

# **Environmental Statement: Volume I**

## **Chapter 14: Socio-Economics**

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## 14.0 SOCIO-ECONOMICS

### 14.1 Introduction

14.1.1 This chapter of the Environmental Statement (ES) addresses the potential effects of the Proposed Development on local businesses and the local population.

### 14.2 Legislation and Planning Policy Context

#### National Planning Policy

##### *National Planning Statement (NPS) EN-1 (2011)*

14.2.1 Chapter 5.12.2 of NPS EN-1 states that “Where the project is likely to have socio-economic impacts at local or regional levels, the applicant should undertake and include in their application an assessment of these impacts as part of the ES”. Impacts include the creation of jobs and training opportunities during the construction, operation and decommissioning phases of energy infrastructure. The NPS also indicates that the existing socio-economic conditions should be described in addition to correlation of the impacts with local planning policies.

##### *National Planning Policy Framework (2018)*

14.2.2 The National Planning Policy Framework (NPPF, Ref 14-1) requires local authorities to set out a clear economic vision and strategy for their area which encourages sustainable economic growth. It states that planning policies should help create the conditions in which businesses can invest, expand and adapt.

14.2.3 Paragraph 80 of the NPPF states that “Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development.” The NPPF indicates that this approach will allow areas to build on their strengths especially in areas of high productivity. Paragraph 82 of the NPPF also states that planning policies should “recognise and address the specific locational requirements of different sectors.

### 14.3 Local Planning Policy

14.3.1 In the Proposed Development Study Area (defined below), planning policies regarding socio-economics are contained within the local plans of both North Lincolnshire Council (NLC) and North East Lincolnshire Council (NELC).

##### *North Lincolnshire Core Strategy 2006-2026 (2011)*

14.3.2 The Core Strategy (Ref 14-2) sets out the long term spatial planning framework for the development of North Lincolnshire up to 2026. It supports the: “long-term success of existing and new businesses in the area to help encourage job creation and the diversification of the employment base, particularly in key growth sectors.”

14.3.3 The energy sector is identified as a key sector in the Core Strategy for North Lincolnshire with potential for significant growth. Securing highly skilled roles for local residents is also identified as a priority for the region.

14.3.4 The Core Strategy key diagram shows the Site as lying within the 'South Humber Bank Strategic Employment Site' ('SES'). Policy CS12 of the Core Strategy deals with the SES and is generally supportive of industrial and port-related activities within the designated area. It states that the area will be reserved for industrial type uses. There are also similar, supportive policies within the Local Plan (2003) and the Housing and Employment Land Allocations Development Plan Document (2016).

***North East Lincolnshire Local Plan 2013-2032 (Adopted 2018) (Local Plan)***

14.3.5 Policy 1 (Employment Land Supply) of the Local Plan supports the development of sites to accommodate B class uses in North East Lincolnshire, including B2 (general industrial), B1c (light industrial) and B8 (storage and distribution). It aims to support the generation of 8,800 jobs in the Council's key economic sectors, including Renewable Energy.

***North East Lincolnshire Economic Strategy (2016) (Economic Strategy)***

14.3.6 The Economic Strategy outlines three main outcomes for NEL: 'NEL's businesses invest and grow; NEL's workforce is skilled and productive; and NEL is a great place to live, work, visit and invest'.

14.3.7 Creating the right conditions for the growth of existing businesses and inward investment is seen as key. The Economic Strategy highlights the need for effective business support across sectors including in Renewable Energy due to the significant role the Humber Estuary plays in the sector and its contribution to local employment and skills development.

***Greater Lincolnshire LEP Strategic Economic Plan 2014-2032 (2016)***

14.3.8 The Greater Lincolnshire Local Enterprise Partnership's (LEP) Strategic Economic Plan (Ref 14-3) outlines the priorities for economic growth in the Greater Lincolnshire area. This includes the growth of the area's strongest sectors including energy. It highlights the LEPs ambitions for the region to become a leading national and international centre for energy through the provision of infrastructure and land assembly to unlock the development of key sites.

**Other Guidance**

14.3.9 Whilst there is no dedicated UK legislation that details the content required for a socio-economic assessment as part of an EIA, the socio-economic assessment presented in this chapter is based upon a range of relevant guidance. This includes:

- Department for Business, Innovation & Skills (now Business, Energy and Industrial Strategy (BEIS)) - Research to Improve the Assessment of Additionality (Ref 14-4);
- HM Treasury - The Green Book: Central Government Guidance on Appraisal and Evaluation (Ref 14-5);
- HM Treasury - The Magenta Book: Guidance for evaluation (Ref 14-6); and
- Homes & Communities Agency (HCA, now Homes England) - Additionality Guide (Fourth Edition) (Ref 14-7).

## 14.4 Assessment Methodology and Significance Criteria

### Impact Assessment

14.4.1 Where possible, socio-economic impacts have been appraised against relevant national standards, such as those provided by HM Treasury, the Department for Business, Innovation and Skills (as it was previously), and the Homes and Communities Agency, (now trading as Homes England). Where relevant standards do not exist, professional experience and expert judgement have been applied.

14.4.2 The socio-economic assessment provides the:

- Sensitivity of receptors;
- Magnitude of impacts; and
- The consequent significance of effects.

