



Tween Bridge Solar Farm

A Nationally Significant Infrastructure Project in the Energy Sector

Preliminary Environmental Information Report

Chapter 11 – Socio Economics

October 2023



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11. Socio Economics

11.1. Introduction

11.1.1. This chapter of the working draft PEIR assesses the likely significant effects of the Scheme on socio economics.

11.1.2. This assessment reports on the baseline and Scheme design information available at the time of writing this working draft PEIR. The PEIR will be updated as further assessments become available and any updates to the baseline will be reported in the next iteration of the PEIR which will be presented as part of the statutory pre-application consultation. Consultation responses received to date as part of the Scoping Opinion adopted by the Planning Inspectorate (on behalf of the Secretary of State) on 13 March 2023 have been taken into account during the preparation of this chapter and this is discussed in detail below. The assessment has been carried out by Pegasus Group.

11.1.3. This chapter is supported by the following figures (figures are embedded within the chapter):

- **Figure 11.1** – Site Location in context of surrounding administrative boundaries
- **Figure 11.2** – Population Change, 2011 – 2021 (2011=100)
- **Figure 11.3** – Gross Value Added, 2011–2021 (2011=100)
- **Figure 11.4** – Proportion of GVA contributed by Construction & Agriculture Sectors
- **Figure 11.5** – Skill profile of resident working age (16–64) population, 2021
- **Figure 11.6** – IMD map of LSOAs covered by Scheme
- **Figure 11.7** – Employment change, 2015–21
- **Figure 11.8** – Claimant count as a proportion of working age (16–64) population, February 2020–June 2023

11.1.4. There are no appendices supporting this chapter.

11.1.5. Baseline and assessment work is ongoing, it is anticipated that the following information will be made available for the next iteration of the PEIR:

- Baseline information relating to East Riding of Yorkshire Council, in the same way that information is presented relating to Doncaster Borough Council and North Lincolnshire Council administrative areas.
- Consideration of Cumulative Impacts.
- Further assessment against the detailed design parameters of the scheme.
- Outline Supply Chain, Employment and Skills Plan.

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- Accommodation Strategy.

11.2. Consultation

11.2.1. No consultation outside of the formal Scoping Opinion process has been undertaken in relation to socio-economics to date (ref **Table 11.1**). However, it is expected that consultation with Doncaster Borough Council and North Lincolnshire Council will be undertaken between drafting of the PEIR and submission of the full and final application in respect of provisions to be made relating to the preparation of an Outline Supply Chain, Employment and Skills Plan, along with a potential Accommodation Strategy.

Table 11.1 Summary of Consultation

CONSULTEE	SUMMARY OF CONSULTEE RESPONSE	HOW RESPONSE HAS BEEN ADDRESSED BY APPLICANT
N/A	None to date to record	N/A

11.3. Assessment Approach

Methodology

11.3.1. There is no specific guidance available which establishes a methodology for undertaking an Environmental Impact Assessment (EIA) of the socio-economic effects of a proposed development. The approach that has been adopted for this assessment is based on professional experience and best practice, and in consideration of relevant policy requirements at the national, regional and local scale.

11.3.2. The assessment specifically includes the following:

- Identification of receptors relevant to the potential for socio-economic effects that may arise as a result of the Scheme.
- Identification of the socio-economic baseline in respect of each of the key socio-economic issues identified, focusing on the characteristics of the economy and labour force. These characteristics have been used as a measure for assessing future changes associated with or resulting from the scheme.
- Analysis of the full range of socio-economic effects, both direct and indirect, arising from the scheme, during the construction (short term effects), operation (long term effects), and decommissioning (short term effects).

11.3.3. The baseline information has been collated with reference to the following:

- Overarching National Policy Statement for Energy (EN-1) (July 2011)¹.

¹ Overarching National Policy Statement for Energy (EN-1). Department for Business, Energy & Industrial Strategy, July 2011.

- Draft Overarching National Policy Statement for Energy (EN-1) (March 2023)².
- National Policy Statement for Renewable Energy (EN-3) (2011)³.
- Draft National Policy Statement for Energy (EN-3) (March 2023)⁴.
- The National Planning Policy Framework (NPPF) (2023)⁵.
- Office for National Statistics (ONS) data (various outputs as individually referenced within this chapter)⁶.
- Ministry of Housing, Communities & Local Government (for deprivation data)⁷.
- The Government's Levelling Up White Paper⁸.
- Doncaster Local Plan (2015–2035)⁹.
- Doncaster Environment & Sustainability Strategy (2020–2030)¹⁰.
- North Lincolnshire Local Development Framework Core Strategy (adopted 2011)¹¹.
- East Riding of Yorkshire Local Plan (adopted 2016)¹².
- Humber 2030 Vision¹³.
- Information obtained from the Applicant.

Assessment of Significance

11.3.4. The first step in the assessment is to identify the sensitivity of the receptors. In socio-economic assessments, receptors (for example, the labour market) are not sensitive to

² Draft Overarching National Policy Statement for Energy (EN-1). Department for Business, Energy & Industrial Strategy, March 2023

³ National Policy Statement for Renewable Energy Infrastructure (EN-3). Department for Business, Energy & Industrial Strategy, 2011.

⁴ Draft National Policy Statement for Renewable Energy Infrastructure (EN-3). Department for Business, Energy & Industrial Strategy, March 2023.

⁵ National Planning Policy Framework (Revised), September 2023. Ministry of Housing, Communities and Local Government.

⁶ Office for National Statistics (ONS). Available at: Home – Office for National Statistics (ons.gov.uk).

⁷ National statistics: English indices of deprivation 2019, Ministry of Housing, Communities and Local Government, September, 2019.

⁸ Levelling Up. HM Government (2022).

⁹ Doncaster Local Plan, adopted September 2021. Doncaster Council.

¹⁰ Doncaster Environment & Sustainability Strategy (2020–2030). Doncaster Climate Commission, available at: [Climate and Environment – Team Doncaster](#)

¹¹ North Lincolnshire Local Development Framework Core Strategy (adopted June 2011). Available at: [Core Strategy 2010.indb \(northlincs.gov.uk\)](#).

¹² East Riding of Yorkshire Local Plan (Adopted April 2016). Available at: <https://downloads.eastriding.org.uk/corporate/pages/east-riding-local-plan/Strategy%20Document%20-%20Adopted%20April%202016%20lo.pdf>.

¹³ Humber 2030 Vision, Humber Energy Board, Greater Lincolnshire Local Enterprise Partnership. Available at: [Humber_2030_Vision.pdf \(greaterlincolnshirelep.co.uk\)](#).

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changing environmental conditions in the same way as many environmental receptors are. To address this, the assessment draws on a combination of measurable indicators and a consideration of the importance of the receptor in policy terms to gauge the receptor's sensitivity. For example, the number of jobs in the area may increase as new developments are completed and occupied by businesses. This is considered alongside the weight attached to these issues in local policy. **Table 11.2** shows the sensitivity criteria followed in this assessment.

Table 11.2: Criteria for Sensitivity of Receptor

Sensitivity	Criteria
High	<p>Evidence of direct and significant socio-economic challenges relating to receptor. Accorded a high priority in local, regional or national economic regeneration policy.</p> <p>Evidence of direct and significant socio-economic challenges including:</p> <ul style="list-style-type: none"> • Areas with levels of unemployment well in excess of regional / national averages, and/or trend of considerable job reduction identified. • Significantly high rise in population according to projections up to 2038. • Areas with high levels of deprivation, i.e. deprivation levels within 20% most deprived decile according to IMD 2019. • Areas with levels of gross value add (GVA¹⁴) that are lower than the regional and/or national averages overall. • Construction-related GVA lower than regional and/or national averages. • Areas with no capacity in respect of serviced and/or non-serviced accommodation.
Medium	<p>Some evidence of socio-economic challenges linked to receptor, which may be indirect. Change relating to receptor has medium priority in local, regional and national economic and regeneration policy.</p> <p>Some evidence of socio-economic challenges, including:</p> <ul style="list-style-type: none"> • Areas with levels of unemployment above regional / national averages, and/or trend of job reduction/no job growth identified. • Average rise in population according to projections up to 2038. • Areas with moderate levels of relative deprivation, i.e. deprivation levels within 50% most deprived deciles according to IMD 2019.

¹⁴ GVA is the value of goods and services produced less the cost of inputs and materials used in the production process.

	<ul style="list-style-type: none"> • Areas with levels of GVA that are similar to the regional and/or national averages overall. • Construction-related GVA that are similar to regional and/or national averages. • Areas with some surplus capacity in respect of serviced and/or non-serviced accommodation.
Low	<p>Little evidence of socio-economic challenges relating to receptor. Receptor is accorded a low priority in local, regional and national economic and regeneration policy.</p> <p>Little evidence of socio-economic challenges, including:</p> <ul style="list-style-type: none"> • Areas with levels of unemployment in line with regional / national averages, and/or trend of particular growth in job numbers identified. • Lower than average rise in population according to projections up to 2038. • Areas with low levels of relative deprivation, i.e. i.e. deprivation levels within 50% least deprived deciles according to IMD 2019). • Areas with levels of GVA that are in excess of the regional and/or national averages overall. • Construction-related GVA in excess of regional and/or national averages. • Areas with good surplus capacity in respect of serviced and/or non-serviced accommodation.
Negligible	<p>No socio-economic issues relating to receptor. Receptor is not considered a priority in local, regional and national economic development and regeneration policy.</p> <p>No socio-economic issues relating to a receptor, including:</p> <ul style="list-style-type: none"> • Areas with levels of unemployment less than regional / national averages. • Projected decrease / population projections estimated to remain same in period up to 2038. • Areas with low levels of relative deprivation, i.e. i.e. deprivation levels within 20% least deprived decile according to IMD 2019. • Areas with levels of GVA that are well in excess of the regional and/or national averages overall. • Construction-related GVA well in excess of regional and/or national averages. • Areas with high surplus capacity in respect of serviced and/or non-serviced accommodation.

11.3.5. The magnitude of change upon each receptor has been determined by considering the predicted deviation from baseline conditions, both before and, if required, after mitigation. The criteria used for the assessment of magnitude of change, which can be either positive (beneficial) or negative (adverse) are shown in **Table 11.3**.

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Table 11.3 Criteria for Magnitude of Change

Sensitivity	Criteria
High	<p>Scheme would cause a large change to existing socio-economic conditions in terms of absolute and/or percentage change.</p> <ul style="list-style-type: none"> • Considerable increase / decrease on existing baseline levels of employment. • Greater than 5% increase / decrease in GVA generated. • Considerable increase in local employment and training opportunities. • Considerable increase in business rates generated. • Considerable increase in accommodation demand, resulting in less than 10% surplus capacity for combined serviced and non-serviced bedspaces remaining following housing of workers.
Medium	<p>Scheme would cause a moderate change to existing socio-economic conditions in terms of absolute or percentage change.</p> <ul style="list-style-type: none"> • Moderate increase / decrease on existing baseline levels of employment. • 1% - 5% increase / decrease in GVA generated. • Moderate increase in local employment and training opportunities. • Moderate increase in business rates generated. • Moderate increase in accommodation demand, resulting in between 10.1% and 49.9% surplus capacity for combined serviced and non-serviced bedspaces remaining following housing of workers.
Low	<p>Scheme would cause a minor change to existing socio-economic conditions in terms of absolute and or percentage change.</p> <ul style="list-style-type: none"> • Limited increase / decrease on existing baseline levels of employment. • 0.1% - 0.99% increase / decrease in GVA generated. • Limited, but some increase in local employment and training opportunities. • Limited increase in business rates generated. • Limited increase in accommodation demand, resulting in more than 50% surplus capacity for combined serviced and non-serviced bedspaces remaining following housing of workers.
Negligible	<p>No discernible change in baseline socio-economic conditions.</p>

11.3.6. In reporting the effects of significance resulting from the scheme, at construction, operational and decommissioning stages, the assessment contextualises both the sensitivity of the receptor and the magnitude of change. The method uses the matrix shown in **Table 11.4**.

Table 11.4 Significance Matrix

Magnitude of Change	Sensitivity of Receptor				
		High	Medium	Low	Negligible
High		Major	Major	Moderate	Negligible
Medium		Major	Moderate	Minor to Moderate	Negligible
Low		Moderate	Minor to Moderate	Minor	Negligible
Negligible		Negligible	Negligible	Negligible	Negligible

Legislative and Policy Framework

National Planning Policy

Overarching National Policy Statement for Energy (EN-1) (July 2011)

11.3.7. The National Policy Statement for Energy (EN-1) (July 2011) set out the national policy for energy infrastructure, which encompassed renewable energy schemes generating more than 50MW. EN-1 is part of a suite of national policy statements issued by the then Secretary of State for Energy and Climate Change (now Secretary of State for Energy Security and Net Zero) and ratified by Parliament. It has effect in combination with the relevant technology specific NPS, National Policy for Renewable Energy Infrastructure (EN-3), and together they provide the primary basis for consenting made by the Examining Authority.

11.3.8. The Overarching National Policy Statement (NPS) for Energy (EN-1) notes that where a project is likely to have socio-economic impacts at local or regional levels, an assessment of such impacts should be undertaken. The existing socio-economic conditions in the areas surrounding the scheme should be described as well as how the scheme’s socio-economic impacts correlate with relevant local planning policies. EN-1 stipulated the importance of evidence-based socio-economic assessment.

11.3.9. In making their decision, EN-1 noted that the Planning Inspectorate National Infrastructure Team (formerly known as Infrastructure Planning Commission (IPC)) Secretary of State (SoS)) should consider any relevant positive provisions and legacy benefits made by the Applicant in relation to socio-economics. It is noted that the process has been revised since

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publication of EN-1 2011, and it is now the Secretary of State (SoS) that is the decision-maker; the Planning Inspectorate National Infrastructure Team is the Examining Authority.

Draft National Policy Statement for Energy (EN-1) (March 2023)

- 11.3.10. An update to the EN-1 (2011) was published in September 2021 (2021 Draft EN-1) and consultation closed in November 2021. A further updated draft of EN-1 was published for consultation in March 2023, which subsequently ended in June 2023. Key updates compared to the 2011 publication relate to the range of impacts to be considered and suggested specific mitigation relating to potential impacts during each of the phases of development.
- 11.3.11. The 2023 Draft EN-1 makes reference to a list of potential impacts to consider (as relevant) including (but not limited to) creation of jobs and training opportunities, contribution to low-carbon industries, provision of additional local services and improvements to local infrastructure, any indirect beneficial impacts for the region, effects on tourism, impact of a changing influx of workers, and cumulative effects.
- 11.3.12. The 2023 Draft EN-1 makes reference to the need to consider development of accommodation strategies, if appropriate, to address any potential impacts during the construction and decommissioning phases. In addition, it also refers to the potential for the SoS to require the approval of an employment and skills plan detailing arrangements to promote local employment and skills development opportunities.

