no change" situation.

12.4.46 For development land, an assessment has been undertaken of the effects on development land within the Study Area as identified from a review of planning applications which have received planning permission, or which are under consideration and allocated Sites including MSAs, Mineral Consultation Areas, Waste Consultation Areas and Transport Safeguarded Areas. This is considering temporary and permanent land take of development land which affects its viability. **Table 12-13** identifies the magnitude of impact criteria which have been used to assess the impacts on development land.

12.4.47 The assessment of effects for development land considers the potential for the Proposed Development to conflict with, hinder or otherwise adversely affect development land. Meanwhile, the cumulative effects section of this chapter (see **Section 12.10** of this chapter) considers whether the Proposed Development and the identified proposed developments and allocations might together cause significant effects.

Table 12-13: Local Amenities Impact (Development Land) Magnitude Criteria

Magnitude	Description
High	An impact that permanently affects the integrity and value of a development land resource; or an impact that considerably enhances the value and quality of such a resource.
Medium	An impact that negatively affects the value of a development land resource, but a recovery is possible with no permanent impacts; or an impact that improves key characteristics and features of such a resource
Low	An impact that negatively affects the value of a development land resource, but a recovery is expected in the short-term with no change to its integrity; or an impact that has some beneficial impact on the attributes of such a resource
Very low	An impact which is a very minor loss or benefit from baseline conditions where the change is barely distinguishable, approximating to a "no change" situation.

Significance of Effects

12.4.48 Socio-economic and land use effects reflect the relationship between the sensitivity of the affected receptor and the magnitude of the impact. **Table 12-14** shows how the assessment of the significance of effects is reached.

Table 12-14: Impact Assessment and Significance

Sensitivity or Value of Resource / Receptor	Magnitude of Change				
	High	**Medium**	**Low**	**Very Low**	**No change**
Very High	Major	Major	Major	Minor	Neutral
High	Major	Major	Moderate	Minor	Neutral
Medium	Major	Moderate	Minor	Negligible	Neutral
Low	Moderate	Minor	Negligible	Negligible	Neutral
Very Low	Minor	Negligible	Negligible	Neutral	Neutral

12.4.49 In accordance with the methodology set out within **Chapter 5: EIA Methodology** of this ES **[EN010154/APP/6.1]**, the following criteria is applied:

a. 'Moderate' or 'major' impacts are classed as '**significant**';

b. 'Minor' impacts are classed as '**not significant'**, although they may be a matter of local concern; and

c. 'Negligible' effects are classed as '**not significant'**.

Assessment Assumptions and Limitations

12.4.50 The assessment of the significance of effects has been carried out against a benchmark of current socio-economic baseline conditions prevailing around the DCO Site, as far as is practicable within the limitations of such a dataset. The most recently available data sources have been used in this ES chapter **[EN010154/APP/6.1],** although it should be noted that baseline data can be subject to a time lag between collection and publication. As with any dataset, these conditions may be subject to change over time which may influence the findings of the assessment.

12.4.51 Effects on local assets and land use during the construction, operation and decommissioning phases are based on preliminary assessments, taking into consideration the results from the relevant environmental studies that can act in combination to cause effects to occur. These studies comprise the transport and access, noise and vibration, landscape and visual amenity, and air quality assessments. Where any two or more of these topics each record a significant effect on a receptor or group of receptors, it will be assumed as a worst-case that the effect could occur at the same time.

12.4.52 As noted in **Chapter 3: The Proposed Development** of this ES **[EN010154/APP/6.1]**, the construction period is expected to take 24 months or to be phased over 30 months, and, subject to being granted consent, construction is anticipated to start in 2031. The construction period could be longer in duration; however, a 24-month programme is expected to be a realistic worst-case assumption for the consideration of amenity and accessibility effects within this socio-economic and land use assessment, as it represents the expected minimum build time and therefore the most intense activity onsite (and therefore greatest impacts associated with traffic, noise, dust, visual amenity, etc). This approach may mean the maximum number of

jobs during peak construction has been overestimated; however, the overall amount of construction activity over the construction period and therefore the associated employment and spending benefits of the Proposed Development overall would remain unchanged.

12.5 Baseline Conditions

Existing Baseline

12.5.1 This section describes the baseline environmental characteristics within and surrounding the DCO Site with specific reference to socio-economics and land use.

12.5.2 Potential effects arising from the Proposed Development are assessed relative to the baseline impact areas of the relevant Study Areas, North Kesteven, the East Midlands, and England and Wales, benchmarked against local, regional and national standards where appropriate. This section therefore establishes the baseline conditions relative to this area in comparison to the wider East Midlands region, and England and Wales.

12.5.3 Key indicators and measures of the Study Area have been established for:

a. Existing Site and land use;
b. Agricultural land and soils;
c. Population and labour force;
d. Local economy; and
e. Local receptors.

Existing Site and Land Use

12.5.4 The DCO Site (**Figure 1-2** of this ES **[EN010154/APP/6.2]**) lies within the county of Lincolnshire, within the district of North Kesteven. The DCO Site comprises the Principal Site and the Cable Corridor.

12.5.5 **Chapter 2: The Site and Surroundings** of the ES **[EN010154/APP/6.1]** contains a detailed description of existing conditions within and surrounding the DCO Site Boundary.

12.5.6 The Principal Site is currently mostly used for agricultural purposes, being characterised by large scale regular-shaped arable fields across a number of land-holdings. The landscape is interspersed with individual trees, woodlands, hedgerows, linear tree belts, farm access tracks, and local transport roads.

12.5.7 The Cable Corridor passes through largely agricultural land, to the north of Boothby Graffoe and to the east of Navenby.

12.5.8 The A46 intersects the DCO Site within the northern section of the Principal Site, and the A607 intersects the Cable Corridor. Local minor roads including Moor Lane, Bassingham Road, Clay Lane, Thurlby Road, Stone Lane, Fen Lane, The Avenue and Fosse Lane are located within or adjacent to the Principal Site. In addition to the A607, the Cable Corridor crosses Broughton Lane, Heath Lane and Green Man Lane. The Cable Corridor crosses the River

Witham, which also passes through the Principal Site, as does the River Brant. There is no operational railway infrastructure within the DCO Site.

12.5.9 With respect to recreational routes, there is a network of numerous PRoW and existing permissive paths which traverse the Principal Site and provide pedestrian connectivity between adjacent settlements. There are also several PRoW which could be impacted by the Cable Corridor temporarily during construction. The PRoW network within and surrounding the DCO Site is shown on **Figure 2-2** of this ES **[EN010154/APP/6.2]**. More information on this impact is provided in **Chapter 13: Traffic and Transport** of this ES **[EN010154/APP/6.1]**.

Agricultural Land and Soils

12.5.10 Planning policy recognises the importance, for agriculture, of BMV land, which is ALC classification Grades 1, 2, and Subgrade 3a [3].

12.5.11 Mapping of soils has been prepared based on surveys of the Principal Site and presented in **Appendix 12-B: Agricultural Land Classification Report** of this ES **[EN010154/APP/6.3]**. The land is predominantly Subgrade 3b (moderate quality agricultural land) with the remainder BMV land of Subgrade 3a (good quality agricultural land), with some non-agricultural land. No areas of ALC Grade 1 or 2 have been identified within the Principal Site. The data from the ALC Survey Report are shown on **Figure 12-5**.

12.5.12 The agricultural land quality survey has been undertaken of 1,018.7ha of land in the Bassingham and Navenby areas within the Principal Site, between April and October 2023, and August 2024. The ALC survey report (**Appendix 12-B: Agricultural Land Classification Report)** covered a slightly larger area than the DCO Site boundary, based on an earlier iteration of the Site. The data reported in this chapter reflects the Principal Site boundary. At the time of the survey the majority of land was under arable cropping, with some land in grass for silage and/or sheep grazing.

12.5.13 Overall15ha (3.1%) of the surveyed land was identified as non-agricultural including, urban, woodland or made ground. A small area (1.9 ha) was inaccessible for survey because of the presence of livestock. Minor changes to the Site and/or other unspecified reasons for inaccessibility mean that there are no data for 16.5ha of land. Over this small proportion of the Site (1.8 per cent) it would be possible to extrapolate data from neighbouring sample points. However, further post-consent field survey of the Cable Corridor is proposed and true data acquisition for the missing areas, at that stage, was considered preferable to extrapolation. . . Subgrade 3a (BMV land) extended to 282.9ha (27.8%) of the surveyed land, while 702.4ha (68.9%) was ALC Subgrade 3b. Limiting soil factors in determining the ALC grades relate to droughtiness, wetness class or soil depth.

[3] The Agricultural Land Classification (ALC) system, provides a framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations on agricultural use. The ALC system divides agricultural land into five grades (Grade 1 'excellent' to Grade 5 'very poor'), with Grade 3 subdivided into Subgrade 3a 'Good' and Subgrade 3b 'Moderate'. ALC is based upon an assessment of limiting factors, including soils, climate and other physical limitations and the way in which these factors interact.

12.5.14 The distribution of ALC grades within the Principal Site is shown in **Table 12-15** below.

Table 12-15: Agricultural Land Classification within the Principal Site

Agricultural Land Class	Total Area (Ha)	Percentage of the Principal Site (%)
Grade 1	0	0
Grade 2	0	0
Subgrade 3a	282.9	27.8
Subgrade 3b	702.4	68.9
Grade 4	0	0
Grade 5	0	0
Non-agricultural land	15.0	1.5
Total BMV agriculture land	282.9	27.8
Total Non-BMV agriculture land	702.4	69.0
Not surveyed/inaccessible	18.4	1.8
Total	**1,018.7**	**100**

12.5.15 Provisional ALC mapping of the Cable Corridor is principally Grade 3 with inclusion of areas of Grade 2, east of the A607.

Population and Labour Force

Population

12.5.16 According to the ONS 2021 Census (Ref 12-13) and 2011 Census (Ref 12-20), between 2011 and 2021, the residential population of the 60-minute travel area Study Area increased from 4,327,000 in 2011 to 4,794,438 in 2021. This represents an increase of 10.8% which is a higher growth rate when compared to the population increases exhibited in each of the East Midlands and England and Wales areas during the same time period (6.3% and 7.7% respectively). More recent Annual Population Survey (APS) data is available for the age cohorts. Of residents within the 60-minute travel Study Area, 61.3% were of working age (defined by ONS as men and women aged 16 to 64). This is lower than that recorded for the East Midlands (62.3%) and England and Wales as a whole (62.9%) (Ref 12-21). The 60-minute travel area Study Area has a higher proportion of residents aged 65+ (20%) in comparison to the regional (19.6%) and the national (18.7%) average.

Economic Activity

12.5.17 According to the APS (Ref 12-19), in 2023-24 (the most recent available data) the unemployment rate among working age residents in the 60-minute travel area Study Area was 4.5% This is higher than the rate recorded for the East Midlands (4.1%) and the rate recorded for England and Wales (3.8%).