14.4.3 The sensitivity of socio-economic receptors is assessed as high, medium, low or very low. The criteria for assessing levels of sensitivity are defined in Table 14.1. These are based on professional judgement:

**Table 14.1: Criteria for Assessing Sensitivity**

Level of Sensitivity	Description
<b>High</b>	<ul style="list-style-type: none"> <li>• There are limited/ no comparable and accessible alternatives that exist in the relevant catchment and/ or: receptors have limited ability to absorb the change; and/ or</li> <li>• Receptors are generally travelling from greater distances (nationally) to use the facility; and/ or</li> <li>• There are higher numbers utilising the facility.</li> <li>• Identified as a high priority in published policy and strategy</li> </ul>
<b>Medium</b>	<ul style="list-style-type: none"> <li>• There are limited comparable and accessible alternatives in the relevant catchment area and/ or:</li> <li>• Receptors have limited ability to absorb the change; and/ or</li> <li>• Receptors are generally travelling from relatively far distances (regionally) to use the facility; and/ or</li> <li>• There are moderate numbers utilising the facility.</li> <li>• Identified at a sub-regional and/ or local level as policy/strategy priorities</li> </ul>

Level of Sensitivity	Description
<b>Low</b>	<ul style="list-style-type: none"> <li>• Receptors are able to relatively easily absorb the change; and/ or:</li> <li>• There are some comparable and accessible alternatives that exist in the relevant catchment area; and/ or</li> <li>• Receptors are mainly travelling from nearby (local/ within the study area) to use the facility; and/ or</li> <li>• There are low numbers utilising the facility.</li> <li>• Referenced in policy and strategy but do not accord a high priority</li> </ul>
<b>Very Low</b>	<ul style="list-style-type: none"> <li>• Receptors are able to relatively easily absorb the change; and/ or:</li> <li>• There are many comparable and accessible alternatives that exist in the relevant catchment area; and/ or</li> <li>• Receptors are travelling from nearby (local/ within the study area) to use the facility; and/ or</li> <li>• There are low numbers utilising the facility.</li> </ul>

14.4.4 A socio-economic receptor or resource generally includes economic entities and users of social infrastructure provision. The socio-economic receptors include those who will potentially benefit from employment generation (either directly, indirectly or induced (secondary impacts, for example due to construction workers spending money at local businesses)).

14.4.5 The Baseline Conditions section of this Chapter summarises the receptors that will be affected during construction and operation.

14.4.6 The magnitude of the impacts of the Proposed Development is assessed as being high, medium, low or very low. This is determined by:

- Extent of change – the absolute number of people affected and the size of area in which effects will be experienced i.e. the level of change to baseline conditions including the proportion of the existing workforce;
- Scale of the impact – the relative magnitude of each impact in its relevant market context (for example, the effects on local employment will be considered in the context of the overall size of the local labour market); and
- Duration of impact – more weight is given to long-term, permanent changes than to short-term temporary ones. Temporary to short-term impacts are considered to be those associated with the construction works. Medium to long-term impacts are those associated with the operation of the Proposed Development.

14.4.7 The effects of the Proposed Development are defined as either:

- Beneficial – an advantageous or beneficial effect on an impact area;

- Negligible – an imperceptible effect on an impact area; or
- Adverse – a disadvantageous or negative effect on an impact area.

14.4.8 Where an effect is assessed as being beneficial or adverse, the effect has been classified as minor, moderate, major or negligible. The assessment of significance is informed by the sensitivity of the receptor and the magnitude of impact as set out in Table 14.2. For the purposes of this assessment, only moderate and major impacts are considered ‘significant’.

**Table 14.2: Classification of effects on socio-economics**

Magnitude of Impact	Sensitivity/ importance of receptor			
	High	Medium	Low	Very low
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Negligible	Negligible
Very low	Minor	Negligible	Negligible	Negligible

**Extent of Study Area**

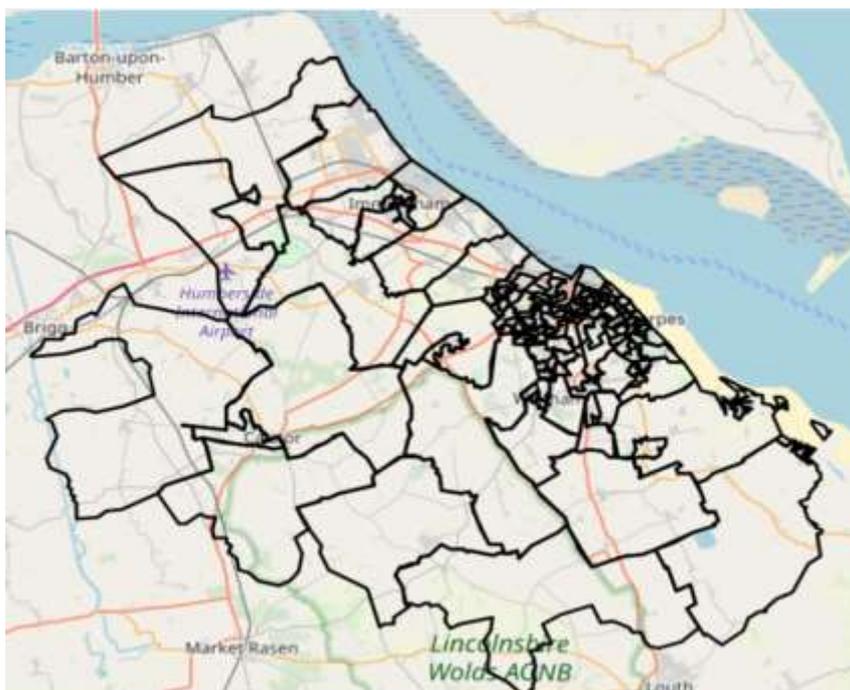
- 14.4.9 Office for National Statistics (ONS, Ref 14-8) statistical geographies have been used to define the study area for the socio-economic assessment as described below.
- 14.4.10 The vast majority of the Proposed Development falls within Lower Super Output Area (LSOA) North Lincolnshire 004C (the ‘Direct Impact Area’). LSOAs are small geographic areas defined by the ONS. There are 34,753 LSOAs across England and Wales with a minimum population of 1,000 and a maximum of 3,000.

