

Methodology and interpretation of this image is as per the notes on Figure Figure 6.6b for the Proposed Development (New Hall Farm) and Figure Figure 6.xx for the Low Farm cumulative scheme.

The yellow shading shows the theoretical area in which one or more reference points on the Proposed Development (New Hall Farm) would be visible. The pink shading shows the theoretical area in which one or more reference points on the cumulative scheme (Low Farm) would be visible. The orange shading shows the area of theoretical cumulative visibility (views in combination or in succession). For further information on cumulative landscape and visual assessment, refer to the methodology in Appendix 1 of the LVIA report.

[No theoretical visibility in the area covered by this text box].

Legend:

- New Hall Site (indicative)
- 1 km bands (from New Hall PV areas)
- New Hall ZTV
 - ZTV reference points
 - Any reference point visible
- Low Farm Site (indicative)
- Low Farm ZTV
 - ZTV reference points
 - Any reference point visible
- Theoretical combined visibility (New Hall with Low Farm cumulative scheme)

Project: New Hall Solar Farm

Title: Zone of Theoretical Visibility (screened, central area only)

Date: March 2023

Ref: Figure 6.8a

Scale: 1:40,000 at A3



Figure 6.8b: Cumulative Zone of Theoretical Visibility (screened, central area only) (Scale 1:25,000 at A3)

For notes on interpretation this ZTV, refer to Figure 11a.

Legend:

-  New Hall Site (indicative)
-  1 km bands
(from New Hall PV areas)
- New Hall ZTV**
 -  ZTV reference points
 - Any reference point visible
-  Low Farm Site (indicative)
- Low Farm ZTV**
 -  ZTV reference points
 - Any reference point visible
-  Theoretical combined visibility
(New Hall with Low Farm cumulative scheme)

Project: New Hall Solar Farm

Title: Zone of Theoretical Visibility
(screened, central area only)

Date: March 2023

Ref: Figure 6.8b

Scale: 1:25,000 at A3



ⁱ Landscape Institute and Institute of Environmental Management and Assessment (2013), *Guidelines for Landscape and Visual Impact Assessment: Third Edition*.

ⁱⁱ Landscape Institute (2013), *GLVIA3 Statement of Clarification*.

ⁱⁱⁱ Natural England (2014), *An Approach to Landscape Character Assessment*.

^{iv} Landscape Institute (2019), *Visual Representation of Development Proposals – Landscape Institute Technical Guidance Note 06/19*.

^v Landscape Institute (2021), *Assessing Landscape Value Outside National Designations – Landscape Institute Technical Guidance Note 02/21*.

^{vi} The Building Research Establishment (2013), *Planning guidance for the development of large scale ground mounted solar PV systems*. (Available at:

https://www.bre.co.uk/filelibrary/pdf/other_pdfs/KN5524_Planning_Guidance_reduced.pdf, accessed November 2019).

^{vii} Natural England (2014), *National Character Area (NCA) Profile 38: Nottinghamshire, Derbyshire and Yorkshire Coalfield*. (Available at: NCA Profile: 38. Nottinghamshire, Derbyshire and Yorkshire Coalfield - NE402 (naturalengland.org.uk), accessed June 2021).

^{viii} Wakefield Metropolitan District Council (2004), *Landscape Character Assessment of Wakefield District*. (Available at: Landscape Assessment (wakefield.gov.uk), accessed May 2021).

^{ix} Kirklees Council/LUC (2015), *Kirklees District Landscape Character Assessment*. (Available at: Kirklees District Landscape Character Assessment, accessed May 2021).

^x CPRE (2007), *Tranquillity Map: England*. (Available at: tranquillity_map_england_regional_boundaries_1.pdf (cpre.org.uk), accessed June 2021).

^{xi} <https://magic.defra.gov.uk/home.htm>

^{xii} Landscape Institute and Institute of Environmental Management and Assessment (2002), *Guidelines for Landscape and Visual Impact Assessment: Second Edition*, as cited in Paragraph 7.2 of GLVIA3.

7 SOCIOECONOMICS

7.1 INTRODUCTION

7.1.1 This chapter establishes the baseline socio-economic conditions and then considers the likely socio-economic effects of the Proposed Development.

7.1.1 This chapter assesses the potential effects on the local population anticipated as a result of the Proposed Development and, in turn, assesses the effects this could have on relevant services, facilities and the economy. It identifies the socio-economic baseline in relation to key issues, specifically the economy and labour force, and the potential effects that could occur, both direct and indirect, arising from the construction (temporary effects) and operation of the Proposed Development.

7.2 ASSESSMENT APPROACH

Methodology

7.2.1 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. Accordingly, the approach adopted for this assessment is based on professional experience and best practice, and in consideration of the policy requirements/tests set out within the National Planning Policy Framework (NPPF) and local planning policy.

7.2.2 The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017¹ state that an ES should contain:

"A description of the factors specified in regulation 5(2) likely to be significantly affected by the development: population."

7.2.3 Following this guidance, the assessment specifically includes the following:

- Identification of the socio-economic baseline in respect of each of the key socio-economic issues identified, focussing 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 Proposed Development.
- Qualification of the full range of socio-economic effects, both direct and indirect, arising from the construction (temporary effects) and operation (permanent effects) of the Proposed Development.

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

- Energy White Paper².
- The Government's Net Zero Strategy³.
- British Energy Security Strategy⁴.

¹ The Infrastructure Planning (Environmental Impact Assessment Regulations 2017), available from: http://www.legislation.gov.uk/uksi/2017/572/pdfs/ukxi_20170572_en.pdf

² Energy White Paper: Powering our Net Zero Future. HM Government, December 2020.

³ Net Zero Strategy: Build Back Greener. HM Government, October 2021.

- Overarching National Policy Statement for Energy (EN-1)⁵.
- National Policy Statement for Renewable Energy (EN-3)⁶.
- The National Planning Policy Framework (NPPF)⁷.
- The Adopted Wakefield Local Plan⁸.
- Publication Draft Local Plan, Volume 1⁹.
- West Yorkshire Combined Authority Clean Growth Action Plan¹⁰.
- Wakefield Council Pathway to Net Zero¹¹.
- Office for National Statistics (ONS) data (various outputs as individually referenced within this chapter).
- Ministry of Housing, Communities & Local Government (for deprivation data).
- The Government's Levelling Up White Paper¹².
- Information obtained from the client.

Assessment of Significance

7.2.5 The first step in the assessment is to identify the sensitivity of the receptors. In socio-economic assessments, receptors are not sensitive to 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. For example, the Local Plan may have identified that employment and business growth is a particular priority. Table 7.1 shows the sensitivity criteria followed in this assessment.

Table 7.1: Sensitivity Criteria

Sensitivity	Evidence for Sensitivity Assessment
High	Evidence of direct and significant socio-economic challenges relating to receptor. Accorded a high priority in local, regional or national economic regeneration policy.
Medium	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.
Low	Little evidence of socio-economic challenges relating to receptor. Receptor is accorded a low priority in local, regional and national economic and regeneration policy.

