



Vattenfall Wind Power Ltd

Thanet Extension Offshore Wind Farm

Annex 3-1: Socio-economic Baseline

June, 2018, Revision A

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Vattenfall Wind Power Ltd

Socio-economic Baseline

Thanet Extension Offshore Wind Farm

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June, 2018

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REGENERIS

Thanet Extension Offshore Wind Farm: Socio-economic baseline

A Final Report by Regeneris Consulting

August 2017

Vattenfall Wind Power Ltd

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www.regeneris.co.uk

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1. Socio-economic: Baseline

- 1.1 This document has been drafted to underpin the preparation of the socio-economic impact assessment for Thanet Extension Offshore Wind Farm (Thanet Extension). It sets out the proposed scope of the impact assessment and provides an initial characterisation of the baseline environment in the project's impact area.

Proposed Receptors

- 1.2 As a major investment, the construction, operations and maintenance (O&M) and decommissioning of Thanet Extension offers scope to create substantial economic benefits. The socio-economic impact assessment will need to capture the project's potential beneficial effects in a quantitative manner. The Scoping Report¹ concludes that all socio-economic impacts should be scoped into the assessment for the construction, O&M and decommissioning phase and highlights the following potential impacts, focusing in particular on direct and indirect job creation, impacts on services, infrastructure and housing, and the effects of the development on energy security.
- 1.3 In light of the Scoping Report's content, and Scoping Opinion it is proposed that the following receptors are included within the Preliminary Environmental Information Report (PEIR) assessment of socio-economic effects.

¹ Thanet Extension Offshore Wind Farm (December 2016), 'Report to Inform Scoping'.

Table 1.1 Receptors for Thanet Extension

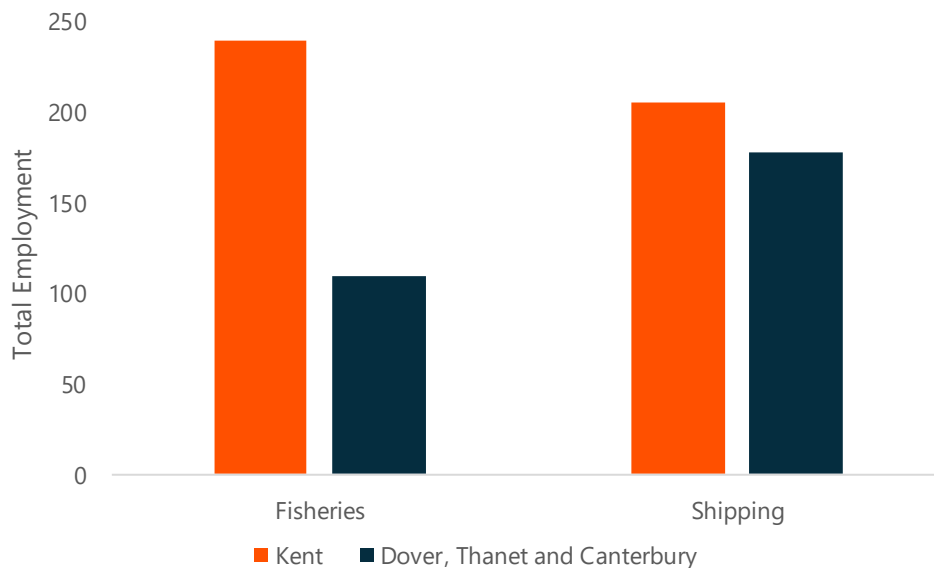
Receptors	
	1. Direct and indirect employment creation in the construction, O&M and decommissioning supply chain.
	2. Direct and indirect Gross Value Added (GVA) ² creation in the construction, O&M and decommissioning supply chain.
	3. Access to employment for local people as a result of employment creation in the construction, O&M and decommissioning supply chain.
	4. Potential for the employment created during the construction, O&M and decommissioning phases to lead to displacement of workers currently employed in other industries.
	5. Demand for housing, accommodation and local services.
1.4	The Scoping Opinion suggested that the potential socio-economic impacts of the cable route cutting across agricultural land be considered in the socio-economic assessment, however the anticipated cable route has now changed such that it will no longer cut across agricultural land, and so this is <u>scoped out</u> of the socio-economic assessment.
1.5	The potential economic effects on the commercial fisheries sector has been considered as part of the baseline stage, in consultation with the lead consultants for the commercial fisheries assessment. On the basis of these findings, this has been <u>scoped out</u> of the socio-economic chapter on the basis that: <ul style="list-style-type: none"> • Figure 1.1 below shows that commercial fisheries accounts for a very low level of employment in Kent, and in particular Thanet, Dover and Canterbury. This is equivalent to 0.04% of all employment in Kent and 0.08% of all employment in Thanet, Dover and Canterbury. • The early findings from the commercial fisheries analysis suggests it is highly unlikely that there will be significant impacts on overall levels of employment in the sector as a whole, as a result of Thanet Extension. While it is possible that there could economic impacts on individual businesses or types of vessel in the sector, these will be identified through the commercial fisheries assessment, alongside any potential mitigation measures.

² Gross Value Added (GVA) is a standard UK measure of economic value generated.

1.6 The potential effects on the commercial shipping sector has been considered as part of the baseline stage, in consultation with the lead consultants for the shipping and navigation assessment. On the basis of these findings, this has been scoped out of the socio-economic chapter on the basis that:

- Figure 1.1 below shows that commercial shipping accounts for a relatively small proportion of employment in Kent, and in particular Thanet, Dover and Canterbury. This is equivalent to 0.03% of all employment in Kent and 0.13% of all employment in Thanet, Dover and Canterbury
- The early findings from the commercial shipping assessment analysis suggests it is highly unlikely that there will be significant impacts on overall levels of employment in the sector as a whole, as a result of Thanet Extension. While it is possible that there could economic impacts on individual businesses or types of vessel in the sector, these will be identified through the commercial shipping assessment, alongside any potential mitigation measures.

Figure 1.1 Current Employment in Fisheries and Shipping Sectors



Source: ONS Business Register and Employment Survey, 2015

Study Area

- 1.7 Two study areas have been defined for the socio-economic analysis of the Thanet Extension. In light of the development’s location off the Kent coastline at Thanet (and bearing in mind the focus on Kent within the Scoping Report), we have identified the County of Kent as the primary study area in the socio-economic impact assessment. The boundary of the Kent County Council area, and the Local Authority areas that are contained within it, are summarised in Figure 1.1 below.

Figure 1.1 Local Impact Area Boundaries



- 1.8 This provides a meaningful spatial area within which to assess the potential economic impacts associated with the construction, O&M and decommissioning of the proposed development.
- 1.9 The second study area is the UK impact area which covers the whole of the United Kingdom (UK, i.e. England, Scotland, Wales and Northern Ireland). This has been defined to enable the national significance of effects to be assessed. Where data is not available at the UK level (such as employment data from the Office for National Statistics (ONS) which is available for Great Britain rather than the United Kingdom), this is clearly denoted within the commentary.