**Figure 14.1 Map of Direct Impact Area (LSOA North Lincolnshire 004C)**



14.4.11 As well as understanding the socio-economic conditions immediately surrounding the Proposed Development (as per the LSOA analysis), the socio-economic assessment also takes into account the principal labour market catchment area of the travel to work area (TTWA). TTWAs contain at least 75% of the area’s workforce that both live and work in the area. TTWAs have populations of at least 3,500 people. The Proposed Development falls within the Grimsby TTWA (the ‘Wider Impact Area’).

**Figure 14.2 Map of Wider Impact Area (Grimsby TTWA)**



14.4.12 The assessment outlines the socio-economic context of both the LSOA and TTWA, and makes comparisons to the whole of England. Key indicators include: population and labour force; skills and unemployment; industry and the economy.

**Sources of Information/Data**

14.4.13 The following Office for National Statistics (ONS) datasets have been reviewed to inform this assessment: Jobseeker’s Allowance by Occupation (Ref 14-8); Census of Population (Ref 14-9); and Population Projections (Ref 14-12).

**14.5 Consultation**

14.5.1 Comments on the scope of the socio-economics assessment have been provided within the Planning Inspectorate’s Scoping Opinion (Appendix 1B, ES Volume III (Application Document Ref: 6.4)). The key points are summarised in Table 14.2 below.

**Table 14.3: Consultation Summary Table**

Consultee	Date (method of consultation)	Summary of consultee comments	Summary of response/ how comments have been addressed
Planning Inspectorate	EIA Scoping Opinion January 2018	<p>With regards to the scope of the Socio-Economics assessment, the EIA Scoping Opinion states:</p> <ul style="list-style-type: none"> <li>• Study area should be described and justified</li> <li>• Sensitive receptors should be clearly identified</li> <li>• A formal list of references and guidance documents should be provided</li> <li>• Set out assessment criteria against which effects are to be assessed</li> <li>• Assessment of socio-economic effects during decommissioning where relevant</li> </ul>	Included as part of this Chapter

**14.6 Changes Since the Preliminary Environmental Information (PEI) Report**

14.6.1 The changes in the Proposed Development since the publication of the PEI Report are presented in Chapter 4: Proposed Development. It is not considered that the changes described in that Chapter have any effect on this assessment.

## 14.7 Use of the Rochdale Envelope

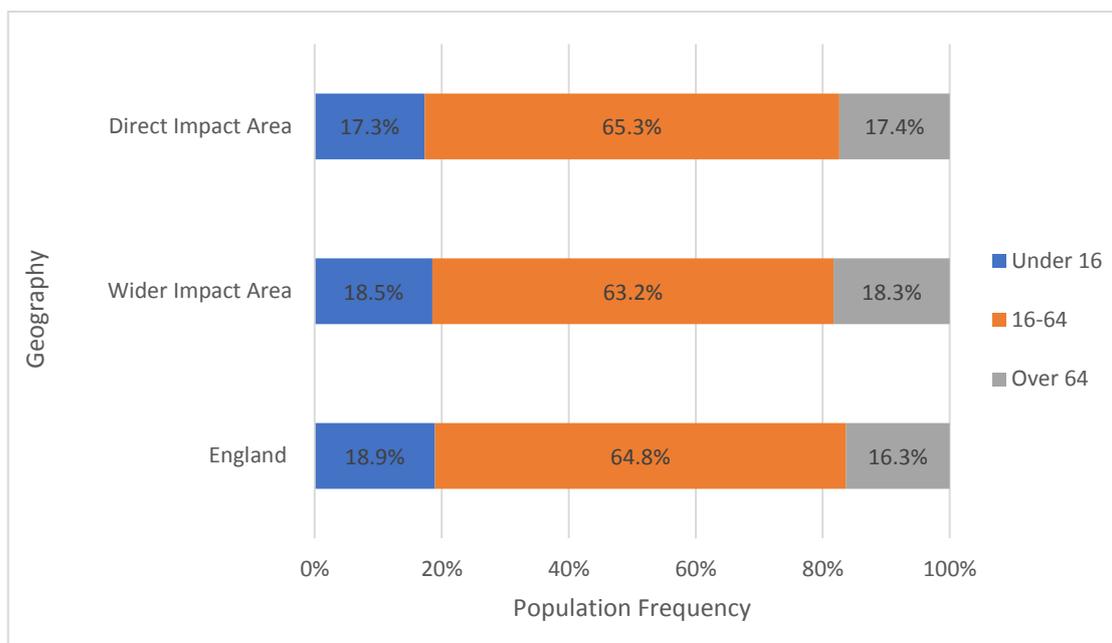
- 14.7.1 A focussed use of the Rochdale Envelope approach has been adopted to present a worst case assessment of potential environmental effects of the different parameters of the Proposed Development that cannot yet be fixed. The parameters included within the Rochdale Envelope are described in Chapter 4: Proposed Development.
- 14.7.2 Changes within the parameters described are not considered to have any effect on this assessment.

