

# Riverside Energy Park

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## Environmental Statement

### Chapter 14: Socio-Economics

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## 14 Socio-economics

### 14.1 Introduction

14.1.1 This Chapter provides an assessment of the likely significant socio-economic effects from the proposed Riverside Energy Park (REP), otherwise referred to as the Proposed Development. The assessment is based on the characteristics of the site and surrounding area and the key parameters of the Proposed Development detailed in **Chapter 3**.

14.1.2 This Chapter has been prepared by Peter Brett Associates LLP (PBA). In accordance with the Infrastructure EIA Regulations 2017, a statement outlining the relevant expertise and qualifications of the competent experts appointed to prepare this ES is provided in **Appendix A.2**.

14.1.3 The aims of this Chapter are to:

- Identify the relevant context in which a socio-economic impact assessment has been undertaken;
- Describe the methods used to undertake the assessment. This includes confirming the nature and extent of likely significant socio-economic effects and therefore the required scope of the assessment;
- Outline relevant baseline conditions at the site and surroundings to identify relevant socio-economic receptors which could be affected by the Proposed Development. In overall terms, the Proposed Development has the potential to impact upon economic (labour market and sectoral), accommodation and community infrastructure receptors;
- Identify the direct and indirect socio-economic effects, including cumulative effects, likely to result from the construction and operation of the Proposed Development;
- Where relevant, identify further mitigation and enhancement measures to address identified effects; and,
- Assess residual predicted effects.

### 14.2 Legislation, Policy, Guidance and Standards

14.2.1 As outlined in **Chapter 2**, the relevant National Policy Statements (NPS) provide the primary basis for decisions by the Secretary of State on development consent applications for nationally significant infrastructure projects.

## National Planning Policy and Strategies

### National Policy Statements

14.2.2 **Table 14.1** below identifies the relevant requirements of the relevant NPSs:

Table 14.1: Relevant requirements of NPSs

Requirement of NPS	Response within this ES
<b>NPS EN-1, Overarching National Policy Statement for Energy</b>	
<p>NPS EN-1 identifies the need to consider and assess likely social and economic benefits and impacts from proposed nationally significant infrastructure projects (NSIPs) in the determination of applications made under the Planning Act 2008 for such projects.</p> <p>Sections 2 and 3 of this NPS identify the need for new large-scale energy infrastructure to provide security of supply and to support economic prosperity and social wellbeing. Section 4 therefore highlights the need for decision makers to weigh-up potential benefits of a project, <i>“including its contribution to meeting the need for energy infrastructure, job creation and any long-term or wider benefits”</i> with potential adverse impacts. This includes any <i>“relevant positive provisions the developer has made or is proposing to make to mitigate impacts (for example through planning obligations)”</i>, but it is noted that limited weight may be attributed <i>“to assertions of socio-economic impacts that are not supported by evidence”</i> (paragraph 5.12.17).</p>	<p>In accordance with the REP EIA Scoping Opinion (Planning Inspectorate, 2018), this Chapter provides an objective and proportionate assessment of the likely significant socio-economic effects from REP. As detailed in Section 14.5 the assessment has adopted topic specific Study Areas and methodologies, and has taken account of relevant proposed mitigation and enhancement measures. Proposed measures to be implemented, as detailed in Section 14.11, build on a strong legacy of benefits realised for the local community from RRRF. Appropriate evidence is provided within this chapter to support all assessment findings.</p>
<p>Paragraph 4.2.2 sets out an expectation that applicants will provide <i>“information on the likely significant social and economic effects of the development”</i>, including with respect to employment, and section 5.12 provides further assessment guidance. In particular, paragraph 5.12.3 identifies the need to consider <i>“all relevant socio-economic impacts”</i> and notes this</p>	<p>This Chapter provides an assessment of the likely significant socio-economic effects from REP. In accordance with the REP EIA Scoping Opinion (Planning Inspectorate, 2018), the assessment focuses on likely significant socio-economic effects, namely labour market effects (employment creation and GVA), effects on relevant business sectors (construction, waste</p>

Requirement of NPS	Response within this ES
<p>may include changes in employment, demand for or provision of local services and infrastructure and local population dynamics, as well as effects on tourism and cumulative impacts, including from the construction of other projects within a similar timeframe.</p>	<p>management and energy generation), effects on accommodation provision and community infrastructure demands/use, and likely cumulative effects during construction and operation. Potential effects on tourism and recreation have been scoped out of this assessment on the grounds that any such effects are not likely to be significant in the context of the EIA Regulations.</p> <p>The geographical scope of this assessment, which includes both the local and regional levels, is based on the likelihood of effects occurring which would be significant in the context of the EIA Regulations.</p>
<p>Paragraph 5.12.4 of this NPS identifies a need to describe socio-economic baseline conditions and to consider <i>“how the development’s socio-economic impacts correlate with local planning policies”</i>.</p>	<p>The relevance of national, regional and local planning policies to this assessment is outlined in Section 14.2 of the assessment, considered in <b>Appendix A.3</b>, and relevant socio-economic baseline conditions are described in Section 14.7.</p>
<p><b>NPS EN-3, National Policy Statement for Renewable Energy Infrastructure</b></p>	
<p>NPS EN-3 sets out policies relating to the consideration of benefits and impacts specific to biomass and energy from waste (EfW), onshore and offshore wind energy. Paragraph 2.5.36 notes that <i>“most renewable energy resources can only be developed where the resource exists and where economically feasible”</i>. The positive effects of proposed biomass and EfW developments on skills and the economy are identified in paragraph 1.7.2.</p>	<p>NPS EN-3 applies only to the proposed biomass and EfW components of REP, as the proposed installation of solar photovoltaic panels is not covered by this NPS. As detailed above in relation to NPS EN-1, this Chapter provides an assessment of the likely significant socio-economic effects from the Proposed Development, including likely effects on key business sectors.</p>