National Policy Statement for Renewable Energy (EN-3) (2011)

- 11.3.13. Socio-economic impacts were referenced only in respect of onshore wind and biomass power in the National Policy Statement (NPS) for Renewable Energy (EN-3) published in July 2011.

Draft National Policy Statement for Renewable Energy (EN-3) (March 2023)

- 11.3.14. An update to the EN-3 (2011) was published in September 2021 (Draft 2021 EN-3), and a further revision was published in March 2023 (Draft 2023 EN-3). In this latest draft, consideration of solar and potential for associated socio-economic effects is referenced in respect of the potential for socio-economic benefits of the site infrastructure being retained after the operational life of solar photovoltaic generation.

National Planning Policy Framework

- 11.3.15. The most recent NPPF was published in September 2023. A key focus of the framework is to achieve sustainable development which requires three interdependent objectives that need to be pursued in a mutually supportive way:
- Economic Objective: Ensure that the economy is strong, responsive and competitive to support growth.
 - Social Objective: Ensure there is a sufficient supply and range of homes available to meet present and future demand.

- Environmental Objective: Ensure the natural, built and historic environment is protected including mitigating and adapting to climate.

11.3.16. Other relevant points to note from the revised NPPF include:

- Paragraph 60 states that the government have set the objective of significantly increasing the supply of homes, to achieve this there needs to be sufficient land available where it is needed, specific housing requirements need to be met and land with permission needs to be developed without unnecessary delay.
- Paragraph 73 of the NPPF states that to achieve the supply of a large number of homes it is often best done through planning for larger scale development, such as settlements or significant extensions to existing villages and towns, provided they are well located and designed, and supported by the necessary infrastructure.
- The NPPF places significant weight on the need to support economic growth and productivity with chapter 6 setting out the objective of building a strong and competitive economy. Paragraph 82 states that the planning policies should:
 - Set out a clear economic vision and strategy which positively and proactively encourages sustainable economic growth, having regard to Local Industrial Strategies and other local policies for economic development and regeneration.
 - Set criteria, or identify strategic sites, for local and inward investment to match the strategy and to meet anticipated needs over the plan period.
 - Seek to address potential barriers to investment, such as inadequate infrastructure, services or housing, or a poor environment.
 - Be flexible enough to accommodate needs not anticipated in the plan, allow for new and flexible working practices (such as live-work accommodation), and to enable a rapid response to changes in economic circumstances.
- Paragraph 83 finds that alongside this, planning policies and decisions should recognise and address the specific locational requirements of different sectors.

Levelling Up White Paper

11.3.17. The strategy presented by the UK Government's Levelling Up White Paper is underpinned by the fact that, although the UK as a whole is successful when compared to other countries globally, there is great disparity in respect of the shared value of that success within the UK itself and realising each communities' potential. As such, the White Paper sets out a programme to 'level up' the UK to transform places and boost local growth, including through, but not limited to, encouraging strong innovation, private sector investment, climate conducive development, and improvement in workers' skill and transport systems. The key missions set by the White Paper are, in summary:

- Boost in productivity, wages, jobs and living standards by investment and growth in the private sector.

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- Provide opportunities and improvement in public services.
- Contribute to and encourage a sense of community, local pride and belonging.
- Empowerment of local leaders and communities.

11.3.18. It is imperative that the needs of an area are reflected in the proposals made, so that the benefits brought by development will appropriately contribute to, and ultimately result in, true levelling up of the economy, the environment, and society within the UK.

Doncaster Local Plan

11.3.19. The Doncaster Local Plan 2015–2030 (adopted September 2021) outlines the vision of Doncaster, as well as the aims and objectives that enable development in Doncaster up to 2030. The plan aims to deliver positive sustainable economic, social and environmental development.

11.3.20. The vision for Doncaster is for it to be 'a thriving place to learn, work, live and care'. The strategy has four themes to help to achieve this vision:

- Learning – that prepares all children and young people for a life that is fulfilling.
- Working – in ways that create purpose and meaning, and allow more people to pursue their ambitions.
- Living – in a place that is vibrant and full of opportunity, where people enjoy spending time.
- Caring – together for the most vulnerable in communities.

11.3.21. Policy 58 of the local plan outlines Doncaster's strategic policy on low carbon and renewable energy. The council aims to increase the supply of low carbon and renewable energy generated.

11.3.22. The policy states that:

- 'Proposals will be supported which give priority to heat or power generation from light, water, waste, and other low carbon heat sources'.

Doncaster Environment & Sustainability Strategy

11.3.23. An Environment & Sustainability Strategy 2020 – 2030 has been developed in response to the climate change and biodiversity emergency declaration made by Doncaster Council in 2019.

11.3.24. The vision of this strategy is that 'Doncaster businesses, organisations and residents will deliver their contribution to the regional, national and international effort to tackle the climate change emergency; and in doing so will improve and maintain a pleasant and sustainable natural and built environment for everyone to enjoy'.

11.3.25. The ambition of the strategy is to become carbon neutral by 2040. This involves increasing the energy production from sustainable sources and capitalizing on opportunities in green technology industry sectors.

North Lincolnshire Local Development Framework

- 11.3.26. North Lincolnshire Local Development Framework Core Strategy was adopted in June 2011 and covers the twenty-year period up to 2026. The Strategy indicates that the ambition is to grow North Lincolnshire into an attractive and thriving place to live and work, while ensuring that all developments are sustainable and complement and enhance the area's high quality natural and built environment without any detrimental impact.
- 11.3.27. The Strategy acknowledges that the area is at the heart of the growing low carbon and green economy and there is significant interest in the area to develop various forms of green energy generation facilities.

East Riding of Yorkshire Local Plan

- 11.3.28. The current Local Plan was adopted in April 2016. The council has started to update the Local Plan and consult on proposed changes. In the meantime, the adopted plan remains material consideration.
- 11.3.29. Objective no. 11 of the Local Plan encourages growth, modernisation and diversification of the local economy to support existing and emerging economic sectors and clusters (associated with Policies S1, S2, S6, S7, EC1, EC2, EC3, EC5, A1-6). Linked to this is objective no. 14 which requires support to be given to a wide portfolio of energy infrastructure and businesses, and maximization of the potential for renewable energy and low carbon energy generation, whilst also minimising adverse impacts, including any cumulative landscape and visual effects (associated with Policies S1, S2, S6, EC1, EC5, A1, A3).
- 11.3.30. Objective no. 13 encourages a thriving and sustainable tourism and visitor economy, and enhancement of the tourism accommodation offer (associated with Policies S1, S3, S4, S7, EC2, EC3, ENV1, ENV2, ENV3, ENV4, A1-6).

Humber 2030 Vision

- 11.3.31. Greater Lincolnshire Local Enterprise Partnership (LEP) published the Humber 2030 Vision in which the three key objectives are to generate high-skilled, green jobs, encourage private investment to drive economic growth, and support a decarbonised future.

Scoping Criteria

- 11.3.32. The comments raised within the Planning Inspectorate Scoping Opinion dated 13 March 2023 relating to socio-economics are presented in **Table 11.5**.

Table 11.5 Extract of aspect based scoping table from Scoping Opinion for Tween Bridge Solar Farm

ID	REF	MATTER	PLANNING INSPECTORATE COMMENTS	APPLICANT'S RESPONSE
3.10.2	Table 3.4	Impacts on Population	Table 3.4 of the Scoping Report proposes that impacts on population are assessed within the Socio Economics ES chapter.	Potential effects on the population within the host authorities of

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			The Inspectorate is content with this approach.	the Scheme are assessed within this chapter, namely potential for employment, economic contribution and accommodation demand effects during construction and decommissioning, and potential for employment, economic contribution and business rates once the Scheme is operational.
3.10.3	Para 9.14	Baseline	Paragraph 9.14 of the Scoping Report only references data for Doncaster, although the Proposed Development is located across the boundary of two local authorities (City of Doncaster Council and North Lincolnshire Council). The description of baseline conditions and assessment in the ES should be sufficient to address impacts on all areas likely to be affected by the Proposed Development.	Baseline analysis and assessment consider both Doncaster and North Lincolnshire LPAs as the host authorities of the Scheme.

Limitations to the Assessment

- 11.3.33. Baseline information is derived from the latest available statistics, however there is often a time-lag associated with the publication of this data.
- 11.3.34. Information relating to construction cost estimates and duration of construction activities has been provided by the Applicant. Jobs generated by the construction and decommissioning period have been estimated based on Pegasus Group’s previous experience of similar scale solar energy projects, as well as benchmarking of similar scale projects for which applications have been made and information is in the public domain. In order to ensure a worst-case scenario, 609MWp of AC capacity has been used as the basis of these assumptions. An estimate of 1 FTE job per MW is subsequently used in the course of this assessment in respect of the construction and decommissioning phase assessments.

- 11.3.35. Use of transport movements to identify estimated job numbers generated by the construction and decommissioning phases has been considered. However, due to the Works Order Limits layout, assumed management of and proposed activities associated with the construction and decommissioning phases and subsequent translation into traffic movements, a worst case position that is considered to be most robust and transparent in respect of likely jobs generated by the Scheme is more suitably based on energy generation output and benchmarking.
- 11.3.36. The Applicant is intending to accommodate any construction or decommissioning workers who are from outside of the local area in Serviced and/or Non-Services Accommodation as opposed to residential dwellings (rental or otherwise). As such, consideration of potential effects on housing supply, be it affordable or otherwise, is scoped out of the assessment.
- 11.3.37. The baseline and associated assessment relating to Accommodation Demand has included existing Serviced and Non-Serviced Accommodation bedspaces only, i.e. only those bedspaces which are included in latest published data. It is acknowledged that new Serviced and/or Non-Serviced Accommodation is likely to be available by the time the Scheme and Cumulative Schemes are in construction. It is considered that excluding this information from the baseline and assessment at this time provides as a reasonable worst-case assumption for the basis of the assessment.
- 11.3.38. Full information regarding the expected effects of the Cumulative Sites is not publicly available at the time of writing this assessment. As such, a list of the Sites to be included in the analysis at a future date is provided at the end of this chapter. This will be amended to reflect feedback received on the PEIR and a full assessment undertaken for submission with the final ES chapter.

11.4. Baseline Conditions

Summary of Scheme Description

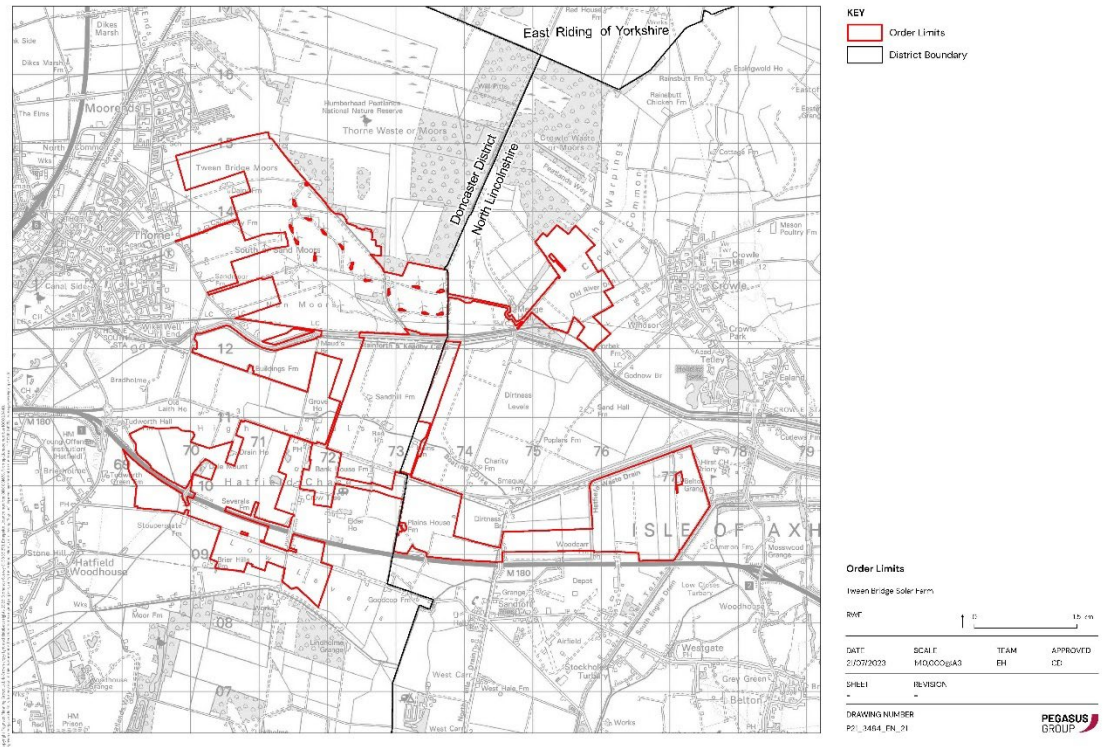
- 11.4.1. The full description of development is presented in draft PEIR Chapter 2: Scheme Description. The information presented here are items of relevance to the socio-economics assessment specifically, and inform the parameters of the assessment.
- 11.4.2. The main element of the proposal is the construction, operation, maintenance and decommissioning of a ground mounted solar park with an intended design capacity of over 50MWp (megawatts peak), an energy storage facility and an export/import connection to the National Grid.
- 11.4.3. Total land coverage of the solar panels would be c 3.8 square km. Based on a wattage output of 570Wp panel, the potential maximum range for energy generation is up to 818 MWp of DC capacity. This would equate to around 606MWp of AC capacity.
- 11.4.4. An operational lifespan of 40 years would be sought linked to the first export date from the Scheme.

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Study area

11.4.5. **Figure 11.1** shows the Site location in the context of surrounding administrative boundaries. As shown, the Site is situated in both Doncaster and North Lincolnshire. All effects will be considered in respect of the implications for both Districts.

Figure 11.1: Site Location in context of surrounding administrative boundaries



11.4.6. Where appropriate, benchmark data for the South Yorkshire region and Great Britain / England are also provided.

Identification of Receptors

11.4.7. There is no guidance or policy relevant to socio-economics that would dictate the study area and relevant receptors chosen. Instead, the choice of study area and relevant receptors associated with the scope of the socio-economic assessment are borne out of a detailed review of publicly available baseline data which informs the assessment. The spatial scale for which each dataset is available dictates the study area and the receptors to be used. Further detail is provided in **Table 11.6**.