## 14.8 Baseline Conditions

### Existing Baseline

- 14.8.1 This section outlines the socio-economic baseline conditions in the Direct Impact Area, Wider Impact Area and England. The local population and labour market are the main receptors in the assessment for employment effects. The baseline conditions help to determine the impact of employment generated by the Proposed Development. The impact is mostly influenced by the size of the labour market and whether it has the relevant skills, occupations and sector strengths to access employment opportunities.
- 14.8.2 The 2011 Census data shows that the Direct Impact Area had a population of 1,742 while the wider impact area had a population of 187,068. Figure 14.1 below shows that the Direct Impact Area had a smaller proportion of young people (aged 0 to 15) than the Wider Impact Area and England. Both the Direct Impact Area and Wider Impact Area contain less people of working age (aged 16 to 64) than the national average. There is a higher proportion of residents aged over 64 in the Direct Impact Area than in England, with the Wider Impact Area having an even greater proportion.

**Figure 14.3: Age Breakdown**



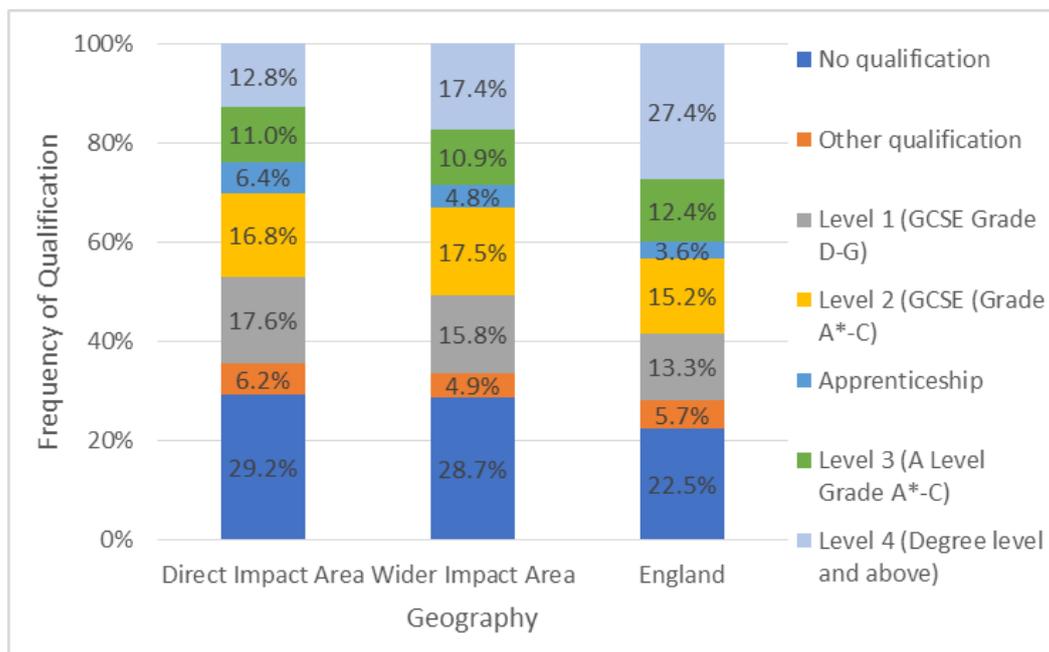
Source: Census (ONS, 2011)

- 14.8.3 The Direct Impact Area has a lower proportion of residents qualified to Level 4 or above (greater than A-level and equivalent qualifications) at 12.8%, compared to both the Wider

Impact Area (17.4%) and England (27.4%). The Direct Impact Area has a greater proportion of residents qualified to Level 1 and Level 2 than the Wider Impact Area and England. Apprenticeships are also higher in the Direct Impact Area (29.2%) than the other two geographies.

14.8.4 At the other end of the spectrum the Direct Impact Area has a greater proportion of residents with no qualifications (29.2%) when compared to the Wider Impact Area (28.7%) and England (22.5%). However the number of residents with 'other qualifications' in the Direct Impact Area (6.2%) is greater than the wider geographies. This is illustrated in Figure 14.2 below.

**Figure 14.4 Highest Level of qualification of residents**



Source: Census (ONS, 2011)

14.8.5 The largest employment sector in the Direct Impact Area (19.4%) is manufacturing, followed by wholesale and retail trade; and repair of motor vehicles and motor cycles (17.8%). The Direct Impact Area has a greater proportion of manufacturing employment compared to the Wider Impact Area (15.2%) and England (8.8%). Employment in the transport and storage sector is also greater in the Direct Impact Area (14.1%) than the Wider Impact Area (7.8%) and England (5.0%). This is illustrated in the table below.

**Table 14.4: Employment Sectors**

Sectors	Direct Impact Area	Wider Impact Area	England
Manufacturing	19.4%	15.2%	8.8%
Wholesale and retail trade; repair of motor vehicles and motor cycles	17.8%	18.5%	15.9%

Sectors	Direct Impact Area	Wider Impact Area	England
Transport and storage	14.1%	7.8%	5.0%
Human health and social work activities	8.2%	13.0%	12.4%
Construction	7.5%	8.3%	7.7%
Accommodation and food service activities	7.5%	5.3%	5.6%
Administrative and support service activities	5.7%	4.2%	4.9%
Education	5.3%	9.1%	9.9%
Public administration and defence; compulsory social security	3.3%	4.9%	5.9%
Professional, scientific and technical activities	2.8%	3.6%	6.7%
Agriculture, forestry and fishing	1.3%	1.2%	0.8%
Electricity, gas, steam and air conditioning supply	1.2%	0.8%	0.6%
Other	3.3%	3.9%	5.0%

Source: Census (ONS, 2011)

14.8.6 The Direct Impact Area (69.1%) has a greater proportion of residents who are economically active than the Wider Impact Area (68.3%) but less than England as a whole (69.9%). The Direct Impact Area also has a larger proportion of residents in employment (62.5%) than both the Wider Impact Area (59.7%) and England (62.1%). The highest unemployment rate falls in the Wider Impact Area (5.9%) with the Direct Impact Area only 0.2% higher than the England average (4.4%). England has a higher proportion of students than in both the Direct and Wider Impact Areas. Table 14.4 below presents a breakdown the economic activity for the study area in comparison with England as a whole.