1.10 Effects in the UK study area are only assessed where they are relevant to the receptor. For example, the assessment of receptors relating to access to employment amongst local people, and effects on local sectors (such as renewable energy) are presented at the Kent area, but not for the UK. In practice, this means that the UK study area is only used for receptors relating to employment and GVA created during the construction, O&M and decommissioning phases of the Thanet Extension. The table below outlines the impact area(s) for each of the respective receptors listed above.

Table 1.2 Impact areas for each of the receptors identified for Thanet Extension

Receptors	Impact Area(s)
1. Direct and indirect employment creation in the construction, O&M and decommissioning supply chain.	<ul style="list-style-type: none"> ● Kent ● UK
2. Direct and indirect GVA creation in the construction, O&M and decommissioning supply chain.	<ul style="list-style-type: none"> ● Kent ● UK
3. Access to employment for local people as a result of employment creation in the construction and O&M supply chain.	<ul style="list-style-type: none"> ● Kent
4. Potential for the employment created during the construction, O&M and decommissioning phases to lead to displacement of workers currently employed in other industries.	<ul style="list-style-type: none"> ● Kent
5. Demand for housing, accommodation and local services.	<ul style="list-style-type: none"> ● Kent

Statutory and Policy Context

- 1.11 Planning policy on offshore renewable energy nationally significant infrastructure projects (NSIPs), specifically in relation to the socio-economic issues to be assessed here is contained in the overarching National Policy Statement (NPS) for Energy³ NPS (EN-1), the NPS for Renewable Energy Infrastructure⁴ (NPS EN-3), and the NPS for Electricity Networks Infrastructure⁵ (NPS EN-5). NPS EN-1 includes guidance on what matters are to be considered in the assessment of NSIPs. These are summarised in Table 1.3 below:

Table 1.3 Summary of NPS EN-1 Policy relevant to socio-economics and consideration of the Thanet Extension assessment

Summary of NPS EN-1 provision	How considered in the PEIR
This assessment should consider all relevant socio-economic effects, which may include the creation of jobs and training opportunities (paragraph 5.12.3 of NPS EN-1).	Employment effects will be assessed under the assessment of the effect of the wind farm construction, O&M and decommissioning on employment . The potential training opportunities associated with the development will be assessed qualitatively as part of the assessment of the Access to employment for local people receptor in the construction and O&M phases.
This assessment should consider all relevant socio-economic effects, which may include the provision of additional	Additional local infrastructure requirements will be assessed under the assessment of local effects during

³ Department of Energy and Climate Change (DECC) *now part of the Department for Business, Energy and industrial Strategy (BEIS)* (2011).

⁴ DECC *now part of BEIS* (2011), 'UK Renewable Energy Roadmap'.

⁵ DECC *now part of the BEIS* (2011).

Summary of NPS EN-1 provision	How considered in the PEIR
<p>local services and improvements to local infrastructure, including the provision of educational and visitor facilities (paragraph 5.12.3 of NPS EN-1).</p>	<p>construction, O&M and decommissioning. The assessment of the effects on demand for and provision of local services will be considered in the assessment of the housing, accommodation and local services receptor. The focus of the assessment will be on demand created as a result of employment impacts associated with the development.</p>
<p>This assessment should consider all relevant socio-economic effects, which may include effects on tourism (paragraph 5.12.3 of NPS EN-1).</p>	<p>The effects on tourism and recreation will be addressed under will be addressed under the separate tourism and recreation chapter.</p>
<p>This assessment should consider all relevant socio-economic effects, which may include the impact of a changing influx of workers during the different construction, O&M and decommissioning phases of the energy infrastructure (paragraph 5.12.3 of NPS EN-1).</p>	<p>Effects associated with a changing influx of workers will be assessed as part of the assessment of receptors relating to the demand for housing, accommodation and local services during the construction, the O&M and the decommissioning phase.</p>
<p>This assessment should consider all relevant socio-economic effects, which may include cumulative effects – if development consent were to be granted for a number of projects within a region and these were developed in a similar timeframe, there could be some short-term negative effects, for</p>	<p>This will be addressed under the cumulative effects section of the assessment.</p>

Summary of NPS EN-1 provision	How considered in the PEIR
<p>example, a potential shortage of construction workers to meet the needs of other industries and major projects within the region (paragraph 5.12.3 of NPS EN-1).</p>	

- 1.12 Neither the NPS EN-3 nor the NPS EN-5 provide specific guidance on socio-economic issues, and therefore account has been taken of NPS EN-1 in this respect.
- 1.13 It is also noted that NPS EN-3 also includes guidance relating to potential secondary or indirect impacts arising from changes to the physical environment which should also be considered.
- 1.14 The planning process for NSIPs is administered by The Planning Inspectorate (PINS), with the decision on the Development Consent Order (DCO) being taken by the Secretary of State. NPS EN-1 highlights several points relating to the determination of an application and in relation to mitigation (para. 5.12.6 to 5.12.9). These are summarised below:

Table 1.4 Summary of NPS EN-1 policy on decision making with regards to socio-economics and consideration in the assessment of Thanet Extension.

Summary of NPS EN-1 policy on decision making (and mitigation)	Considered in the PEIR
<p>PINS should have regard to the potential socio-economic effects of new energy infrastructure identified by The Applicant and from any other sources that PINS considers to be both relevant and important to its decision. It should be reasonable for PINS to conclude that little weight is to be given to assertions of socio-economic effects not supported by evidence (particularly in view of the need for energy infrastructure as set out in this NPS) (paragraph 5.12.6-5.12.7 of NPS EN-1).</p>	<p>The assessment will provide evidence throughout of likely socio-economic impact considering the project lifecycle (i.e. construction, O&M and decommissioning). Consultation with affected stakeholders has been carried out from the early stages of the project.</p>
<p>The assessment should consider any relevant positive provisions The Applicant has made, or is proposing to make, to mitigate impacts (for example through planning obligations) and any legacy benefits that may arise as well as any options for phasing development in relation to socio-economic impacts (paragraph 5.12.8 of NPS EN-1).</p>	<p>Provisions made to boost local capture of socio-economic effects will be outlined in relation to the receptors on jobs and GVA creation, and local access to employment..</p>

National Planning Policy Framework, 2012

1.15 The National Planning Policy Framework (NPPF) replaces the previous Planning Policy Statements (PPSs). The NPPF explains that the purpose of the planning system is to contribute to the achievement of sustainable development and that there are three dimensions to sustainable development, which are economic, social and environmental. The socio-economic assessment is concerned with both the economic and social dimensions of sustainable development which are defined as follows by the NPPF:

- **an economic role:** contributing to building a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation, and by identifying and co-ordinating development requirements (including the provision of infrastructure); and
- **a social role:** supporting strong, vibrant and healthy communities by providing the supply of housing required to meet the needs of present and future generations, and by creating a high quality built environment with accessible local services that reflect the community's needs, and support its health, social and cultural well-being.