14.2.3 The assessment presented in this Chapter is considered to fully address the topic specific requirements of applicable NPSs as outlined in **Table 14.1** above.

14.2.4 In addition to the relevant NPSs, which are addressed more fully in **Chapter 2**, the planning policy framework applicable to this EIA for the Proposed Development is outlined in **Appendix A.3**. The Revised National Planning Policy Framework ('the NPPF 2018') and the statutory Development Plans applicable to the Application Site are also of relevance to this assessment, supported by a range of regional and local policy and best practice guidance (as outlined below). This planning policy framework highlights the importance of considering net socio-economic impacts, including employment creation and supply chain effects, as well as impacts on local communities, as important considerations in the determination of applications for all development proposals.

14.2.5 Discussion on the below listed National, Regional and Local policy specific to this Chapter is located in **Appendix A.3**.

- National Planning Policy Framework (NPPF) 2018;
- Planning Practice Guidance (online resource) (PPG);
- National Planning Policy for Waste (NPPW) (2014); and
- Waste Management Plan for England (2013).

#### **Regional Planning Policy and Strategies**

- The London Plan (2016);
- London's Wasted Resource – The Mayor's Municipal Waste Management Strategy (2011); and
- London Environment Strategy (2018).

#### **Emerging Regional Planning Policy and Strategies**

- Draft New London Plan with Minor Suggested Changes (August 2018); and
- Draft Economic Development Strategy for London (2017).

#### **Local Planning Policy Context and Strategies**

- Bexley Core Strategy (2012);
- Bexley Growth Strategy (2017);
- Bexley Unitary Development Plan (UDP) (2004) Saved Policies (2012);
- Dartford Core Strategy (2011);
- Dartford Borough Council Development Policies Plan (April 2017); and
- Kent Minerals and Waste Local Plan 2013-2030 (2016).

### Emerging Local Planning Policy and Strategies

- Draft Dartford New Local Plan: Strategic Issues Consultation (2018).

### 14.3 Consultation

14.3.1 A list of consultation responses received to date relating to this assessment is provided in **Table 14.2** below.

Table 14.2 Summary of Key Consultation Responses in Relation to Socio-economics

Reference / Consultee	Comment	Response
<b>Secretary of State Scoping Opinion</b>		
Section 4.11 – ID 1	The Inspectorate considers that there is potential for an increase in migration during construction and operation, and sufficient evidence has not been provided to scope out the assessment on accommodation and community infrastructure.	An assessment of likely effects on accommodation and community infrastructure is included in Section 14.9.
Section 4.11 – ID 2	The Inspectorate agrees that the effects of tourism and recreation will be sufficiently addressed in other Chapters of the ES, and does not need to be specifically assessed in the Socio-economic Chapter.	Potential tourism and recreation effects have been scoped out of this assessment.
Section 4.11 – ID 3	The ES should set out the sources of the socio-economic data collected as part of the assessment.	The main data sources and key assumptions used in this assessment are set out Section 14.5 and 14.6 respectively.
Section 4.11 – ID 4	The Inspectorate advises that the types of jobs generated by the Proposed Development should be considered in the context of the available workforce in the area and advises that this applies equally to the construction and operational stages.	In particular, additionality factors have been defined in <b>Tables 14.14</b> and <b>14.15</b> in order to convert predicted gross employment (construction and operational phase) into net additional employment, taking account of potential leakage, deadweight, displacement and multiplier effects. Additionally, the assessment of likely cumulative effects (Section 14.10) identifies the absorption capacity of the labour market and the percentage of existing workers within relevant sectors
Section 4.11 – ID 5	The Inspectorate notes that the HM Treasury Green Book, is guidance for central government. The Applicant should take care to ensure that the methodology	