11.4.8. The baseline presented in this report represents the current baseline at the time of submission and is based on the most recent publicly available socio-economic data. It is not possible to consider a future baseline position (i.e. to align with the build phase and operational phase) because the socio-economic data required to do this are not available.

Table 11.6: Summary of Assessment Scope and Relevant Receptors

Potential effect	Relevant Study Area	Potential Receptor	Justification for Study Area / Relevant Receptor
CONSTRUCTION			
Employment	District scale (Doncaster and North Lincolnshire)	Workforce in host local authorities including Doncaster and North Lincolnshire	Relevant baseline data available at District scale which enables sensitivity of receptor to be identified, and subsequently the magnitude of change to be measured.
Economic contribution	District scale (Doncaster and North Lincolnshire)	Economies of host local authorities including Doncaster and North Lincolnshire	Relevant baseline data available at District scale which enables sensitivity of receptor to be identified, and subsequently the magnitude of change to be measured.
Accommodation demand	District scale (Doncaster, North Lincolnshire, and East Riding)	Tourism economy, specifically both Serviced and Non-Serviced Accommodation provision, of host local authorities including Doncaster, North Lincolnshire and East Riding and visitors to the area	Relevant baseline data available at District scale which enables sensitivity of receptor to be identified, and subsequently the magnitude of change to be measured.
OPERATION			
Employment	District scale (Doncaster and North Lincolnshire)	Workforce in host local authorities including Doncaster and North Lincolnshire	Relevant baseline data available at District scale which enables sensitivity of receptor to be identified, and subsequently the magnitude of change to be measured.
Economic contribution	District scale (Doncaster and North Lincolnshire)	Economies of host local authorities including Doncaster and North Lincolnshire	Relevant baseline data available at District scale which enables sensitivity of receptor to be identified, and subsequently the magnitude of change to be measured.
Business rates	District scale (Doncaster and North Lincolnshire)	Economies of host local authorities including	Relevant baseline data available at District scale which enables sensitivity of

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		Doncaster and North Lincolnshire	receptor to be identified, and subsequently the magnitude of change to be measured.
DECOMMISSIONING			
Employment	District scale (Doncaster and North Lincolnshire)	Workforce in host local authorities including Doncaster and North Lincolnshire	Relevant baseline data available at District scale which enables sensitivity of receptor to be identified, and subsequently the magnitude of change to be measured.
Economic contribution	District scale (Doncaster and North Lincolnshire)	Economies of host local authorities including Doncaster and North Lincolnshire	Relevant baseline data available at District scale which enables sensitivity of receptor to be identified, and subsequently the magnitude of change to be measured.
Accommodation demand	District scale (Doncaster, North Lincolnshire and East Riding)	Tourism economy, specifically both Serviced and Non-Serviced Accommodation provision, of host local authorities including Doncaster, North Lincolnshire and East Riding and visitors to the area	Relevant baseline data available at District scale which enables sensitivity of receptor to be identified, and subsequently the magnitude of change to be measured.

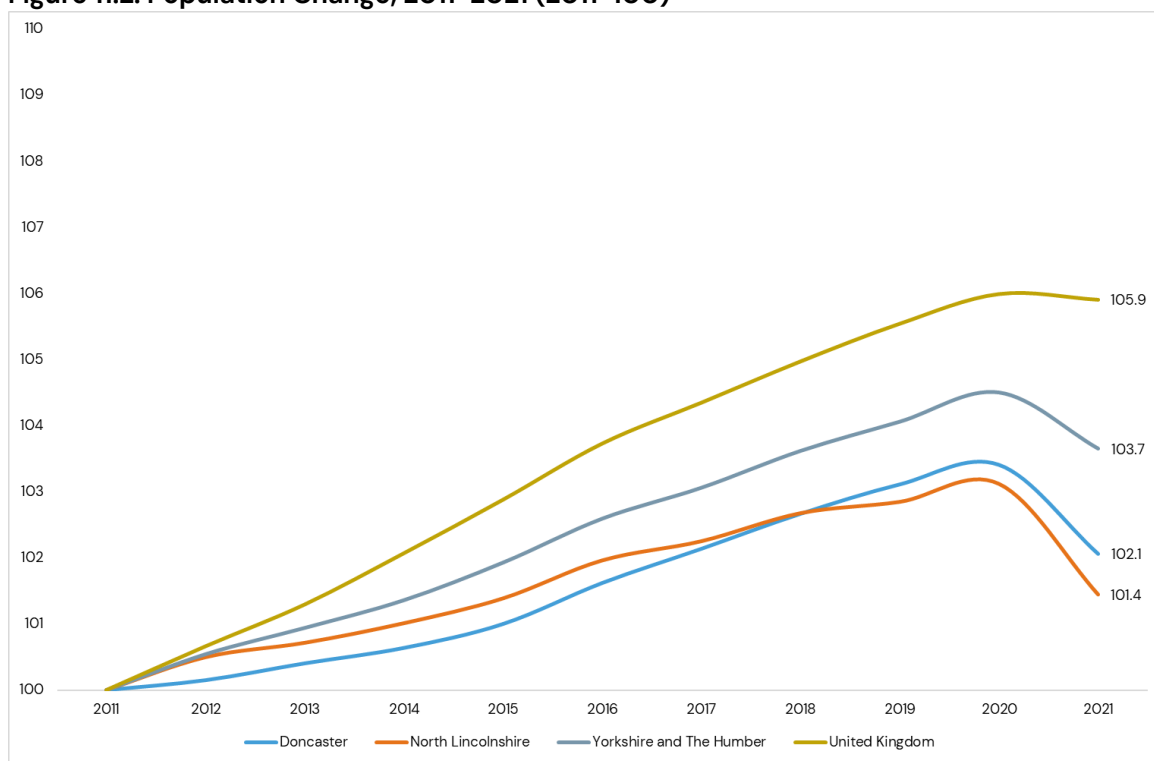
Baseline Survey

Information

Population

11.4.9. Based on ONS data, the population in Doncaster grew from around 302,468 to 308,705 between 2011 and 2021, a rise of 2.1%. Over the same timeframe, North Lincolnshire saw an increase of 1.4% (from 167,516 to 169,940). **Figure 11.2** shows the population growth in this timeframe for the districts and comparator areas. The growth rate of the population in the two districts was lower than the Yorkshire and The Humber Region and Great Britain which were 3.7% and 5.9% respectively.

Figure 11.2: Population Change, 2011–2021 (2011=100)



Source: ONS, Population Estimates

11.4.10. Data on population change by age in Doncaster shows that from 2011 to 2021, the fastest growing population group was those aged 65 and over with a growth rate of 17.1% (increase of 8,787 – see **Table 11.7**). This was below the rate of growth seen in the over 65’s in Yorkshire & The Humber (18.9%) and in Great Britain (19.8%). The working age population (16–64) decreased by 1.2% (2,300) between 2011 and 2021 in Doncaster. This is comparable with a growth of 0.2% (6,171) in Yorkshire & The Humber and 3% (1.2million) in Great Britain. The young dependent population (0–15) also decreased in this period, by 0.4%. Yorkshire & The Humber and Great Britain, saw increases of 2.1% and 3.7% respectively, in the same time frame.

Table 11.7: Population Change by Age in Doncaster, 2011–2021

	2011	2021	Absolute Change	% Change
0–15	57,411	57,161	-250	-0.4%
16–64	193,599	191,299	-2,300	-1.2%
65+	51,458	60,245	8,787	17.1%
Total	302,468	308,705	6,237	2.1%

Source: ONS, Population Estimates

11.4.11. In North Lincolnshire fastest growing population group was also those aged 65 and over with a growth rate of 23.7% (increase of 7,200 – see **Table 11.8**). The working age population (16–64) decreased by 3.4% (3,644) between 2011 and 2021 and the young dependent population (0–15) decreased by 3.6%.

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Table 11.8: Population Change by Age in North Lincolnshire, 2011–2021

	2011	2021	Absolute Change	% Change
0–15	31,266	30,134	-1,132	-3.6%
16–64	105,934	102,290	-3,644	-3.4%
65+	30,316	37,516	7,200	23.7%
Total	167,516	169,940	2,424	1.4%

Source: ONS, Population Estimates

- 11.4.12. The latest ONS population projections were published in March 2020. They show that the population of Doncaster is expected to increase by 7.1% between 2018 and 2038 (22,050 additional people) whilst North Lincolnshire is projected to grow by 3.1% (5,326 additional people) (see **Table 11.9**). These growth rates compare to 6.2% at the regional scale and 8.6% at the national scale.

Table 11.9: Future Population Change, 2018–2038

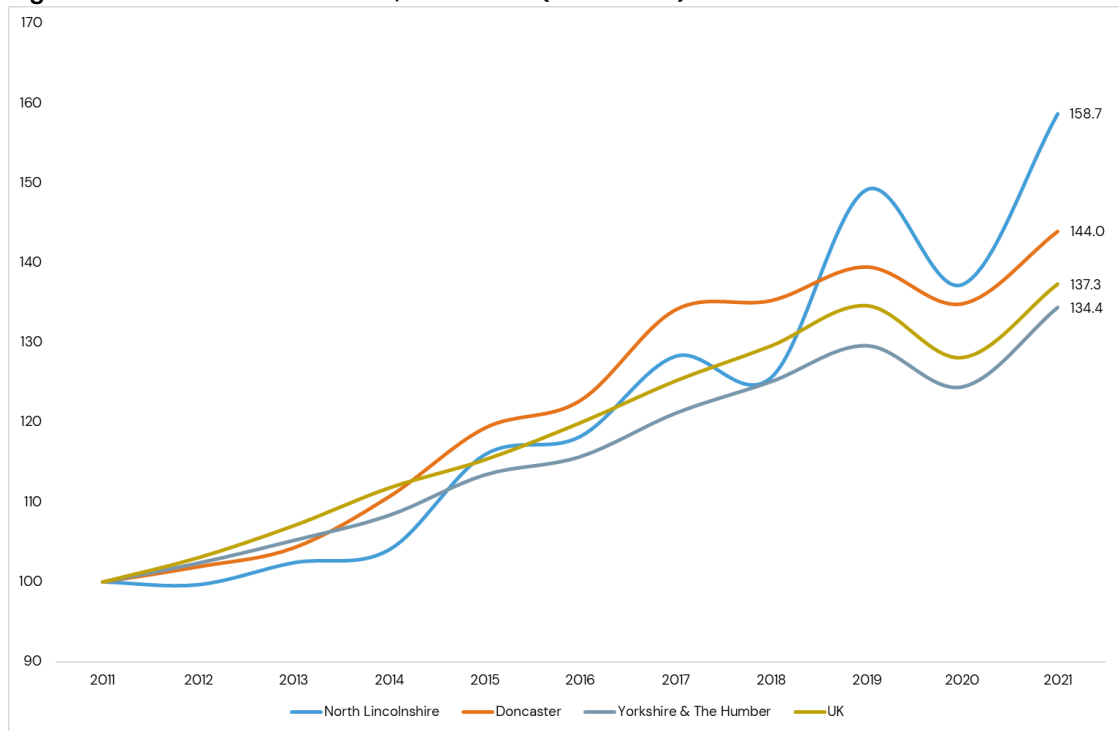
	2018	2038	Absolute Change	% Change
Doncaster	310,542	332,592	22,050	7.1%
North Lincolnshire	172,005	177,331	5,326	3.1%
Yorkshire & The Humber	5,479,615	5,819,573	339,958	6.2%
England	55,977,178	60,766,251	4,789,073	8.6%

Source: ONS, Population Projections

Economic Output

- 11.4.13. Economic output can be measured by looking at gross value added (GVA), which for Doncaster, in 2021, totaled £6billion across all industries while this figure was £5.4billion in North Lincolnshire. Over the past 10 years this figure has increased by 44% in Doncaster, which is above the regional and national changes (34.4% and 37.3% respectively), but below 58.7% in North Lincolnshire. **Figure 11.3** shows this data in more detail.

Figure 11.3: Gross Value Added, 2011–2021 (2011 = 100)

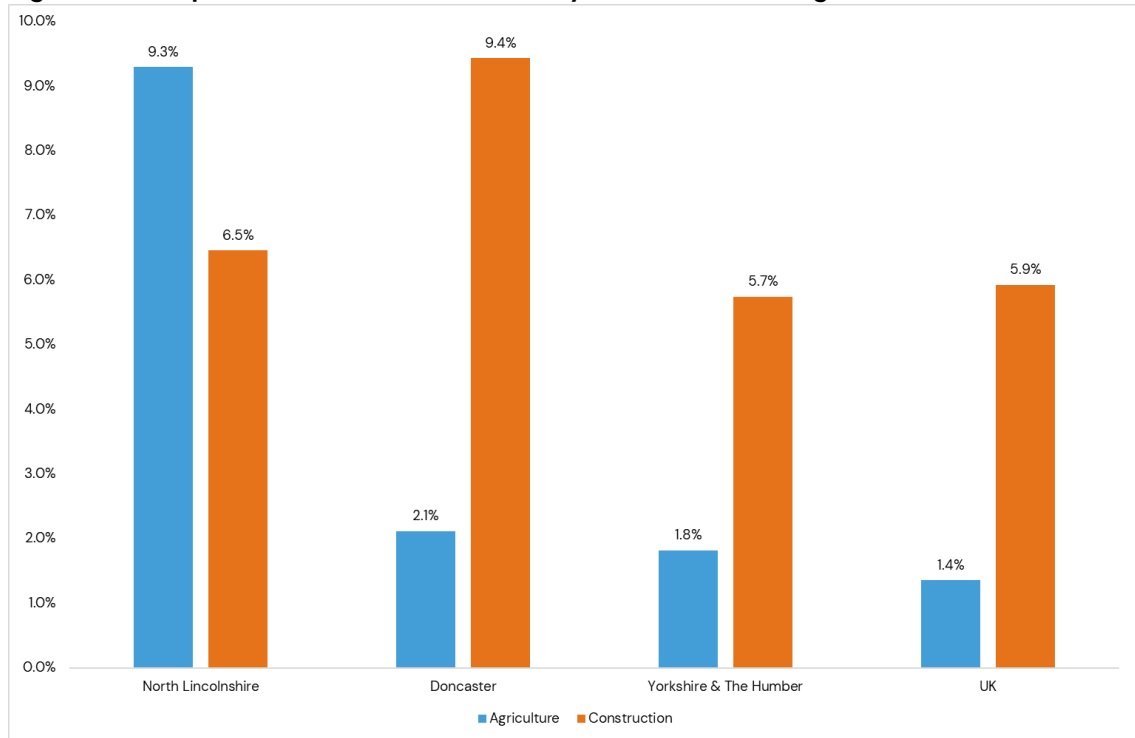


Source: ONS

11.4.14. Looking more specifically at GVA per sector in Doncaster, construction contributed £567million in 2021, whilst agriculture contributed £127million, equating to 9.4% and 2.1% of total GVA respectively. In North Lincolnshire construction GVA for 2021 totaled around £346million (6.5% of total GVA), whilst agriculture contributed £498million (9.3% of total GVA). As shown in **Figure 11.4**, these two sectors account for a larger proportion of GVA at the district scale compared to regional and national figures.