⁴ British Energy Security Strategy. HM Government, April 2022.

⁵ Overarching National Policy Statement for Energy (EN-1). Department for Energy Security & Net Zero, March 2023.

⁶ National Policy Statement for Renewable Energy Infrastructure (EN-3). Department for Energy Security & Net Zero, March 2023.

⁷ National Planning Policy Framework. Ministry of Housing, Communities & Local Government, July 2021.

⁸ Local Development Framework: Core Strategy. Adopted April 2009. Wakefield Council.

⁹ Publication Draft Local Plan, Volume 1: Development Strategy, Strategic and Local Policies. Wakefield Council, October 2020.

¹⁰ Clean Growth Action Plan: Supporting clean growth across our organisation. West Yorkshire Combined Authority, September 2019.

¹¹ Wakefield Council Pathway to Net Zero. Wakefield Council, June 2022.

¹² Levelling Up. HM Government (2022).

Sensitivity	Evidence for Sensitivity Assessment
Negligible	No socio-economic issues relating to receptor. Receptor is not considered a priority in local, regional and national economic development and regeneration policy.

- 7.2.6 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 7.2.

Table 7.2: Magnitude of Change Criteria

Magnitude of Impact	Description / Criteria
High	Proposed Development would cause a large change to existing socio-economic conditions in terms of absolute and/or percentage change.
Medium	Proposed Development would cause a moderate change to existing socio-economic conditions in terms of absolute or percentage change.
Low	Proposed Development would cause a minor change to existing socio-economic conditions in terms of absolute and or percentage change.
Negligible	No discernible change in baseline socio-economic conditions.

- 7.2.7 In reporting the effects of significance resulting from the Proposed Development, at construction and operational stages, the assessment contextualises both the sensitivity of the receptor and the magnitude of change. The method uses the matrix shown in Table 7.3.

Table 7.3: 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

ENVIRONMENTAL STATEMENT

MAIN STATEMENT

SOCIOECONOMICS

		Negligible	Negligible	Negligible	Negligible	Negligible
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- 7.2.8 Using the scale above, effects identified as major or moderate are regarded as being significant (represented by the shaded cells). Effects of minor or lesser significance are also identified but regarded as not significant.

Legislative and Policy Framework

National Policy Statements

Energy White Paper: Powering our Net Zero Future

- 7.2.9 The aim of the Energy White Paper¹³ is to build upon the Prime Minister's Ten-Point Plan by putting a strategy in place for the wider energy system that will help shift the economy towards net zero. The key commitments set out in the White Paper are summarised below:

- **Transforms energy:** building a cleaner, greener future for the country, the people and planet. Targeting 40GW of offshore wind by 2030. Building a world-leading digital infrastructure for the energy system.
- **Supports a green recovery:** supporting green jobs across the country in new green industries and leveraging new green export opportunities.
- **Creates a fair deal for consumers:** protecting the fuel poor and providing opportunities to save money on bills.

Net Zero Strategy: Build Back Greener

- 7.2.10 The purpose of the Net Zero Strategy¹⁴ is to build on plans for a 'green industrial revolution' and to provide a starting point for the plans and proposals required to deliver net zero carbon emissions by 2050.

- 7.2.11 The strategy includes a number of proposals, some of which are summarised below:

- A decarbonized power system by 2035, where all electricity will come from low carbon sources.
- Improvements to the planning system so that it can support the deployment of low carbon energy infrastructure whilst also representing the interests of communities and environment affected.
- Investment in nuclear, offshore wind, solar, bioenergy and electricity storage.
- Delivery of 'critical system enablers' to integrate low carbon technologies and optimise the electricity system.
- Empowering businesses and the general public make greener choices through clear signals and making green choices easier, more informed, affordable, and building acceptability.

¹³ Energy White Paper: Powering our net Zero Future. Available at: [Energy White Paper \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/92444/energy-white-paper.pdf)

¹⁴ Net Zero Strategy: Build Back Greener. Available at: [net-zero-strategy-beis.pdf \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/92444/net-zero-strategy-beis.pdf)

British Energy Security Strategy

- 7.2.12 The British Energy Security Strategy¹⁵ includes targets and ambitions for five energy sources and these are outlined below:
- **Nuclear:** deliver up to eight new nuclear reactors before 2030. Supply 24 gigawatts (GW) of electricity by 2050 – around 25% of the UK's predicted energy demand.
 - **Wind:** target to generate 50GW of energy by 2030.
 - **Oil and Gas:** a taskforce will be set up to support new developments. Ministers want to produce more of it domestically while they transition to renewables.
 - **Solar:** ambition to increase the UK's current 14GW solar capacity fivefold by 2035.
 - **Hydrogen:** target of doubling the UK's hydrogen production to 10GW by 2030.

Overarching National Policy Statement for Energy (EN-1)

- 7.2.13 The Overarching National Policy Statement (NPS) for Energy (EN-1)¹⁶ 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 Proposed Development should be described, as well as how the Proposed Development's socio-economic impacts correlate with relevant local planning policies.
- 7.2.14 In making their decision, EN-1 notes that the Infrastructure Planning Commission (IPC) (now superseded by the Secretary of State (SoS)) should consider any relevant positive provisions and legacy benefits made by the Applicant in relation to socio-economics.

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

- 7.2.15 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 2011¹⁷. An update to the EN-3 (2011) was published in September 2021¹⁸ (Draft 2021 EN-3) and is currently in consultation (document dated March 2023). 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

- 7.2.16 The most recent NPPF¹⁹ was published in July 2021. 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:

¹⁵ British Energy Security Strategy. Available at: [British energy security strategy – GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/91221/bess-2019.pdf)

¹⁶ *Overarching National Policy Statement for Energy (EN-1)*, Department of Energy Security & Net Zero, March 2023.

¹⁷ *National Policy Statement for Renewable Energy Infrastructure (EN-3)*, Department of Energy Security & Net Zero, March 2023.

¹⁸ Draft *National Policy Statement for Renewable Energy (EN-3)*, Department for Business, Energy & Industrial Strategy, September 2021.

¹⁹ *National Planning Policy Framework*. HM Government, July 2021.

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- **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 change

7.2.17 Other relevant points to note from the revised NPPF include:

- Paragraph 152 states that the planning system should support the transition to a low carbon future and tackling climate change. It should help shape places in ways that contribute to a radical reduction in greenhouse gas emissions including supporting renewable and low carbon energy and associated infrastructure.
- Paragraph 155 states that the planning system should increase the use and supply of renewable and low carbon energy and heat and provide a positive strategy for energy from these sources that maximises the potential for suitable development.
- 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

7.2.18 The strategy presented by the UK Government's Levelling Up White Paper²⁰ 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 productivity, wages, jobs and living standards by investment and growth in the private sector.
- 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.