Reference / Consultee	Comment	Response
	applied is sufficient to identify and assess the likely significant effects from the Proposed Development.	<p>needed to construct and operate the Proposed Development.</p> <p>Whilst acknowledging there are no specific methodological guidelines or requirements for socio-economic assessments within the context of EIA, the assessment presented in this Chapter has adopted a methodology consistent with UK Government’s Green Book appraisal guidance. The latest iteration of the Green Book (March 2018) is taken account of in this assessment.</p>
Section 4.11 – ID 6	The methodology for assessing the significance of potential effects has not been identified within the Scoping Report; this should be clearly explained within the ES.	This is described in Section 14.5. Compared with the Scoping Report, substantially greater detail is provided regarding the methodology adopted to assess the level and significance of likely socio-economic effects in the context of the EIA Regulations.
<b>Preliminary Environmental Information</b>		
London Borough of Bexley (LBB)	Stated that the information provided in Chapter 14 – Socio-economics of the PEIR is considered appropriate.	<p>Noted. The assessment presented in this Chapter is based on that previously presented within Chapter 14 – Socio-economics of the REP PEIR. The main changes in this assessment are:</p> <p><b>Methodology</b> – the criteria applied to define receptor sensitivity and magnitude of socio-economic change</p>

Reference / Consultee	Comment	Response
		<p>have been defined in more detail and a revised EIA significance matrix (<b>Table 14.5</b>) has been adopted to improve the robustness of the assessment. Additionally, the Study Area adopted to assess likely significant effects on community infrastructure has been extended from 2km to 3km to match the community infrastructure assessment in Section 14.7.</p> <p><b>Baseline</b> – a section regarding the key business sectors of relevance to the Proposed Development has been added, to support a subsequent assessment of likely effects on these sectors.</p> <p><b>Assessment</b> – the assessment of net additional employment effects has been recalibrated to focus on the identified Study Areas and to incorporate updated additionality factors. As above, an assessment of likely effects on key business sectors has been added.</p>
	<p>Advised that the Learning and Enterprise College Bexley (LECB) offers employment and skills support to local residents and employers and that the Council work closely with developers on construction projects with the aim of maximising apprenticeship and employment opportunities for residents.</p>	<p>Noted. The assessment includes consideration of likely effects on the labour market and key economic sectors of relevance to the Proposed Development. As detailed in Section 14.11, the Applicant is committed to generating local economic benefit from the Proposed Development and has a strong preference to recruit locally where possible.</p>
	<p>Noted that any impact on KCC Service provision would mainly come from the jobs created both during the</p>	<p>An assessment of likely employment generation and labour market effects from the construction and</p>

Reference / Consultee	Comment	Response
Kent County Council (KCC)	<p>construction and operational periods of the development. Advised that the estimated number of jobs generated by the Proposed Development is relatively low and that labour markets across the local area, wider area and wider region are likely to absorb these jobs.</p> <p>Therefore, KCC advised no objections to the proposed development in terms of the impact on KCC service provision.</p>	<p>operational phases of the Proposed Development is provided in Sections 14.9 – 14.13. This includes a Cumulative Assessment presented in Section 14.10 which examines the ability of the labour market to absorb the predicted employment from the Proposed Development and the influence of relevant cumulative developments.</p>
	<p>Stated that even if the whole of the labour force was to move into the area, the impact on community facilities outside the local area would be minimal. In the case of construction workers, this is unlikely as the jobs created would be temporary (three years at most).</p>	<p>As noted above, the EIA Scoping Opinion received from the Planning Inspectorate specifically requested the assessment of labour market effects be supported by an assessment of associated effects on community infrastructure. A proportionate assessment of such effects is therefore provided in Sections 14.9 – 14.13.</p>
	<p>Raised concerns regarding the Gross Value Added<sup>1</sup> (GVA) figures used within Chapter 14 – Socio-economics of the PEIR. KCC questioned the average GVA per worker figures used in the PEIR (£111,444 per construction worker and £184,104 per operational worker).</p>	<p>GVA per worker figures used in the PEIR were generated from bespoke forecasts supplied by Experian (2017) for the drive-time Study Areas adopted in the assessment. These forecast GVA generation and employment per sector over the expected construction and operational phases of the Proposed Development.</p>

<sup>1</sup> GVA is the measure of the value of goods and services produced in an area, industry or sector of an economy.

Reference / Consultee	Comment	Response
		<p>By way of comparison, an analysis of current (2016) GVA per worker using publicly available data<sup>2</sup> indicates average GVA per construction worker in London is approximately £112,000 and average GVA per operational worker (in the relevant waste treatment sector) is approximately £177,000. Allowing for differences between existing and projected future GVA and between the areas covered (the project specific 60-minute drive-time Wider Region Study Area applied in the assessment extends beyond Greater London), the GVA per worker figures used in the PEIR are considered robust. These figures have therefore been adopted in the assessment presented in Sections 14.9 – 14.13.</p>
<p>Dartford Borough Council</p>	<p>Raised concerns regarding the proposed routing of the electrical connection along Bob Dunn Way and requested that the socio-economic impacts of the potential for increased traffic queuing be assessed within the EIA.</p>	<p><b>Chapter 6</b> presents an assessment of likely significant traffic and transport effects from the construction and operation of the Proposed Development including the Electrical Connection. This includes consideration of likely impacts on road and pedestrian users, including as a result of any potential driver delays. No further assessment within this Chapter is considered necessary.</p>

<sup>2</sup> Data is 2016 based and sourced from the Office of National Statistics and NOMISweb.