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Figure 11.4: Proportion of GVA contributed by Construction & Agriculture Sectors

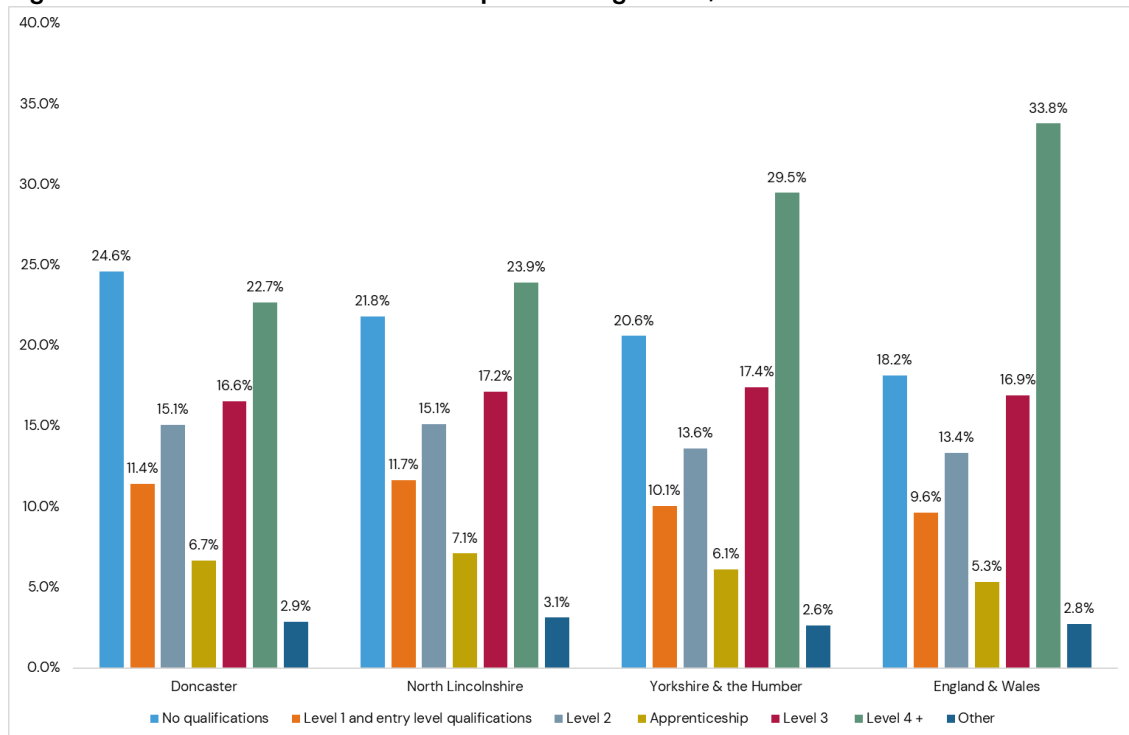


Source: ONS

Skills

11.4.15. **Figure 11.5** shows the highest qualification held by people aged 16+ living in Doncaster, North Lincolnshire, Yorkshire & The Humber and the UK. In Doncaster 22.7% of people aged 16+ have a degree level or higher qualification (Level 4+). This is below the proportion of people aged 16+ with a degree qualification or higher in North Lincolnshire (23.9%), Yorkshire & The Humber (29.5%) and the UK (33.8%). There is also a larger proportion of people aged 16+ in Doncaster that have no qualifications at 24.6%. This compares to 21.8% in North Lincolnshire, 20.6% in Yorkshire & The Humber and 18.2% in England and Wales.

Figure 11.5: Skill Profile of Resident Population Aged 16+, 2021



Source: ONS, Annual Population Survey, 2021

Deprivation

- 11.4.16. The 2019 Index of Multiple Deprivation provides an indication of the average levels of deprivation for Lower Layer Super Output Areas (LSOAs) across England. The index provides an overall assessment of the average levels of deprivation as well as an assessment against domains of deprivation. In total, England has 32,844 LSOAs.
- 11.4.17. The Scheme falls across several LSOAs (Doncaster 001A, Doncaster 001B, Doncaster 001D, Doncaster 008D, North Lincolnshire 020B, and North Lincolnshire 006C), which show varying levels of deprivation. The lowest overall rank was for Doncaster 001D which ranked 3,990, placing the LSOA in the 20% most deprived LSOAs across the country. Whilst the highest overall rank was for North Lincolnshire which ranked 23,051 which put it in the 30% least deprived LSOAs in the country. Detail on individual domains is shown in **Table 11.10** below.

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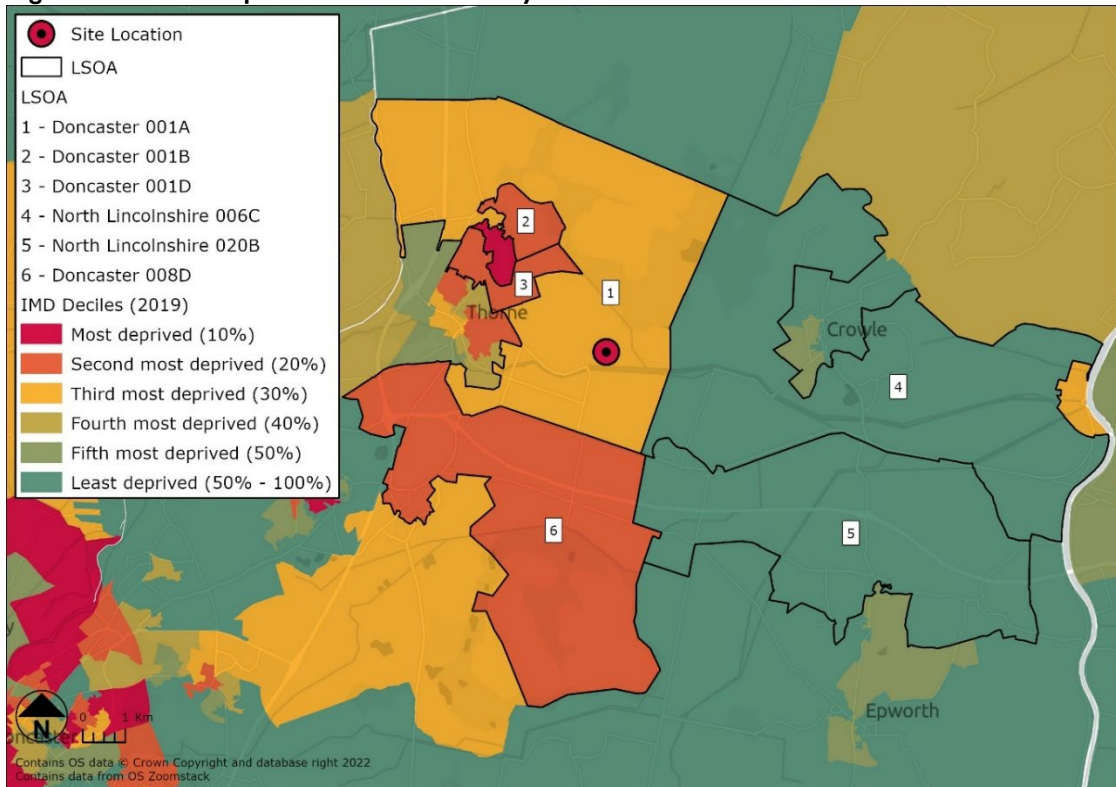
Table 11.10: Index of Multiple Deprivation

	Doncaster 001A	Doncaster 001B	Doncaster 001D	Doncaster 008D	North Lincolnshire 020B	North Lincolnshire 006C
Overall IMD	7,396	4,292	3,990	6,334	23,051	20,122
Income	8,863	5,070	4,142	10,901	27,801	18,945
Employment	6,854	4,801	2,346	7,132	24,383	20,384
Education & Training	3,119	564	4,398	9,376	21,730	19,099
Health	7,367	5,451	3,974	4,732	18,894	17,258
Crime	4,510	5,586	3,526	2,240	14,318	17,453
Barriers to Housing and Services						
	27,126	25,933	22,671	5,880	7,543	13,787
Living Environment						
	21,449	25,098	29,698	12,407	19,124	13,670

Source: Ministry for Housing Communities & Local Government

11.4.18. **Figure 11.6** shows the area surrounding the Scheme and the relevant LSOAs outlined above. As shown in the figure there are varying levels of deprivation with some LSOAs in the area being in the 10% most deprived across the country, whilst LSOAs to the East, North and South of the Scheme are some of the least deprived.

Figure 11.6: IMD map of LSOAs covered by Scheme

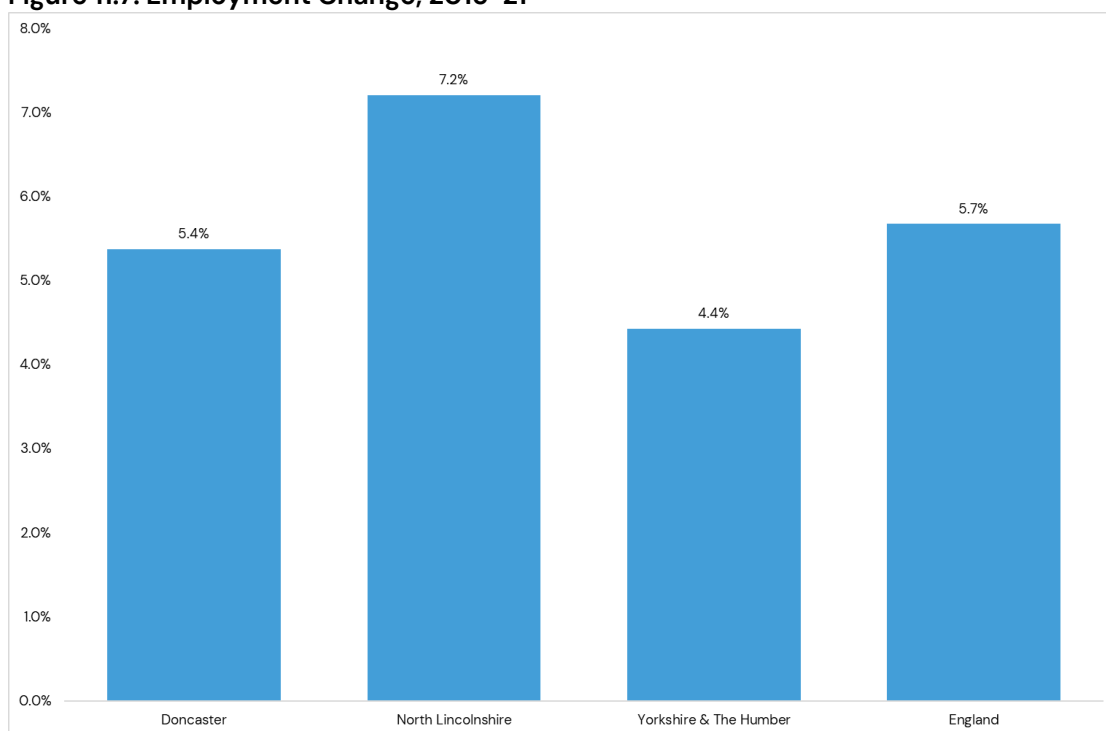


Source: Ministry for Housing Communities & Local Government

Employment

11.4.19. A review of the local labour market helps to provide some context as to how t the Scheme will support growth of the area’s economy. As of 2021, around 129,250 people worked in Doncaster and around 79,500 people worked in North Lincolnshire. **Figure 11.6** shows that between 2015 and 2021 Doncaster saw 5.4% growth in jobs, an absolute increase of 6,600. This was below the growth seen in North Lincolnshire, where between 2015 and 2021 jobs grew by 7.2% (5,350). Looking into change by sector in Doncaster the transport & storage sector saw the largest increase in jobs (78% – 7,000 additional jobs), whilst agriculture jobs increased by 11% (100 additional jobs) and construction jobs grew by 14% (1,000 additional jobs). Yorkshire & The Humber and England also both experienced jobs growth over this timeframe, seeing increases of 4.4% (107,000 additional jobs) and 5.7% (1.5 million additional jobs) respectively.

Figure 11.7: Employment Change, 2015–21



Source: ONS, Business Register & Employment Survey

11.4.20. **Table 11.11** shows employment shares by broad sector in Doncaster, North Lincolnshire, Yorkshire & The Humber and England as of 2021. The largest sector in terms of employment in Doncaster was the public administration, education and health sector which accounted for 30.2% (39,000 jobs) of employment in. This sector also accounted for the highest proportion of jobs in Yorkshire & The Humber (28.4%) and England (25.7%). The largest sector in terms of employment in North Lincolnshire was the manufacturing sector which accounted for 22.9% of employment and supported 19,000 jobs as of 2021. North Lincolnshire also saw a higher proportion of employment in the agriculture, mining and utilities sector (3%) compared to regional (2.5%) and national (2.4%) figures. While both Doncaster and North Lincolnshire saw a higher proportion of jobs in the construction sector (6.2% and 7.5% respectively) compared to Yorkshire & The Humber (4.6%) and England (4.9%).