1.16 The NPPF explains (in para. 9.3) that planning plays a key role in helping shape places to secure a reduction in greenhouse gas emissions, minimising vulnerability and providing resilience to the impacts of climate change. and supporting the delivery of renewable and low carbon energy and associated infrastructure. This is central to the economic, social and environmental dimensions of sustainable development promoted by the NPPF. On 6 March 2014 the Department for Communities and Local Government (DCLG) launched the National Planning Policy Guidance (PPG) as a web-based resource.

Local Planning Policy

- 1.17 As the planning application for the development of the Thanet Extension will be determined by PINS, the most relevant planning policy context is that found in NPS EN-1. However, local planning policy also includes material which is relevant to offshore wind farm developments, their relationship to local economic development and the assessment of socio-economic impacts associated with such schemes. As such, statements in relevant local plans in relation to major infrastructure and particularly offshore wind are relevant here.
- 1.18 The South East Local Enterprise Partnership (LEP) 'Strategic Economic Plan⁶' (SEP) identifies the importance of the offshore wind sector and acknowledges the role that individual localities within the LEP (including North Kent) play in making the area a key location for the offshore renewables industry. Similarly, the 'Thanet District Local Plan⁷' indicates that the district has already seen above average development of wind farms and other renewable sources of energy. Furthermore, it also argues in favour of developing the green sector whilst also capturing the economic benefits from the wind farms surrounding Thanet and spin off businesses as opportunities arise. Other local plans for the relevant local authorities do not make any direct statements which have relevance to this assessment.

UK Economic Development Policy

- 1.19 The UK Government has signalled a more active approach to industrial strategy compared with the previous administration. The most recent addition to the government's industrial strategy and the centrepiece of the current government's economic agenda is the February 2017 Green Paper entitled 'Building our Industrial Strategy⁸'. The underlying motivation of the strategy is "to improve living standards and economic growth by driving productivity and growth across the whole country".

⁶ South East Local Enterprise Partnership (March 2014), 'Strategic Economic Plan'.

⁷ Thanet District Council (January 2015), 'Draft Thanet Local plan to 2031 Preferred Options Consultations'.

⁸ HM Government (January 2017), 'Building our Industrial Strategy Green Paper'.

- 1.20 The government identifies ten pillars as the bedrock of this industrial strategy, which are the means to spur economic growth, drive productivity forward and deliver prosperity. The pillars consist of predominantly cross-cutting interventions such as investing in science, research, innovation and infrastructure, access to finance, and promotion of trade and inward investment.
- 1.21 Securing affordable energy will be important in delivering the government's industrial priorities. The strategy identifies two important priority areas for energy: affordability and maximising industrial opportunities for the UK's economy from energy innovations. The strategy is keen to ensure that the UK secures a substantial share of the global market where its energy industries present an opportunity. This includes offshore oil and gas, as well as clusters of excellence such as the east coast.
- 1.22 The importance of renewable energy, specifically offshore technologies, to the UK's economic policy is illustrated by the comments made by both the DECC and the department for Business, Innovation and Skills (BIS) (both of which are now part of the BEIS) to maximising the economic benefit of renewable energy, especially offshore wind farm developments.
- 1.23 As part of this, six Centres for Offshore Renewable Energy (COREs) have been established across the UK (incl. the South-East CORE which covers activity in Harwich, London Thamesport, Sheerness, Ramsgate and Brightlingsea). The intervention is driven by the need to meet the legally binding renewables target by 2020 as set out in the Renewable Energy Roadmap, and requires the support of the offshore wind manufacturing capacity to achieve this. Hence COREs' aim is to maximise the ability of areas to benefit from opportunities in offshore engineering. Support structures that are in place include the establishment of Enterprise Zone with simplified planning regimes and enhanced capital allowances, amongst other incentives.

Local Economic Development Policy Context

- 1.24 National aspirations in relation to private sector-led economic growth and employment creation are echoed at the local level. Here, the focus of economic policy is to close any gaps between local and national economic performance.
- 1.25 The South East LEP has responsibility for shaping the economic development policy and strategy in the South-East area. This is a large LEP area which encompasses Kent, Medway, Essex, Thurrock, Southend and East Sussex. Although its spatial coverage extends far beyond the boundaries of the Kent impact area, upon which the socio-economic impact assessment will focus, the LEP's SEP⁶ is relevant to the assessment as it will guide major investments to shape economic conditions in the impact area.
- 1.26 The South East LEP's ambitions in its SEP is to support the creation of 200,000 private sector jobs, and leverage £10 billion of investment by 2021. The SEP identifies several priority sectors across the LEP area which are of relevance to the offshore wind sector. These include advanced manufacturing, transport and logistics, as well as environmental technologies and energy. Furthermore, through its SEP, the South East LEP indicates that it will seek to promote innovation across these sectors, and to strengthen their supply chains whilst also increasing activity for specialised sectors such as offshore wind.
- 1.27 The economic development of Kent County Council, and each of the local authorities within the impact area, are also relevant here, although few directly reference the economic opportunity associated with the offshore wind sector. At the Kent County Council-level, the Low Carbon Environmental Goods and Services (LCEGS) sector, and in particular the offshore wind sector, is highlighted as a key growth area, which despite its recent successes still require support through funding, business advice and guidance⁹. This is currently being delivered in part through the LoCASE project, providing support to grow the low carbon economy across the South East. Furthermore, the County Council is a key supporter of the

⁹ Kent County Council (2016), 'Kent Environment Strategy: A Strategy for Environment, Health & Economy'.

low carbon sector, having locally set up the Low Carbon Kent business network and supporting the KentWindEnergy.co.uk¹⁰ portal.

- 1.28 The 'Economic Growth Strategy for Thanet'¹¹ published in November 2016 sets a vision for Thanet to be a great place to live, work and invest, rivalling its counterparts across the UK; a place where the economy will grow quickly, both in relative as well as absolute terms. When looking ahead, the Strategy suggests that there are several emerging opportunities in advanced manufacturing across Thanet, and proposes a transformational initiative to invest in high value manufacturing and engineering across Thanet and East Kent. Furthermore, the strategy also indicates that there is scope to work more closely alongside the South East LEP in supporting these sectors.

Consultation and Scoping

- 1.29 The Scoping Opinion and consultation responses have not identified any notable issues which need to be addressed in relation to the socio-economic impact assessment.

[Note: As part of the information gathering to undertake the socio-economic assessment, a number of stakeholders will be consulted on, including economic development officers in the South East LEP, Kent County Council, Thanet District Council and local business / sector bodies.]

Baseline Environment

- 1.30 The following section undertakes an overview of the key social and economic indicators within Thanet Extension's impact area. The key sources of data used to assess the baseline environment in Kent include relevant national datasets from the ONS providing intelligence on population, labour market and employment base conditions.