Reference / Consultee	Comment	Response
Greater London Authority (GLA)	Queried whether the predicted creation of 75 full time equivalent (FTE) jobs would be additional or whether staff would be shared with the existing Riverside Resource Recovery Facility (RRRF).	A model-based approach was used to calculate gross direct employment from the construction and operational phases of the Proposed Development. The gross operational employment figure (75 FTE) took account of present employment levels in the RRRF to assess the additional employment required to operate REP. Consistent with HM Treasury Green Book guidance, additionality factors (leakage, displacement, deadweight and multiplier effects) were then applied to calculate net employment effects. This approach is considered robust and has been adopted in the assessment presented in Sections 14.9 – 14.13.
	Contended that the predicted employment, GVA and financial benefits generated by the Proposed Development could instead be generated by an alternative waste plant that aligns with circular economy objectives. Also contended that the Proposed Development would act as a disincentive to recycling and the reuse of materials.	<p>The assessment presented in Sections 14.9 – 14.13 includes consideration of likely effects from the Proposed Development on key business sectors, including waste management and energy generation. In addition, the assessment of net employment effects takes account of potential displacement of existing economic activities.</p> <p>Further consideration of the contribution of the Proposed Development to the waste management sector and the circular economy is provided within <b>The Projects and its Benefits Report (Document Reference 7.2)</b> and the <b>Planning Statement</b></p>

Reference / Consultee	Comment	Response
		<b>(Document Reference 7.1)</b> submitted in support of the DCO application.
<b>Other consultation with non-statutory bodies</b>		
South East London Chamber of Commerce	Telephone Conversation.	The telephone consultation provided the South East London Chamber of Commerce with an overview of the Proposed Development, its likely direct employment requirements, and the methodology adopted to assess likely socio-economic effects. No further action required.
The London Economic Action Partnership	Consultation undertaken by email in February and March 2018.	No response received.
Kent Chamber of Commerce	Consultation undertaken by email in February and March 2018.	No response received.

## 14.4 Reasonable Worst Case Parameters Used for Assessment

14.4.1 The assessment is based on the characteristics of the Application Site and surrounding area and the key parameters of the Proposed Development detailed in **Chapter 3**. With the exception of the construction programme (anticipated to be 43 months), the ‘reasonable worst case parameters’ specified in **Chapter 3** have little bearing on this assessment, as likely employment and associated socio-economic effects are instead dependent upon the number of employees required directly to construct, operate and decommission the Proposed Development. These direct employee numbers have been calculated with reference to the range of required construction, operational and decommissioning activities and taking account of actual employee levels at the adjacent RRRF.

14.4.2 As detailed in Section 14.5, the assessment of likely effects has been carried out for defined Study Areas, including a 60-minute (Wider region) drive time Study Area as measured from the REP site. To allow for the possibility of labour being sourced from a smaller area, smaller 45-minute (Wider area) and 30-minute (Local area) Study Areas have also been adopted. This approach has enabled the reasonable ‘worst case’ scenario to be assessed whereby labour market effects are concentrated in a small area.

## 14.5 Assessment Methodology and Significance Criteria

### Scope of Assessment

14.5.1 This Chapter presents an assessment of likely significant socio-economic effects from the construction and operation of the Proposed Development. The assessment has been prepared in accordance with the EIA Regulations.

14.5.2 All developments have the potential to generate socio-economic effects at the Local, Regional and/or National level, principally in relation to changes in economic development, employment opportunities and tourism or recreational activities. The principal aspects considered within this assessment are those where there is at least the potential for the Proposed Development to result in likely significant socio-economic effects, as defined within the REP EIA Scoping Opinion (Planning Inspectorate, 2018). These are:

- Direct, indirect and induced labour market effects (employment creation and GVA) during the construction and operational phases of the Proposed Development;
- Direct and indirect effects on relevant business sectors (construction, waste management and energy generation) during the construction and operational phases of the Proposed Development respectively; and
- Direct and indirect effects on accommodation provision and community infrastructure demands/use during the construction and operational phase of the Proposed Development.

14.5.3 In accordance with the REP EIA Scoping Opinion (Planning Inspectorate, January 2018), potential effects on tourism and recreation have been scoped out of this assessment on the grounds that any such effects are not likely to be significant in the context of the EIA Regulations.

### Study Area

14.5.4 Two Study Areas and corresponding Zones of Influence (ZOI) for the identification of relevant cumulative developments were adopted in the socio-economic assessment:

- A labour market Study Area and ZOI based on a 60-minute drive time Wider region catchment from the REP site; and.
- A more localised community infrastructure Study Area and ZOI based on 3km radius from the REP site.

14.5.5 Within the 60-minute drive time Wider region labour market Study Area, smaller 'Local area' (30-minute drive time) and 'Wider area' (45-minute drive time) catchments were also adopted to assess the reasonable worst case scenario that labour would be sourced from within much smaller areas. For the avoidance of doubt, as shown on **Figure 14.1** the 60-minute drive time Wider region Study Area encompasses the Local area and the Wider area.

14.5.6 The Study Areas and associated ZOIs adopted for this assessment respectively reflect the outer limit that workers would typically commute on a daily basis from the REP site and the outer limit of community infrastructure which could experience discernible changes (e.g. demand for school places) as a result of the Proposed Development. Beyond these distances, labour market effects and associated effects on community infrastructure would only be likely to occur at much lower levels which would not be significant in the context of the EIA Regulations.