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Table 11.11: Employment by Sector, 2021

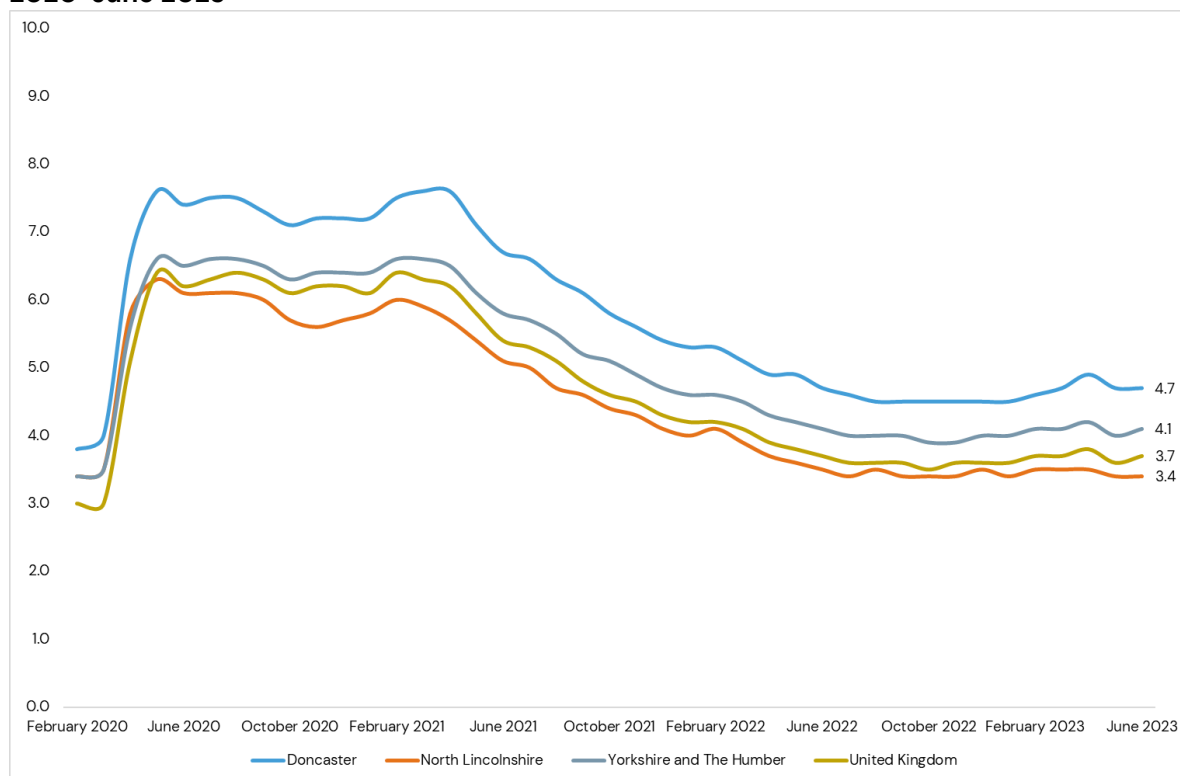
Sector	Doncaster	North Lincolnshire	Yorkshire & The Humber	England
Agriculture, mining, utilities etc.	1.7%	3.0%	2.5%	2.4%
Manufacturing	8.5%	23.9%	11.5%	7.3%
Construction	6.2%	7.5%	4.6%	4.9%
Wholesale & retail	14.3%	12.3%	13.5%	14.4%
Transport & storage	12.4%	10.1%	5.6%	5.2%
Accommodation & food services	6.2%	5.7%	7.2%	7.4%
Information & communication	1.5%	0.8%	3.1%	4.5%
Business, financial & professional services	15.1%	10.4%	19.4%	23.7%
Public admin, education & health	30.2%	23.3%	28.4%	25.7%
Arts, entertainment, recreation & other services	3.9%	3.2%	4.2%	4.3%

Source: ONS, Business Register & Employment Survey

Unemployment

- 11.4.21. The claimant count records the number of people claiming Jobseeker's Allowance plus those who claim Universal Credit and are required to seek work and be available for work.
- 11.4.22. **Figure 11.8** shows the claimant count as a proportion of people aged 16–64 in Doncaster, North Lincolnshire, Yorkshire & The Humber and the UK for the period February 2020 to June 2023, for all residents aged 16+. A sharp rise is evident in the claimant count between March and April 2020, which will be down to the impact of Covid-19. This is down in part to more people claiming unemployment-related benefits and also because of changes made to the system by government which means more people became eligible to claim benefits.
- 11.4.23. In February 2020, the claimant count in Doncaster was 3.8% and by June 2023 it had risen to 4.7%, which represented an increase of 1,645 more people claiming benefits. The claimant count in Doncaster is currently above that in North Lincolnshire (3.4%), Yorkshire & The Humber (4.1%) and the UK (3.7%) as of June 2023. It is still reasonable to assume that the legacy effects of the pandemic mean the claimant rate will be higher than it was pre-March 2020.

Figure 11.8: Claimant Count as a Proportion of Working Age (16–64) Population, February 2020–June 2023



Source: ONS, Claimant Count

Business Numbers

11.4.24. **Table 11.12** shows the change in the number of businesses in Doncaster and North Lincolnshire between 2012 and 2022. It also presents the change for comparator areas of Yorkshire & The Humber and the UK. The number of businesses in Doncaster grew by 41.5% from 2012–22, equating to 3,480 new companies. This was higher than the growth seen in North Lincolnshire (16.9%), Yorkshire & The Humber (22.4%) and the UK (23.3%).

Table 11.12: Change in Business Numbers, 2012–22

	2012	2022	Absolute Change	% Change
Doncaster	8,380	11,860	3,480	41.5%
North Lincolnshire	5,900	6,895	995	16.9%
Yorkshire & The Humber	187,260	229,245	41,985	22.4%
United Kingdom	2,610,535	3,219,980	609,445	23.3%

Source: ONS, UK Business Count

Commuting

11.4.25. Based on data from the 2011 Census, there were 79,848 people that lived and worked within Doncaster. There were a further 26,524 people that worked in Doncaster but lived elsewhere. The top origin destinations for commuters were Rotherham (5,658), Bassetlaw (3,345), Barnsley (3,107) and North Lincolnshire (2,541). There were also 32,523 people that lived in Doncaster but traveled elsewhere for work, the top destinations commuters traveled to Doncaster were Rotherham (7,490), Sheffield (4,022), Wakefield (2,828) and Bassetlaw (2,226). With 26,524 in-commuters and 32,523 out-commuters, Doncaster had a net outflow of 5,999 commuters.

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11.4.26. In North Lincolnshire there were 50,420 people that lived and worked within the district. There were a further 14,802 people that worked in North Lincolnshire but lived elsewhere. The top origin destinations for commuters were North East Lincolnshire (4,692), West Lindsey (2,944), Doncaster (1,995) and East Riding of Yorkshire (1,119). There were also 15,778 people that lived in North Lincolnshire but traveled elsewhere for work, the top destinations commuters traveled to were North East Lincolnshire (3,803), Doncaster (2,605), West Lindsey (1,421) and Kingston upon Hull, City of (1,391). With 14,802 in-commuters and 15,778 out-commuters, North Lincolnshire had a net outflow of 976 commuters.

Visitor Economy

11.4.27. In 2020, the Yorkshire Leaders Board set out an overarching strategy for growth for 2020/21, including key principles for working together, priorities and objectives, and identifying key partners who could assist councils to deliver sustainable change across the region. The Board identified a number of priority areas to focus on, which were set out in the Yorkshire and Humber Business Plan 2020/21¹⁵. These included 'Tourism, Retail and Hospitality'. The aim of this priority area is to *"Restore and rebuild the hospitality, leisure and tourism offer in our places; furthering collaborative working and co-ordination of resource around tourism and culture, using our assets to capitalise on a thriving visitor economy and ensuring this reflects the diverse needs of the region"*.

11.4.28. City of Doncaster Council published a visitor economy strategy for the years 2019–2022¹⁶. This strategy outlined that between 2015 and 2017 there were 330,000 trips to Doncaster which generated around 643,000 overnight stays, spending around £3.6million and supporting 14,000 jobs in the Doncaster economy. The vision for Doncaster was that by 2022 it would be recognised as a major visitor destination within Yorkshire.

11.4.29. A 2016 report¹⁷ on accommodation stock by Visit Britain shows that there was a total stock of 6,888 bedspaces in Doncaster. This is split into 80% (5,514) serviced bedspaces and 20% (1,374) non serviced bedspaces.

11.4.30. In terms of Serviced Accommodation (e.g. Hotels and Bed & Breakfasts), there were 5,514 bedspaces in 2016. The 2022 monthly occupancy rates for serviced accommodation in Yorkshire & The Humber detailed in Visit Britain publication (2023¹⁸) for hotel bedspaces range from a high rate of 61% occupancy in July to a low rate of 38% in January. Applying these rates to the available bedspaces means that the estimated maximum number of bedspaces occupied is 3,364 out of 5,514 in July, and the minimum number occupied is 2,095 out of 5,514 in January.

11.4.31. In terms of Non-Serviced Accommodation (e.g. self-catering accommodation, static caravans, touring caravans and camping provision), there were 1,374 bedspaces in 2016. A report prepared by the UK Caravan & Camping Alliance (2019¹⁹) presents 2018 average occupancy rates for

¹⁵ Yorkshire and Humber Business Plan 2020/21, Yorkshire Leaders Board, July 2021. Available at: <https://www.yhcouncils.org.uk/wp-content/uploads/2021/07/Exec-Summary-YH-business-plan.pdf>. Accessed: 10th August 2023.

¹⁶ Visitor Economy Strategy, City of Doncaster Council. 2019.

¹⁷ Accommodation Stock Audit. Visit Britain, 2023. Available at: [Accommodation Stock Audit | VisitBritain](#)

¹⁸ Accommodation Occupancy: Latest Results. Visit Britain, 2023. Available at: <https://www.visitbritain.org/accommodation-occupancy-latest-results>.

¹⁹ Pitching the Value, 2019 Economic Benefit Report: Holiday Parks and Campsites UK. Report for the UK Caravan & Camping Alliance, February 2019. Available at: <https://britishdestinations.files.wordpress.com/2019/04/2019-economic-benefits-report-holiday-parks-and-campsites-uk-final-report.pdf>

holiday parks and campsites within the UK. The highest occupancy rate of Non-Serviced Accommodation in the UK is 70% in August, and the lowest rate is 11% in January. Applying these rates to the available bedspaces, means that the estimated maximum number of bedspaces occupied is 962 out of 1,374 in August, and the minimum number occupied is 151 out of 1,374 in January.

- 11.4.32. **Table 11.13** presents a summary of the data published in respect of available bedspaces for Serviced and Non-Serviced Accommodation in Doncaster, applied occupancy rates, and the estimated actual number of bedspaces occupied for both accommodation types on a monthly basis.
- 11.4.33. In North Lincolnshire, there are 1,361 serviced bedspaces (39%) and 2,147 non-serviced bedspaces (61%). Applying the same occupancy ratings used for Doncaster it can be seen that for serviced accommodation that maximum number of bedspaces occupied is 830 out of 1,361 in July, and the minimum number occupied is 517 out of 1,361 in January. For non-serviced accommodation the estimated maximum number of bedspaces occupied is 1,503 out of 2,147 in August, and the minimum number occupied is 236 out of 2,147 in January.
- 11.4.34. **Table 11.14** presents a summary of the data published in respect of available bedspaces for Serviced and Non-Serviced Accommodation in North Lincolnshire, applied occupancy rates, and the estimated actual number of bedspaces occupied for both accommodation types on a monthly basis.

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Table 11.13: Applied occupancy rates of paid accommodation in Doncaster

Accommodation type		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Serviced	Serviced Accommodation bedspaces	5,514	5,514	5,514	5,514	5,514	5,514	5,514	5,514	5,514	5,514	5,514	5,514
	Occupancy rate	38%	51%	51%	58%	55%	57%	61%	59%	57%	58%	56%	38%
	Actual number of bedspaces occupied	2,095	2,812	2,812	3,198	3,033	3,143	3,364	3,253	3,143	3,198	3,088	2,922
Non-Serviced	Non-Serviced Accommodation bedspaces	1,374	1,374	1,374	1,374	1,374	1,374	1,374	1,374	1,374	1,374	1,374	1,374
	Occupancy rate	11%	13%	30%	47%	52%	58%	67%	70%	54%	39%	22%	12%
	Actual number of bedspaces occupied	151	179	412	646	714	797	921	962	742	536	302	165
Total	Total number of bedspaces	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888
	Actual number of bedspaces occupied	2,246	2,991	3,224	3,844	3,747	3,940	4,284	4,215	3,885	3,734	3,390	3,087
	Total available bedspaces	4,642	3,897	3,664	3,044	3,141	2,948	2,604	2,673	3,003	3,154	3,498	3,801

Source: Visit Britain, UK Caravan & Camping Alliance

Table 11.14: Applied occupancy rates of paid accommodation in North Lincolnshire

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Serviced	Serviced Accommodation bedspaces	1,361	1,361	1,361	1,361	1,361	1,361	1,361	1,361	1,361	1,361	1,361	1,361
	Occupancy rate	38%	51%	51%	58%	55%	57%	61%	59%	57%	58%	56%	38%
	Actual number of bedspaces occupied	517	694	694	789	749	776	830	803	776	789	762	721
Non-Serviced	Non-Serviced Accommodation bedspaces	2,147	2,147	2,147	2,147	2,147	2,147	2,147	2,147	2,147	2,147	2,147	2,147
	Occupancy rate	11%	13%	30%	47%	52%	58%	67%	70%	54%	39%	22%	12%
	Actual number of bedspaces occupied	236	279	644	1009	1116	1245	1438	1503	1159	837	472	258
Total	Total number of bedspaces	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508
	Actual number of bedspaces occupied	753	973	1,338	1,798	1,865	2,021	2,269	2,306	1,935	1,627	1,235	979
	Total available bedspaces	2,755	2,535	2,170	1,710	1,643	1,487	1,239	1,202	1,573	1,881	2,274	2,529

Source: Visit Britain, UK Caravan & Camping Alliance

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Table 11.15: Applied occupancy rates of paid accommodation in East Riding

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Serviced	Serviced Accommodation bedspaces												
	Occupancy rate												
	Actual number of bedspaces occupied												
Non-Serviced	Non-Serviced Accommodation bedspaces												
	Occupancy rate												
	Actual number of bedspaces occupied												
Total	Total number of bedspaces												
	Actual number of bedspaces occupied												
	Total available bedspaces												

Source: Visit Britain, UK Caravan & Camping Alliance

11.5. Assessment of Likely Significant Effects

Construction

Employment

- 11.5.1. Economic benefits will arise through the provision of temporary jobs during the construction phase at the Site. Based on previous experience of similar projects, it is estimated that the total cost of the Scheme is in the region of £500million²⁰.
- 11.5.2. Investment in the Scheme is likely to create opportunities for local businesses through the supply chain, during the construction process. It is estimated that there will be around 609 on-site jobs²¹ generated across the Scheme during the construction period, which is estimated to be up to 30-months²². In terms of solar powered growth in the UK report²³, Cebr give an employment multiplier for large-scale solar PV investments of 2.33 – i.e. for every job supported on-site, 1.33 indirect/induced jobs are supported in the wider economy. Applying this multiplier to the 609 on-site jobs, the Scheme could support 810 temporary jobs in the wider economy during the 30-month build phase.
- 11.5.3. In total, the Scheme could support 1,419 temporary jobs, both direct jobs on-site and indirect/induced roles in the wider economy, during the 30-month construction period.
- 11.5.4. The significance of construction phase effect in respect of employment is assessed as follows:
- The sensitivity of the receptor (employment in construction and other sectors of the economy in Doncaster and North Lincolnshire) is assessed as being **medium**, in line with the criteria set out in **Table 11.2**. Construction employment represents around 6.5% of total employment in North Lincolnshire and 9.4% in Doncaster. However, this is set in the context that there is a net outflow of commuters in both authorities.
 - The magnitude of the impact is assessed as **medium**, in line with the criteria in **Table 11.3**. The 1,419 jobs per annum supported by the construction phase (direct and indirect) represents a considerable increase in the number of new employment opportunities for local residents, but is considered medium in magnitude due to the temporary nature of the change. Nevertheless, overall, the Scheme would result in a boost to the availability of jobs for workers in these authorities, even accounting for the fact that employment opportunities will also be taken by people from outside Doncaster and North Lincolnshire.
 - The significance of the temporary effect is therefore considered to be **moderate beneficial** in Doncaster and North Lincolnshire, which is **significant** in EIA terms.