12.5.18 Residents of working age residing in the 60-minute travel area Study Area had an economic activity rate of 76.5%, lower than rates recorded for East Midlands (79.5%) and for England and Wales (78.6%). This is shown in **Table 12-16**.

Table 12-16: Economic Activity and Unemployment

Economic Indicator	60-minute travel area Study Area	East Midlands	England and Wales
Economic activity rate for residents aged 16-64)	76.5%	79.5%	78.6%
Unemployment rate (for residents aged 16-64)	4.5%	4.1%	3.8%

Source: Annual Population Survey (Oct 2023-Sep 2024)

12.5.19 Claimant Count data shows the proportion of residents aged 16-64 claiming Jobseeker's Allowance or Universal Credit (Ref 12-30). In North Kesteven, 2% of residents aged 16-64 are claimants, a lower proportion than that in East Midlands (3.6%) and England and Wales (4.2%).

Qualifications

12.5.20 According to 2023 Annual Population Survey data, the latest available data on educational attainment, 36.3% of working age residents within the 60-minute travel area Study Area had a degree level qualification or higher (National Vocational Qualification (NVQ) Level 4+) (Ref 12-21). This is lower than the rates recorded for the East Midlands (40.2%) and England and Wales (46.6%). The proportion of residents in the 60-minute travel area Study Area with no qualifications was 9.7%, which is higher than rates recorded for East Midlands (7.7%) and England and Wales (6.3%) (Ref 12-21).

Deprivation

12.5.21 Based on the 2019 Indices of Multiple Deprivation (IMD) (Ref 12-25), which is measured at local authority level, North Kesteven is in the top 15% of the least deprived local authority areas in England, ranked 268th out of 317 (where 1 is most deprived). None of the Lower Super Output Areas (LSOAs) in North Kesteven are ranked amongst the 20% most deprived LSOAs nationally. Accordingly, 61% of LSOAs in North Kesteven are ranked amongst the 30% least deprived nationally.

12.5.22 With respect to the sub-domains of deprivation, the average employment domain rank of the LSOAs in North Kesteven is 18,933. The average LSOA decile is 6, indicating that North Kesteven is less deprived than average in respect of employment when compared with the average for England.

Local Economy

Industry

12.5.23 **Table 12-17** presents a detailed breakdown of employment by broad industry group in the 60-minute travel area Study Area, the East Midlands, and England and Wales. Based on the most recently available Business Register and

Employment Survey data published for 2023 (Ref 12-18) on employment by group, the highest levels of employment in the 60-minute travel area Study Area (60-minute drive time radius) are recorded in health (14.4% of employment), manufacturing (12.8%) education (8.9%) and retail (8.5%) sectors.

12.5.24 Specific to this assessment, the construction sector contributes 4.8% of employment within the 60-minute travel area Study Area, which is higher than the proportions recorded regionally (4.3%) and nationally (4.7%). There are approximately 94,000 people employed in construction within the 60-minute travel area Study Area.

12.5.25 The mining, quarrying and utilities broad industrial group (which includes employment from the generation of energy) is less prominent in the 60-minute travel area Study Area (1.6%), however employment exceeds regional (1.4%) and national (1.1%) proportions.

Table 12-17: Employee Jobs by Broad Industrial Group in 2021

Sector	60-minute travel area Study Area (%)	East Midlands (%)	England and Wales (%)
Agriculture, Forestry and Fishing	0.1	0.7	0.5
Mining, Quarrying and Utilities	1.6	1.4	1.1
Manufacturing	12.8	12.3	7.5
Construction	4.8	4.3	4.7
Motor Trades	2.6	2.3	1.7
Wholesale	4.6	4.9	3.7
Retail	8.5	8.0	8.2
Transport and Storage	7.7	7.0	5.0
Accommodation and Food Services	6.7	7.0	7.9
Information and Communication	2.7	2.7	4.6
Financial and insurance	1.3	1.4	3.4
Property	1.5	1.7	1.9
Professional, Scientific and Technical	6.6	7.4	9.4
Business Administration and Support	7.7	7.6	8.8
Public Administration and Defence	3.8	4.1	4.6
Education	8.9	9.0	8.6

Sector	60-minute travel area Study Area (%)	East Midlands (%)	England and Wales (%)
Health	14.4	14.6	13.7
Arts, Entertainment, Recreation and Other	3.6	3.8	4.5

Source: ONS (2024), Business Register and Employment Survey 2023

GVA Output

12.5.26 GVA data is provided at local authority level for 2022 by ONS (Ref 12-16). North Kesteven's total GVA in 2022 was £3,188 million, approximately 2.5% of East Midland's GVA in 2022 (£128,795 million) (Ref 12-17). The largest industry in North Kesteven is wholesale and retail trade/repair of motor vehicles, comprising £483 million of North Kesteven's GVA (15.2%). The second largest industry by proportion of GVA is public administration and defence (£446 million, 14.0%), followed by manufacturing (£422 million, 13.2%).

12.5.27 In the East Midlands, the average GVA per worker in the construction sector was £104,000 in 2022. This is derived by dividing the GVA in the East Midlands construction industry (£9,473 million) into the number of construction workers stated in the Business Register and Employment Survey (£91,000) (Ref 12-18).

Local Receptors

Visitor Accommodation

12.5.28 There is an established tourism and visitor economy in the 30-minute travel area Study Area. In 2019, The Greater Lincolnshire visitor economy, which North Kesteven is a part of, was worth approximately £2.5 billion (Ref 12-14) and accounted for approximately 24,000 jobs. As reported in the North Kesteven District Council's Tourism Strategy (Ref 12-15) 2.9 million visitors visited North Kesteven for days or holidays in 2023, generating a value of £201 million to the local economy and supporting over 2,000 jobs. This was a 21% uplift in economic impact compared to the previous year, indicating recovery back to pre-pandemic levels.

12.5.29 Visitors are considered to be most likely to stay within hotels, bed and breakfasts and inns when staying in the area. Data on the number of rooms available within a 30 and 60-minute drive area in the hotel, bed and breakfast and inns accommodation sector has been sourced from CoStar, a property resource website (Ref 12-31). As of 2025, there are approximately 1,714 rooms in local hotel, bed and breakfast and inns accommodation within a 30-minute drive of the DCO Site Boundary (**Figure 12-2** of this ES **[EN010154/APP/6.2]**), and 7,606 rooms within a 60-minute drive of the DCO Site Boundary (**Figure 12-1** of this ES **[EN010154/APP/6.2]**). As shown in **Table 12-18** and **Table 12-19** below, this number has been adjusted to reflect

typical availability based on seasonal occupancy rates from 2025, as reported by VisitEngland (Ref 12-32) below.

Table 12-18: Accommodation Capacity within a 30-Minute Drive Time Radius

Month	Typical Room Occupancy (%)	Inventory Rooms	Available Rooms After Existing Demand
January	65%	1,714	600
February	74%	1,714	446
March	74%	1,714	446
April	77%	1,714	394
May	79%	1,714	360
June	83%	1,714	291
July	85%	1,714	257
August	81%	1,714	326
September	84%	1,714	274
October	82%	1,714	309
November	81%	1,714	326
December	75%	1,714	429

Source: CoStar (2025). VisitEngland (2025).

Table 12-19: Accommodation Capacity within a 60-Minute Drive Time Radius

Month	Typical Room Occupancy (%)	Inventory Rooms	Available Rooms After Existing Demand
January	65%	7,606	2,662
February	74%	7,606	1,978
March	74%	7,606	1,978
April	77%	7,606	1,749
May	79%	7,606	1,597
June	83%	7,606	1,293
July	85%	7,606	1,141
August	81%	7,606	1,445
September	84%	7,606	1,217
October	82%	7,606	1,369
November	81%	7,606	1,445
December	75%	7,606	1,902

Source: CoStar (2025), VisitEngland (2025)

PRoW

12.5.30 With reference to Lincolnshire County Council's online PRoW map (Ref 12-26) there is an extensive network of routes across the Study Area (500m radius from the DCO Site), with a notable concentration extending from Thorpe on the Hill and a concentration of paths connecting settlements through the centre of the Study Area. These PRoW are shown in **Figure 2-2** of this ES **[EN010154/APP/6.2].** There is relatively sparse public access across the easternmost part of the Study Area and across land east of the River Brent.

12.5.31 There are 36 PRoW located within the Principal Site, these are included in **Table 12-20**. Further description of the PRoWs within the Principal Site are within the **Framework PRoW Management Plan [EN010154/APP/7.14]**.

Table 12-20: PRoW within the Principal Site and their length (m)

PRoW ID	PRoW Type	PRoW Length (m)
LL|TOTH|5/1	Public Footpath	370m
LL|TOTH|6/1	Public Footpath	955m
LL|TOTH|6A/1	Public Footpath	665m
LL|TOTH|6/2	Public Footpath	455m
LL|TOTH|6/3	Public Footpath	220m
LL|TOTH|7/1	Public Footpath	20m
LL|TOTH|7/2	Public Footpath	1,470m
LL|TOTH|7/3	Public Footpath	422m
LL|TOTH|11/1	Public Footpath	560m
LL|TOTH|11/2	Public Footpath	30m
LL|TOTH|12/1	Public Bridleway	830m
LL|TOTH|12/2	Public Bridleway	230m
LL|TOTH|12/3	Public Bridleway	1,125m
LL|TOTH|13/1	Public Footpath	830m
LL|TOTH|13/2	Public Footpath	830m
LL|TOTH|15/1	Public Footpath	1,080m
LL|TOTH|21/1	Public Footpath	170m
LL|Aubo|8/1	Restricted Byway	415m
LL|Aubo|9/1	Public Footpath	520m
LL|Aubo|10/1	Public Footpath	780m

PRoW ID	PRoW Type	PRoW Length (m)
LL|Aubo|12/1	Public Footpath	300m
LL|Aubo|11/1	Public Footpath	670m
LL|Aubo|11/2	Public Footpath	650m
LL|Aubo|12/2	Public Footpath	950m
LL|Aubo|13/1	Restricted Byway	635m
LL|Aubo|13/2	Restricted Byway	130m
LL|Bass|21/2	Restricted Byway	500m
LL|Bass|21/3	Restricted Byway	60m
LL|ThuN|1/1	Public Footpath	375m
LL|ThuN|2/1	Public Footpath	920m
LL|ThuN|5/1	Public Footpath	380m
LL|NoDi|1/1	Public Footpath	80m
LL|NoDi|1/2	Public Footpath	250m
LL|NoDi|4/1	Public Footpath	315m
LL|Swdb|4/1	Public Footpath	810m
LL|Swdb|5/1	Restricted Byway	860m

12.5.32 PRoW which run alongside the boundary or within close proximity to the DCO Site are LL|TOTH|16/2, LL|TOTH|17/1, LL|TOTH|18/1, LL|TOTH|18/2, LL|TOTH|18/3, LL|TOTH|522/1, LL|Swdb|6/2, LL|Aubo|3/1, LL|Bass|1/1, LL|Bass|2/1, LL|Bass|3/1, LL|Bass|4/1, LL|Bass|5/1, LL|Bass|4/2, LL|Bass|6/1, LL|Bass|7/1, LL|Bass|8/1, LL|Bass|10/1, LL|Bass|12/1, LL|Bass|13/1, LL|Bass|17/4, LL|Bass|20/1, LL|Bass|21/1, LL|Bass|22/1, LL|Bass|766/1, LL|ThuN|3/1.