### Information Sources

#### Desk Top Study

14.5.7 A desk based review of publicly available information sources was undertaken to establish the baseline conditions of the Study Areas adopted in this assessment and how these compare with national averages for England. The following socio-economic indicators were considered:

- Current and projected demographic characteristics, including population size and age structure;
- Current and projected labour market characteristics, including working age population profile (level of economic activity, occupational and skills profiles) and the workplace economy profile (employment by industries and earnings); and,

- Community Infrastructure: An audit of existing community infrastructure provision within the applicable Study Area, including education and healthcare facilities, was carried out.

14.5.8 The data used to prepare the baseline profile reflects the range of publicly available statistics applicable to the selected Study Areas. Baseline data were sourced from:

- Socio-economic/labour market: Experian 2017, Office of National Statistics, NOMIS, Census 2011; and,
- Community Infrastructure: Department for Education and NHS Choices.

### **Modelling**

14.5.9 Relevant socio-economic data were inputted into a bespoke economic model developed by PBA to predict the gross and net socio-economic effects, including with respect to expenditure and employment, from the construction and operation of the Proposed Development. This model applied economic multipliers and additionality assumptions as detailed in tables later in this chapter.

### **Approach to Assessment**

14.5.10 The assessment follows UK Government guidelines and best practice guidance. The methodology used to estimate impacts follows guidance set out in the HM Treasury (2018) Green Book and Homes and Communities Agency (HCA) Additionality Guide.

### **Receptor Sensitivity**

14.5.11 Based on the information sources outlined above, the relevant baseline characteristics of the site and surrounding area were characterised. This led to the identification of relevant sensitive or important receptors to consider within the assessment, as detailed within Section 14.7. As outlined below, each identified receptor was assigned a sensitivity value in relation to potential socio-economic changes resulting from the Proposed Development.

14.5.12 For employment effects, the availability of labour and skills is critical in accommodating the demands, needs and requirements of the Proposed Development. The sensitivity of the labour market, therefore, has been defined in relation to:

- The availability of skilled labour in the Study Areas relative to national averages;
- The proportion of employment in relevant sectors (e.g. construction workers) within the Study Area;
- The availability of labour (including the unemployed) within the Study Area; and,

- Relevant education and training provision, including existing and proposed programmes provided by institutions serving the Study Area.

14.5.13 Plentiful labour and/or skills capacity results in a low sensitivity, whilst limited labour and/or skills capacity results in a high sensitivity. Sensitivity criteria relating to employment are shown in **Table 14.3** below.

Table 14.3: Employment Sensitivity

Sensitivity	Example
High	There is a shortfall of appropriate labour and skills. The Proposed Development would therefore lead to excessive labour market pressure and substantial distortions (i.e. skills and capacity shortages, import of labour, wage inflation).
Medium	There is a low supply of appropriate labour and skills. The Proposed Development may therefore lead to labour market pressure or distortions.
Low	There is a readily available supply of appropriate labour and skills. The Proposed Development is therefore unlikely to lead to labour market pressure or distortions.
Negligible	There is an existing surplus of readily available labour with directly relevant and transferable skills. The Proposed Development would therefore not lead to labour market pressure or distortions.

14.5.14 For wider socio-economic effects including impacts on key business sectors and changes in demands on community infrastructure, receptor sensitivity was determined with reference to the *importance* of the receptors likely to be affected (e.g. local residents, existing businesses, etc.) and the extent to which socio-economic change upon these could affect their economic performance or, for community infrastructure, the delivery of public services. The sensitivity (Negligible to High) of relevant receptors was therefore defined on a case by case basis using the baseline information provided in Section 14.7. To maintain assessment proportionality, the totality of community infrastructure provision within the relevant (3km) Study Area was treated as a single receptor group and assigned a corresponding level of sensitivity, rather than each school, GP practice and other community infrastructure asset being subject to individual assessments.

### Impact Assessment Methodology

14.5.15 The magnitude of change from the construction and/or operation of the Proposed Development on identified socio-economic receptors was determined using the criteria set out in **Table 14.4**.

Table 14.4: Socio-economic Magnitude of Change Criteria

Magnitude of Change	Type of Change	Criteria
High	Adverse	Employment changes: the number of jobs lost in the Study Area would be 250 or greater (based upon the EU definition of small and medium enterprises <sup>3</sup> ). Other socio-economic changes: adverse changes to identified receptors would be observed on an international, national or regional scale. Changes are likely to be experienced over the long term (i.e. 5+ years).
	Beneficial	Employment changes: the number of jobs created in the Study Area would be 250 or greater (based upon EU definition of small and medium enterprises). Other socio-economic changes: beneficial changes to identified receptors would be observed on an international, national or regional scale. Changes are likely to be experienced over the long term (i.e. 5+ years).
Medium	Adverse	Employment changes: the number of jobs lost in the Study Area would be 50 or greater, but fewer than 250. Other socio-economic changes: noticeable adverse changes, judged to be important at a Local scale, to identified receptors. Changes are likely to be experienced over the medium term (i.e. 3-5 years).
	Beneficial	Employment changes: the number of jobs created in the Study Area would be 50 or greater, but fewer than 250. Other socio-economic changes: noticeable beneficial changes, judged to be important at a Local scale, to identified receptors. Changes are likely to be experienced over the medium term (i.e. 3-5 years).
Low	Adverse	Employment changes: the number of jobs lost in the Study Area would be 10 or greater, but fewer than 50. Other socio-economic changes: small scale adverse changes to identified receptors at the Local level only. Changes are likely to be experienced over the short term (i.e. 1-2 years).