²⁰ Estimated cost of Scheme provided by Applicant.

²¹ Estimated number of jobs associated with the construction phase (1 job per MW) of the Scheme is based on a review of the number of construction workers generated as a result of a solar farms previously assessed by Pegasus, as well as benchmarking of publicly available information in other similar scale projects.

²² Duration provided by Applicant.

²³ Solar powered growth in the UK – the macroeconomic benefits for the UK of investment in solar PV: Cebr (report for the Solar Trade Association), September 2014.

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Economic Contribution

- 11.5.5. Another way of looking at the economic impact of the construction phase is to calculate the contribution a development makes to wealth creation, as measured by the increase in the value of goods and services generated within an area. This can be done by looking at the increase in gross value added (GVA), a common proxy for economic output. Using ONS data, it is possible to calculate GVA per employee by sector at a regional level. The Cebr report (Cebr, September 2014) gives a GVA multiplier of 2.39. Factoring this into the analysis, the overall GVA impact associated with the construction phase is estimated at £285.9million over the 30-month build timeframe²⁴.
- 11.5.6. The significance of construction phase effect in respect of economic contribution is assessed as follows:
- The sensitivity of the receptor (employment in construction and other sectors of the economy in Doncaster and North Lincolnshire) is assessed as being **medium**, in line with the criteria set out in **Table 11.2**. In Doncaster, construction contributed £567million to GVA in 2021, equating to 9.4% of total GVA, and in North Lincolnshire construction GVA for 2021 totaled around £346million, which was 6.5% of total GVA. Combined construction GVA for the two authorities was £913million in 2021.
 - The magnitude of the impact is assessed as **high**, in line with the criteria in **Table 11.3**. The £285.9million in GVA generated by the construction phase would cause an uplift of 31.3% in the total construction GVA of the two authorities, although it should be noted that a proportion of the GVA will be in other sectors when taking into account the multiplier effect.
 - The significance of the temporary effect is therefore considered to be **major beneficial** in Doncaster and North Lincolnshire, which is **significant** in EIA terms.

Accommodation Demand

- 11.5.7. A total of up to 609 (direct) construction workers are forecast to be on Site during the construction period. To enable a worst-case assessment in respect of accommodation demand, the total number of direct on-site construction workers is used as the basis of the assessment.
- 11.5.8. It is estimated that, based on Ready Reckoners in respect of Leakage defined by the Additionality Guide (2014), between 50% and 75% of benefits of the construction period will go to people living outside of the local area when considering baseline characteristics of Doncaster and North Lincolnshire economies. By association, it can be estimated that between 50% and 75% of construction workers will need to be sourced from outside of the local area; this would equate to between 305 and 457 workers at peak times. As such, for a worst case assessment it is assumed that the upper limit of this proportion of construction workers (457) will be sourced from outside the local area and require accommodation for the duration of the construction period.

²⁴ GVA is calculated by multiplying the GVA per job per annum in construction in Yorkshire and Humber region in 2021 (£65,470) by the duration of construction period assumed, resulting in total GVA per construction job in this region. This is then multiplied by the total number of direct jobs generated by the scheme (estimated to be 609). The multiplier is applied (Cebr, September 2014) to identify the multiplier GVA. The two amounts are combined to identify the total GVA associated with the construction phase.

11.5.9. Given that the Site sits within both Doncaster and North Lincolnshire administrative boundaries, and is extremely close to East Riding of Yorkshire administrative boundary, an assessment on accommodation demand is presented in relation to all three Districts. Again, for a worst case assessment, accommodation of the upper limit of construction workers is presented for the authorities, rather than assuming proportion to be accommodated across the three.

Doncaster

11.5.10. **Table 11.15** shows that, following accommodation of the 457 construction workers, the maximum estimated occupancy rate of both Serviced and Non-Serviced Accommodation combined in Doncaster would be 69% in July and 68% in August. The minimum estimated occupancy rate of this accommodation would be 39% in the month of January. Looking at Serviced Accommodation alone, applying the 457 construction workers to existing occupancy rates, the maximum estimated occupancy rate would be 69% in the month of July, and for Non-Serviced Accommodation it would be 103% (a deficit) in the month of August and 100% in July. For the peak months of July and August, there would not be enough bedspaces in non-serviced accommodation in Doncaster. For serviced accommodation the analysis suggests there would be sufficient bedspaces.

North Lincolnshire

11.5.11. **Table 11.16** shows that, following accommodation of the 457 construction workers, the maximum estimated occupancy rate of Serviced and Non-Serviced Accommodation combined in North Lincolnshire would be 79% in August and 78% in July. The minimum estimated occupancy rate of this accommodation would be 34% in the month of January. Looking at Serviced Accommodation alone, applying the 457 construction workers to existing occupancy rates, the maximum estimated occupancy rate would be 95% in the month of July, and for Non-Serviced Accommodation it would be 91% in the month of August. On that basis, there is sufficient available bedspaces to accommodate the workers likely to need accommodation during the construction period, with surplus bedspaces remaining for use by other overnight visitors in North Lincolnshire.

East Riding

11.5.12. **Table 11.17** shows that, following accommodation of the 457 construction workers, the maximum estimated occupancy rate of Serviced and Non-Serviced Accommodation combined in East Riding would be 130% (a deficit) in July and August. The minimum estimated occupancy rate of this accommodation would be 94% in the month of January. Looking at Serviced Accommodation alone, applying the 457 construction workers to existing occupancy rates, the maximum estimated occupancy rate would be 172% in the month of July and 170% in August, and for Non-Serviced Accommodation it would be 239% in the month of August. On that basis, there is insufficient available bedspaces to accommodate the workers likely to need accommodation during the construction period in addition to overnight visitors in East Riding.

11.5.13. The significance of construction phase accommodation effect is assessed as follows:

- The sensitivity of the receptor in Doncaster, North Lincolnshire and East Riding is assessed as being **high**, in line with the criteria set out in **Table 11.2**. Tourism is a priority area for growth in the region, and there is varying availability of bedspaces in each of the three administrative areas.

Socio Economics

- The magnitude of the impact is assessed as **high**, in line with the criteria in **Table 11.3** reflecting potential supply issues during the peak months of July and August in Doncaster, and lack of sufficient bedspaces in East Riding.
- The significance of the temporary effect is therefore considered to be **major adverse**. A major impact is significant in EIA terms.

DRAFT PRELIMINARY ENVIRONMENTAL INFORMATION REPORT

Socio Economics

Table 11.15: Assumed occupancy of Serviced and Non-Serviced Accommodation including housing of construction workers in Doncaster (based on 2022 data)

Accommodation type		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Serviced	Serviced Accommodation bedspaces	5,514	5,514	5,514	5,514	5,514	5,514	5,514	5,514	5,514	5,514	5,514	5,514
	Room occupancy rate	38%	51%	51%	58%	55%	57%	61%	59%	57%	58%	56%	53%
	Actual number of bedspaces occupied	2,095	2,812	2,812	3,198	3,033	3,143	3,364	3,253	3,143	3,198	3,088	2,922
	Estimated no. construction workers	457	457	457	457	457	457	457	457	457	457	457	457
	Construction workers + occupied bedspaces	2,552	3,269	3,269	3,655	3,490	3,600	3,821	3,710	3,600	3,655	3,545	3,379
	Room occupancy incl. construction workers	46%	59%	59%	66%	63%	65%	69%	67%	65%	66%	64%	61%
	Actual remaining bedspaces	2,962	2,245	2,245	1,859	2,024	1,914	1,693	1,804	1,914	1,859	1,969	2,135
Non-Serviced	Non-Serviced Accommodation bedspaces	1,374	1,374	1,374	1,374	1,374	1,374	1,374	1,374	1,374	1,374	1,374	1,374
	Occupancy rate UK	11%	13%	30%	47%	52%	58%	67%	70%	54%	39%	22%	12%
	Actual number of bedspaces occupied	151	179	412	646	714	797	921	962	742	536	302	165
	Estimated no. construction workers	457	457	457	457	457	457	457	457	457	457	457	457
	Construction workers + occupied bedspaces	608	636	869	1,103	1,171	1,254	1,378	1,419	1,199	993	759	622
	Room occupancy incl. construction workers	44%	46%	63%	80%	85%	91%	100%	103%	87%	72%	55%	45%
	Actual remaining bedspaces	766	738	505	271	203	120	-4	-45	175	381	615	752
TOTAL	Total number of bedspaces	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888
	Actual number of bedspaces occupied	2,246	2,991	3,224	3,844	3,747	3,940	4,284	4,215	3,885	3,734	3,390	3,087
	Total available bedspaces	4,642	3,897	3,664	3,044	3,141	2,948	2,604	2,673	3,003	3,154	3,498	3,801
	Estimated no. construction workers	457	457	457	457	457	457	457	457	457	457	457	457
	Construction workers + occupied bedspaces	2,703	3,448	3,681	4,301	4,204	4,397	4,741	4,672	4,342	4,191	3,847	3,544
	Room occupancy incl. construction workers	39%	50%	53%	62%	61%	64%	69%	68%	63%	61%	56%	51%
	Actual remaining bedspaces	4,185	3,440	3,207	2,587	2,684	2,491	2,147	2,216	2,546	2,697	3,041	3,344

Source: Visit Britain, UK Caravan & Camping Alliance

TWEEN BRIDGE SOLAR FARM

PEIR VOLUME 1 MAIN REPORT – CHAPTER 11 SOCIO ECONOMICS

OCTOBER 2023

Socio Economics

Table 11.16: Assumed occupancy of Serviced and Non-Serviced Accommodation including housing of construction workers in North Lincolnshire (based on 2022 data)

Accommodation type		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Serviced	Serviced Accommodation bedspaces	1,361	1,361	1,361	1,361	1,361	1,361	1,361	1,361	1,361	1,361	1,361	1,361
	Room occupancy rate	38%	51%	51%	58%	55%	57%	61%	59%	57%	58%	56%	53%
	Actual number of bedspaces occupied	517	694	694	789	749	776	830	803	776	789	762	721
	Estimated no. construction workers	457	457	457	457	457	457	457	457	457	457	457	457
	Construction workers + occupied bedspaces	974	1,151	1,151	1,246	1,206	1,233	1,287	1,260	1,233	1,246	1,219	1,178
	Room occupancy incl. construction workers	72%	85%	85%	92%	89%	91%	95%	93%	91%	92%	90%	87%
	Actual remaining bedspaces	387	210	210	115	155	128	74	101	128	115	142	183
Non-Serviced	Non-Serviced Accommodation bedspaces	2,147	2,147	2,147	2,147	2,147	2,147	2,147	2,147	2,147	2,147	2,147	2,147
	Occupancy rate UK	11%	13%	30%	47%	52%	58%	67%	70%	54%	39%	22%	12%
	Actual number of bedspaces occupied	236	279	644	1009	1116	1245	1438	1503	1159	837	472	258
	Estimated no. construction workers	457	457	457	457	457	457	457	457	457	457	457	457
	Construction workers + occupied bedspaces	693	736	1,101	1,466	1,573	1,702	1,895	1,960	1,616	1,294	929	715
	Room occupancy incl. construction workers	32%	34%	51%	68%	73%	79%	88%	91%	75%	60%	43%	33%
	Actual remaining bedspaces	1,454	1,411	1,046	681	574	445	252	187	531	853	1,218	1,432
TOTAL	Total number of bedspaces	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508
	Actual number of bedspaces occupied	753	973	1,338	1,798	1,865	2,021	2,269	2,306	1,935	1,627	1,235	979
	Total available bedspaces	2,755	2,535	2,170	1,710	1,643	1,487	1,239	1,202	1,573	1,881	2,273	2,529
	Estimated no. construction workers	457	457	457	457	457	457	457	457	457	457	457	457
	Construction workers + occupied bedspaces	1,210	1,430	1,795	2,255	2,322	2,478	2,726	2,763	2,392	2,084	1,692	1,436
	Room occupancy incl. construction workers	34%	41%	51%	64%	66%	71%	78%	79%	68%	59%	48%	41%
	Actual remaining bedspaces	2,298	2,078	1,713	1,253	1,186	1,030	782	745	1,116	1,424	1,816	2,072

Source: Visit Britain, UK Caravan & Camping Alliance

Table 11.17: Assumed occupancy of Serviced and Non-Serviced Accommodation including housing of construction workers in East Riding (based on 2022 data)

Accommodation type		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Serviced	Serviced Accommodation bedspaces	413	413	413	413	413	413	413	413	413	413	413	413
	Room occupancy rate	38%	51%	51%	58%	55%	57%	61%	59%	57%	58%	56%	53%
	Actual number of bedspaces occupied	157	211	211	240	227	235	252	244	235	240	231	219
	Estimated no. construction workers	457	457	457	457	457	457	457	457	457	457	457	457
	Construction workers + occupied bedspaces	614	668	668	697	684	692	709	701	692	697	688	676
	Room occupancy incl. construction workers	149%	162%	162%	169%	166%	168%	172%	170%	168%	169%	167%	164%
	Actual remaining bedspaces	-201	-255	-255	-284	-271	-279	-296	-288	-279	-284	-275	-263
Non-Serviced	Non-Serviced Accommodation bedspaces	270	270	270	270	270	270	270	270	270	270	270	270
	Occupancy rate UK	11%	13%	30%	47%	52%	58%	67%	70%	54%	39%	22%	12%
	Actual number of bedspaces occupied	30	35	81	127	140	157	181	189	146	105	59	32
	Estimated no. construction workers	457	457	457	457	457	457	457	457	457	457	457	457
	Construction workers + occupied bedspaces	487	492	538	584	597	614	638	646	603	562	516	489
	Room occupancy incl. construction workers	180%	182%	199%	216%	221%	227%	236%	239%	223%	208%	191%	181%
	Actual remaining bedspaces	-217	-222	-268	-314	-327	-344	-368	-376	-333	-292	-246	-219
TOTAL	Total number of bedspaces	683	683	683	683	683	683	683	683	683	683	683	683
	Actual number of bedspaces occupied	187	246	292	366	368	392	433	433	381	345	291	251
	Total available bedspaces	496	437	391	317	315	291	250	250	302	338	392	432
	Estimated no. construction workers	457	457	457	457	457	457	457	457	457	457	457	457
	Construction workers + occupied bedspaces	644	703	749	823	825	849	890	890	838	802	748	708
	Room occupancy incl. construction workers	94%	103%	110%	121%	121%	124%	130%	130%	123%	117%	109%	104%
	Actual remaining bedspaces	39	-20	-66	-140	-142	-166	-207	-207	-155	-119	-65	-25