12.5.33 There are a number of PRoW which could be temporarily impacted by the Cable Corridor. This is shown in **Figure 2-2** of this ES **[EN010154/APP/6.2]**. The considered PRoW are LL|Cole|3/1, LL|Cole|4/1, LL|Bass|23/1, LL|BooG|2/2 and LL|BooG|5/1.

12.5.34 There are also seven existing permissive paths within the DCO Site boundary, namely: 15BCDE, 15BCD1, 17E42A, 15BCD0, 15BCCF, 15BC81 and 15BCC0.

12.5.35 There are no on or off-road dedicated / marked cycling facilities within the immediate vicinity of the DCO Site. However, the surrounding rural local roads may be attractive to some cyclists as they are understood to be relatively lightly trafficked. The DCO Site could potentially be accessed by cyclists from

local settlements within a 2.5km cycle distance, including Thorpe on the Hill, Haddington, Aubourn, Witham St Hughs, Norton Disney and Bassingham.

12.5.36 The nearest National Cycle Network (NCN) route to the DCO Site is NCN Route 64 (between Harby and Lincoln) which is located approximately 3km to the north of the DCO Site. An existing NCN link route also runs in the vicinity of the southern extents of the DCO Site, which runs between Bassingham and Carlton-le-Moorland.

Residential Properties

12.5.37 There are individual and clusters of residential properties located in proximity to the Principal Site, in the following villages/landscape features:

a. Thorpe on the Hill, approximately 200m to the north;
b. Morton, approximately 300m to the west;
c. Witham St Hughs, approximately 150m to the west;
d. Thurlby, 200m to the east;
e. Haddington, 400m to the south east
f. Aubourn, 750m to the north east;
g. Bassingham, 150m to the east; and
h. Norton Disney, 550m to the west.

12.5.38 There are also individual, and clusters of, residential properties located in proximity to the Cable Corridor in the following villages/landscape features:

a. Boothby Graffoe situated approximately 100m south; and
b. Coleby, approximately 900m north.

Business Premises

12.5.39 There are multiple businesses within a 500m radius of the DCO Site, situated in the rural villages surrounding the DCO Site.

12.5.40 There are also multiple farms within and in close proximity to the DCO Site. These include:

a. Principal Site:
    i. Tonge's Farm;
    ii. River Farm;
    iii. Church Farm; and
    iv. Greengate Farm.
b. Within 500m of the DCO Site:
    i. Thorpe Grange Farm;
    ii. Sky Barn Farm;
    iii. Ansons Farm;
    iv. Greengate Farm;

v. Larker's Farm;
vi. Manor Farm;
vii. Highfield House Farm;
viii. Green Man Farm;
ix. Low Field Farm;
x. Witham Farm; and
xi. South Farm.

Recreational Receptors and Visitor Attractions

12.5.41 There are no recreational facilities or visitor attractions within the DCO Site. **Table 12-21** sets out the recreational facilities and visitor attractions that are located within 2km of the DCO Site.

Table 12-21: Visitor Attractions and Recreational Facilities

Recreational Facilities and Visitor Attractions	Description	Approximate Distance from the DCO Site
Principal Site		
Recreational Facilities		
Game Keeper	Pub in South Hykeham	850m
The Royal Oak	Pub in Aubourn	950m
Hammond Hall and Sports Centre	Community Sports Club in Bassingham	400m
Tunman Wood	Nature Reserve	0m
Whisby Nature Reserve within Witham Valley Country Park	Nature Reserve	800m
The Bugle Horn	Pub in Bassingham	350m
Norton Disney Fishing Pond	Fishing pond	200m
Lakeside Paddlesports Club	Canoe and Kayak club	1000m
Cable Corridor		
Recreational Facilities		
Tempest Arms	Pub in Coleby	700m
The Venue	Community Centre in Navenby	1.2km
Visitor Attractions		
Mrs Smith's Cottage	Museum in Navenby	1.3km
Somerton Castle	Castle	850m

Community Facilities

12.5.42 There are no community facilities within the DCO Site. **Table 12-22** sets out those which are within 2km.

Table 12-22: Community Facilities

Community Facility	Description	Approximate Distance from the DCO Site
Principal Site		
The John Hunt Memorial Wesleyan Church	Church in Thorpe on the Hill	230m
Read Faith Church	Church in North Hykeham	1.2km
Saint Germain Church	Church in Bassingham	50m
St Peter's Church	Church in Aubourn	1.2km
Saint Michael and All Angels' Church	Church in Bassingham	300m
Wesleyan Chapel	Place of Worship in Bassingham	260m
St Peter's Church	Church in Norton Disney	500m
St Marys Church	Church in Carlton-le-Moorland.	1.8km
South Hykeham Village Hall	Village Hall in South Hykeham	1.2km
Norton Disney Village Hall	Village Hall in Norton Disney	560m
Witham St Hughs Village Hall	Village Hall in Witham St Hughs	850m
Carlton Le Moorland Village Hall	Village Hall in Carlton Le Moorland	1.9km
Bassingham Surgery	Health Care Centre in Bassingham	500m
St Michael's C of E Primary School	Primary School in Thorpe on the Hill	450m
Swinderby All Saints C of E Primary School & Pre School	Primary School in Swinderby	1.5km
Bassingham Primary School	Primary School in Bassingham	300m
Cable Corridor		
Coleby Village Hall	Village Hall in Coleby	1.3km
Coleby C Of E Primary School	Primary School in Coleby	1.2km
The Wesleyan Chapel	Chapel	750m
All Saints Church	Church	870m
St Andrew, Boothby Graffoe	Church	470m

Community Facility	Description	Approximate Distance from the DCO Site
Navenby Church of England Primary School	Primary School in Navenby	1.1km
Navenby Methodist Church	Church in Navenby	1.3km
St Peter's Church	Church in Navenby	1.4km
Cliff Villages Medical Practice	Doctors in Navenby	1.9km

Development Land

12.5.43 There are five planning applications that intersect the DCO Site Boundary for the Proposed Development. These are all within the cable corridors or at the location of the proposed National Grid substation near Navenby. These are as follows:

a. ID 63: Springwell Energy Farm Limited - a proposed new 800 Megawatts (MW) solar farm with battery storage and supporting grid connection infrastructure.

b. ID 105: Proposed National Grid substation near Navenby - erection of new 400kv Air Insulated Switchgear (AIS) substation and associated development.

c. ID 108: Brant Battery Energy Storage Scheme - 1GW Battery Energy Storage System located west of Coleby and east of Broughton Lane.

d. ID 103: Leoda Solar Farm - ground-mounted solar electricity generating station with a targeted gross output of 500 to 600MW and associated grid connection infrastructure.

e. ID 86: Navenby BESS - erection of 400MW battery storage Development incorporating 324no. containerised battery storage units, 54no. transformer/inverter blocks and 8 back up auxiliary transformers.

12.5.44 As identified in the Minerals Safeguarding Assessment (**Appendix 12-C: Minerals Safeguarding Assessment** of this ES **[EN010154/APP/6.1]**, parts of the DCO Site are located in MSAs for sand, gravel and limestone, as follows:

a. Sections of the south western, northern and central parts of the Principal Site are located within the Sand and Gravel MSA. The area of the Principal Site within the MSA is approximately 230ha, and the area of the cable within the MSA is approximately 1.84ha.

b. The eastern section of the Cable Corridor is located in a Limestone MSA. The area of the cable within the MSA is approximately 2.26ha.

12.5.45 The DCO Site also lies in proximity to sand and gravel minerals sites at Whisby Quarry, Swinderby Airfield and Norton Bottoms Quarry.

12.5.46 There are three housing allocations within 500m of the DCO Site (Ref 12-27). To the north of Witham St Hughs, there is a housing allocation with the reference NK/WSH/002 approximately 100m from the DCO Site.

NK/WSH/002 has planning permission for 1,250 homes. In Bassingham, there are two housing allocations with the references NK/BAS/007 and NK/BAS/010 approximately 400m from the DCO Site. NK/BAS/010 has been allocated within the Neighbourhood Plan and consists of 35 homes. NK/BAS/007 has also been allocated within the Neighbourhood Plan (Ref 12-28) and consists of 24 homes.

Future Baseline

12.5.47 The future baseline scenarios are set out in **Chapter 5: EIA Methodology** of this ES **[EN010154/APP/6.1]**.

12.5.48 The future baseline is anticipated to be largely the same as the existing baseline for socio-economics and land use. However, it would be reasonable to expect that population will increase. According to ONS population projections (Ref 12-29), the population of North Kesteven is expected to increase from 118,600 in 2021 to 133,700 in 2043, which represents an increase of 12.7%. In the East Midlands and England as a whole, there are expected to be increases of 12.5% and 3.5% respectively.

12.5.49 In terms of the local economy, it would be reasonable to expect that employment and GVA would increase, associated with the expected increase in population. It is expected that PRoWs will continue to be used.

12.5.50 There is a high level of uncertainty with respect to the future baseline of existing local land uses, other than where future planned uses are known (such as future developments, where planning applications, permissions and local plan allocations have been considered). Businesses and community facilities may open and close however it is not expected that there will be any perceptible changes to the local economic baseline assessment and the Proposed Development should be assessed against current baseline conditions and policies. These changes are not considered to constitute significant changes to baseline.

12.5.51 For the purposes of this assessment, unless specified, the future baseline with respect to local land uses (including agricultural land, residential properties, local businesses, open space, community facilities, visitor attractions and development land) is expected to be in line with the existing baseline conditions as set out above.

12.6 Embedded Mitigation Measures

12.6.1 Primary mitigation measures are embedded within the Proposed Development, as set out in the respective chapters of the ES **[EN010154/APP/6.1]**, to reduce other construction, operational and decommissioning effects which in turn will mitigate the effects on the local community and existing facilities from a socio-economic and land use perspective. Mitigation measures set out in the following chapters of the ES [**EN010154/APP/6.1**] are of relevance to the assessment of Socio-Economics and Land Use: **Chapter 10: Landscape and Visual Amenity, Chapter 11: Noise and Vibration, Chapter 13: Traffic and Transport, and Chapter 14: Other Environmental Topics (Section 14.2: Air Quality).**

12.6.2 The Proposed Development has also been designed to take into account sensitive receptors, such as by positioning infrastructure to avoid receptors such as BMV land and PRoWs, as far as possible (as set out in **Chapter 4: Alternatives and Design Evolution**).