<sup>3</sup> [http://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition\\_en](http://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en)

Magnitude of Change	Type of Change	Criteria
	Beneficial	Employment changes: the number of jobs created in the Study Area would be 10 or greater, but fewer than 50. Other socio-economic changes: small scale beneficial changes to identified receptors at the Local level only. Changes are likely to be experienced over the short term (i.e. 1-2 years).
Negligible	Adverse	Employment changes: the number of jobs lost in the Study Area would be less than 10. Other socio-economic changes: very small scale adverse changes to identified receptors at the Local level only. Changes are likely to be experienced over the short term (i.e. less than 6 months).
	Beneficial	Employment changes: the number of jobs gained in the Study Area would be less than 10. Other socio-economic changes: very small scale beneficial changes to identified receptors at the Local level only. Changes are likely to be experienced over the short term (i.e. less than 6 months).
No Change		No change would be perceptible, either beneficial or adverse.

14.5.16 In line with standard EIA practice, a matrix-based approach was adopted to consider the sensitivity of identified receptors in tandem with the likely magnitude of socio-economic change from the proposed development. This method allowed the level and significance in EIA terms of all predicted socio-economic effects to be determined on a consistent basis. The EIA significance matrix adopted in this assessment is detailed in **Table 14.5** below.

Table 14.5: EIA Significance Matrix - Significance of Socio-economic Effects

Sensitivity	Magnitude of Change				
	High	Medium	Low	Negligible	No Change
High	Substantial	Moderate/ Substantial	Moderate	Slight	No effect
Medium	Moderate/ Substantial	Moderate	Slight/ Moderate	Slight	
Low	Moderate	Slight/ Moderate	Slight	Negligible	
Negligible	Slight	Slight/ Negligible	Negligible	Negligible	

14.5.17 For the purposes of this assessment, effects which are predicted to occur at levels of moderate, major or substantial are considered significant in the context of the EIA Regulations.

## 14.6 Assumptions and Limitations

14.6.1 The following assumptions have been adopted in this assessment:

- Best practice principles outlined in HM Treasury (2018) Green Book Appraisal Guidance have been applied to assess the net employment effects of the Proposed Development. Additionality assumptions (leakage, displacement, deadweight and sectoral economic multipliers) have therefore been applied to predicted gross employment levels to calculate likely net additional direct, indirect and induced employment effects; and,
- Likely decommissioning effects are considered to be of a similar scale or lower than construction phase effects. This negates the need to provide a separate decommissioning phase assessment. At this stage, potential effects from the decommissioning phase are difficult to quantify as decommissioning techniques are likely to advance considerably over the operational period of the Proposed Development.

## 14.7 Baseline Conditions and Receptors

### Employment and Labour Supply

14.7.1 The supply of appropriate labour and the availability of firms to support the construction and operation of a development proposal is a key factor in ensuring socio-economic benefits are realised by local communities. The characteristics of the labour market and local economy also determine its wider direct, indirect, and induced socio-economic effects. Numerous factors influence the supply and demand of labour in the economy including working age demographic factors, existing economic activity levels, existing employment/unemployment characteristics, skills and income levels (wages), as outlined below.

### Demographic Factors

14.7.2 As shown in **Table 14.6** below, the Local area, Wider area and Wider region have all experienced relatively significant population increases since 2007, a trend which is expected to continue over the coming years. Over the same period the population of England has increased and is also projected to increase but at a lower rate.

Table 14.6: Estimated and Projected Total Population Levels

Year	Study Area			Comparator
	Local Area	Wider Area	Wider Region	England
2007	1,503,995	4,905,209	8,639,529	51,381,081
2017	1,745,193	5,608,788	9,767,329	55,578,918
2027	1,950,718	6,236,749	10,782,431	59,286,576
<b>% change</b>				
2007-2017 (observed)	16%	14%	13%	8%
2017-2027 (projected)	12%	11%	10%	7%

Source: Experian 2017

14.7.3 The Local area, Wider area and Wider region (30, 45 and 60-minutes drive time from the REP site respectively) have higher than average levels of working age people and lower than average dependency ratios, which is likely to reduce pressure on services in the area. The dependency ratio (or proportion of working age people) is important as it measures the relationship between the productive element of a population and those who are economically dependent. As shown

in **Table 14.7**, in 2015 the age structure of the resident population within the Local, Wider and Wider region Study Areas was similar to that for England.