**Table 14.5: Economic Activity**

Economic activity	Direct Impact Area	Wider Impact Area	England
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	Number	% of residents (16-74)	Number	% of residents (16-74)	Number	% of residents (16-74)
In employment	832	62.5%	81,550	59.7%	24,143,464	62.1%
Employee: Part-time	163	12.2%	22,146	16.2%	5,333,268	13.7%
Employee: Full-time	544	40.8%	49,518	36.3%	15,016,564	38.6%
Self-employed	125	9.4%	9,886	7.2%	3,793,632	9.8%
Unemployed	61	4.6%	8,102	5.9%	1,702,847	4.4%
Full-time student	28	2.1%	3,575	2.6%	1,336,823	3.4%
Total	921	69.1%	93,227	68.3%	27,183,134	69.9%

Source: Census (ONS, 2011)

14.8.7 Table 14.5 and Figure 14.3 below shows economic inactivity rates for all of the geographies. The Direct Impact Area has a higher proportion of economically inactive residents (30.9%) than England (30.1%) but fewer than the Wider Impact Area (31.7%). The Direct Impact Area (16.1%) and Wider Impact Area (16.3%) both have greater proportions of retirees than England as a whole (13.7%).

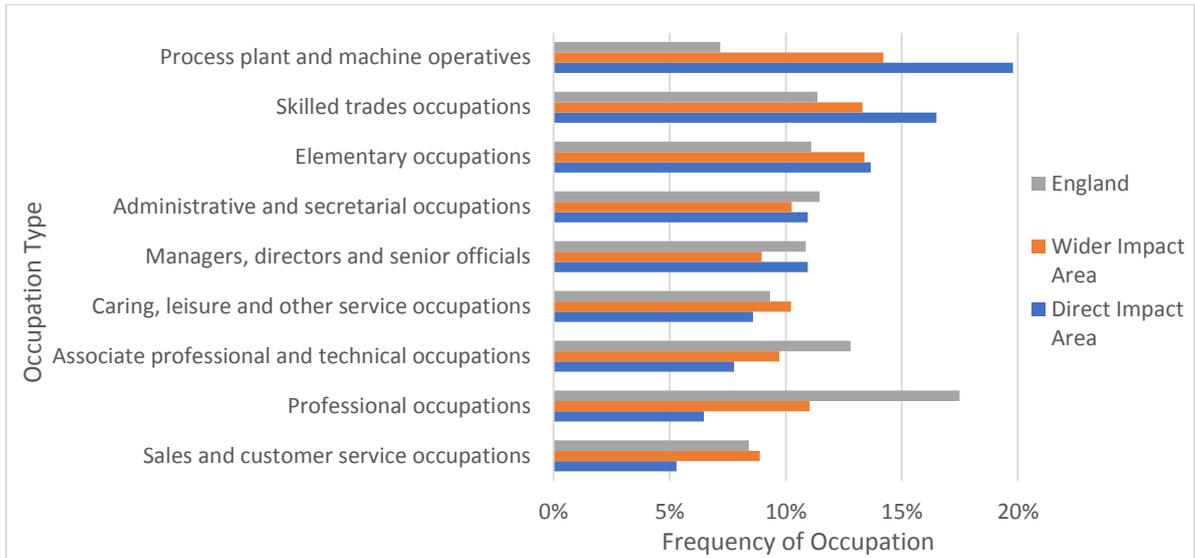
**Table 14.6: Economic Inactivity**

Economic inactivity	Direct Impact Area		Wider Impact Area		England	
	Number	% of residents (16-74)	Number	% of residents (16-74)	Number	% of residents (16-74)
Retired	216	16.2%	22,212	16.3%	5,320,691	13.7%
Student (including full-time students)	47	3.5%	5,535	4.1%	2,255,831	5.8%
Looking after home or family	57	4.3%	6,400	4.7%	1,695,134	4.4%
Long-term sick or disabled	68	5.1%	6,292	4.6%	1,574,134	4.0%
Other	23	1.7%	2,822	2.1%	852,450	2.2%
Total	411	30.9%	43,261	31.7%	11,698,240	30.1%

Source: Census (ONS, 2011)

14.8.8 The workforce occupation profile varies across the geographies. Process plant and machine operatives dominate the Direct Impact Area workforce occupations (19.8%) with this also being the largest occupation sector in the Wider Impact Area (14.2%). England has a far smaller proportion of residents occupied in process plant and machine operatives at just 7.2%. England is dominated by professional occupations (17.5%). Professional occupations are under-represented in the Wider and Direct Impact Areas sitting at 11% and 6.5% respectively. In the Direct Impact Area other notable occupations include; skilled trades (16.5%), elementary (13.7%) and administrative and secretarial occupations (11%).

**Figure 14.5 Workforce Occupations**



Source: Census (ONS, 2011)

**Future Baseline**

14.8.9 Table 14.6 below highlights projected population figures for the study area. The Direct Impact Area (0.19%) is projected to see a slower rate of growth than the Wider Impact Area (0.32%) and England (0.54%). Population growth in all areas is forecast to be driven through an increasing proportion of residents aged 65 and over residents. In the case of the Direct Impact Area (-0.28%) and Wider Impact Area (-0.05%) the working age population (16-64) is projected to decline. The Direct Impact Area is also forecast to see a 0.38% decline in residents aged 0-15. This area is therefore expected to experience an increasingly aging population. England is set to experience growth across all age bands.