Source: Visit Britain, UK Caravan & Camping Alliance

Socio Economics

Operation

Employment

- 11.5.14. Based on information provided by the Applicant, current staffing levels of existing on-site operations are not available, however, it is understood that there will not be any redundancies as a result of the operational phase of the scheme.
- 11.5.15. Based on information provided by the Applicant, it is estimated that once operational there will be up to 10 FTE jobs supported on-site²⁵. This includes the creation of 2 no. sheep farming roles. Applying the multiplier, as well as the jobs on-site, there will be an estimated 13 jobs supported in the wider economy.
- 11.5.16. In total, once operational the scheme will support an estimated 23 jobs in Doncaster and North Lincolnshire. Information on existing jobs supported on-site relating to farming will be included prior to the PIER being consulted on.
- 11.5.17. The significance of the operational phase effect in respect of employment has been assessed as follows:
- The sensitivity of the receptor (labour market of Doncaster and North Lincolnshire) is considered to be **medium**, in line with the criteria set out in **Table 11.2**. Between 2015 and 2021 Doncaster saw 5.4% growth in jobs, which was below the growth seen in North Lincolnshire, where between 2015 and 2021 jobs grew by 7.2%. Both of these growth rates were above the national level, but only North Lincolnshire was above regional scale rate of change. The claimant count in Doncaster (4.7%) is currently above that in North Lincolnshire (3.4%), Yorkshire & The Humber (4.1%) and the UK (3.7%) as of June 2023.
 - The magnitude of the impact is identified as being **low**, in line with the criteria in **Table 11.3**. The number of on-site jobs created in the operational phase would represent only a small increase in current employment levels in Doncaster and North Lincolnshire, but the employment supported by the operational phase will be long-term. This is acknowledged in the context that there is net outflow of commuters in both North Lincolnshire and Doncaster and, while permanent jobs will be generated for workers in these Districts, the number of jobs generated is limited.
 - The significance of the operational effect is therefore considered to be **minor to moderate beneficial** in Doncaster and North Lincolnshire, which is **not significant** in EIA terms.

Economic Contribution

- 11.5.18. Continued agricultural use will be secured by sheep grazing on the land.
- 11.5.19. The contribution of the operational phase of the scheme to economic output has been calculated by taking the job creation associated with the scheme and multiplying this by an estimate of average levels of GVA per employee for all jobs in Yorkshire & The Humber.

²⁵ Estimated based on Pegasus Group previous experience as well as information from the Applicant.

- 11.5.20. It is estimated that once operational and fully occupied, the additional GVA supported by the scheme is estimated to be around £529,012 per annum, allowing for multiplier effects. Over the 40-year operational lifespan of the solar farm the GVA generated is estimated to be around £11.7million (present value).
- 11.5.21. The significance of the operational phase effect in respect of contribution to economic output has been assessed as follows:
- The sensitivity of the receptor in Doncaster and North Lincolnshire, is considered to be **low**, in line with the criteria set out in **Table 11.2**. In 2021 in Doncaster GVA totaled £6billion across all industries and in North Lincolnshire it was £5.4billion. Over the past 10 years this figure has increased by 44% in Doncaster, which is above the regional and national changes (34.4% and 37.3% respectively), but below 58.7% in North Lincolnshire.
 - The magnitude of the impact is identified as being **low**, in line with the criteria in **Table 11.3**. There will be a limited uplift in GVA for Doncaster and North Lincolnshire in comparison to the total GVA generated per annum in each district.
 - The significance of the operational effect is therefore considered to be **minor beneficial** in Doncaster and North Lincolnshire, which is **not significant** in EIA terms.

Business Rates

- 11.5.22. Business rates are an important economic contributor to an area. It is estimated that the solar project element of the proposed scheme could generate around £2million per annum in business rates. Over the intended 40-year lifespan of the scheme, business rates generated could total around £44.4million (present value).
- 11.5.23. Business rates are collated into a central government pot and shared out, as such, it is not possible to ascertain the exact split between districts and therefore the amount of business rates generated is considered as a single amount in this report.
- 11.5.24. The significance of the operational phase effect in respect of business rates has been assessed as follows:
- The sensitivity of the receptor in Doncaster and North Lincolnshire is considered to be **medium**, in line with the criteria set out in **Table 11.2**. Between 2015 and 2021 Doncaster saw 5.4% growth in jobs, which was below the growth seen in North Lincolnshire, where between 2015 and 2021 jobs grew by 7.2%. Both of these growth rates were above the national level, but only North Lincolnshire was above the regional scale rate of change. The claimant count in Doncaster (4.7%) is currently above that in North Lincolnshire (3.4%), Yorkshire & The Humber (4.1%) and the UK (3.7%) as of June 2023.
 - The magnitude of the impact is identified as being **high**, in line with the criteria in **Table 11.3**. Given agricultural land and buildings are exempt from business rates, the business rates revenue generated from the scheme would represent a considerable uplift on current activities.
 - The significance of the operational effect is therefore considered to be **major beneficial** in Doncaster and North Lincolnshire, which is **significant** in EIA terms.

Socio Economics

Decommissioning

Employment

- 11.5.25. Economic benefits will arise through the provision of temporary jobs during the decommissioning phase at the Site. It is estimated that there will be around 609 on-site jobs²⁶ generated across the scheme during the decommissioning phase which is expected to last for around 2-years²⁷. Applying the same multiplier as previously used to the 609 on-site jobs the scheme could support 810 temporary jobs in the wider economy during the 2-year decommissioning phase.
- 11.5.26. In total, the scheme could support 1,419 temporary jobs, both direct jobs on-site and indirect/induced roles in the wider economy, during the 2-year decommissioning period.
- 11.5.27. The significance of decommissioning phase effect in respect of employment is assessed as follows:
- The sensitivity of the receptor (employment in construction and other sectors of the economy in Doncaster and North Lincolnshire) is assessed as being **low**, in line with the criteria set out in **Table 11.2**. Construction employment represents around 6.5% of total employment in North Lincolnshire and 9.4% in Doncaster. However, this is set in the context that there is a net outflow of commuters in both authorities.
 - The magnitude of the impact is assessed as **medium**, in line with the criteria in **Table 11.3**. The 609 jobs per annum supported by the decommissioning phase (direct) represents a considerable increase in the number of new employment opportunities for local residents, but is considered medium in magnitude due to the temporary nature of the change. Nevertheless, overall, the scheme would result in a boost to the availability of jobs for workers in these authorities.
 - The significance of the temporary effect is therefore considered to be **moderate beneficial** in Doncaster and North Lincolnshire, which is **significant** in EIA terms.

Economic Contribution

- 11.5.28. Using the same method as before to calculate GVA, it is estimated that over the approximate 2-year decommissioning phase the overall GVA impact associated with the decommissioning phase is estimated at £285.9million over the 2-year decommissioning timeframe.
- 11.5.29. The significance of decommissioning phase effect in respect of employment is assessed as follows:
- The sensitivity of the receptor (employment in construction and other sectors of the economy in Doncaster and North Lincolnshire) is assessed as being **medium**, in line with the criteria set out in **Table 11.2**. In Doncaster, construction contributed £567million to

²⁶ Estimated number of jobs associated with the decommissioning phase of the Scheme is based on a review of the number of workers generated as a result of a solar farms previously assessed by Pegasus, as well as information provided by prospective contractors in respect of previous schemes.

²⁷ Assumed to mirror the construction period duration.

GVA in 2021, equating to 9.4% of total GVA, and in North Lincolnshire construction GVA for 2021 totaled around £346million, which was 6.5% of total GVA²⁸. Combined construction GVA for the two authorities was £913million in 2021.

- The magnitude of the impact is assessed as **high**, in line with the criteria in **Table 11.3**. The £284.5million in GVA generated by the decommissioning phase would cause an uplift of 31.3% in the total construction GVA of the two authorities, although it should be noted that a proportion of the GVA will be in other sectors when taking into account the multiplier effect..
- The significance of the temporary effect is therefore considered to be **major beneficial** in Doncaster and North Lincolnshire, which is **significant** in EIA terms.

Accommodation Demand

11.5.30. A total of up to 609 (direct) construction workers are forecast to be on Site during the decommissioning period. To enable a worst-case assessment, in respect of accommodation demand, the total number of direct on-site construction workers is used as the basis of the assessment.

11.5.31. Accommodation demand effects during the decommissioning phase have been calculated in the same way that they were for the construction phase. Based on Ready Reckoners in respect of Leakage relevant to Doncaster and North Lincolnshire discussed under construction effects, this results in an assumption of 457 workers from outside of the local area requiring accommodation during the decommissioning phase.

Doncaster

11.5.32. **Table 11.17** shows that, following accommodation of the 457 decommissioning workers, the maximum estimated occupancy rate of both Serviced and Non-Serviced Accommodation combined in Doncaster would be 69% in July and 68% in August. The minimum estimated occupancy rate of this accommodation would be 39% in the month of January. Looking at Serviced Accommodation alone, applying the 457 construction workers to existing occupancy rates, the maximum estimated occupancy rate would be 69% in the month of July, and for Non-Serviced Accommodation it would be 103% (a deficit) in the month of August and 100% in July. For the peak months of July and August, there would be insufficient bedspaces in non-serviced accommodation in Doncaster. For serviced accommodation the analysis suggests there would be sufficient bedspaces..

North Lincolnshire

11.5.33. **Table 11.18** shows that, following accommodation of the 457 construction workers, the maximum estimated occupancy rate of Serviced and Non-Serviced Accommodation combined in North Lincolnshire would be 79% in August and 78% in July. The minimum estimated occupancy rate of this accommodation would be 34% in the month of January. Looking at Serviced Accommodation alone, applying the 457 construction workers to existing occupancy rates, the maximum estimated occupancy rate would be 95% in the month of July, and for Non-Serviced Accommodation it would be 91% in the month of August. On that basis, there is sufficient

²⁸ Construction GVA used as jobs related to this sector entail most similar skill base to those required in decommissioning works.

Socio Economics

available bedspaces to accommodate the workers likely to need accommodation during the decommissioning period, with surplus bedspaces remaining for use by other overnight visitors in North Lincolnshire.

East Riding

11.5.34. **Table 11.17** shows that, following accommodation of the 457 construction workers, the maximum estimated occupancy rate of Serviced and Non-Serviced Accommodation combined in East Riding would be 130% (a deficit) in July and August. The minimum estimated occupancy rate of this accommodation would be 94% in the month of January. Looking at Serviced Accommodation alone, applying the 457 construction workers to existing occupancy rates, the maximum estimated occupancy rate would be 172% in the month of July and 170% in August, and for Non-Serviced Accommodation it would be 239% in the month of August. On that basis, there is insufficient available bedspaces to accommodate the workers likely to need accommodation during the construction period in addition to overnight visitors in East Riding.

11.5.35. The significance of decommissioning phase accommodation effect is assessed as follows:

- The sensitivity of the receptor in Doncaster, North Lincolnshire and East Riding is assessed as being **high**, in line with the criteria set out in **Table 11.2**. Tourism is a priority area for growth in the region, and there is varying availability of bedspaces in each of the three administrative areas.
- The magnitude of the impact is assessed as **high**, in line with the criteria in **Table 11.3** reflecting potential supply issues during the peak months of July and August in Doncaster, and lack of sufficient bedspaces in East Riding.
- The significance of the temporary effect is therefore considered to be **major adverse** in Doncaster and North Lincolnshire, which is **significant** in EIA terms.

DRAFT PRELIMINARY ENVIRONMENTAL INFORMATION REPORT

Socio Economics

Table 11.17: Assumed occupancy of Serviced and Non-Serviced Accommodation including housing of decommissioning workers in Doncaster (based on 2022 data)

Accommodation type		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Serviced	Serviced Accommodation bedspaces	5,514	5,514	5,514	5,514	5,514	5,514	5,514	5,514	5,514	5,514	5,514	5,514
	Room occupancy rate	38%	51%	51%	58%	55%	57%	61%	59%	57%	58%	56%	53%
	Actual number of bedspaces occupied	2,095	2,812	2,812	3,198	3,033	3,143	3,364	3,253	3,143	3,198	3,088	2,922
	Estimated no. construction workers	457	457	457	457	457	457	457	457	457	457	457	457
	Construction workers + occupied bedspaces	2,552	3,269	3,269	3,655	3,490	3,600	3,821	3,710	3,600	3,655	3,545	3,379
	Room occupancy incl. construction workers	46%	59%	59%	66%	63%	65%	69%	67%	65%	66%	64%	61%
	Actual remaining bedspaces	2,962	2,245	2,245	1,859	2,024	1,914	1,693	1,804	1,914	1,859	1,969	2,135
Non-Serviced	Non-Serviced Accommodation bedspaces	1,374	1,374	1,374	1,374	1,374	1,374	1,374	1,374	1,374	1,374	1,374	1,374
	Occupancy rate UK	11%	13%	30%	47%	52%	58%	67%	70%	54%	39%	22%	12%
	Actual number of bedspaces occupied	151	179	412	646	714	797	921	962	742	536	302	165
	Estimated no. construction workers	457	457	457	457	457	457	457	457	457	457	457	457
	Construction workers + occupied bedspaces	608	636	869	1,103	1,171	1,254	1,378	1,419	1,199	993	759	622
	Room occupancy incl. construction workers	44%	46%	63%	80%	85%	91%	100%	103%	87%	72%	55%	45%
	Actual remaining bedspaces	766	738	505	271	203	120	-4	-45	175	381	615	752
TOTAL	Total number of bedspaces	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888
	Actual number of bedspaces occupied	2,246	2,991	3,224	3,844	3,747	3,940	4,284	4,215	3,885	3,734	3,390	3,087
	Total available bedspaces	4,642	3,897	3,664	3,044	3,141	2,948	2,604	2,673	3,003	3,154	3,498	3,801
	Estimated no. construction workers	457	457	457	457	457	457	457	457	457	457	457	457
	Construction workers + occupied bedspaces	2,703	3,448	3,681	4,301	4,204	4,397	4,741	4,672	4,342	4,191	3,847	3,544
	Room occupancy incl. construction workers	39%	50%	53%	62%	61%	64%	69%	68%	63%	61%	56%	51%
	Actual remaining bedspaces	4,185	3,440	3,207	2,587	2,684	2,491	2,147	2,216	2,546	2,697	3,041	3,344