Adopted Wakefield Local Plan

7.2.19 Policy CS13 of the Core Strategy²¹ states that in order to be sustainable, development must minimise the impact and mitigate the likely effects of climate change on existing and future occupants, the wider community and the environment and minimise the use of natural resources. The Policy also states that the Council will encourage the development of new sources of renewable energy generation where there is no adverse environmental impact on nearby communities.

Publication Draft Plan, Volume 1

7.2.20 Policy WSP 23 of Volume 1 of the Publication Draft Local Plan²² highlights the importance of development needing to minimise and mitigate the likely effects of climate change. The draft Policy states that the Council will encourage the development of new sources of renewable energy generation where there is no adverse environmental impact on nearby communities.

West Yorkshire Combined Authority: Clean Growth Action Plan

7.2.21 The Clean Growth Action Plan²³ was produced by West Yorkshire Combined Authority in September 2019 with the aim to be net zero by 2038 and to have made significant progress by 2030.

7.2.22 The vision set out in the Plan is to make Leeds City Region known globally as a place where everyone can build businesses, careers, and lives, supported by the local infrastructure, housing and digital connections. To achieve this vision there are several key clean growth principles:

²⁰ *Levelling Up*: HM Government (2022).

²¹ *Local Development Framework: Core Strategy*. Adopted April 2009. Wakefield Council.

²² *Publication Draft Local Plan, Volume 1: Development Strategy, Strategic and Local Policies*. Wakefield Council, October 2020.

²³ Clean Growth Action Plan, West Yorkshire Combined Authority. Available here: [clean-growth-action-plan.pdf \(westyorks-ca.gov.uk\)](https://www.westyorks-ca.gov.uk/clean-growth-action-plan.pdf) (Accessed 25/04/2023).

1. **Reduce energy and carbon emissions:** this will include reducing carbon dioxide emissions through the introduction of renewable and clean energy generation and staff behavioral initiatives.
2. **Minimise waste and water consumption:** this will aim to minimise operational waste through waste reduction, reuse, recycling.
3. **Tackle air quality and improve health:** this will include supporting healthier and more sustainable modes of business travel and by influencing low emission transport across the region.
4. **Use sustainable resources:** there will be a reduction in the environmental impact of services, projects, and programmes through making sustainable choices on the goods and services that are produced.
5. **Enhance the natural environment:** this will include the integration of green and blue infrastructure and climate resilience where practically possible.
6. **Integrate clean growth decision making:** this will involve advocating and embedding clean growth considerations into activities wherever possible.
7. **Measure and report performance:** this will include the annual reporting on energy, water, waste consumption and carbon emissions to ensure that targets are being met.
8. **Measure and report performance:** this will include the annual reporting on energy, water, waste consumption and carbon emissions to ensure that targets are being met.

Wakefield Council Pathway to Net Zero

7.2.23 The Pathway to Net Zero plan²⁴ was produced by Wakefield Council with the aim of for the district to achieve net zero by 2038 at the latest. The plan includes actions that will be required in helping to achieve net zero by 2038 and these are summarised below:

1. **Cross Sector:** this includes working with local education providers and projects, such as Wakefield College to develop climate action training programmes across transport, heat, industry, and land use sectors.
2. **Transport:** this will focus on supporting the development of hydrogen and electricity infrastructure by discussing plans and sharing data with network operators. Additionally, this will include working with transport providers to provide better alternative travel plans.
3. **Industry and power:** this will include providing long-term funding for achieving net zero, large -scale research on fuel switching for industry as well as delivering policy that provides significant support to deliver on commitments of climate action.
4. **Buildings:** this will aim to develop a clear policy direction on the future of heat, provide national funding with longer-term certainty and timeframes for completion and providing long-term devolved funding for achieving net zero.

²⁴ Wakefield Council Pathway to Net Zero. Available here: [pathway-to-net-zero-report.pdf \(wakefield.gov.uk\)](https://www.wakefield.gov.uk/pathway-to-net-zero-report.pdf) (Accessed 25/04/2023).

5. **Agriculture, land use and waste:** this will include delivering funding for tree-planting and hedgerow planting, streamline application processes for afforestation and ensure markets for end-products of agriculture and land management practices are established.

Extent of Study Area

- 7.2.24 The assessment primarily focuses on the effects in the local authority area of Wakefield. Data on Kirklees have also been considered given the proximity of the Proposed Development to the LPA. Where appropriate, benchmark data at a regional and national level are provided.

Limitations to the Assessment

- 7.2.25 Baseline information is derived from the latest available statistics, however there is often a time-lag associated with the publication of this data.

7.3 BASELINE CONDITIONS

Site Description and Context

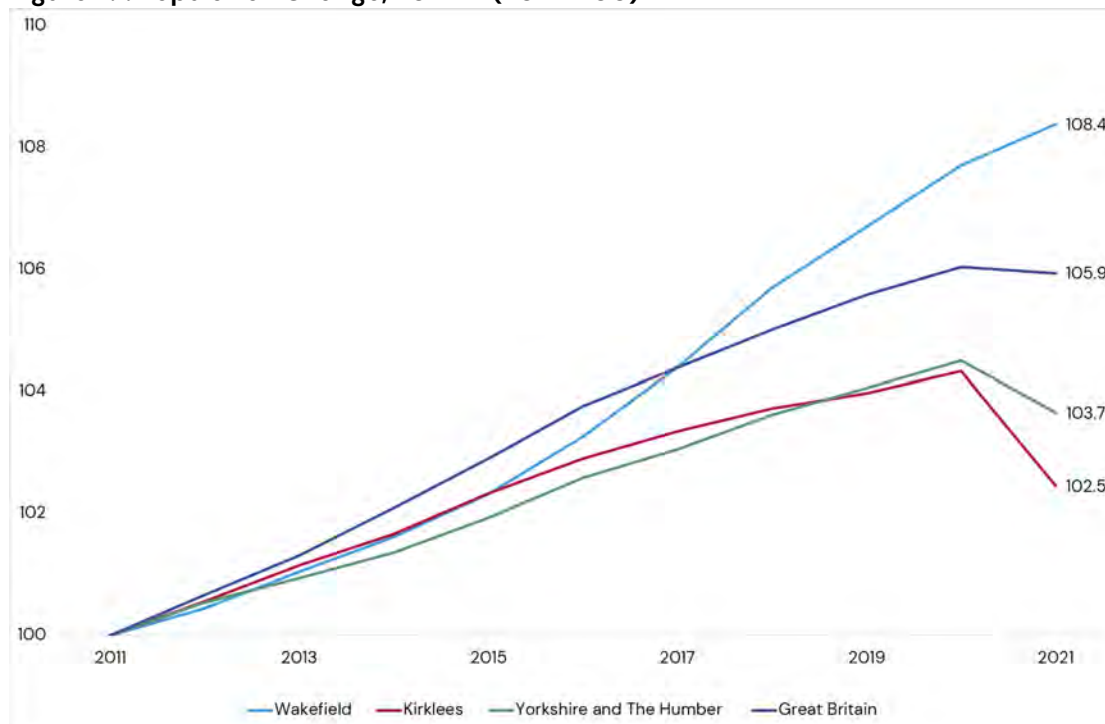
- 7.3.1 The Proposed Development is for the installation of a renewable generating station comprising ground-mounted photovoltaic solar arrays together with substation, transformer stations, site accesses, internal access tracks, security measures, access gates, other ancillary infrastructure and landscaping and biodiversity enhancements.