¹⁰ see <http://www.KentWindEnergy.co.uk>

¹¹ Thanet District (2016), 'Economic Growth Strategy for Thanet'.

1.31 The analysis draws on the most up-to-date sources of data available in May 2017 for all key socio-economic indicators, although the year that the data relates to varies according to the release calendar for each dataset. The baseline year will therefore vary slightly across the indicators considered in the baseline. This is referenced throughout this report. Where appropriate other areas in addition to the primary study area (i.e. Kent) are included for comparison purposes.

Socio-economic baseline conditions

1.32 Kent contains a mixture of rural and urban areas, with some the main population centres being Canterbury, Ashford, Dartford, Dover, Sevenoaks and Tunbridge Wells.

Population structure

1.33 As summarised in Table 1.5 below, the primary study area is home to a population of 1.5 million people, of which 889,000 (or approximately 58%) are of working age (which refers to males aged 16 to 64 and females aged 16 to 59 in accordance with current definitions although this is likely to change to accommodate changes to retirement age); a smaller proportion than national levels (61%). Medway and Canterbury are two of the largest employment areas in the study area with a higher concentration of working age population (at 62% and 61% respectively). This concentration is in line with the average seen nationally.

1.34 Elsewhere in the study area, the working age population makes up a much smaller proportion of the total. Both Thanet and Dover have a lower proportion of working age population (at 55% and 56% respectively). Furthermore, the South East LEP area, due to its mostly rural area, also has a much lower proportion of working age people (58%) than national levels.

Table 1.5 Total and working age population (WAP), 2015

	Total Population (000s)	WAP (000s)	WAP as % of Total
Kent	1,525	889	58.3%
Medway	277	171	61.8%
Kent & Medway	1,801	1,060	58.9%
Thanet	140	77	55.1%
Canterbury	160	98	61.2%
Dover	113	64	56.3%
South East LEP	4,132	2,405	58.2%
United Kingdom	65,110	39,454	60.6%

Source: ONS (2016), 'Mid-Year Population Estimates'.

Labour market indicators

- 1.35 Table 1.6 below highlights the performance of the study area's labour markets in comparison with the national average and the South East LEP. Overall, the primary study area (i.e. Kent) compares well in terms of the proportion of working age residents who are economically active – i.e. either in employment or actively looking for work – (at 79% compared with 78% nationally). Within the study area, economic activity rate varies from 70% in Canterbury (which performs below the national average) to over 83% in Dover (which out-performs the study area by around four percentage points).
- 1.36 The table below shows that a high economic activity rate in the study area labour market is reflected in a high local employment rate, and a low economic inactivity rate. It shows that the study area's employment rate at the end of 2016 was 75%, compared with 74% nationally.

Table 1.6 Headline performance on key labour market indicators, 2017. Rates presented as a proportion of Working Age Population (WAP)

	Economically Active		In Employment		Economically Inactive	
	No (000s)	% WAP	No (000s)	% WAP	No (000s)	% WAP
Kent	734	78.9%	695	74.7%	197	21.1%
Medway	141	80.0%	132	74.8%	35	20.0%
Kent & Medway	876	79.1%	827	74.7%	232	20.9%
Thanet	63	77.3%	61	75.0%	19	22.7%
Canterbury	70	69.9%	66	65.6%	30	30.1%
Dover	57	83.1%	53	76.7%	12	16.9%
South East LEP	1,987	78.7%	1,893	73.0%	537	21.3%
United Kingdom	31,888	77.7%	30,299	73.9%	9,132	22.3%

Source: ONS (Jan-Dec 2016), 'Annual Population Survey'.

- 1.37 The unemployment data presented in Table 1.7 indicates that there is significant capacity within the labour market in the study area. In total, there are around 39,400 unemployed residents across Kent. This represents an overall unemployment rate of 5.4% in Kent compared with the national unemployment rate of 5.0%.

Table 1.7 Unemployment rate for 2016

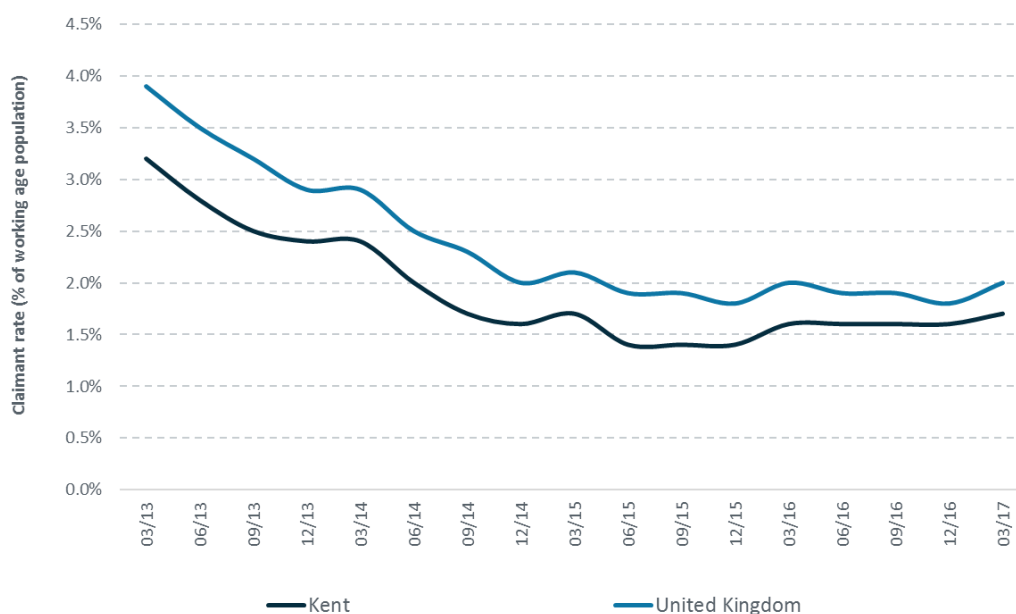
	Number Unemployed	% of Economically Active Population
Kent	39,400	5.4%
Medway	9,200	6.5%
Kent & Medway	48,600	5.5%
Thanet	1,800*	2.9%*
Canterbury	4,300	6.1%
Dover	4,400	7.7%
South East LEP	94,200	4.7%
United Kingdom	1,588,200	5.0%

Source: ONS (Jan-Dec 2016), 'Annual Population Survey'.

*Please note: data for Thanet is not available for the period January to December 2016, so figures for October 2015 to September 2016 are used instead.

1.38 Recent changes brought about by the introduction of Universal Credit have meant that it is difficult to track how unemployment has changed over time. The evidence presented in Figure 1.2 measures the number of people claiming benefits (principally for the reason of being unemployed), and includes all out of work Universal Credit claimants as well as all Job Seeker’s Allowance claimants. It shows that overall, the claimant rate in the Local Impact Area was consistently below the claimant rate seen nationally. Furthermore, the diagram also shows that the claimant rate in the study area has declined by around half over the past four years, from 3.2% in March 2013 to 1.7% by March 2017.