Table 14.7: Age Structure: 2015

	Study Area			Comparator
	Local Area	Wider Area	Wider Region	England
Children (0-15)	22%	21%	20%	19%
Working age (16-64)	65%	66%	66%	63%
Retirement age (65+)	13%	13%	14%	18%

Source: Experian 2017

## Economic Activity and Employment

14.7.4 The economic activity rate is a useful measure of the labour market opportunities available in the area. The economic activity rate measures the percentage of the population, both in employment and unemployed, that represent the labour supply regardless of their labour status. The figure represents the degree of success of the area in engaging people in productive activity.

14.7.5 Economic activity in the Local area, Wider area and Wider region is above that for England, with the Wider region having the highest level as summarised in **Table 14.8** below.

Table 14.8: Economic Activity

	Study Area			Comparator
	Local Area	Wider Area	Wider Region	England
Total	1,170,649	3,821,336	6,748,915	38,881,374
Economically Active	71%	71%	72%	70%
Economically Inactive	29%	29%	28%	30%

Source: Experian 2017, Census 2011

14.7.6 **Table 14.9** below presents an overview of economic activity within the Local area, Wider area and Wider region Study Areas as compared with England as a whole. This indicates that:

- There are marginally higher levels of unemployment in the assessed Study Areas compared to England;
- The level of retired people in the assessed Study Areas is substantially below the national average;
- The Wider area and Wider region Study Areas have slightly higher proportions of self-employed people which may indicate a more dynamic entrepreneurial workforce; and,
- There is a higher proportion of economically active students in the Local and Wider Study Areas, suggesting the presence of a skilled workforce.

Table 14.9: Economic Activity by Type (using rounded figures)

	Study Area			Comparator
	Local Area	Wider Area	Wider Region	England
<b>Economically Active</b>				
Employee	72%	72%	72%	75%
Self-employed with employees	3%	3%	3%	3%
Self-employed w/out employees	11%	12%	12%	11%
Unemployed	8%	8%	7%	6%
Student (economically active)	6%	6%	5%	5%
<b>Economically Inactive</b>				
Retired	34%	35%	35%	45%
Student (economically inactive)	23%	24%	24%	19%

	Study Area			Comparator
	Local Area	Wider Area	Wider Region	England
Looking after home/family	19%	18%	18%	14%
Permanently sick/disabled	13%	13%	13%	13%
Other economically inactive	10%	10%	10%	7%

Source: Experian 2017, Census 2011

14.7.7 **Table 14.10** presents a breakdown of the occupational profile of employment within the Local, Wider and Wider region Study Areas compared with England. This indicates that the Wider region Study Area has a higher than average proportion of people employed in professional occupations (20%) and associate professional and technical occupations (16%). Similarly, the Wider area has a higher than average proportion of people employed in professional occupations (19%). Employment in skilled trades in the Local area is consistent with the national average (11%).

Table 14.10: Occupational Profile

Occupational Profile	Study Area			Comparator
	Local Area	Wider Area	Wider Region	England
Managers, directors and senior officials	10%	10%	12%	11%
Professional occupations	17%	19%	20%	17%
Associate professional and technical occupations	13%	14%	16%	13%
Administrative and secretarial occupations	13%	13%	12%	11%

Occupational Profile	Study Area			Comparator
	Local Area	Wider Area	Wider Region	England
Skilled trades occupations	11%	10%	9%	11%
Caring, leisure and other service occupations	9%	8%	8%	9%
Sales and customer service occupations	9%	8%	8%	8%
Process, plant and machine operatives	7%	6%	5%	7%
Elementary occupations	12%	11%	10%	11%

Source: Experian 2017, Census 2011

14.7.8 **Table 14.11** below shows the percentage of the workforce within the Local area, Wider area and Wider region Study Areas that work in different economic sectors. From this, it can be seen that the percentage of people employed in the construction and waste management sectors across the Local area, Wider area and Wider region are broadly similar and comparable to national averages.

Table 14.11: Employment by Industry

Industry of Employment	Study Area			Comparator
	Local Area	Wider Area	Wider Region	England
Agriculture, forestry and fishing	0%	0%	0%	1%
Mining and quarrying	0%	0%	0%	0%
Manufacturing	4%	4%	4%	9%
Electricity, gas, steam and air	0%	0%	0%	1%

Industry of Employment	Study Area			Comparator
	Local Area	Wider Area	Wider Region	England
conditioning supply				
Water supply; sewerage, waste mgt. and remediation	1%	1%	1%	1%
Construction	9%	8%	8%	8%
Wholesale and retail; repair of motor cycles and vehicles	15%	14%	14%	16%
Transport and storage	6%	5%	5%	5%
Accommodation and food service activities	6%	6%	6%	6%
Information and communication	5%	5%	6%	4%
Financial and insurance activities	7%	8%	8%	4%
Real estate activities	2%	2%	2%	1%
Professional, scientific and technical activities	7%	9%	10%	7%
Administrative and support service activities	6%	6%	6%	5%
Public administration, defence,	6%	6%	5%	6%

Industry of Employment	Study Area			Comparator
	Local Area	Wider Area	Wider Region	England
compulsory social security				
Education	9%	10%	10%	10%
Human health and social work activities	11%	11%	11%	12%
Other	5%	6%	6%	5%

Source: Experian 2017, Census 2011

## Education, Skills and Qualifications

14.7.9 The National Readership Survey (NRS) social grades are a system of demographic classification widely used in market research. As shown in **Table 14.12**, the Wider region Study Area has a higher proportion of people in the highest social grades (AB) and second highest (C1) grade when compared to the national average. The Local area has a marginally higher proportion of those in the lowest social grade (DE) but marginally lower proportion of those in the second lowest social grade (C2).