Baseline Survey Information

Population

- 7.1.2 Data from ONS show the total population of Wakefield is around 353,800 as of 2021 and the population of Kirklees is 433,355. Figure 7.1 presents population change between 2011 and 2021. Over this timeframe, Wakefield's population increased by 8.4% – equating to 27,369 more people, whilst the population growth in Kirklees was lower at 2.5% (10,385 additional people). The population increase in Yorkshire and The Humber between 2011 and 2021 was 3.7% and in Great Britain it was 5.9%.

Figure 7.1: Population Change, 2011–21 (2011 = 100)



Source: ONS, Mid-Year Population Estimates

- 7.3.2 Data on population change by age in Wakefield show that from 2011 to 2021, the young dependant population group (aged 0–15) increased by around 5,745 (9.6%), the number of economically active people (16–64) grew by 10,137 (4.8%) and people aged 65+ increased by approximately 11,487 (a rise of 20.7% – see Table 7.4). Table 7.5 shows that in Kirklees the fastest growing age group between 2011 and 2021 was those aged 65 and over, with an increase of 19.3% (12,517). In the same time period, Kirklees saw growth of 0.5% (417) in those aged 0–15 and a decrease of 0.9% (2,549) in those aged 16–64. All three age groups experienced growth over the same timeframe in the Yorkshire and The Humber and Great Britain, however it was the 65+ cohort that grew the fastest in all areas – 18.9% in Yorkshire and The Humber and 19.8% in Great Britain.

Table 7.4: Wakefield Population Change by Age, 2011–21

	2011	2021	Absolute Change	% Change
0–15	60,112	65,857	5,745	9.6%
16–64	210,758	220,895	10,137	4.8%
65+	55,563	67,050	11,487	20.7%
Total	326,433	353,802	27,369	8.4%

Source: ONS, Mid-Year Population Estimates

Table 7.5: Kirklees Population Change by Age, 2011-21

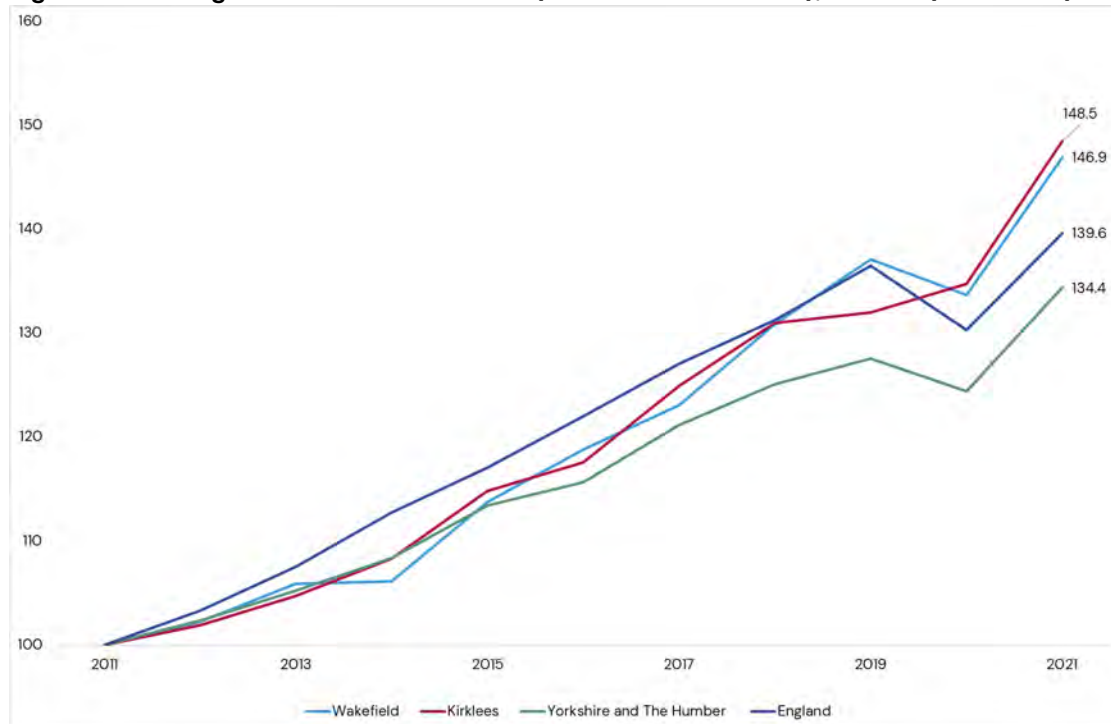
	2011	2021	Absolute Change	% Change
0-15	86,222	86,639	417	0.5%
16-64	272,007	269,458	-2,549	-0.9%
65+	64,741	77,258	12,517	19.3%
Total	422,970	433,355	10,385	2.5%

Source: ONS, Mid-Year Population Estimates

Economic Output

- 7.3.3 Figure 7.2 show gross value added (GVA – a proxy for economic output) in Wakefield, Kirklees, Yorkshire and The Humber and England between 2011 and 2021. Over this timeframe, GVA in Wakefield increased by 46.9%. This was above the increase in GVA seen in Yorkshire and The Humber (34.4%) and England (39.6%), but below the increase seen in Kirklees (48.5%).

Figure 7.2: Change in Gross Value Added (Current Basic Prices), 2011-21 (2011 = 100)