12.6.3 The following embedded mitigation measures have been incorporated into the Proposed Development design:

Measures Embedded into the Design of the Proposed Development

12.6.4 Mitigation measures embedded into the design of the Proposed Development comprise the following:

a. Positioning the above ground infrastructure to avoid BMV land as far as practicable;

b. PV panel arrangement designed to provide a minimum 0.8m ground clearance to facilitate sheep grazing under the panels;

c. Locating noise-emitting equipment away from residential receptors;

d. Providing additional planting to sympathetically integrate the Proposed Development into the local area;

e. Avoiding closure of PRoW and existing permissive paths and keeping any PRoW diversions as localised as reasonably practicable. Additional permissive paths are proposed to further enhance the local connectivity; and

f. Developing an optimal access strategy for construction, operation and decommissioning to mitigate effects relating to transport, which in turn will mitigate the effects on the local community and existing facilities from a socio-economic and land use perspective.

Construction

12.6.5 Measures to minimise construction impacts will be contained within the following documents:

a. The **Framework CEMP [EN010154/APP/7.7]**) details and formalises the measures that will mitigate construction-related effects.

b. A **Framework Construction Traffic Management Plan (CTMP) [EN010154/APP/7.18]** has been developed as part of the DCO application and contains mitigation to avoid and/or reduce impacts relating to construction traffic including the delivery of materials and transport of staff during the construction phase.

c. A **Framework Soil Management Plan [EN010154/APP/7.10]** has been prepared as part of the DCO application and contains industry standard good practice mitigation measures to reduce impacts on soil.

d. A **Framework PRoW Management Plan [EN010154/APP/7.14]** has been prepared as part of the DCO Application and details mitigation measures to reduce impacts on PRoW.

Operation (and Maintenance)

12.6.6 A **Framework Landscape and Ecological Management Plan (LEMP) [EN010154/APP/7.15]** has been prepared to accompany the DCO application to provide landscape and visual mitigation. This document sets out the principles for how the land will be managed throughout the operational phase, following the completion of construction.

12.6.7 A **Framework OEMP [EN010154/APP/7.8]** has been prepared to accompany the DCO application. This document sets out the measures that will mitigate operation-related effects.

Decommissioning

12.6.8 A **Framework DEMP [EN010154/APP/7.9]** has been prepared which details and formalises the measures that will mitigate effects related to decommissioning of the Proposed Development.

12.7 Assessment of Effects

12.7.1 Taking into account the embedded mitigation measures as detailed in **Section 12.6** above, the potential impacts and effects of the Proposed Development were assessed using the methodology as detailed in **Section 12.3.1** of this Chapter.

Construction Effects

Employment during Enabling Works, Construction and Commissioning

12.7.2 The construction period is expected to take approximately 24 to 30 months which includes the construction of the Principal Site and Cable Corridor. As 24 months represents activity on-site being most intense, this duration has been used in the assessment.

12.7.3 Based on previous experience of assessing the employment impacts of solar schemes, and benchmarking against other submitted existing solar schemes, it is estimated that the Proposed Development will require a peak of 600 full-time equivalent (FTE) jobs, and an average of 350 gross direct FTE jobs onsite over the 24-month construction period, although in practice the number will vary across the period.

Leakage

12.7.4 Leakage with respect to construction employment, is the employment impact expected outside of the Study Area, defined as a 60-minute drive time radius (shown on **Figure 12-1: 60-Minute Drive Time from the Site Boundary** of this ES **[EN010154/APP/6.2]**) from the Proposed Development.

12.7.5 Based on professional experience and other comparable solar schemes, it is estimated that 45% of construction staff could be sourced from within the 60-minute drive time Study Area. This will be subject to labour availability and take-up at the time of construction however it is considered to be a reasonable assumption on which to base this assessment. As such, 55% of staff would be likely to reside outside of this Study Area. This indicates that although a reasonably high proportion of employment opportunities will be retained in the

effect area, a noticeable number of jobs will be taken up by people living outside of the Study Area. Whilst it is not a specific consideration of the assessment, it is noted that a larger proportion of the jobs taken up by people living outside the area will likely be in more specialised solar PV professions owing to the scarcity of such resources within localised areas compared with less skilled professions.

12.7.6 An adjustment of 55% has therefore been applied to the estimated 350 average gross direct construction jobs onsite on average during the construction period to estimate the jobs created within the Study Area.

Displacement

12.7.7 Displacement measures the extent to which the benefits of a development are offset by reductions in output or employment elsewhere. Any additional demand for labour cannot simply be treated as a net benefit since it has the potential to displace workers from other positions and the net benefit is reduced to the extent that this occurs.

12.7.8 Construction workers typically move between construction projects when delays occur or to help the workforce meet construction deadlines. Due to the flexibility of the labour market, construction labour force displacement has been assumed to be low.

12.7.9 The HCA Additionality Guide (Ref 12-11) provides standards (or 'ready reckoners') for displacement. Within the context of a construction project in the Study Area, a low displacement factor for 25% is considered appropriate according to the HCA. This factor is a best practice approach in the absence of special local information that might provide a defensible justification for a different level of displacement being used.

Multiplier Effect

12.7.10 In addition to the direct employment generated by the construction of the Proposed Development, there will be an increase in local employment arising from indirect and induced effects of the construction activity. Employment growth will arise locally through manufacturing services and suppliers to the construction process (indirect or supply linkage multipliers). Additionally, it is assumed part of the income of the construction workers and suppliers will be spent in the study area, generating further employment (in terms of induced or income multipliers).

12.7.11 The effect of the multiplier depends on the size of the geographical area that is being considered, the local supply linkages and income leakage from the area. The HCA Additionality Guide (Ref 12-11) provides 'ready reckoner' composite multipliers – the combined effect of indirect and induced multipliers. This is a best practice approach in the absence of specific information that might provide a defensible justification for another multiplier effect level being used, appropriate to the sectors concerned. The economic market area for North Kesteven is likely to have 'average' supply linkages and induced effects, based on the scale of its economy compared to other locations. Therefore, a medium multiplier effect of 1.5 (which the HCA Guidance indicates will be appropriate for the majority of interventions) has been considered appropriate, as has been applied to other solar NSIP schemes in the consenting process.

Net Construction Employment

12.7.12 Based on the above factors, **Table 12-23** presents the temporary employment generated by the Proposed Development identified above, accounting for leakage, displacement and multiplier effects. The Proposed Development will support, on average, 394 total net jobs per annum during the construction period. Of these, 177 jobs per annum will be expected to be taken-up by residents within the Study Area and by 217 by people residing outside this Study Area.

Table 12-23: Net Additional Construction Employment per annum from the Proposed Development

	Study Area (60-minute travel area)	Outside Study Area	Total
Gross Direct Employment	158	193	350
Displacement	-39	-48	-88
Net Direct Employment	118	144	263
Indirect & Induced Employment	59	72	131
Total Net Employment*	177	217	394

Source: AECOM Calculation (2025) Totals may not add up due to rounding. Sum of Net Direct Employment and Indirect & Induced Employment.*

12.7.13 Given the lower levels of unemployment in North Kesteven compared to England and Wales as informed by the claimant count (Ref 12-30), the local labour force in North Kesteven is assessed to be of low sensitivity due to its capacity to benefit from additional employment opportunities. The labour force at the East Midlands level is also assessed to be low sensitivity due to the lower levels of unemployment compared to England and Wales.

12.7.14 The direct, indirect and induced employment, expenditure and upskilling created from the construction of the Proposed Development must be judged in the context of the labour pool of construction workers in the Study Area (approximately 94,000 workers) (Ref 12-18). Taking this into account, the impact of construction employment generation in the Study Area has been assessed as temporary low beneficial, which results in a medium-term temporary **minor beneficial** effect. This is considered not significant.

Gross Value Added (GVA)

12.7.15 Applying the average gross direct value added per construction worker in the area to the total number of construction workers generated from the Proposed Development gives the total GVA arising from the construction period. Note that this has been calculated based on the compound average GVA per worker in the construction sector in the East Midlands as the appropriate benchmark, as data is published at this level rather than the more granular, LSOA-derived, Study Area.

12.7.16 In the East Midlands, the average GVA per worker in the construction sector was £104,000 in 2022, calculated by dividing the GVA in the East Midlands construction industry (£9,473 million) by the number of construction workers stated in the Business Register and Employment Survey (91,000) (Ref 12-18). By applying this figure to the net direct employment (excluding multiplier)[4] generated by the Proposed Development (263), it is estimated that construction activity will contribute approximately £27.4 million to the national economy, of which approximately £12.3 million would likely be within the Study Area, as shown in **Table 12-24**.

Table 12-24: Gross Direct Value Added per annum from the Proposed Development during the Construction Phase (in million pounds)

	Study Area (60-minute travel area)	Outside Study Area	Total
GVA during the construction phase (£m)	12.3	15.1	27.4

Source: AECOM Calculation (2024)

12.7.17 Given its lower than regional and national average performance, the local economy in North Kesteven is assessed to be of medium sensitivity due to its capacity to benefit from positive economic effects. The wider regional economy of the East Midlands is assessed to be of low sensitivity.

12.7.18 In the context of the size of the overall local economy, the magnitude of the impact of the construction phase of the Scheme on North Kesteven's overall GVA is assessed to be low. At the East Midlands level, the magnitude of the impact is assessed to be very low.

12.7.19 Given the medium sensitivity of receptor and low magnitude of impact as set out above, the impact of the temporary construction phase GVA generation arising from the Scheme on the local economy in North Kesteven is therefore assessed to be a minor beneficial (not significant) effect. At the regional level, the impact would be negligible (not significant).

Tourism/Recreation

Local Accommodation Facilities

12.7.20 Analysis of the hotel, bed and breakfast and inns accommodation sector has been undertaken to assess the likely capacity against the demand from the potential peak construction workforce. This assessment considers the potential for adverse impacts due to demand for accommodation exceeding supply during the construction phase. Only workers outside of the 60-minute drive time are considered, as workers within it will likely be home-based and will not require temporary accommodation.

12.7.21 As set out previously in **Table 12-23**, It is estimated that on average there would be approximately 193 direct workers involved in the construction phase

[4] Indirect and induced employment are not considered as these jobs are in non-construction industries with much lower GVAs e.g. retail.

of the Scheme who will be from outside the 60-minute drive-time Study Area. During peak construction activity on-site it is estimated that there would 330 such workers involved in construction These workers may require accommodation on a temporary basis, although it is acknowledged that some may not require this and in some periods worker numbers and thus requirements will be less than both the average and peak workforce.

12.7.22 Based on a worst-case scenario whereby all 330 workers from outside the 60-minute drive-time study area need accommodation, the workforce would require 330 homes or bedspaces. As set out in **Table 12-19** in **Section 12.5**, there are 7,606 rooms in hotel, bed and breakfast and inns accommodation within a 60-minute drive time from the Proposed Development. Considering existing seasonal demand and typical occupancy (2025 levels) (Ref 12-32) the peak workforce outside of the 60-minute drive time (55% of the total peak workforce) of 330 workers could be accommodated within existing provision within a 60-minute rush-hour drive time radius of the DCO Site. This is shown in **Table 12-26**. Analysis indicates that during peak seasonal occupancy (July), there would be 811 rooms (17% of total rooms) available after accounting for the peak construction workforce (600 jobs) residing outside of the 60-minute drive time (330 jobs).