**Table 14.7: Population Projections 2011-2041**

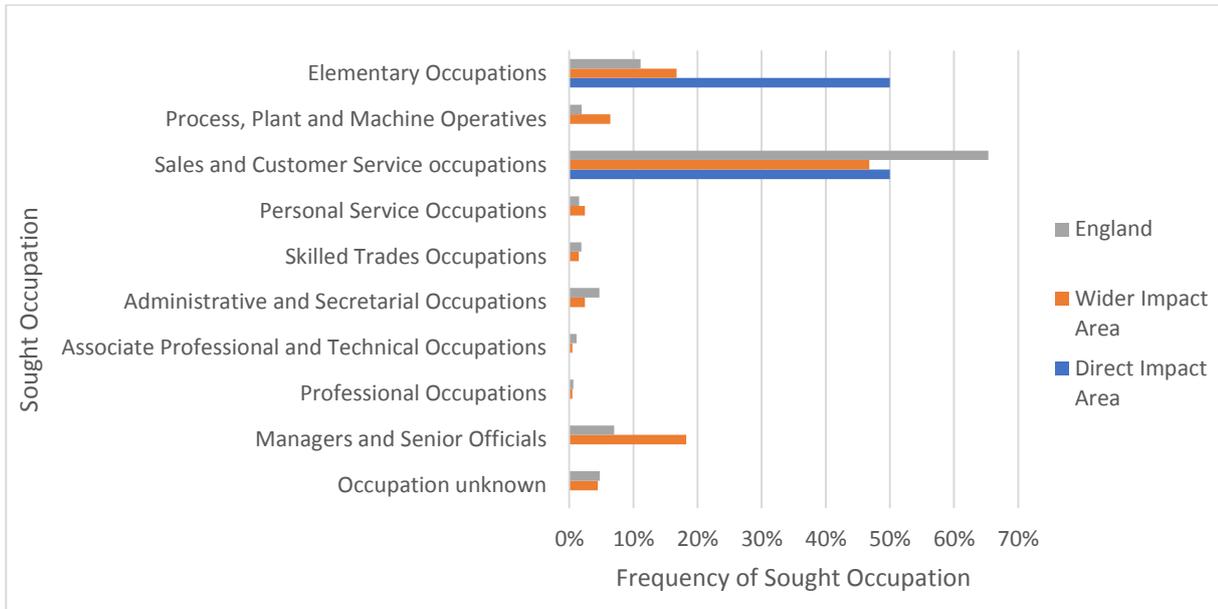
Year	Direct Impact Area				Wider Impact Area				England			
	All Ages	Aged 0 to 15	Aged 16 to 64	Aged 65+	All Ages	Aged 0 to 15	Aged 16 to 64	Aged 65+	All Ages	Aged 0 to 15	Aged 16 to 64	Aged 65+
2011	1,742	301	1,138	303	187,068	221,666	118,250	34,220	53,012,456	10,022,836	34,329,091	8,660,529
2016	1,777	303	1,120	351	192,083	228,479	118,117	38,712	55,268,067	10,529,100	34,856,126	9,882,841
2021	1,803	305	1,110	384	195,786	235,660	118,091	41,570	57,030,534	11,027,950	35,298,513	10,704,133
2026	1,820	291	1,102	423	198,815	232,936	118,029	45,466	58,505,621	11,048,393	35,659,571	11,797,633
2031	1,829	278	1,075	470	201,459	227,171	117,378	50,140	59,789,798	10,857,286	35,765,627	13,166,895
2036	1,835	272	1,052	505	203,507	224,772	116,247	54,102	60,905,483	10,779,344	35,788,796	14,337,402
2041	1,840	270	1,050	513	205,387	225,547	116,610	55,633	61,952,118	10,838,109	36,120,411	14,993,573
<b>CAGR<sup>1</sup> %</b>	<b>0.19%</b>	<b>0.38%</b>	<b>0.28%</b>	<b>1.83%</b>	<b>0.32%</b>	<b>0.06%</b>	<b>0.05%</b>	<b>1.69%</b>	<b>0.54%</b>	<b>0.27%</b>	<b>0.18%</b>	<b>1.91%</b>

Source: ONS Population Projections, 2016

<sup>1</sup> Compound Annual Growth Rate

14.8.10 In the Direct Impact Area sought occupations were split between sales and customer service occupations and elementary occupations. Sales and customer service occupations were the most sought after in all geographies with the Wider Impact Area and England sitting at 47% and 65% respectively. For elementary occupations the Wider Impact Area (17%) and England (11%) both sit slightly below the Direct Impact Area. In the Wider Impact Area and England another notable sought occupation is managers and senior officials, with proportions of 18% and 7% respectively.

**Figure 14.6 Sought After Occupations**



Source: Census (ONS, 2011)

### Local Receptors

14.8.11 No residential properties lie within close proximity of the Proposed Development (within 500m). The closest settlement is South Killingholme, located 1.5km to the West of the Site.

14.8.12 South Killingholme features Killingholme Primary School located 1.8km from the Proposed Development. Other possible sensitive receptors within the settlement include The Killingholme Surgery, South Killingholme Post Office, South Killingholme Methodist Church and South Killingholme Community Centre. All of these receptors are located more than 1.5km from the Site.

14.8.13 The only social infrastructure that lies within close proximity to the Site is Immingham West Fire Station approximately 400m to the South West.