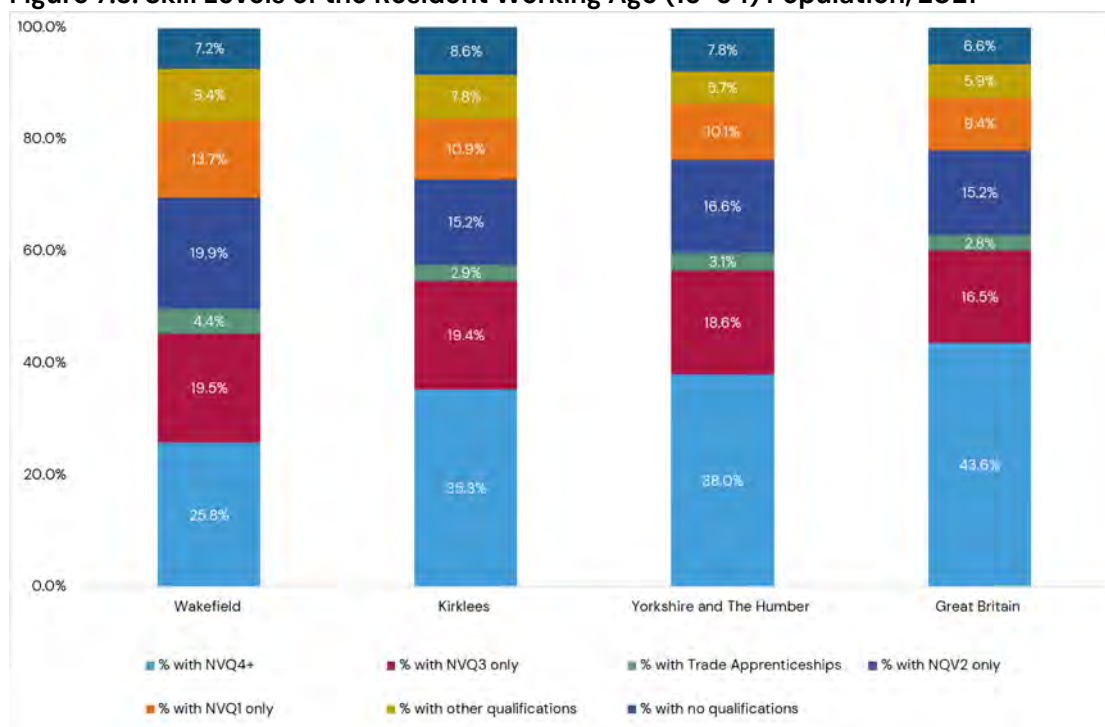


Source: ONS

Skills

- 7.3.4 In 2021, 25.8% of working age residents (16-64) in Wakefield had a degree level qualification or higher (NQF4+); 19.5% had NQF3 only, which equates to 2 A Levels and 4 AS Levels; and 19.9% had NQF2 only (5+ GCSEs or equivalent). Kirklees had a slightly higher proportion of the working age population with a degree level qualification at 35.3%. Great Britain had the highest proportion of those aged 16-64 that had a degree level qualification at 43.6%. Kirklees had the highest proportion of the working age population that had no qualifications at 8.6%. Figure 7.3 shows the full skills breakdown.

Figure 7.3: Skill Levels of the Resident Working Age (16–64) Population, 2021



Source: Annual Population Survey, January–December 2021

Deprivation

- 7.3.5 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.
- 7.3.6 The Proposed Development falls within the LSOA Wakefield O35D, which is ranked 21,332 and is placed in the top 40% least deprived LSOAs in England. Looking at the individual domains of deprivation, Wakefield O35D has its highest level of deprivation for the crime domain where it has a rank of 6,528, placing it in the top 20% most deprived LSOAs for this indicator. It has its lowest rank in employment with a rank of 29,542, putting it in the top 20% least deprived LSOAs for this domain. Table 7.6 shows the rank of each domain in detail.

Table 7.6: Index of Multiple Deprivation for Wakefield O35D

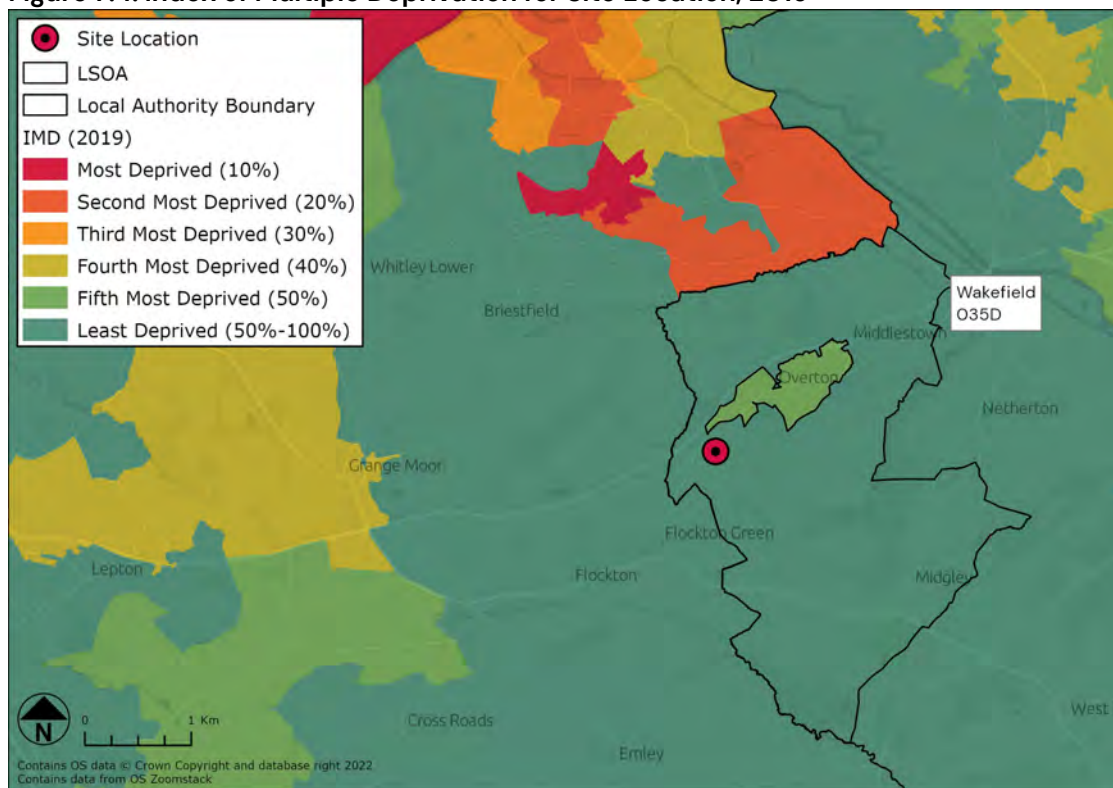
IMD Domain	Wakefield O35D Rank (out of 32,844, 1 being the most deprived)	Decile/Deprivation status
Overall IMD	21,332	Top 40% (least)
Income	26,944	Top 20% (least)
Employment	29,542	Top 20% (least)
Education	17,507	Top 50% (least)
Health and Disability	10,389	Top 40% (most)
Crime	6,528	Top 20% (most)
Barriers to housing and services	19,221	Top 50% (least)
Living Environment	17,567	Top 50% (least)

Source: Ministry for Housing, Communities & Local Government

- 7.3.7 Figure 7.4 maps the overall level of deprivation in Wakefield O35D and its neighbouring LSOAs. As can be seen from Figure 7.4, there are some areas of deprivation to the north

and west of the site, with some of the LSOAs falling into the top 10% and top 20% most deprived LSOAs in the country.