Figure 1.2 Change in claimant rate for UK and Kent, 2013-2017



Source: ONS (2017), 'Claimant count by sex and age'.

1.39 The skills profile of the study area’s residents do not compare favourably to the national average. The table below shows that around 37% of the Kent’s working age population have National Vocational Qualifications (NVQ) level four qualifications, a proportion which is slightly below the national average of 38%. This aggregate performance across the study area masks variations amongst the local authority

areas making up the study area; with less than a third (or 30%) of Thanet's working age residents having NVQ level four qualifications, compared with 46% in Canterbury. That said, the Local Impact Area compares favourably to the South East LEP area.

- 1.40 Overall, the proportion of working age residents with no qualifications in the study area is significantly below that seen nationally (at 8.3%) and across the South East LEP area (7.6%).

Table 1.8 Education qualifications of working age adults by NVQ level, other and no qualifications, 2016

	NVQ 4 and above		Other Qualifications		No Qualifications	
	No (000s)	%	No (000s)	%	No (000s)	%
Kent	343	36.9%	60	6.5%	65	7.0%
Medway	53	30.3%	10	5.5%	13	7.5%
Kent & Medway	396	35.8%	70	6.3%	78	7.0%
Thanet	24	30.0%	6	6.8%	5	5.5%
Canterbury	46	45.9%	7	7.0%	11	10.9%
Dover	23	32.8%	7	9.5%	4	5.2%
South East LEP	836	33.2%	150	5.9%	190	7.6%
United Kingdom	15,545	38.0%	2,697	6.6%	3,379	8.3%

Source: ONS (Jan-Dec 2016), 'Annual Population Survey'.

- 1.41 The above average performance of the study area with regard to higher level qualifications is reflected in the type of occupations in which the area's residents are engaged. Table 1.9 below highlights the relatively high representation of employment in higher managerial and professional occupations in Kent, and shows that this is in line with what is seen nationally. Higher managerial and professional occupations include all those employed in Standard Occupational Classification (SOC) groups 1 to 3. SOC 1 includes managers, directors and senior officials, SOC 2

includes all professional occupations, and SOC 3 includes all associate professional and technical occupations.

- 1.42 At 45%, the proportion of the study area's residents engaged in higher managerial and professional occupations masks variations at the local level. Within the study area, Thanet and Dover both have a lower proportion of their working age population engaged in higher managerial and professional occupations (at 42% and 33% respectively) when compared with Kent (45%) and nationally (45%). On the other hand, the proportion of working age residents engaged in higher managerial and professional occupations in Dover is considerably higher at 61%.

Table 1.9 Employment by standard occupation classification, 2016

	Group 1-3 (Management)		Group 4-5 (Administration)		Group 6-7 (Support Workers)		Group 8-9 (Elementary Occupations)	
	No	%	No	%	No	%	No	%
Kent	326	45.0%	162	22.3%	120	16.6%	116	16.0%
Medway	55	40.5%	34	25.0%	23	17.1%	23	16.9%
Kent & Medway	382	44.3%	196	22.8%	144	16.7%	139	16.1%
Thanet	27	41.7%	20	30.5%	11	16.8%	7	11.1%
Canterbury	41	60.6%	12	18.0%	6	9.3%	8	12.1%
Dover	19	32.9%	14	25.4%	10	18.5%	13	23.5%
SE LEP	884	44.6%	464	23.4%	330	16.7%	300	15.1%
UK	14,172	45.0%	6,500	20.6%	5,284	16.8%	5,399	17.1%

Source: ONS (Jan-Dec 2016), 'Annual Population Survey'.

Sectoral structure of the employment base

- 1.43 Data from the ONS indicates that the total number of people employed within the study area (i.e. Kent) stood at 623,000 in 2015. Employment within Kent is concentrated in different centres which include Dartford, Tunbridge Wells, Ashford, Sevenoaks, Dover, and Canterbury. The Thanet-Canterbury-Dover area contains

around 142,000 jobs, which represents more than one-in-five jobs across the local area.

- 1.44 Employment density (i.e. the number of jobs per 1,000 working age residents) can be used to compare overall performance with the national performance and across other comparator areas. At over 700 jobs per 1,000 working age residents, jobs density in Kent is below the national average seen (at 749 jobs per 1,000 working age residents nationally). This is c. 50 jobs per 1,000 fewer than the national figure. Performance within Kent varies, with employment density ranging from c. 550 jobs per 1,000 working age residents in Thanet and Dover to c. 650 jobs per 1,000 working age residents in Canterbury.

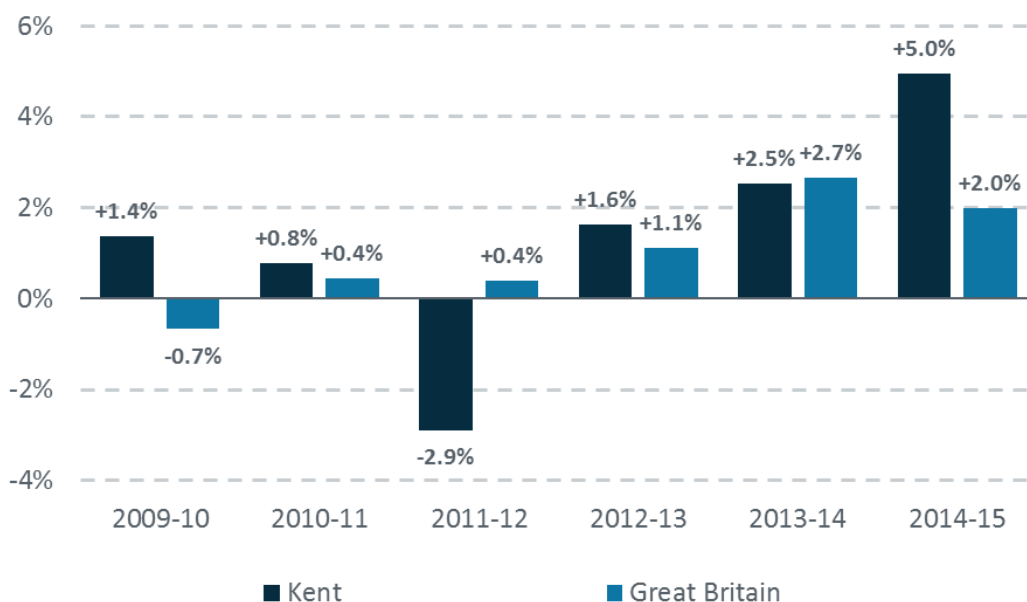
	Total Employment (000s)	% of Employment in Local Impact Area	Employment Density (Jobs per 1,000 WAP residents)
Kent	623	100%	701
Medway	89	-	520
Kent & Medway	712	-	672
Thanet	43	6.8%	552
Canterbury	64	10.2%	649
Dover	35	5.6%	545
South East LEP	1,596	-	664
Great Britain	29,546	-	749

Source: ONS (2015), 'Business Register and Employment Survey'.