12.7.23 Further analysis to identify accommodation within a 30-minute rush-hour drive time radius (as shown in **Table 12-25**) indicates that at peak seasonal occupancy in July, there would be a 4% deficit in capacity, with 73 additional rooms required rooms to accommodate the peak construction workforce outside of the 30-minute drive time (330).

12.7.24 In summary, this analysis demonstrates that at peak workforce employment and typical seasonal occupancy levels, 100% of the Proposed Development's construction workers could be accommodated within a 60-minute drive time of the DCO Site. However, within a 30-minute drive time, there is a small deficit in rooms.

12.7.25 It can also be noted that this analysis only takes into consideration the hotel, bed and breakfast and inns accommodation sector. There are also alternative accommodations (such as Airbnb, serviced apartments, etc.) that could also cater for a portion of any demand generated and therefore further mitigate any impact on accommodation provision.

12.7.26 Given this, there would be no effect on the hotel, bed and breakfast, and inns accommodation sector arising from the Proposed Development. It is anticipated that accommodation providers would be able to accommodate employees working at the Proposed Development without any adverse effects on the sector. Furthermore, occupancy during quieter months could provide a positive benefit to hotel, bed and breakfast, and inns accommodation sector.

Table 12-25: Temporary Accommodation Capacity in a 30-Minute Rush-hour Drive Time Radius of the DCO Site

Month	Typical Room Occupancy (%)	Inventory Rooms	Rooms Available After Existing Demand	Construction Workers (peak)	Remaining Rooms Available	Remaining Rooms available (%)
January	65%	1,714	600	330	270	16%
February	74%	1,714	446	330	116	7%
March	74%	1,714	446	330	116	7%
April	77%	1,714	394	330	64	4%
May	79%	1,714	360	330	30	2%
June	83%	1,714	291	330	-39	-2%
July	85%	1,714	257	330	-73	-4%
August	81%	1,714	326	330	-4	0%
September	84%	1,714	274	330	-56	-3%
October	82%	1,714	309	330	-21	-1%
November	81%	1,714	326	330	-4	0%
December	75%	1,714	429	330	99	6%

Source: CoStar (2025), VisitEngland (2025), AECOM calculations (2025).

Table 12-26: Temporary Accommodation Capacity in a 60-Minute Rush-hour Drive Time Radius of the DCO Site

Month	Typical Room Occupancy (%)	Inventory Rooms	Rooms Available After Existing Demand	Construction Workers (peak)	Remaining Rooms Available	Remaining Rooms available (%)
January	65%	7,606	2,662	330	2,332	31%
February	74%	7,606	1,978	330	1,648	22%
March	74%	7,606	1,978	330	1,648	22%
April	77%	7,606	1,749	330	1,419	19%
May	79%	7,606	1,597	330	1,267	17%
June	83%	7,606	1,293	330	963	13%
July	85%	7,606	1,141	330	811	11%
August	81%	7,606	1,445	330	1,115	15%
September	84%	7,606	1,217	330	887	12%
October	82%	7,606	1,369	330	1,039	14%
November	81%	7,606	1,445	330	1,115	15%

Month	Typical Room Occupancy (%)	Inventory Rooms	Rooms Available After Existing Demand	Construction Workers (peak)	Remaining Rooms Available	Remaining Rooms available (%)
December	75%	7,606	1,902	330	1,572	21%

Source: CoStar (2025), Visitengland (2025), AECOM calculations (2025).

Recreational Receptors and Visitor Attractions

12.7.27 There are no visitor attractions or recreational facilities within the DCO Site Boundary which would need to be demolished or which would be displaced in whole or in part by the Proposed Development.

12.7.28 The potential changes to views during construction of the Proposed Development could impact on the amenity of visitor attractions and recreational facilities in the local area. The villages of Coleby, Bassingham, Navenby and Aubourn have been identified as having visitor and recreational attractions in **Section 12.5**. **Chapter 10: Landscape and Visual Amenity [EN010154/APP/6.1]** finds that views of construction activity will be visible from these villages at a distance. Activity will be largely screened by vegetation. No visitor attraction, recreational facility or area with these receptors are identified to have significant residual effects in either **Chapter 10: Landscape and Visual Amenity, Chapter 11: Noise and Vibration**, **Chapter 13: Traffic and Transport** and **Chapter 14: Other Environmental Topics (Section 14.2: Air Quality)** of this ES **[EN010154/APP/6.1]**. Given the methodology outlined in **Table 12-12**, the magnitude of impact on the amenity of visitor attractions and recreational facilities during construction is assessed to be very low. Sensitivity is assessed to be medium, based on the visitor economy being of importance with the presence of attractions being limited in scale, with receptors such as the Mrs Smith's Cottage located in Navenby. Overall, this represents a Negligible effect on the amenity of visitor attractions and recreational facilities, which is Not Significant.

Public Rights of Way

12.7.29 Changes to journey times, local travel patterns, and certainty of routes for users would arise from the temporary closures and diversions of PRoWs. Effects during construction on relevant routes are set out in the following paragraphs for the DCO Site. As stated in **Section 12.5**, there is an extensive network of PRoW routes and existing permissive paths across the Study Area, with a notable concentration extending from Thorpe on the Hill and a concentration of paths connecting settlements through the centre of the Study Area. There are 36 PRoW and seven permissive paths located within the Principal Site, as well as 26 PRoW which run alongside the boundary or are within close proximity to the Principal Site. Furthermore, there are five PRoW which could be impacted by the Cable Corridor.

12.7.30 There are no on or off-road dedicated / marked cycling facilities within the immediate vicinity of the Principal Site.

12.7.31 The Proposed Development would require the permanent diversion of the LL|Aubo|10/1 PRoW. The PRoW runs north to south, connecting the PRoW LL|Bass|4/2 to the LL|Aubo|13/1 path, with a length of approximately 760m. The additional length to journeys for users would be approximately 100m. Given the large network of PRoWs, roads and existing permissive paths in the area that could be used as substitutes, the sensitivity of the LL|Aubo|10/1 PRoW is assessed to be low. Given the short increase in journey length for users, magnitude would also be low. This would result in a negligible effect, which is considered not significant.

12.7.32 The Proposed Development would require the permanent diversion of the LL|THUN|2/1 PRoW. The PRoW has a length of approximately 300m. There would be no additional length to journeys fr users . Given the large network of PRoWs, roads and existing permissive paths in the area that could be used as substitutes, the sensitivity of the LL|THUN|2/1 PRoW is assessed to be low. Given the short increase in journey length for users, magnitude would also be low. This would result in a negligible effect, which is considered not significant.

12.7.33 The Proposed Development would require the permanent diversion of the LL|TOTH|13/1 PRoW. The PRoW has a length of approximately 170m. The additional length to journeys for users would be under 10m. Given the large network of PRoWs, roads and existing permissive paths in the area that could be used as substitutes, the sensitivity of the LL|TOTH|13/1 PRoW is assessed to be low. Given the short increase in journey length for users, magnitude would also be low. This would result in a negligible effect, which is considered not significant.

12.7.34 All other PRoW are expected to experience minimal to no impacts during construction and will stay open. Given that there is a large network of PRoWs and existing permissive paths within the Study Area that could be used as substitutes in the case of PRoW closure, these PRoW are assessed to have low sensitivity. Due to the limited scale of impacts, the impacts upon PRoWs are assessed to be very low adverse, which results in a negligible effect. This is considered not significant.

12.7.35 A **Framework PRoW Management Plan** has been prepared as part of the DCO Application **[EN010154/APP/7.14]** which details the mitigation measures which will be used to reduce the impacts of the Proposed Development on PRoW.

Local Amenities and Land Use

Agricultural Land

12.7.36 From the construction phase, short-term and long-term temporary use of agricultural land will occur. The only permanent reduction in agricultural land will be for habitat creation, where the soil resource will be maintained, outside of agriculture.

12.7.37 The design of the PV array at 0.8 m above ground level allows for the option of sheep grazing, which offers an appropriate method of vegetation management under the panels.

12.7.38 Within the solar PV array area, suspension of cultivation for annual crops (during the operational period of the Proposed Development) creates an opportunity for improvement to soil structure and development of soil organic matter. The benefits in relation to storing more carbon in soils are recognised by the British Society of Soil Science (Ref 12-37). A **Framework LEMP [EN010154/APP/7.15]** has been prepared to accompany the DCO application which sets out the principles for how the land will be managed.

Temporary Use

12.7.40 The area of agricultural land required for the construction remains in use throughout operation of the Proposed Development. This use of land is temporary as it would be returned to use for farming either upon decommissioning (Principal Site including the BESS Compound and the Onsite Substation) or upon completion of construction (Cable Corridor outside of the Principal Site).

12.7.41 The agricultural land within the Cable Corridor is only temporarily required during construction and will be restored to the current ALC grade. The development of a detailed Soil Management Plan will document good practice requirements for soil handling and protection during cabling. Agriculture use above the cable route will continue during operation, with cabling below the depth of agricultural cultivations.

12.7.42 Within the Principal Site the area of BMV land comprises approximately 282.9 ha, all Subgrade 3a (see **Table 12-15**). The withdrawal of the BMV land from agriculture is reversible (after operation and upon completion of decommissioning, with the exception of limited areas of habitat creation as discussed below). The temporary effect of the Proposed Development on the use of BMV agricultural land is assessed to be minor adverse and not significant. Good practice recommendations on soil handling and protection within the Principal Site will be established within the Soil Management Plan and the ALC grade will be unaltered through operation and decommissioning.

12.7.43 The Department for Environment, Food and Rural Affairs (Defra), publishes agricultural statistics for the East Midlands (Ref 12-36). The East Midlands has 1.2 million ha of farmland (England as a whole has 9.0 million ha of farmland). The 1,018.7ha of agricultural land required temporarily for construction and operation constitutes 0.09% of the total farmland in the East Midlands

Permanent Loss

12.7.44 Land permanently used is defined as the area of agricultural land disturbed during construction which is permanently taken out of agricultural use due to the Proposed Development. Given that the land within the Cable Corridor outside of the Principal Site will be returned to previous land use upon completion of construction, and all infrastructure within the Principal Site will be removed upon decommissioning, the only areas of agricultural land considered to be permanently lost due to the Proposed Development are areas of planting and habitat creation introduced as part of the Proposed Development. The extent of these areas amount to a total use of 4.6ha of agricultural land, of which 1.5ha is BMV land (Subgrade 3a). The change of

land use is likely to be beneficial to the soil resource but the low magnitude withdrawal of land from agricultural production may be interpreted as a minor adverse effect, which is not significant.

Residential Properties, Business Premises and Community Facilities

12.7.45 There are no residential properties, business premises, or community facilities within the DCO Site Boundary which would need to be demolished or which would be displaced in whole or in part by the Proposed Development.

12.7.46 There is potential for noise, air quality, visual and traffic elements arising from construction of the Proposed Development to impact on the amenity of residents, businesses and users of community facilities. Taking into account the residual effects assessment results of the air quality, noise and vibration, traffic and transport and visual assessments relating to the construction activities, there are no receptors as defined in this assessment that would experience a significant effect on their amenity during construction, and as such there would be no effect.