Figure 7.4: Index of Multiple Deprivation for Site Location, 2019

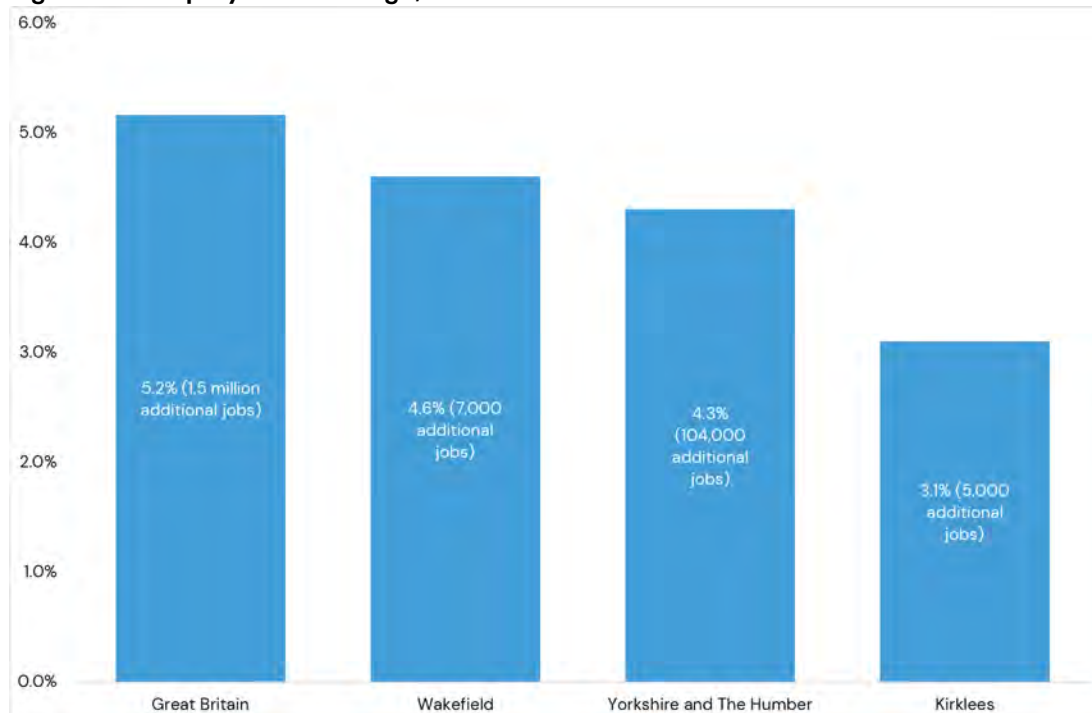


Source: Ministry of Housing, Communities & Local Government

Employment

- 7.3.8 In absolute terms, Wakefield saw job numbers increase by around 7,000 between 2015 and 2021 (growing from 152,000 to 159,000 – see Figure 7.5). In relative terms, this equated to a rise of 4.6%. Wakefield's growth rate was above that of Kirklees (3.1% – 5,000 additional jobs) and Yorkshire and The Humber (7.6% – 208,000 additional jobs) but was below the growth rate for Great Britain (5.2% – 1.5 million additional jobs).

Figure 7.5: Employment Change, 2015–21



Source: ONS, Business Register & Employment Survey

- 7.3.9 The largest sector in Wakefield as of 2021 is public administration, education and health, with 46,000 jobs – representing 29% of total employment. Job numbers in the sector increased by 5,000 between 2015 and 2021, equating to growth of 12.2%. This sector also accounted for the largest proportion of total employment in Kirklees accounting for 27.6% of total employment in the LPA and supporting 46,000 jobs.
- 7.3.10 Between 2015 and 2021, the fastest growing sector in Wakefield was information and communication, growing by 50% (1,000 additional jobs) in this time. In Kirklees, the fastest growing sector between 2015 and 2021 was also information and communication growing by 55.6% (1,250 additional jobs). The construction sector, which is likely to see increased employment opportunities during the Proposed Development's build phase, supports around 8,000 jobs in Wakefield. This represents 5% of total employment in the District, above the proportion of total jobs in Yorkshire and The Humber (4.6%) but below the proportion in Great Britain (5%). In Kirklees, the construction sector accounted for 4.8% of employment and supported 8,000 in 2021. Table 7.7 shows total employment by sector in more detail.

Table 7.7: Employment by Sector, 2021

	Wakefield	Kirklees	Yorkshire and The Humber	Great Britain
Agriculture, mining, utilities etc.	1.7%	1.5%	2.5%	2.8%
Manufacturing	12.0%	18.0%	11.5%	7.4%
Construction	5.0%	4.8%	4.6%	5.0%
Wholesale & retail	15.4%	16.5%	13.5%	14.4%
Transport & storage	10.1%	4.8%	5.6%	5.1%
Accommodation & food services	5.7%	6.6%	7.2%	7.5%
Information & communication	1.9%	2.1%	3.1%	4.3%
Business, financial & professional services	16.1%	13.9%	19.4%	23.0%
Public admin, education & health	29.0%	27.6%	28.4%	26.3%
Art, entertainment, recreation & other services	3.2%	4.2%	4.2%	4.3%

Source: ONS, Business Register & Employment Survey

Business Numbers

- 7.3.11 Table 7.8 shows the change in the number of businesses in Wakefield and Kirklees between 2012 and 2022. It also presents the change for Yorkshire and The Humber and Great Britain. Wakefield saw business growth of 24.2% (2,415 new businesses) between 2012 and 2022. This was above the growth in businesses seen Kirklees (23% – 3,270 new businesses), Yorkshire and The Humber (22.4%) and Great Britain (23.7%).

Table 7.8: Change in Business Numbers, 2011-22

	2012	2022	Absolute Change	% Change
Wakefield	9,965	12,380	2,415	24.2%
Kirklees	14,205	17,475	3,270	23.0%
Yorkshire and The Humber	187,260	229,245	41,985	22.4%
Great Britain	2,527,640	3,126,800	599,160	23.7%