- 1.45 The diagram below shows annual employment change across the study area from 2009 onwards, and compares it with annual employment change nationally over the same period. It shows that, with the exception of 2011-12, annual change in employment numbers in the study area was similar to and/or higher than the average seen nationally. Of particular note, are the last three years for which data is available (i.e. 2012-13, 2013-14 and 2014-15) which have seen strong growth (at

+1.6%, +2.5% and +5.0% respectively) when compared with the national average (at +1.1%, +2.7% and +2.0% respectively).

Figure 1.3 Annual change in employment, 2009 to 2015

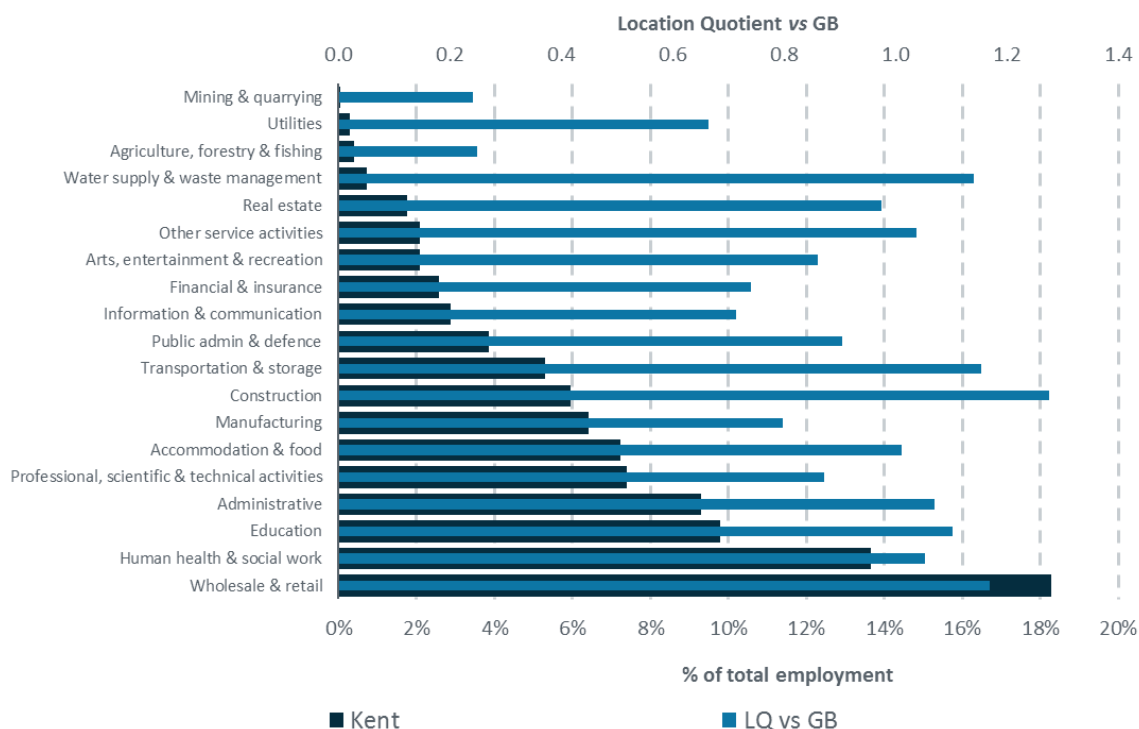


Source: ONS (2015), 'Business Register and Employment Survey'.

- 1.46 Concentrations of employment in key sectors that exist in the study area (compared with the national employment base) are highlighted in Figure 1.4 below. Like Great Britain, Kent's employment base is heavily reliant on service sector activities, although there appears to be a slightly greater focus on lower value service activities such as wholesale and retail, with a Location Quotient¹² (LQ) of 1.2, and an under representation in higher value activities such as information and communication technologies; and finance and insurance (both with a LQ of 0.7).
- 1.47 With around 40,000 jobs, manufacturing is the 7th largest sector across the study area and represents just over six percent of all jobs locally. In comparison, the manufacturing sector employs around eight percent of all jobs locally. This means that the study area has a lower concentration (or LQ of 0.8) of manufacturing jobs when compared with the national average.

¹² The location quotient measures Kent's industrial specialisation relative to Great Britain as a whole. A LQ of 1.0 indicates that Kent has the same level of specialisation, whereas a LQ greater than 1.0 means that Kent has a higher concentration of a particular sector than is seen across Great Britain.

Figure 1.4 Sectoral employment profile in Kent, 2015



Source: ONS (2015), 'Business Register and Employment Survey'.

1.48 With around 33,000 jobs, the transport and storage sector represents just over five percent of all jobs across the study area. Despite the relatively small number of jobs in the sector, the transport and storage sector shows a concentration higher than that seen nationally (with a LQ of 1.2).

Earnings and wealth generation

1.49 Table 1.11 highlights the gap that exists between the earnings of those employed in the study area and the national average. The median annual salary for people working in the study area of 27,000 is around £1,200 per year lower than the national median. Within Kent, the average median salary for people employed locally varies greatly from £20,700 in Thanet to £26,700 in Dover. This is between £7,500 and £1,500 per year lower than the national median.

Table 1.11 Annual median gross pay for full time employees and residents for Kent and other comparator areas

	Residence Based	Workplace Based
Kent	£29,100	£27,000
Medway	£29,500	£27,200
Thanet	£24,200	£20,700
Canterbury	£27,900	£25,000
Dover	£25,300	£26,700
South East LEP	£29,800	£26,800
United Kingdom	£28,200	£28,200

Source: ONS (2016), 'Annual Survey of Hours and Earnings, Workplace and Residence Based'.

- 1.50 The relatively low value employment in the study area is highlighted by the gap between the median salaries of those who are resident in, and those who work in Kent. The residence-based median salary of £29,100 per annum is around £1,900 greater than the median workplace-based salary for the study area. This indicates that a large number of residents from the study area are travelling to higher paid employment outside the area.
- 1.51 The relatively lower value employment across Kent is also reflected in the study area's output represented as GVA. The table below shows that in 2015 Kent had an overall GVA output of just under £33 billion. As evidenced in the table below, this represents around 40% of all the GVA output across the South East LEP area in 2015.
- 1.52 Total GVA figures on their own are not useful, especially when comparing the study area with the national average and other comparator areas. As such, a figure of GVA per head is used instead. Data from the ONS gives the study area a GVA per head output of around £21,600 in 2015.
- 1.53 Despite being higher than the GVA per head output for Medway (£17,300) and the South East LEP (£20,800), Kent's output per head for 2015 was around £4,200 per annum lower than the average seen nationally. This reflects a range of socio-economic factors where the study area performs below the national average,

particularly in terms of qualifications, employment density (per 1,000 working age residents) in addition to the concentration of lower value sectors (such as wholesale and retail).