Development Land

12.7.47 Although there are some planning applications that intersect the DCO Site as identified in **Paragraph 12.5.43**, these will not be affected by the land required for the Proposed Development. It is expected that all other developments will be able to go ahead and solutions will be found so that the Proposed Development and other developments can be constructed.

12.7.48 A **Minerals Safeguarding Assessment**, presented in **Appendix 12-C** of this ES **[EN010154/APP/6.3]** has been prepared to address the comments made by Lincolnshire County Council in the Scoping Opinion (**Appendix 1-B** of this ES **[EN010154/APP/6.3]**) and following the PEI Report and Statutory Consultation. The **Minerals Safeguarding Assessment** (**Appendix 12-C [EN010154/APP/6.3]**) concludes that no sterilisation of mineral resources will occur due to the Proposed Development. The ability of future generations to extract the resource over the long term will not be compromised. Furthermore, the Proposed Development will not inhibit extraction within the timescale that minerals are likely to be needed.

12.7.49 Taking into account the above, impacts from the Proposed Development on development land are assessed as having a very low magnitude. Sensitivity is assessed to be medium given the relative importance of the MSAs that the DCO Site is contained within, as well as the scale of the other developments. The effect from the Proposed Development during construction on development land is therefore assessed to be Negligible (Not Significant).

Operational Effects

Employment

12.7.50 The Proposed Development will generate long-term jobs during the operational phase. In estimating operational employment generation, it is important to consider not just the gross effects of the Proposed Development, but also net effects considering leakage, displacement, and multiplier effects, as set out in **Table 12-27**.

12.7.51 The Applicant has estimated that to operate and maintain the Proposed Development there will be a gross number of four permanent jobs generated by the Proposed Development during the operational phase. It is noted that there is expected to be two visiting workers per week and additional staff occasionally when the solar infrastructure needs replacing or cleaning, totalling up to 20 staff per day. These are excluded from the assessment to present a worst-case scenario; only the four permanent workers are considered.

12.7.52 It has been confirmed by all landowners that there is expected to be no job losses resulting from the removal of agricultural land. It is expected that when the rent revenues from the land start, then there will be additional jobs created on their farms offsite as landowners diversify their land further with the underlying financial stability of the rental income.

Table 12-27: Total Net Employment during Operation of the Proposed Development

	Study Area)	Outside Study Area	Total
Gross Direct Employment	2	2	4
Displacement	0	-1	-1
Net Direct Employment	2	1	3
Indirect & Induced Employment	1	1	2
Total New Employment	3	2	5
Total Net Employment	3	2	5

Source: AECOM Calculations (2024)

12.7.53 The sensitivity of the local workforce to employment changes has been assessed as low, due to the low claimant count in the area (claimants are those who are unemployed and claiming job seekers allowance or other unemployment related benefits). The direct, indirect and induced employment, expenditure and upskilling created from the operation of the Proposed Development must be judged in the context of the labour pool of workers in the Study Area. Within a 60-minute drive time, there are approximately 3,920,600 people, of which approximately 2,217,802 are economically active (Ref 12-13). Taking this into account, the impact of operational employment generation in the Study Area has been assessed as permanent no change, which results in a Neutral effect. This is considered not significant.

Public Rights of Way

12.7.54 Effects during operation on relevant PRoW are set out in the following paragraphs for the DCO Site. As stated in **Section 12.5**, there is an extensive network of routes across the Study Area, with a notable concentration extending from Thorpe on the Hill and a concentration of paths connecting settlements through the centre of the Study Area. There are 36 PRoW and

seven existing permissive paths located within the Principal Site, as well as 26 PRoW which run alongside the boundary or are within close proximity to the DCO Site.

12.7.55 There are no on or off-road dedicated / marked cycling facilities within the immediate vicinity of the Principal Site.

12.7.56 A **Framework PRoW Management Plan [EN010154/APP/7.14]** has been prepared as part of the DCO Application which details the mitigation measures which will be implemented to reduce the impacts of the Proposed Development on PRoW.

12.7.57 The permanent diversions of PRoW LL|Aubo|10/1, LL|THUN|2/1 and LL|TOTH|13/1 would remain during the operation and maintenance phase. As outlined during the construction phase, the permanent diversion of these PRoWs would result in negligible effects. These are considered not significant.

12.7.58 There would be no additional effects on the rest of the PRoW outside of those identified in construction and therefore there would be no effect on existing PRoWs and permissive paths during operation outside of the impact to PRoWs LL|Aubo|10/1, LL|THUN|2/1 and LL|TOTH|13/1.

12.7.59 The Proposed Development will also create a number of new permissive paths across the Principal Site totalling approximately 9.5km in length. Although these are not formal rights of way with indefinite protection, due to the landowner having the ability to remove the permissive path following the decommissioning phase, during operation they will provide safe routes for the use of local residents in the area. They will also provide connections between existing PRoW resulting in some reduction to local journey lengths. Taking this into account, the impact on users of PRoW from the provision has been assessed as permanent low beneficial which results in a minor beneficial effect. This is considered not significant.

Recreational Receptors and Visitor Attractions

12.7.60 The potential changes to views during operation of the Proposed Development could impact on the amenity of visitor attractions and recreational facilities in the local area. The villages of Coleby, Bassingham, Navenby and Aubourn villages have been identified as having visitor and recreational attractions in **Section 12.5. Chapter 10: Landscape and Visual Amenity** of this ES **[EN010154/APP/6.1]** finds views of operation activity will be visible from these villages at a distance. Activity will be largely screened by vegetation.

12.7.61 No visitor attraction, recreational facility or area with these receptors are identified to have significant residual effects in **Chapter 10: Landscape and Visual Amenity**, **Chapter 11: Noise and Vibration**, **Chapter 13: Traffic and Transport** and **Chapter 14: Other Environmental Topics (Section 14.2: Air Quality)** of this ES **[EN010154/APP/6.1]**. Given the methodology outlined in **Table 12-12**, the magnitude of impact on the amenity of visitor attractions and recreational facilities during operation is assessed to be very low. Sensitivity is assessed to be medium, based on the visitor economy being of local importance with the presence of attractions being limited in scale, with receptors such as the Mrs Smith's Cottage located in Navenby. Overall, this

represents a Negligible effect on the amenity of visitor attractions and recreational facilities, which is Not Significant.

Local Amenities and Land Use

Agricultural Land

12.7.62 Effects on BMV agricultural land would occur as long-term effects arising from the construction of the Proposed Development and hence have been assessed in the construction phase.

12.7.63 While the Proposed Development is operational, the soil resource within the Principal Site will remain under a perennial grass cover, with the exception of areas related to the standalone BESS (in the case of the centralised BESS option), solar station compounds and on-site substation which will comprise hardstanding during operation but will be returned to the previous land use following decommissioning. Benefits to the soil resource during the operational period of green cover with no ploughing will include:

a. No bare soil surfaces vulnerable to wind and water erosion;

b. Improved infiltration of rainwater reducing erosive surface water runoff;

c. Greater exploitation of subsoil by perennial plant roots, improving drainage and loosening compacted subsoils; and

d. Recovery of topsoil organic matter to a higher equilibrium, improving aggregate stability, water holding capacity and plant nutrient availability.

12.7.64 By facilitating a recovery in topsoil organic matter, this enforced fallow period will enhance the functional capacity of the soil resource for future arable production. Additional benefits from the recovery of soil organic matter include carbon sequestration and hydrological function but this assessment centres on the soil's functional capacity for agricultural production.

12.7.65 Although the elevated soil organic matter content can be sustained on return to arable production, it should be noted that standard cultivation practice will result in a reduction in soil carbon, toward the current baseline.

12.7.66 Agriculture could be incorporated into land use following the construction of the Proposed Development. The land required for construction of the Cable Corridor would be restored to enable agricultural use in this area during operation, with the cable below the depth of agricultural cultivation.

12.7.67 The land is not lost permanently and the agricultural land classification is not changed; the land is rested from intensive agricultural production which is expected to allow it to be returned in a better state than it is now, leading to a minor beneficial (not significant) effect.

Residential Properties, Business Premises and Community Facilities

12.7.68 There is potential for noise, air quality, visual and traffic effects arising from the operation of the Proposed Development to impact on the amenity of residents, businesses and users of community facilities.

12.7.69 Taking into account the residual effects assessment results of the air quality, noise and vibration, traffic and transport and visual assessments relating to

operational activities, there are no receptors as defined in this assessment that would experience a significant effect on their amenity during operation, and as such there would be no effect.

Development Land

12.7.70 Although there are some planning applications that intersect the DCO Site as identified in **paragraph 12.5.43**, these will not be affected by the land required for the operation of the Proposed Development. It is expected that all other developments will be able to go ahead and solutions will be found so that the Proposed Development and other developments can continue.

12.7.71 A **Minerals Safeguarding Assessment**, presented in **Appendix 12-C** of this ES **[EN010154/APP/6.3]** has been prepared to address the comments made by Lincolnshire County Council in the Scoping Opinion (**Appendix 1-B** of this ES **[EN010154/APP/6.3]**). The Mineral Assessment Reports conclude that no sterilisation of mineral resources will occur due to the operation of the Proposed Development. The presence of economically viable deposits of Sand and Gravel within the DCO Site are negligible. The ability of future generations to extract the resource over the long term will not be compromised. Should future minerals extraction be considered commercially viable within a specific area along the Cable Corridor then the cable corridor cables could be diverted to allow extraction. Furthermore, the Proposed Development will not inhibit extraction within the timescale that minerals are likely to be needed.

12.7.72 Taking into account the above, impacts from the Proposed Development on development land are assessed as having a very low magnitude. Sensitivity is assessed to be medium given the relative importance of the MSAs that the DCO Site is contained within, as well as the scale of the other developments. The effect from the Proposed Development during operation on development land is therefore assessed to be negligible (not significant).

Decommissioning Effects

Employment During Decommissioning (temporary medium-term)

12.7.73 The estimated duration of the decommissioning period is expected to be less than or similar to that of the construction period; it is expected to take between 12 and 24 months and would be undertaken in phases. Therefore, the likely effects will be of a short-term temporary nature (for the duration of decommissioning operations only). Although these jobs are temporary, they represent a positive economic effect that can be estimated as the function of the scale and type of activities required to decommission the Proposed Development.

12.7.74 It is assumed based on the activities taking place that the same number of jobs required for constructing the Proposed Development will be needed to carry out the activities required to remove the infrastructure from the DCO Site. Therefore, an average of 350 gross FTE jobs will be on-site per day during this decommissioning period.

12.7.75 **Table 12-28** presents the temporary decommissioning employment generated by the Proposed Development, accounting for leakage, displacement and

multiplier effects, as identified in the above section on the construction period. The Proposed Development will support, on average, 394 total net jobs per annum during the decommissioning period. Of these, 177 jobs per annum will be expected to be taken-up by residents within the Study Area, whilst 217 jobs will likely be taken-up by workers living outside the area.