Source: ONS, UK Business Count

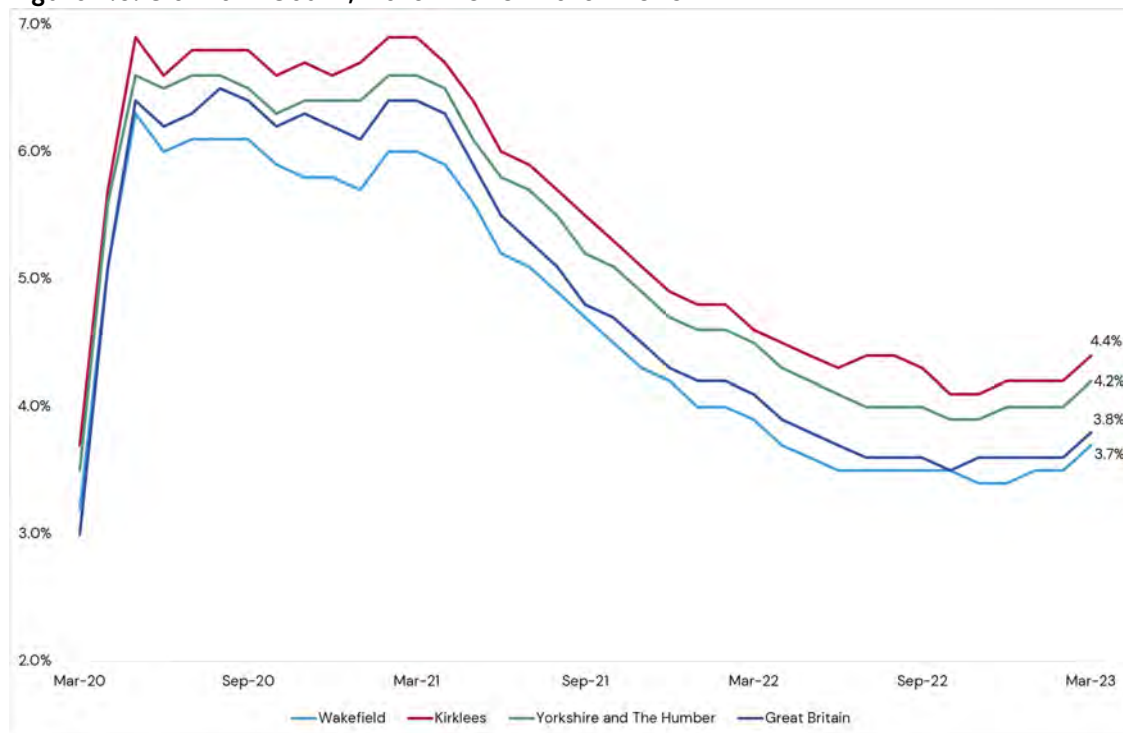
Commuting

- 7.3.12 Based on data from the 2011 Census, around 85,000 people live and work in Wakefield. An estimated 45,148 people work in Wakefield and live elsewhere, with the top origins being Leeds (12,682), Kirklees (7,916) and Barnsley (7,028).
- 7.3.13 Around 45,507 people live in Wakefield and work elsewhere, with the top locations to commute to being Leeds (21,568), Kirklees (6,022) and Barnsley (3,024).
- 7.3.14 With an inflow of 45,148 people commuting into Wakefield and an outflow of 45,507 people commuting out of Wakefield, there is a net outflow of 359 from the LPA.
- 7.3.15 Around 102,258 people live and work in Kirklees. There are 34,590 people that work in Kirklees and live elsewhere, with the top origins being Calderdale (7,387), Leeds (6,950) and Wakefield (6,022).
- 7.3.16 There are around 59,704 people living in Kirklees and working elsewhere, with the top locations to commute to being Leeds (19,725), Calderdale (10,196) and Bradford (8,897).
- 7.3.17 With an inflow of 34,590 people commuting into Kirklees and an outflow of 59,704 people commuting elsewhere from Kirklees, there is a net outflow of 25,114 workers from Kirklees.

Claimant Count

- 7.3.18 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.
- 7.3.19 Figure 7.6 shows the claimant count as a proportion of people aged 16–64 in Wakefield, Kirklees, Yorkshire and The Humber and Great Britain for the period March 2020 to March 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 are eligible to claim benefits.
- 7.3.20 In March 2020, the claimant count in Wakefield was 3.2% and in March 2023 it was 3.7%. This is currently below all other comparator areas. In March 2020, the claimant count in Kirklees was 3.7% and in March 2023 it was 4.4%. The claimant count in Wakefield was below the rate seen in Yorkshire and The Humber (4.2%) and Great Britain (3.8%), but the rate was highest in Kirklees (4.4%) as of March 2023.

Figure 7.6: Claimant Count, March 2020–March 2023



Source: ONS, Claimant Count

7.4 Assessment of likely significant effects

Construction Phase

- 7.4.1 The socio-economic effects will apply largely during the construction phase of the solar farm.

Employment

- 7.4.2 Economic benefits will arise through the provision of temporary jobs during the construction phase at the site. Based on information provided by the client, it is estimated that the total cost of the Proposed Development is in the region of £20million.
- 7.4.3 It is estimated that there will be around 50 workers on-site during the peak times of the construction period, which is expected to be around six months. In the *Solar powered growth in the UK* report, Cebr²⁵ 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 50 on-site jobs, the Proposed Development could support 67 temporary jobs in the wider economy during the peak times of the six-month build phase.
- 7.4.4 In total, the Proposed Development could support 117 temporary jobs, both direct jobs on-site and indirect/induced roles in the wider economy, during peaks times of the six-month construction period.
- 7.4.5 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 Wakefield) is assessed as being medium, in line with the criteria set out in Table 7.1. Construction employment represents around 5% of total employment in Wakefield. The construction jobs created during the build period are unlikely to add any significant pressure to the labour supply, although the 50 peak on-site jobs will still be created within a relatively short timeframe.
 - The magnitude of the impact is assessed as low, in line with the criteria in Table 7.2. The peak of 117 jobs supported by the construction phase (both direct and indirect) represents a small temporary increase in the number of new employment opportunities for local residents, for a short period of time.
 - The significance of the temporary effect is therefore considered to be minor to moderate beneficial in Wakefield, which is not significant in EIA terms.

Gross value added

- 7.4.6 The contribution of the site to economic output has been calculated by taking the 50 peak on-site jobs associated with the scheme, and multiplying this by an estimate of average levels of gross value added (GVA) per construction employee in Yorkshire and The Humber. The CEPR report gives a GVA multiplier of 2.39. Factoring this into the

²⁵ *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.

analysis, the maximum GVA impact associated with the construction phase is estimated at £3.2million over a six-month build timeframe.

7.4.7 The significance of construction phase effect in respect of contribution to economic output is assessed as follows:

- The sensitivity of the receptor in Wakefield is assessed as being medium, in line with the criteria set out in Table 7.1. GVA (current prices) in the Wakefield construction sector increased 69.6% between 2011 and 2021.
- The magnitude of the impact is assessed as low, in line with the criteria in Table 7.2. The £3.2million in GVA generated by the construction phase would represent an uplift of 0.5% in construction GVA (based on 2021 figures) in Wakefield.
- The significance of the temporary effect is therefore considered to be minor to moderate beneficial in Wakefield, which is not significant in EIA terms.

Operational Phase

7.4.8 The main socio-economic effects of the operational phase can be placed into three categories; employment; gross value added; and business rates.

Employment

7.4.9 Based on information provided by the client, it is estimated that once operational there will be up to three full-time equivalent (FTE) jobs supported on-site. The roles will be in operation & maintenance, landscaping, and security.

7.4.10 For consistency, to account for indirect effects, the same multiplier has been applied as the on-site construction jobs (2.33, as per the CEBR report). Applying this multiplier to the estimated three gross FTE jobs, it is estimated that the scheme will support around seven FTE jobs in Wakefield and the wider economy once it is built and fully operational.

7.4.11 In terms of current activity at the site, there is no-one directly employed. Therefore, the net jobs figure identified in the paragraph above remains the same. The significance of the operational phase effect in respect of employment has been assessed as follows:

- The sensitivity of the receptor (labour market of Wakefield) is considered to be medium, in line with the criteria set out in Table 7.1 and given employment in Wakefield increased by 4.6% between 2015 and 2021.
- The magnitude of the impact is identified as being negligible, in line with the criteria in Table 7.2. The number of direct and indirect jobs created would represent a small increase on current employment levels in Wakefield, although the employment supported by the operational phase will be long-term.
- The significance of the operational effect is therefore considered to be negligible beneficial in Wakefield, which is not significant in EIA terms.