- 1.54 A detailed look at GVA output and GVA per head output within the study area, shows that Thanet has an output of £15,000 GVA per head. This is around £10,800 per annum lower than the national average and reflects the difference in workplace-based income between Thanet and the national average.

	Total GVA (£ million)	GVA per Head	GVA per Head Index (UK = 100)
Kent	£32,989	£21,600	85.3
Medway	£4,794	£17,300	68.4
Thanet	£2,099	£15,000	59.2
Canterbury	£3,050	£19,100	75.2
Dover	£1,779	£15,700	62.0
South East LEP	£85,694	£20,800	81.9
United Kingdom	£1,666,342	£25,800	100.0

Source: ONS (2015), 'Regional GVA (income approach) at current basic prices'.

Key supply chain sectors

- 1.55 A number of sectors within the study area have potential to benefit directly from the construction, O&M and decommissioning supply chains from the Thanet Extension project. These will primarily include manufacturing and engineering sectors, construction, as well as land and marine-based transport. The current level of employment and degree of specialisation (in terms of location quotient¹²) in these sectors locally is shown in Table 1.13 below.
- 1.56 The analysis indicates that, at the headline levels, there is a strong degree of specialism in several of these sectors within the study area (particularly around construction, land and marine-based transport). It should be noted that the figures

presented in the table below only reflect the direct level of employment in these sectors, and do not take account of their wider supply chain.

- 1.57 The analysis presented below includes an estimation of the total employment in the energy sector (which overlaps to some degree with the manufacturing and engineering sectors). Based on this definition, the level of local specialism in the energy sector does not appear to be particularly strong. However, it should be noted that this sector is very difficult to define using Standard Industrial Classification (SIC) codes. The renewable energy sector does not currently have a dedicated classification – i.e. companies directly engaged in energy generation activities can be identified using SIC codes, but the wider energy generation supply chain (such as for components and construction activities) is difficult to capture as many of the companies operating in the sector provide goods and services to other markets (such as manufacturing and engineering firms). It is therefore, not possible to estimate the size of the energy sector both nationally and locally in a way that would allow direct comparison.

Table 1.13 Employment in key strategic sectors in GB and the Kent study area, 2015

	Great Britain Employment		Kent Employment		
	No (000s)	% of total	No (000s)	% of total	LQ Kent vs GB
Manufacturing	2379	8.1%	40.0	6.4%	0.8
Construction	1376	4.7%	37.0	5.9%	1.3
Land-based transport	542	1.8%	13.0	2.1%	1.1
Civil engineering	188	0.6%	2.5	0.4%	0.6
Architectural and engineering activities	525	1.8%	7.0	1.1%	0.6
Marine-based transport	17	0.1%	1.0	0.2%	2.8

Source: ONS (2015), 'Business Register and Employment Survey'.

1.58 The table below provides a more detailed breakdown of the current level of employment in the sectors (and sub-sectors) which would be more likely to benefit from construction, O&M and decommissioning of the proposed development. The main sector benefits can be summarised as follows:

- **Manufacturing and engineering sectors:** In particular, the manufacture of fabricated metal products (for example as part of the supply chain for the turbine towers and foundations), manufacture of electric wires and cables, manufacture of electric motors, generators (for example to supply components for substations) and turbines.
- **Construction sectors:** The more specialist construction sectors, and those relating to construction of floating structures, ships and boats are most likely to be affected by the development of the Thanet Extension.
- **Land and marine-based transport sectors:** Sea and coastal water transport as well as ancillary services will be key sectors along with other land-based forms of transport.
- **Accommodation and food services:** These sectors are likely to experience an increase in demand to cater for workers coming into the area from elsewhere, during the construction period in particular.
- **Professional services:** A range of technical consultancy services will be required throughout the construction, O&M and decommissioning of the development (which includes remotely monitoring the wind farm once completed).

Table 1.14 Employment in sectors which would be most likely to benefit from the construction O&M and decommissioning of Thanet Extension

	GB (000s)	Kent (000s)	LQ Kent vs GB
Manufacturing sectors:	204	2.7	0.6
259: Fabricated metal products	102	0.8	0.4
271: Motors, generators, transformers, etc.	31	1.3	1.9
273: Wiring and wiring devices	16	0.4	1.0
281: General purpose machinery	55	0.4	0.3
Construction sectors:	147	2.4	0.8
301: Building of ships and boats	32	0.1	0.1
429: Other civil engineering projects	115	2.3	0.9
Transport sectors	490	12.2	1.2
494: Freight transport by road	243	6.0	1.2
502: Sea and coastal freight water transport	7	0.2	1.4
522: Support activities for transportation	240	6.0	1.2
Professional services	1,042	17.3	0.8
702: Management consultancy activities	474	9.0	0.9
711: Architectural and engineering consultancy	463	6.0	0.6
749: Other professional, scientific and technical	105	2.3	1.0
Other sectors	2,189	47.4	1.0
55: Accommodation	445	7.4	0.8
56: Food and beverage service activities	1,664	38.5	1.1
351: Electric generation, transmission and distribution	80	1.5	0.9

Source: ONS (2015), 'Business Register and Employment Survey'.

- 1.59 There are a number of specialisms within the study area's employment base which places it in a position to benefit from the proposed development. In particular, the manufacture of motors, generators and transformers indicate a relatively high concentration when compared with the national average (with an LQs of 1.9). Overall, we estimate that there are c. 2,700 manufacturing jobs associated with renewable energy in Kent.

- 1.60 Other concentrations within the study area include a relatively high concentration of employment in sea and coastal freight water transport. This is the result of significant port activity in and around the Dover and Margate. Other key concentrations, include high concentrations in freight transport by road, and support activities for transportation (both with LQs of 1.2), as well as food and beverage service activities (with LQ of 1.1).

Supply chain capacity and capability

- 1.61 The study area has a number of sector strengths and specialisms which may well position it to take advantage of some of the opportunities arising through the construction, O&M and decommissioning activity of the Thanet Extension. The study area is already home to a number of key players in the energy and offshore renewables sector, having recently seen the delivery of the Kentish Flats Extension Offshore Wind Farm off the North Kent Coast.
- 1.62 An initial overview of the offshore wind supply chain in the study area has highlighted several players providing a variety of key services across the different phases of offshore wind farm life cycle from project development, to equipment design and manufacture, as well as construction, O&M and decommissioning. These services include construction crew transfer, height and rescue training, and fuelling services in addition to water taxi services, offshore guard boat, and lithographic and digital printing.
- 1.63 The development of Thanet Extension is expected to continue building on investments seen locally over the past few years, especially investment in port facilities. Over the years, the offshore wind sector, and in particular Vattenfall Wind Power Ltd (Vattenfall) have utilised a number of ports located along the Kent coast (such as Whitstable, Sheerness and Ramsgate). In both instances, this relationship has extended beyond the harbour boundaries, and has resulted in integration with the local community in a number of positive ways. Furthermore, the arrival of the offshore wind sector has also provided a range of both skilled and semi-skilled, secure jobs for local people.
- 1.64 Vattenfall has interacted with the supply chain in the study area through two supply-chain events held as part of the Kentish Flats Extension Offshore Wind Farm, and

also attended several business networking events leading up to the project, supporting the Kent Wind Energy initiative¹³. In delivering Thanet Extension, Vattenfall has committed itself to ensuring that its approach to project procurement and investment supports local businesses to engage with the renewables and green energy sector by requiring all contractors involved to maximise the use of local contracts and to seek engagement wherever possible.