14.8.14 There are a number of businesses located close to the Site. These businesses all operate within the energy sector and include the Humber Ports Facility located to the North of the site. Other companies operating in the local area mainly focus on oil refinery including the Total Lindsey Oil Refinery (TLOR) (adjacent to the West of the Proposed Development) and Phillips 66 to the south.

## 14.9 Likely Impact and Effects

### Construction

#### *Employment*

- 14.9.1 Construction of the Proposed Development is expected to last approximately 18 months starting in early 2021, followed by 6 months of commissioning activities. During this time employment opportunities will be created as a result of the works.
- 14.9.2 Although these jobs are temporary, they represent a positive economic impact that can be estimated as a function of the scale and type of construction. The direct expenditure involved in the construction phase will lead to increased output generated in the Grimsby TTWA economy.
- 14.9.3 Based on experience of similar projects, it is anticipated that there would be approximately 150 workers required at the peak of construction.

#### *Leakage*

- 14.9.4 Leakage refers to the proportion of jobs within a TTWA that are filled by residents living outside the TTWA (the Wider Impact Area). TTWAs reflect labour market commuting patterns where at least 75% of people living within an area also work there. The Proposed Development is within the Grimsby TTWA and the latest census data shows that the proportion of people who work in but live outside the Grimsby TTWA is 12.9% (ONS, 2018). However, it is anticipated that a number of key roles at the Proposed Development will be filled by the Original Equipment Manufacturer or Engineering, Procurement and Construction contractor, and are likely to be from overseas or other construction sites in the UK. The Homes & Communities Agency (HCA, now Homes England) Additionality Guide suggests 25% as a 'ready reckoner' for medium levels of leakage (i.e. a reasonably high proportion of the benefits will be retained within the target area).
- 14.9.5 A 25% discount is therefore applied to the 150 gross jobs created and as such it is estimated that 38 people from outside the Grimsby TTWA and 112 from within will benefit from working at the Proposed Development during the construction period.

#### *Displacement*

- 14.9.6 Displacement measures the extent to which the benefits of a project are offset by reductions of output or employment elsewhere. Any additional demand for labour cannot simply be treated as a net benefit - it removes workers from other posts and the net benefit is reduced to the extent that this occurs.
- 14.9.7 Overall it is assumed that due to the flexibility of a typical construction workforce (i.e. they quickly move from project to project) displacement effects are considered to be low. The HCA Additionality Guide suggests 25% as a 'ready reckoner' for low levels of displacement (i.e. there are expected to be some displacement effects, although only to a limited extent). Applying this level of displacement to total gross direct employment in the Grimsby TTWA results in net employment of 84.

**Multiplier Effect**

- 14.9.8 In addition to the direct construction employment generated by the project itself there will be an increase in local employment arising from indirect and induced effects of the construction activity. Employment growth will arise locally through manufacturing services and suppliers to the construction process (indirect or supply linkage multipliers). Additionally, part of the income of the construction workers and suppliers will be spent in the Grimsby TTWA, generating further employment (induced or income multipliers).
- 14.9.9 The impact of the multiplier depends on the size of the geographical area that is being considered, the local supply linkages and income leakage from the area. The HCA Additionality Guide provides ‘ready reckoners’ of composite multipliers – the combined effect of indirect and induced multipliers. It has been assumed that the Grimsby TTWA has ‘average’ supply linkages based on the scale of its economy. Therefore a multiplier of 1.3 is determined from the HCA guidance. Applying this multiplier generates an additional 34 indirect and induced jobs in the Grimsby TTWA.

**Net Construction Employment**

- 14.9.10 Based on the gross construction worker requirements in the construction schedule and the additionality factors outlined above 146 net construction jobs would be generated, of which 110 are expected to be from the Grimsby TTWA. Therefore construction employment generated by the Proposed Development would benefit the local economy.
- 14.9.11 Table 14.7 below presents the short-term employment created by the Proposed Development taking leakage, displacement and multiplier effects into account.

**Table 14.8: Net construction employment in Grimsby TTWA<sup>2</sup>**

	Grimsby TTWA	Outside of Grimsby TTWA	Total
Gross Direct Employment	112	38	150
Displacement	28	9	38
Net Direct Employment	84	28	113
Net Indirect/Induced Employment	25	8	34
<b>Total Net Employment</b>	<b>110</b>	<b>37</b>	<b>146</b>

<sup>2</sup> Average no. of workers onsite per year

14.9.12 The sensitivity of receptors is considered as high due to the availability in the local area of the specialist labour and skills that are required for the Proposed Development. Taking into account the size of the labour pool of construction workers in the Grimsby TTWA (4,250 (Ref 14-10)), the magnitude of impacts is considered to be low. For example, the gross direct employment required during the construction phase would account for around 3.4% of the existing construction workforce in the Grimsby TTWA. Therefore, the direct, indirect and induced employment created by the construction phase of the Proposed Development is likely to have a Moderate beneficial short-term and therefore a Significant effect on the Grimsby TTWA's economy.

#### ***Wider effects during the construction period***

14.9.13 The construction period will see a slight increase in vehicle movements (e.g. construction staff, delivery of materials and movement of excavated materials) which may impact on journey times for local residents and other amenity effects such as increased noise levels. Immingham Fire Station is located approximately 400m from the Proposed Development and during construction; the Fire Station may be impacted by additional traffic in the area. However, this impact is likely to be Negligible due to the frequency of emergency call outs.