Gross value added

7.4.12 The contribution of the site 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 in the Yorkshire and The Humber. It is estimated that once operational and fully occupied, GVA associated with the Proposed Development will be around £379,000 per annum, allowing for multiplier effects²⁶.

7.4.13 Over the 40-year operational lifespan of the solar farm the GVA generated is estimated to be around £8.4million (present value²⁷).

7.4.14 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 Wakefield is considered to be medium, in line with the criteria set out in Table 7.1 given GVA in Wakefield increased by 46.9% between 2011 and 2021.
- The magnitude of the impact is identified as being negligible, in line with the criteria in Table 7.2. The annual GVA generated by the Proposed Development once operational would represent an uplift of 0.06% on 2021 GVA in Wakefield.
- The significance of the operational effect is therefore considered to be negligible beneficial in Wakefield, which is not significant in EIA terms.

Business Rates

7.4.15 It is estimated that the solar project element of the proposed scheme could generate up to £174,150 per annum in business rates²⁸. Over the intended 40-year lifespan of the scheme, business rates generated could total around £2million (present value).

7.4.16 The significance of the operational phase effect in respect of business rates has been assessed as follows:

- The sensitivity of the receptor in Wakefield is considered to be medium, in line with the criteria set out in Table 7.1.
- The magnitude of the impact is identified as being low, in line with the criteria in Table 7.2. The business rates revenue generated from the Proposed Development would represent an uplift on current activities and while the impact is long-term, similar to the GVA impact the annual rate generated is relatively small.
- The significance of the operational effect is therefore considered to be minor to moderate beneficial in Wakefield, which is not significant in EIA terms.

²⁶ For the GVA estimate, the same multipliers used are the same as the construction GVA multipliers outlined above.

²⁷ Where future benefits are calculated over a longer timeframe, they have been discounted to produce a present value. This is the discounted value of a stream of either future costs or benefits. A standard discount rate is used to convert all costs and benefits to present values. Using the Treasury's Green Book, the recommended discount rate is 3.5% up to 30 year and 3% thereafter.

²⁸ Based on information on price per MW of £6,450 in 2017 sourced from Photovoltaic Memorandum of Agreement.

Decommissioning Phase

Employment

- 7.1.3 Employment benefits are expected to be similar to those outlined for the construction phase.

Gross Value Added

- 7.1.4 Contribution to economic output is expected to be broadly similar to that outlined for the construction phase.

- 7.1.5 The significance of decommissioning phase effects is assessed as follows:

- The sensitivity of the receptor is assessed as being medium, informed by the potential effects identified for the construction phase.
- The magnitude of the impact is assessed as low, informed by the potential effects identified for the construction phase.
- The significance of the temporary effect is therefore considered to be minor to moderate beneficial, which is not significant in EIA terms.

7.5 Mitigation, enhancement & residual effects

Mitigation by Design

- 7.5.1 When the Proposed Development is considered in isolation it may generate a small number of additional commuting flows. However, these are considered to be outweighed by the other positive effects that the Proposed Development would have on the economy, such as the provision of temporary jobs and contribution to business rates mentioned above.

Additional Mitigation

- 7.5.2 Due to the beneficial impacts identified in this assessment, no specific mitigation measures have been identified from a socio-economic perspective.

Enhancements

- 7.5.3 Without mitigation being proposed, there will be no enhancements arising from such mitigation.

Residual Effects

- 7.5.4 Given no specific mitigation measures are required, the 'residual' effects remain as those identified in the above section.

7.6 Cumulative and in-combination effects

- 7.6.1 One cumulative scheme in Kirklees LPA has been identified in terms of socio-economic effects. Only the operational impact has been assessed as the information for the construction phase of the development is not available. The operational impact analysis

is based on experience of working on similar schemes elsewhere. Unfortunately, it is not possible to do the same regarding the construction phase. The details of the cumulative scheme are as follows:

- The planning reference number for the site is 2021/62/93644/E.
- The site is located at Low Farm, Wakefield Road, Flockton, Huddersfield, WF4 4BB
- The site includes the erection and operation of grid-connected solar photovoltaic farm to supply up to 49.9MW, with ancillary infrastructure and landscaping and biodiversity enhancements.

Employment

7.6.2 In combination with the Proposed Development, using the same multipliers as above, the Proposed Development and cumulative scheme are estimated to generate 14 FTE jobs on-site jobs in Wakefield/Kirklees and the wider economy.

7.6.3 The significance of the cumulative operational phase effect in respect of employment has been assessed as follows:

- The sensitivity of the receptor (labour market of Wakefield and Kirklees) is considered to be medium, in line with the criteria set out in Table 7.1 and given employment in Wakefield and Kirklees increased by 3.8% between 2015 and 2021.
- The magnitude of the impact is identified as being negligible, in line with the criteria in Table 7.2. The number of on-site jobs created in the operational phase (14) would represent a small increase on current employment levels in Wakefield and Kirklees, although the employment supported by the operational phase will be long-term.
- The significance of the cumulative operational effect is therefore considered to be negligible beneficial, which is not significant in EIA terms.

Gross Value Added

7.6.4 The contribution of the site to economic output has been calculated by taking the job creation associated with the cumulative schemes, and multiplying these by an estimate of average levels of GVA per employee in Yorkshire and The Humber. It is estimated that once operational and fully occupied, GVA associated with the Proposed Development and the cumulative scheme will be around £758,600 per annum, allowing for multiplier effects.

7.6.5 The significance of the cumulative operational phase effect in respect of contribution to economic output has been assessed as follows:

- The sensitivity of the receptor in Wakefield and Kirklees is considered to be medium, in line with the criteria set out in Table 7.1 and given GVA in Wakefield and Kirklees increased by 47.7% between 2011 and 2021.
- The magnitude of the impact is identified as being negligible, in line with the criteria in Table 7.2. The annual GVA generated by the Proposed Development and the cumulative scheme once operational of £758,600 would represent an uplift of 0.07% on 2021 GVA in Wakefield and Kirklees.

- The significance of the cumulative operational effect is therefore considered to be negligible beneficial in Wakefield and Kirklees, which is not significant in EIA terms.

Business Rates

- 7.6.6 It is estimated that the combined Proposed Development and cumulative scheme could generate up to £496,000 per annum in business rates. Over the intended 40-year lifespan of the schemes, business rates generated could total around £5.6million (present value).
- 7.6.7 The significance of the operational phase effect in respect of business rates has been assessed as follows:
- The sensitivity of the receptor in Wakefield and Kirklees is considered to be medium, in line with the criteria set out in Table 7.1.
 - The magnitude of the impact is identified as being low, in line with the criteria in Table 7.2.
 - The significance of the cumulative operational effect is therefore considered to be minor to moderate beneficial in Wakefield and Kirklees, which is not significant in EIA terms.

Town & Country Planning Act 1990 (as amended)
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