[Note: this section draws on an initial discussion with GoBe and Vattenfall. Following submission of this technical socio-economic baseline and further development of Thanet Extension design concept we will consult with other key local stakeholders. Furthermore, given the early stages, it is still too early to know which ports will be used for the construction and O&M of the proposed development, which will also affect supply chain opportunities].

Housing

1.65 This section assesses trends in the demand for and supply of housing and accommodation in the study area. The aim is to understand the baseline capacity of different types of accommodation to respond to a potential increase in demand from workers during the construction and O&M phases of the proposed development. Data from the Department for Communities and Local Government (DCLG) shows that in 2016 there were a total of 656,800 dwellings in the study area. Since 2006, the total stock of dwellings has decreased by around 9% (or 56,100 dwellings) at an average annual decline of just under 1% each year. Within the study area, around 87% of the total stock of dwellings is owned by the private sector.

¹³ see <http://www.KentWindEnergy.co.uk>

- 1.66 There is potential for Thanet Extension to give rise to an increase in demand for various types of housing and accommodation. The largest potential employment effects associated with the development are likely to occur in the construction phase. As these jobs would be temporary in nature, we would expect that a corresponding increase in demand for housing or accommodation would be focused largely upon the rental and temporary accommodation sectors.
- 1.67 During the O&M phase, the potential employment effect would be less pronounced but sustained over a longer period. As a result, the owner-occupied sector is also a relevant aspect of the baseline.

Rental Accommodation

- 1.68 According to the 2011 Census, around 20% of residents within the study area live in private rented accommodation, a seven percentage point increase from 2001, while those living in owner occupied housing declined by six percentage points.

Table 1.15 Proportion of residents by tenure, 2011

	% of residents (2011)	Percentage point change 2001 - 2011
Owned	65%	-6%
Shared Ownership	1%	0%
Social Rented	13%	-1%
Private Rented	20%	+7%
Living Rent Free	1%	-1%

Source: ONS (20101 and 2011), 'Census of Population'.

- 1.69 There is currently no fully comprehensive up-to-date source providing insight about the number of dwellings which are available to let at a local level. Analysis will therefore rely on bought in data (for example from the Rightmove Data Service) or more qualitative assessment of property availability.

- 1.70 **Error! Reference source not found.** shows median monthly private rents in the study area and the local authority areas within it. Within Kent, Canterbury has the highest monthly rent for a single room and across all categories compared to the other districts and England. Overall in 2016, median rent across all types of accommodation were £58 higher in the study area when compared with England.

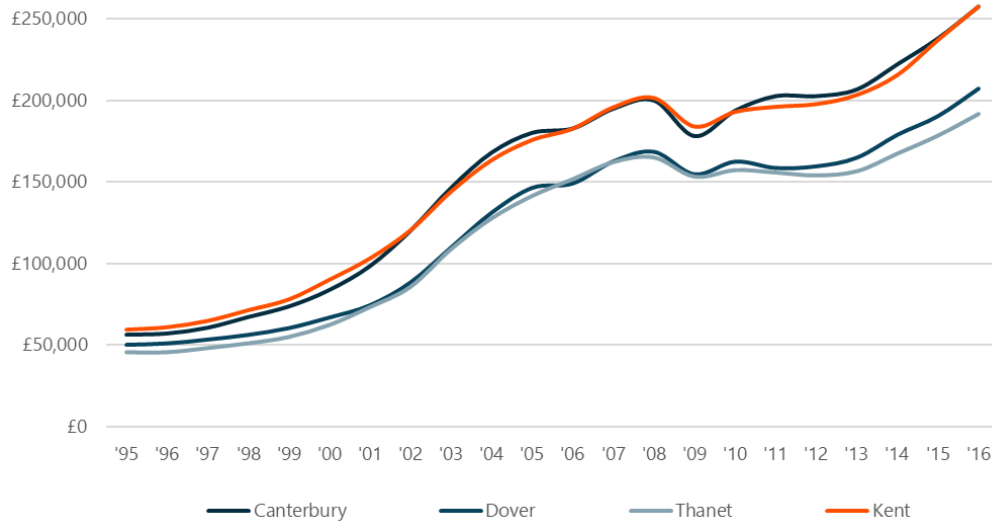
	Room	Studio	1 Bed	2 Bed	3 Bed	4+ bed	All
Kent	£381	£475	£550	£700	£850	£1,400	£708
Canterbury	£390	£598	£650	£795	£950	£1,500	£800
Dover	£316	£350	£425	£550	£700	£850	£525
Thanet	£282	£344	£425	£600	£750	£900	£560
England	£360	£395	£550	£600	£695	£1,250	£650

Source: Department for Communities and Local Government (2016), 'Private rental market statistics – Summary of "Room" monthly rents recorded between 1 April 2015 and 31 March 2016 by administrative area for England'.

Owner Occupied

- 1.71 Data on median house prices shows that as of 2016, the average house price in the study area stands at £257,700, an increase of 41% since 2006. This average is characterised by higher house prices across the study area, with the average house prices in Canterbury, Dover and Thanet, being £257,500, £207,000 and £191,300 respectively.
- 1.72 **Error! Reference source not found.** shows that median house prices in the study area increased sharply during the early 2000s but remained fairly constant over the recessionary period and have since begun to rise again over the last few years.

Figure 1.5 Median house prices over time



Source: ONS (2016), 'Median price paid by local authority, quarterly rolling year, year ending Q4-1995 to year ending Q3-2016',

1.73 Affordability ratios (the ratio of median house prices to median earnings) have followed a similar trend to house prices. Since the early 2000s the average affordability ratio of the study area has been above the England average which suggests that median house prices in Kent have grown quicker than median incomes, when compared with England. As of 2015, the affordability ratio of 10.3 is the highest over the period shown, and has been increasing since 2001. This is compared to an affordability ratio of 9.7 for England in 2015.

Figure 1.6 Affordability ratio over time



Source: ONS (2015), 'Ratio of median house prices to median gross annual salary by local authority district, England and Wales, 2002 to 2015'.



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