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Table 11.18: Assumed occupancy of Serviced and Non-Serviced Accommodation including housing of decommissioning workers in North Lincolnshire (based on 2022 data)

Accommodation type		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Serviced	Serviced Accommodation bedspaces	1,361	1,361	1,361	1,361	1,361	1,361	1,361	1,361	1,361	1,361	1,361	1,361
	Room occupancy rate	38%	51%	51%	58%	55%	57%	61%	59%	57%	58%	56%	53%
	Actual number of bedspaces occupied	517	694	694	789	749	776	830	803	776	789	762	721
	Estimated no. construction workers	457	457	457	457	457	457	457	457	457	457	457	457
	Construction workers + occupied bedspaces	974	1,151	1,151	1,246	1,206	1,233	1,287	1,260	1,233	1,246	1,219	1,178
	Room occupancy incl. construction workers	72%	85%	85%	92%	89%	91%	95%	93%	91%	92%	90%	87%
	Actual remaining bedspaces	387	210	210	115	155	128	74	101	128	115	142	183
Non-Serviced	Non-Serviced Accommodation bedspaces	2,147	2,147	2,147	2,147	2,147	2,147	2,147	2,147	2,147	2,147	2,147	2,147
	Occupancy rate UK	11%	13%	30%	47%	52%	58%	67%	70%	54%	39%	22%	12%
	Actual number of bedspaces occupied	236	279	644	1009	1116	1245	1438	1503	1159	837	472	258
	Estimated no. construction workers	457	457	457	457	457	457	457	457	457	457	457	457
	Construction workers + occupied bedspaces	693	736	1,101	1,466	1,573	1,702	1,895	1,960	1,616	1,294	929	715
	Room occupancy incl. construction workers	32%	34%	51%	68%	73%	79%	88%	91%	75%	60%	43%	33%
	Actual remaining bedspaces	1,454	1,411	1,046	681	574	445	252	187	531	853	1,218	1,432
TOTAL	Total number of bedspaces	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508
	Actual number of bedspaces occupied	753	973	1,338	1,798	1,865	2,021	2,269	2,306	1,935	1,627	1,235	979
	Total available bedspaces	2,755	2,535	2,170	1,710	1,643	1,487	1,239	1,202	1,573	1,881	2,273	2,529
	Estimated no. construction workers	457	457	457	457	457	457	457	457	457	457	457	457
	Construction workers + occupied bedspaces	1,210	1,430	1,795	2,255	2,322	2,478	2,726	2,763	2,392	2,084	1,692	1,436
	Room occupancy incl. construction workers	34%	41%	51%	64%	66%	71%	78%	79%	68%	59%	48%	41%
	Actual remaining bedspaces	2,298	2,078	1,713	1,253	1,186	1,030	782	745	1,116	1,424	1,816	2,072

Source: Visit Britain, UK Caravan & Camping Alliance

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Table 11.17: Assumed occupancy of Serviced and Non-Serviced Accommodation including housing of construction workers in East Riding (based on 2022 data)

Accommodation type		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Serviced	Serviced Accommodation bedspaces	413	413	413	413	413	413	413	413	413	413	413	413
	Room occupancy rate	38%	51%	51%	58%	55%	57%	61%	59%	57%	58%	56%	53%
	Actual number of bedspaces occupied	157	211	211	240	227	235	252	244	235	240	231	219
	Estimated no. construction workers	457	457	457	457	457	457	457	457	457	457	457	457
	Construction workers + occupied bedspaces	614	668	668	697	684	692	709	701	692	697	688	676
	Room occupancy incl. construction workers	149%	162%	162%	169%	166%	168%	172%	170%	168%	169%	167%	164%
	Actual remaining bedspaces	-201	-255	-255	-284	-271	-279	-296	-288	-279	-284	-275	-263
Non-Serviced	Non-Serviced Accommodation bedspaces	270	270	270	270	270	270	270	270	270	270	270	270
	Occupancy rate UK	11%	13%	30%	47%	52%	58%	67%	70%	54%	39%	22%	12%
	Actual number of bedspaces occupied	30	35	81	127	140	157	181	189	146	105	59	32
	Estimated no. construction workers	457	457	457	457	457	457	457	457	457	457	457	457
	Construction workers + occupied bedspaces	487	492	538	584	597	614	638	646	603	562	516	489
	Room occupancy incl. construction workers	180%	182%	199%	216%	221%	227%	236%	239%	223%	208%	191%	181%
	Actual remaining bedspaces	-217	-222	-268	-314	-327	-344	-368	-376	-333	-292	-246	-219
TOTAL	Total number of bedspaces	683	683	683	683	683	683	683	683	683	683	683	683
	Actual number of bedspaces occupied	187	246	292	366	368	392	433	433	381	345	291	251
	Total available bedspaces	496	437	391	317	315	291	250	250	302	338	392	432
	Estimated no. construction workers	457	457	457	457	457	457	457	457	457	457	457	457
	Construction workers + occupied bedspaces	644	703	749	823	825	849	890	890	838	802	748	708

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	Room occupancy incl. construction workers	94%	103%	110%	121%	121%	124%	130%	130%	123%	117%	109%	104%
	Actual remaining bedspaces	39	-20	-66	-140	-142	-166	-207	-207	-155	-119	-65	-25

Source: Visit Britain, UK Caravan & Camping Alliance

11.6. Mitigation, Enhancement and Residual Effects

Mitigation by Design

11.6.1. The specific operational requirements of the Scheme have been carefully considered to ensure the proposed design provides the best and most efficient layout required, resulting in the socio-economic benefits that have been identified.

Additional Mitigation.

11.6.2. There is one significant socio-economic adverse effect identified as a result of this Scheme, relating to accommodation supply. An Accommodation Strategy is proposed to mitigate this. It will be included as part of the DCO application and will be agreed with the relevant planning authorities (Planning Inspectorate, Doncaster Borough Council and North Lincolnshire Council), and secured by DCO requirement. The strategy would set out the Applicant's proposals in respect of accommodating the construction and decommissioning workers generated by the Scheme in a way that minimises the impacts on existing residents and tourism markets, as applicable. It would set out how the process would be monitored and managed. Consultation would be required with relevant Councils and statutory consultees.

11.6.3. In addition, the Applicant is committed to producing an Employment and Skills Plan in order to maximise the local benefits of the Scheme. An Outline Supply Chain, Employment and Skills Plan is proposed to be included as part of the DCO application and will be agreed with the relevant planning authorities (Planning Inspectorate, Doncaster Borough Council and North Lincolnshire Council), and secured by DCO requirement.

11.6.4. Measures will include but will not be limited to:

- Local employment opportunities in landscaping, fencing, security, plant hire and operators, and materials including aggregate and concrete.
- Opportunities for apprenticeships, traineeships and back to work opportunities.
- Partnering with local schools, sixth form colleges, other further education colleges, universities, Jobcentre Plus and PeoplePlus to develop local skills and raise awareness of renewable technologies, in particular solar and energy storage.

Table 11.19: Mitigation

Ref	Measure to avoid, reduce or manage any adverse effects and/or to deliver beneficial effects	How measure would be secured		
		By Design	By S.106	By Requirements
1	Outline Supply Chain, Employment and Skills Plan	N/A	N/A	X
2	Accommodation Strategy	N/A	N/A	X

Enhancements.

11.6.5. No enhancement measures are proposed.

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Residual Effects

11.6.6. Residual effects relating to socio-economics are as follows:

- Construction phase:
 - Employment – **moderate beneficial** effect in Doncaster and North Lincolnshire, which is **significant** in EIA terms.
 - Economic contribution – **major beneficial** in Doncaster and North Lincolnshire, which is **significant** in EIA terms.
 - Accommodation demand – **major adverse** in both Doncaster and North Lincolnshire, which is **significant** in EIA terms.
- Operational phase:
 - Employment – **minor to moderate beneficial** in Doncaster and North Lincolnshire, which is **not significant** in EIA terms.
 - Economic contribution – **minor beneficial** in Doncaster and North Lincolnshire, which is **not significant** in EIA terms.
 - Business rates – **major beneficial** in Doncaster and North Lincolnshire, which is **significant** in EIA terms.
- Decommissioning phase:
 - Employment – **moderate beneficial** effect in Doncaster and North Lincolnshire, which is **significant** in EIA terms.
 - Economic contribution – **major beneficial** in Doncaster and North Lincolnshire, which is **significant** in EIA terms.
 - Accommodation demand – **major adverse** in both Doncaster and North Lincolnshire, which is **significant** in EIA terms.

11.7. Cumulative and In-Combination Effects

11.7.1. The cumulative assessment approach aims to enable a robust assessment whilst also presenting a realistic consideration of the cumulative effects at the local scale (Doncaster and North Lincolnshire). An assessment of cumulative impact will be presented in the next iteration of the PEIR.

11.7.2. In the meantime, the proposed approach to assessment of cumulative socio-economic effects for those schemes to be scoped into the assessment is summarised as follows:

- Assumptions on which to base the cumulative effects assessment will be identified, specific to each potential socio-economic effect, with the intention of presenting a worse case assessment for each effect.

- Where possible, definitive information regarding estimated jobs will be used, obtained through a review of publicly available documentation held for public viewing on National Infrastructure Planning website or local authority planning portals, whichever is applicable to each cumulative scheme.
- Scope of assessment will align with the scope of assessment for the Scheme in isolation. In summary, the effects to be assessed will be as follows:
 - Construction phase – employment, economic contribution and accommodation demand.
 - Operational phase – employment, economic contribution and business rates.
 - Decommissioning phase – employment, economic contribution and accommodation demand.

11.8. Summary

Introduction

- 11.8.1. This chapter has analysed the baseline socio-economic conditions and then gone on to assess the likely socio-economic effects of the Scheme.

Baseline Conditions

- 11.8.2. Doncaster experienced population growth of 2.1% between 2011 and 2021 and in North Lincolnshire there was a lower population growth of 1.4%. Relative to the benchmark areas of East Midlands and the United Kingdom, Doncaster's and North Lincolnshire's population grew at a slower rate over this timeframe. Employment growth in Doncaster over the last six years has been fairly strong with 5.4% increase in job numbers, this was higher than the regional figure (4.4%) but lower than the national figure (5.6%), whilst the highest jobs growth was seen in North Lincolnshire (7.2%). The construction sector, which is likely to see increased employment opportunities during the Scheme build phase represents 9.4% of total employment in Doncaster and 6.5% in North Lincolnshire, which is above the proportion of total jobs at the regional scale (5.7%) and the United Kingdom (5.9%). Both Doncaster and North Lincolnshire have a net outflow of commuters. The claimant count in Doncaster is currently above all other comparator areas at 4.7 whilst the claimant count in North Doncaster is below all other comparator areas at 3.4.

Likely Significant Effects

- 11.8.3. With the exception of accommodation demand, likely significant effects are expected to be beneficial in respect of socio-economics. Significant beneficial effects are expected in relation to employment and economic contribution during both the construction and decommissioning phases, and business rates during the operational phases.

Mitigation and Enhancement

- 11.8.4. Most effects of the Scheme are beneficial, and therefore no mitigation is required. The accommodation demand effects as a result of the construction and decommissioning phase of the Scheme are adverse and may require an Accommodation Strategy to reduce the impact.

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- 11.8.5. It is noted that, to maximise the beneficial impacts identified by the Scheme, an Outline Supply Chain, Employment and Skills Plan will be produced to optimise the number of local people who will have access to employment and training opportunities arising from the Scheme. The Applicant is looking to make this document available for the next iteration of the PEIR. Related to this, the Application is seeking to hold a supplier engagement event.

Conclusion

- 11.8.6. The Scheme will result in beneficial effects in terms of employment, economic contribution, and business rates in all relevant phases of development, and adverse but not significant effects on accommodation demands in the construction and decommissioning phases.
- 11.8.7. The Applicant is preparing an Outline Supply Chain, Employment and Skills Plan to optimise the number of local people who will have access to employment and training opportunities arising from the Scheme. It is expected that this Plan will be available for the next iteration of the PEIR.
- 11.8.8. **Table 11.21** provides a summary of effects, mitigation and residual effects.

Table 11.21: Summary of Effects, Mitigation and Residual Effects

Receptor / Receiving Environment	Description of Effect	Nature of Effect	Sensitivity Value	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation / Enhancement Measures	Residual Effects
Construction								
Employment	Potential generation of direct and indirect jobs as a result of construction activities.	Temporary	Medium	Medium	District (Doncaster & North Lincolnshire)	Moderate beneficial, which is significant	None required	Moderate beneficial, which is significant
Economic contribution	Gross value add (GVA) generated as a result of construction activities	Temporary	Medium	High	District (Doncaster & North Lincolnshire)	Major beneficial, which is significant	None required	Major beneficial, which is significant
Accommodation demand	Potential effect on Serviced and Non-Serviced Accommodation as a result of outsourcing	Temporary	High	High	District (Doncaster & North Lincolnshire & East Riding)	Major adverse, which is not significant	None required	Major adverse, which is not significant

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	construction workers							
Operation								
Employment	Potential generation of direct and indirect jobs once operational	Permanent	Medium	Low	District (Doncaster & North Lincolnshire)	Minor to moderate beneficial, which is not significant	None required	Minor to moderate beneficial, which is not significant
Economic contribution	Gross value add (GVA) generated once operational	Permanent	Low	Low	District (Doncaster & North Lincolnshire)	Minor beneficial, which is not significant	None required	Minor beneficial, which is not significant
Business rates	Generation of business rates once operational	Permanent	Medium	High	District (Doncaster & North Lincolnshire)	Major beneficial, which is significant	None required	Major beneficial, which is significant
Decommissioning								
Employment	Potential generation of direct and	Temporary	Medium	Medium	District (Doncaster &	Moderate beneficial,	None required	Moderate beneficial,

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	indirect jobs as a result of decommissioning activities.				North Lincolnshire)	which is significant		which is significant
Economic contribution	Gross value add (GVA) generated as a result of decommissioning activities	Temporary	Medium	High	District (Doncaster & North Lincolnshire)	Major beneficial, which is significant	None required	Major beneficial, which is significant
Accommodation demand	Potential effect on Serviced and Non-Serviced Accommodation as a result of outsourcing decommissioning workers	Temporary	High	High	District (Doncaster & North Lincolnshire & East Riding)	Major adverse, which is not significant	None required	Major adverse, which is not significant

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