Table 12-28: Net Additional Decommissioning Employment per annum from the Proposed Development

	Study Area (60-minute travel area)	Outside Study Area	Total
Gross Direct Employment	158	193	350
Displacement	-39	-48	-88
Net Direct Employment	118	144	263
Indirect & Induced Employment	59	72	131
Total Net Employment[5]	177	217	394

Source: AECOM Calculations (2024)

12.7.76 When set against the likely pool of construction workers as described at 12.7.14, the impact of construction employment generation in the Study Area has been assessed as temporary low beneficial. When considered against the medium sensitivity of the economy as described at 12.7.13, this results in a medium-term temporary minor beneficial effect. This is considered not significant.

Employment Loss Following Decommissioning (Permanent Long-Term)

12.7.77 It can be expected when the Proposed Development is decommissioned, the employment required to operate the solar farm (four jobs) and the employment from the additional staff for cleaning and replacing the solar equipment will no longer be generated. However, after decommissioning, the vast majority of the land will be returned to its prior use. In the worst-case scenario, where the land is not utilised after decommissioning, there would be a loss of four jobs. The sensitivity of the local workforce to employment changes has been assessed as low, due to the low claimant count in the area (claimants are those who are unemployed and claiming job seekers allowance or other unemployment related benefits). The employment lost after the decommissioning of the Proposed Development must be judged in the context of the labour pool in the Study Area. Within a 60-minute drive, there are approximately 3,920,600 people, of which approximately 2,217,802 are economically active (Ref 12-13). Taking this into account, the impact magnitude has been assessed as very low, which results in a negligible effect. This is considered not significant.

[5] Sum of Net Direct Employment and Indirect & Induced Employment. Totals may not add up due to rounding.

Public Rights of Way

12.7.78 Changes to journey times, local travel patterns, and certainty of routes for users would arise from the temporary diversions of PRoW. Effects during decommissioning on relevant routes are set out in the following paragraphs. There are 35 PRoW and seven existing permissive paths located within the Principal Site, as well as 26PRoW which run alongside the boundary or are within close proximity to the DCO Site. There are not expected to be any closures of PRoW during decommissioning as it is expected that decommissioning activities will be organised similar to construction. Reversing the PRoW diversions of LL|Aubo|10/1, LL|THUN|2/1 and LL|TOTH|13/1 will be discussed with the Local Planning Authority prior to decommissioning.

12.7.79 A **Framework PRoW Management Plan [EN010154/APP/7.14]** has been prepared as part of the DCO Application which details the mitigation measures which will be used to reduce the impacts of the Proposed Development on PRoW.

12.7.80 PRoW have been assessed to have low sensitivity, due to the large network of substitute PRoW in and around the DCO Site. Due to the limited scale of impacts upon PRoW, these impacts are assessed to be very low adverse, which results in a negligible effect. This is considered not significant.

Recreational Receptors and Visitor Attractions

12.7.81 The potential changes to views during decommissioning of the Proposed Development could impact on the amenity of visitor attractions and recreational facilities in the local area. The villages of Coleby, Bassingham, Navenby and Aubourn have been identified as having visitor and recreational attractions in **Section 12.5**. **Chapter 10: Landscape and Visual Amenity** of this ES **[EN010154/APP/6.1]** finds that views of decommissioning activity will be visible from these villages at a distance. Activity will be largely screened by vegetation. No visitor attraction, recreational facility or area with these receptors are identified to have significant residual effects in either **Chapter 10: Landscape and Visual Amenity, Chapter 11: Noise and Vibration**, **Chapter 13: Traffic and Transport** and **Chapter 14: Other Environmental Topics (Section 14.2: Air Quality)** of this ES **[EN010154/APP/6.1]**. Given the methodology outlined in **Table 12-12**, the magnitude of impact on the amenity of visitor attractions and recreational facilities during decommissioning is assessed to be very low. Sensitivity is assessed to be medium, based on the visitor economy being of importance with the presence of attractions being limited in scale, with receptors such as the Mrs Smith's Cottage located in Navenby. Overall, this represents a Negligible effect on the amenity of visitor attractions and recreational facilities, which is Not Significant.

Local Amenities and Land Use

Agricultural Land

12.7.82 An increase in soil organic matter content may occur during the lifetime of the Principal Site. The land will therefore be in the same or better condition than it currently is, as a result of the expected natural enhancement through being set aside for a long period of time. However, this is likely to be reversible and

maintaining elevated soil organic matter will be dependent on good agricultural land management practices being adopted after decommissioning.

12.7.83 The land used for the Proposed Development will be returned to its former use after decommissioning. Ground physical infrastructure (including the standalone BESS compound, solar station compounds and on-site substation) will be removed, and the Principal Site returned to landowners in the condition as at the end of operation.

12.7.84 The Principal Site will not be available for farming during decommissioning activities, while works are taking place on site. As long as it is safe to do so, soil will be returned to grassland for arable farming where decommissioning activities have finished and are commencing in other areas.

12.7.85 Overall, given the short time frame of any disruption to farming activities during decommissioning activities and the return of the DCO Site to solely farming practices following completion of the decommissioning, the magnitude of change during the decommissioning phase is considered to be low and the significance of effect is negligible, and therefore not significant.

Residential Properties, Business Premises and Community Facilities

12.7.86 There is potential for noise, air quality, visual and traffic effects arising from the decommissioning of the Proposed Development to impact on the amenity of residents, businesses and users of community facilities.

12.7.87 Taking into account the residual effects assessment results of the air quality, noise and vibration, traffic and transport and visual assessments relating to the decommissioning activities, there are no receptors as defined in this assessment that would experience a significant effect on their amenity during decommissioning, and as such there would be no effect.

Development Land

12.7.88 Although there are some planning applications that intersect the DCO Site as identified in **Section 12.5**, these will not be affected by the land required for the decommissioning of the Proposed Development. It is expected that other developments will be able to go ahead and solutions will be found so that the Proposed Development can be decommissioned and other developments continued.

12.7.89 A **Minerals Safeguarding Assessment**, presented in **Appendix 12-C** of this ES **[EN010154/APP/6.3]** has been prepared to address the comments made by Lincolnshire County Council in the Scoping Opinion (**Appendix 1-B** of this ES **[EN010154/APP/6.3]**). The Mineral Safeguarding Assessment concludes that no sterilisation of mineral resources will occur due to the Proposed Development. The ability of future generations to extract the resource over the long term will not be compromised. Furthermore, the Proposed Development will not inhibit extraction within the timescale that minerals are likely to be needed.

12.7.90 Taking into account the above, impacts from the Proposed Development on development land are assessed as having a very low magnitude. Sensitivity is assessed to be medium given the relative importance of the MSAs that the DCO Site is contained within, as well as the scale of the other developments.

The effect from the Proposed Development during decommissioning on development land is therefore assessed to be Negligible (Not Significant).

12.8 Additional Mitigation and Enhancement

12.8.1 No additional mitigation measures are required due to no significant adverse effects associated with socio-economics and land use being identified.

12.8.2 To enhance and maximise the economic benefits to the local community a **Framework Employment, Skills and Supply Chain Plan** has been prepared and is submitted with the DCO application **[EN010154/APP/7.16]** which identifies potential opportunities for activities relating to skills, supply chain and employment which the Applicant could take forward post-consent.

12.9 Residual Effects and Conclusions

12.9.1 Given no further mitigation or enhancement measures have been proposed, the potential effects identified previously remain valid.

12.9.2 The residual effects therefore remain the same as stated in the assessment, with no significant effects identified on socio-economics and land use.

12.10 Cumulative Assessment

12.10.1 This section presents an assessment of the potential for cumulative effects to arise between the Proposed Development and other proposed and committed plans and projects including other developments (referred to as 'Cumulative Schemes') within the surrounding area.

12.10.2 This assessment has been made with reference to the methodology and guidance set out in **Chapter 5: EIA Methodology**, **Chapter 15: Cumulative Effects and Interactions [EN010154/APP/6.1]** and shortlist of cumulative schemes identified also identified in **Chapter 15: Cumulative Effects and Interactions [EN010154/APP/6.1]**.

12.10.3 Of the shortlisted developments listed in **Chapter 15: Cumulative Effects and Interactions [EN010154/APP/6.1]** and shown on **Figure 15-2** of this ES **[EN010154/APP/6.2]**, 25 developments are considered to have the potential for cumulative effects when considered alongside the Proposed Development due to being located within the 2km Zone of Influence (ZoI) for Socio-Economics. For the cumulative effects assessment of Land Use, the ZoI is the County of Lincolnshire. Only other solar NSIPs have been considered as cumulative schemes within this ZoI.

12.10.4 This cumulative effects assessment identified for each receptor those areas where the predicted effects of the Proposed Development could interact with effects arising from other plans and/or projects on the same receptor based on a spatial and/or temporal basis.

Construction and Decommissioning

12.10.5 From the short list of developments, 25 Cumulative Schemes were scoped in the assessment and were given consideration owing to their proximity to the

Proposed Development or potential for impacts on the same receptors as the Proposed Development. Similar cumulative effects would be anticipated during decommissioning. These Cumulative Schemes are as follows, further details of the Cumulative Schemes can be found in **Chapter 15: Cumulative Effects and Interactions [EN010154/APP/6.1]**:

a. ID 5 – Residential Development of up to 1,100 dwellings 15/1347/OUT and associated applications: 24/0456/RESM / 22/0174/RESM / 21/0276/RESM;
b. ID 8 – Residential Development for up to 144 dwellings 18/0760/OUT / 21/1045/RESM;
c. ID 13 – Lincoln to Grantham Potable Water Pipeline - 18/1560/EIASCO;
d. ID 33 – Commercial Development 20/1523/FUL;
e. ID 34 – Residential development of 70 no. dwellings 20/1736/RESM;
f. ID 37 – Installation of a 100.3kW ground mounted solar PV installation - 21/1245/FUL;
g. ID 49 – Installation of a ground based solar PV array (approximately 6kW) - 22/0520/FUL;
h. ID 52 – Proposed hybrid planning application for the proposed Elsham to Lincoln Pipeline Scheme - 22/0899/FUL;
i. ID 54 – Erection of 148 dwellings with associated outbuildings/garages - 22/1376/FUL;
j. ID 58 – Erection of 18 no. affordable houses with associated infrastructure - 22/1785/FUL;
k. ID 63 – Springwell Solar Farm DCO - EN010149;
l. ID 86 – Navenby BESS Project - 25/0491/FUL;
m. ID 87 – Great North Road Solar DCO - EN010162;
n. ID 88 – One Earth Solar Farm DCO - EN010159;
o. ID 89 – Solar PV Development at Swinderby Quarry - PL/0055/23;
p. ID 90 – Residential Development of up to 120 no. Dwellings - 23/0628/OUT;
q. ID 95 – North Hykeham Relief Road - PL/0087/23;
r. ID 98 – Whisby Quarry change to silt management arrangements - EIA/02/04;
s. ID 99 – Installation of floating Solar PV Array - EIA/03/24;
t. ID 101 – Erection of 240MW Battery Storage Development - 24/0075/EIASCR;
u. ID 102 – Ministry of Defence erection of a new office and training building - 24/0959/FUL;
v. ID 103 – Leoda Solar Farm DCO - EN0110016;

w. ID 104 – To extend Norton Bottoms Quarry for the extraction of sand and gravel – PL/0097/17;

x. ID 105 – Erection of new 400kv Air Insulated Switchgear (AIS) substation and associated development (proposed National Grid substation near Navenby) 24/1080/EIASCR; and

y. ID 106 – For use of an additional area of Dunston quarry for the recycling of construction, demolition and excavation wastes - PL/0002/25.