14.9.14 There are a number of businesses within proximity to the Proposed Development. Potential amenity effects could arise during construction (e.g. noise impacts and traffic impacts) which could affect these businesses, however this is covered in Chapter 7: Traffic and Transportation and Chapter 8: Noise and Vibration. Overall it is determined that due to the nature of the existing businesses (mainly manufacturing) the impact is likely to be Negligible.

#### **Operation and Maintenance**

##### ***Gross and Net Operational Employment***

14.9.15 The Proposed Development will also generate or maintain long-term jobs once operational. The following analysis estimates gross operational employment arising from the Proposed Development and then takes into account deadweight (existing employment on site), leakage, displacement and multiplier effects (to assess indirect and induced employment) in order to assess net impacts on the sub-regional and national economies.

14.9.16 During the Proposed Development operational period, employment would be generated in operative, management and maintenance roles in relation to the electricity generating element of the Proposed Development and its maintenance. Figures based on precedents from elsewhere suggest there will be approximately 15 gross direct jobs.

14.9.17 The Site is currently unoccupied and as such there is no existing employment and therefore no deadweight is applied.

14.9.18 Assuming medium levels of leakage of 25% (i.e. some of the operational and maintenance employment will be specialist and mobile and move from site to site in line with maintenance schedules) displacement of 25% (i.e. there are expected to be some displacement effects, although only to a limited extent), and a composite multiplier of 1.3 (as per the gross to net calculations for construction employment), it is estimated that the total net employment for the Proposed Development is 15 employees, of which 11 are from the Grimsby TTWA. This is presented in Table 14.8.

**Table 14.9: Net employment of the Proposed Development in operation**

	Grimsby TTWA	Outside of Grimsby TTWA	Total
Gross Direct Employment	11	4	15
Displacement	3	1	4
Net Direct Employment	8	3	11
Net Indirect/Induced Employment	3	1	3
<b>Total Net Employment</b>	<b>11</b>	<b>4</b>	<b>15</b>

14.9.19 The sensitivity of receptors is considered to be high due to the availability in the local area of the specialist labour and skills required for the Proposed Development. However, taking into the existing overall size of the labour pool in the Grimsby TTWA (78,000), the magnitude of impacts is considered to be very low during the operational phase. Therefore, the direct, indirect and induced employment created by the operational phase of the Proposed Development is likely to have a minor beneficial and therefore not significant long-term effect on the Grimsby TTWA's economy.

**Decommissioning**

14.9.20 The Proposed Development is expected to operate for at least 40 years. At the end of its operating life, the most likely scenario is that the Proposed Development would be shut down and all above ground structures removed from the Site. There is limited information available at this stage regarding decommissioning methods and timescales, and the following is based on professional judgment considering the likely scope of works.

**Employment**

14.9.21 The people employed to decommission the Proposed Development would have an effect on the economy by spending their wages in the same way that those employed in the other stages will. It is envisaged that a comparable number of workers would be employed for the decommissioning and demolition of the Site as would be employed for its construction (approximately 146 taking into account additional factors), although the actual numbers are uncertain at this stage. Overall the decommissioning phase of the Proposed Development is likely to have a moderate beneficial short term effect on employment in the local area.

**14.10 Mitigation and Enhancement Methods**

14.10.1 No adverse effects have been identified during the construction or operation of the Proposed Development, and as such no mitigation is required.

### 14.11 Limitations or Difficulties

14.11.1 The socio-economic assessment is based on the available data at the time of writing (and as detailed herein) and has been based on a desk-based study with no site visits undertaken. The assessment is based upon design information and on site visit information.

### 14.12 Residual Effects and Conclusions

14.12.1 It is considered that the Proposed Development will have an overall positive economic effect on the Grimsby TTWA economy, through the provision of employment and through associated multiplier effects.

14.12.2 The residual significant effects associated with the Proposed Development before and after mitigation are summarised in Table 14.9.

**Table 14.10: Summary of Significant Effects**

Effect	Significance	Explanation
Net employment generated during the construction phase	Moderate short-term significant beneficial effect	The estimated net employment generated during the construction phase is 146 workers per annum of which 110 are likely to be from the Grimsby TTWA.

### 14.13 References

- Ref 14-1 National Planning Policy Framework (Ministry of Housing, Community and Local Government (MHCLG), 2018)
- Ref 14-2 North Lincolnshire Council (2011) North Lincolnshire Local Development Framework Core Strategy.
- Ref 14-3 Greater Lincolnshire LEP (2016) Strategic Economic Plan 2014-2030 Refresh Spring 2016
- Ref 14-4 Department for Business, Innovation & Skills (now BEIS) - Research to Improve the Assessment of Additionality (2009)
- Ref 14-5 HM Treasury - The Green Book: Central Government Guidance on Appraisal and Evaluation (2018)
- Ref 14-6 HM Treasury - The Magenta Book: Guidance for evaluation (2011)
- Ref 14-7 Homes & Communities Agency - Additionality Guide (4th Edition) (2014)
- Ref 14-8 North East Lincolnshire Local Plan 2013 – 2032 (2018)
- Ref 14-9 North East Lincolnshire Economic Strategy (2016)
- Ref 14-10 Office for National Statistics (2018) Official Labour Market Statistics *[Available at: <https://www.nomisweb.co.uk/> Accessed October 2018]*

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Ref 14-11 Office for National Statistics (2018) 2011 Census [Available at:  
<https://www.ons.gov.uk/census/2011census> Accessed October 2018]

Ref 14-13 Office for National Statistics (2018) National Population Projections: 2016-based statistical  
bulletin [Available at:  
<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/bulletins/nationalpopulationprojections/2016basedstatisticalbulletin> Accessed October 2018]