12.10.6 The remaining Cumulative Schemes are scoped out of further assessment due to the Cumulative Schemes existing outside of the 2km ZoI for socio-economics, these were therefore deemed unlikely to have a cumulative impact on socio-economics.

Net Construction Employment

12.10.7 Should the proposed Cumulative Schemes go ahead, all the approved and submitted Cumulative Schemes listed above are anticipated to generate construction employment in the local economy and employment study area.

12.10.8 The scale of the construction employment generated cannot be readily quantified as this information is for most schemes not publicly available. In the instance where there is an overlap in construction activities between the Proposed Development and Cumulative Schemes, the combined effect of the Cumulative Schemes will lead to additional employment in the Study Area. It is likely that while there may be an increase in construction employment, the incremental change will be minor therefore the overall cumulative effect on the Study Area from the generation of workers during construction is anticipated to remain as a temporary Minor Beneficial effect which is considered Not Significant.

GVA

12.10.9 The combined effect from the generation of GVA arising from the construction and decommissioning of the Cumulative Schemes and the Proposed Development is likely to remain a temporary Minor Beneficial (Not Significant) effect on the Study Area and national economy.

Temporary Worker Accommodation

12.10.10 If the construction and decommissioning phases of multiple Cumulative Schemes and the Proposed Development were to overlap, this would in turn increase demand in the accommodation sector from the increased workforce at the peak construction phase. However, within the assessment for the Proposed Development it was anticipated that there would be no effect (i.e. not even a negligible or a minor effect) on the hotel, bed and breakfast, and inns accommodation sector. In line with the methodology presented in **Chapter 5: EIA Methodology**, **Section 5.8** of this ES **[EN010154/APP/6.1],** effects to temporary accommodation are therefore not considered within the cumulative assessment as the Proposed Development would not make a meaningful contribution to any cumulative effect which may occur from the other developments in the area.

PRoW

12.10.11 Potential effects on PRoW during construction and decommissioning have been assessed as negligible (not significant). Therefore, in line with the methodology presented in **Chapter 5: EIA Methodology**, **Section 5.8** of this ES **[EN010154/APP/6.1]**, effects to PRoW during construction are not considered within the cumulative assessment as the Proposed Development would not make a meaningful contribution to any cumulative effect which may occur from other developments in the area.

Agricultural Land

12.10.12 The agricultural land within the Proposed Development and Cumulative Schemes has been expressed as the proportion in Lincolnshire, and England, and represents a small proportion of total area. Furthermore, upon decommissioning, most of the agricultural land in solar schemes will be returned to its previous use.

12.10.13 The ZoI for assessing the potential for cumulative effects on land use for the purpose of this assessment is the County of Lincolnshire. Due to the number of proposed solar Nationally Significant Infrastructure Projects (NSIPs) in Lincolnshire, there is potential for cumulative effects to arise on agricultural land due to the potential for BMV land to be lost.

12.10.14 This cumulative effects assessment considers all solar NSIPs within the County of Lincolnshire, which are listed in **Table 12-29** below, and presents the best available information on BMV land take for each solar NSIP. Where information on BMV land take is not available due to the solar NSIP being at the pre-application stage, a reasonable likely-case outcome has been considered, taking reported likely projections on the presence of BMV land.

12.10.15 The County of Lincolnshire contains approximately 490,000ha of farmland (Ref 12-36). There is no definitive measure of BMV land in Lincolnshire (because provisional ALC mapping does not differentiate between Subgrades 3a and 3b). Estimates, derived for previous NSIP projects in Lincolnshire, estimate the proportion of BMV land to be in the order of 71%, based on extrapolation from available mapping. It is estimated that the solar NSIPs in Lincolnshire, together with the Proposed Development account for approximately 1.4% of the BMV land in the County. Whilst there is a degree of uncertainty around this proportion it is indicative that the solar NSIPs represent a small proportion of BMV land in the County.

12.10.16 No significant effects on agricultural land were reported for any of the solar NSIPs identified in **Table 12-29**. All the developments will be reversible and the land is projected to be returned to agriculture on decommissioning, except for relatively small areas used for habitat creation, such as woodland planting, which is anticipated to be retained.

12.10.17 Whilst it is not possible to precisely quantify the use of BMV land for every planned solar development in the region because of different project stage, analysis of the proposed NSIPs in **Table 12-29** signify that the effect on agricultural land, including BMV, across the County is likely to remain minimal, as it comprises only a small fraction of agricultural land. Therefore, the cumulative effect on agricultural land associated with the Proposed

Development remains not significant when considered at the County level. This is no greater than the effect of the Proposed Development in isolation.

Table 12-29: Approximate BMV land under solar infrastructure for solar NSIPs in Lincolnshire County

Solar NSIP	Approximate BMV land under solar infrastructure (ha)	Distance from the Proposed Development (km)
Little Crow Solar Park	36.6	43.41
Cottam Solar Project	48.1	14.88
Tillbridge Solar Project	60.3	14.99
Gate Burton Energy Park	73.6	14.99
Steeple Renewables	774	18.39
One Earth Solar	900*	7.21
West Burton	199.5	10.54
Great North Road Solar Project	1450*	8.52
Springwell	541	0
Beacon Fen Energy Park	233	15.24
Heckington Fen Solar Park	257	20.9
Temple Oaks Renewable Energy Park	0	25.96
Mallard Pass	14.4	43.14
Leoda Solar	Not available	
Fosse Green Energy	283	-
Total	4828.5	

* *Approximation of BMV land under solar infrastructure based on limited project information. Information includes: reported 60% high likelihood of BMV land, ahead of field survey (One Earth Solar); estimated 50:50 subgrade 3a:3b across the order limits for Great North Road Solar.*

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Residential Properties, Business Premises and Community Facilities

12.10.18 During the construction phase of the Proposed Development, effects on the amenity of residential properties, business premises and community facilities are assessed to be not significant). There is limited information available on how the Cumulative Schemes might affect such assets during the construction phase, however based on the assumption that each Scheme will be designed to minimise such impacts wherever possible, it is considered that the cumulative effect is likely to remain not significant as is the case for the Proposed Development in isolation. Any further information released on the

impacts of the Schemes on residential properties, business premises and community facilities available will be considered further in the ES Chapter.

Visitor Attractions and Recreational Facilities

12.10.19 Potential effects on visitor attractions and recreational facilities during construction have been assessed as negligible. Therefore, in line with the methodology presented in **Chapter 5: EIA Methodology**, **Section 5.8** of this ES **[EN010154/APP/6.1]** effects to visitor attractions and recreational facilities during construction are not considered within the cumulative assessment as the Proposed Development would not make a meaningful contribution to any cumulative effect which may occur from other developments in the area.

Development Land

12.10.20 Potential effects on development land during construction have been assessed as negligible. Therefore, in line with the methodology presented in **Chapter 5: EIA Methodology**, **Section 5.8** of this ES **[EN010154/APP/6.1]** effects to development land during construction are not considered within the cumulative assessment as the Proposed Development would not make a meaningful contribution to any cumulative effect which may occur from other developments in the area.

Operation and Maintenance

Operational Employment

12.10.21 Potential effects on employment during operation have been assessed as negligible (not significant). Therefore, in line with the methodology presented in **Chapter 5: EIA Methodology**, **Section 5.8** of this ES **[EN010154/APP/6.1]**, effects to employment during operation are not considered within the cumulative assessment as the Proposed Development would not make a meaningful contribution to any cumulative effect which may occur from other developments in the area.

PRoW

12.10.22 During the operational phase of the Proposed Development, effects on PRoW are assessed to be minor adverse (not significant). There is limited information available on how the Cumulative Schemes might affect such PRoW during the operation phase, however based on the assumption that each Scheme will be designed to minimise adverse impacts wherever possible, it is considered that the cumulative effect is likely to remain minor beneficial (not significant).

Agricultural Land

12.10.23 Effects on agricultural land would occur as long-term effects arising from the construction of the Proposed Development and hence have been reported for the construction phase. These were assessed as not significant. The solar NSIPs in Lincolnshire, considered cumulatively, will upon decommissioning be returned to agriculture with soil resources in a healthy condition. The cumulative effect of the Proposed Development is assessed to be not significant, neither in respect of the adverse withdrawal of land from agriculture

nor the positive effect of improving soil health resulting from reduction in cultivation.

Residential Properties, Business Premises and Community Facilities

12.10.24 Potential effects on the amenity of residential properties, business premises and community facilities during operation have been assessed as not significant. Therefore, in line with the methodology presented in **Chapter 5: EIA Methodology**, **Section 5.8** of this ES **[EN010154/APP/6.1]**, effects during operation are not considered within the cumulative assessment as the Proposed Development would not make a meaningful contribution to any cumulative effect which may occur from other developments in the area.

Visitor Attractions and Recreational Facilities

12.10.25 Potential effects on the amenity of visitor attractions and recreational facilities during operation have been assessed as negligible (not significant). Therefore, in line with the methodology presented in **Chapter 5: EIA Methodology**, **Section 5.8** of this ES **[EN010154/APP/6.1]**, effects during operation are not considered within the cumulative assessment as the Proposed Development would not make a meaningful contribution to any cumulative effect which may occur from other developments in the area.

Development Land

12.10.26 Potential effects on development land during operation of the Proposed Development have been assessed as negligible. Therefore, in line with the methodology presented in **Chapter 5: EIA Methodology**, **Section 5.8** of this ES **[EN010154/APP/6.1]**, effects to development land during operation are not considered within the cumulative assessment as the Proposed Development would not make a meaningful contribution to any cumulative effect which may occur from other developments in the area.

12.11 References

Ref 12-1 Ministry of Agriculture, Food and Fisheries, (1988); Agricultural Land Classification of England and Wales- Revised criteria for grading the quality of agricultural land.

Ref 12-2 Defra (2018). Code of Practice for the Sustainable Use of Soils on Construction Sites. https://www.gov.uk/government/publications/code-of-practice-for-the-sustainable-use-of-soils-on-construction-sites

Ref 12-3 Department of Energy and Climate Change (DECC) (2011) National Policy Statement for Energy (EN-1). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/47854/1938-overarching-nps-for-energy-en1.pdf.

Ref 12-4 Department for Energy Security & Net Zero (2024) Overarching National Policy Statement for Energy (EN-1). Available at: EN-1 Overarching National Policy Statement for Energy (publishing.service.gov.uk)

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