Table 14.12: National Readership Survey (NRS) Social Grade

	Study Area			Comparator
	Local Area	Wider Area	Wider Region	England
AB – High/intermediate manager/admin/professional	21%	24%	27%	23%
C1 – Supervisor/clerical/junior manager/admin/professional	32%	33%	33%	31%
C2 – Skilled manual	20%	18%	17%	21%
DE- Semi-skilled/unskilled manual/state benefit/unemployed/lowest grade	26%	25%	23%	25%

Source: Experian 2017, Census 2011

14.7.10 As shown in **Table 14.13**, educational attainment within the Local area, Wider area and Wider region Study Areas is broadly comparable to that of England as a whole. However, a slightly higher percentage of the population within the Wider area and Wider region have level 4 qualifications and above, whilst a slightly lower level have apprenticeship level qualifications.

Table 14.13: Qualifications

Qualifications	Study Area			Comparator
	Local Area	Wider Area	Wider Region	England
Level 4 qualifications and above	27%	30%	33%	27%
Level 3 qualifications	11%	11%	11%	12%
Apprenticeship	3%	2%	2%	4%
Level 2 qualifications	15%	14%	14%	15%
Level 1 qualifications	14%	13%	12%	13%
Other qualifications	8%	8%	8%	6%
No qualifications	22%	21%	19%	22%

Source: Experian 2017, Census 2011

## Summary

14.7.11 Drawing together the baseline analysis presented above, it is clear that the Wider region (60-minute drive time) labour market Study Area exhibits characteristics consistent with a Low sensitivity labour market (i.e. readily available skilled labour, increasing population, above average economic activity, high educational attainment). This is consistent with the sensitivity criteria set out in **Table 14.3** It is also clear that the Local area and Wider area Study Areas exhibit similar labour market characteristics and thus also have Low Sensitivity to potential changes.

## Key Business Sectors

14.7.12 The key business sectors of relevance to the Proposed Development which could experience socio-economic effects during the construction/decommissioning and/or operational phases respectively are the construction, waste management and energy generation sectors.

14.7.13 Given the location of the REP site within the LBB and that the Wider region encompasses a large part of Greater London, the sectoral overview presented

below addresses both the 60-minute drive time Wider region Study Area (where suitable data is available) and the characteristics of each economic sector across Greater London.

### **Construction Sector**

14.7.14 London<sup>4</sup> boasts a large construction sector, with 185,697 construction sector employees in 2016. The sector contributed £20.85 million to GVA (approximately £112,000 GVA per employee) in 2016. Forecasts supplied by Experian (2017) indicate that construction sector GVA per employee across the 60-minute drive time (Wider region) Study Area, which encompasses a large part of Greater London and neighbouring authorities, is forecasted to be similar at £111,444 during the expected construction period of the Proposed Development.

14.7.15 The Construction Skills Network forecasts (2017-2021) for Greater London<sup>5</sup> indicates that London's total construction output is forecast to rise by annual average of 2.4% over the next five years, with construction employment anticipated to increase by an average yearly rate of 1.3%. Construction growth is expected to be focused on the infrastructure sector in the short to medium term, reflecting the need for substantial investment in new infrastructure (including waste and energy) identified within the Draft London Economic Strategy (GLA, 2017). However, uncertainties regarding Brexit are currently affecting the construction industry's outlook in London and across the UK more widely.

14.7.16 Owing to the strength, scale and size of the construction sector across Greater London and the 60-minute drive time Wider region Study Area, this sector is considered to have Low sensitivity to potential socio-economic changes which could result from any individual major development proposal. The magnitude of change of any construction project within the Wider region Study Area upon the sector would depend on factors including the scale and duration of construction and the level of employment leakage outside the Study Area, i.e. whether construction labour is sourced from elsewhere in the UK or further afield.

### **Waste Management**

14.7.17 In 2015, London produced just over 8 million tonnes of household and commercial/industrial waste<sup>6</sup>, approximately half of which is collected and managed by the London Boroughs as local authority collected waste (LACW). Between 2003 and 2010, London's Boroughs significantly improved their waste management, with overall LACW recycling increasing from 8% to 30%. However, since 2011, LACW recycling has stagnated, plateauing at around

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<sup>4</sup> The London region as defined by the ONS.

<sup>5</sup> Construction Skills Network forecasts (2017-2021) for Greater London Available at: <https://www.citb.co.uk/research-and-insight/forecasts/construction-skills-network-forecasts-2017-2021---greater-london/>

<sup>6</sup> New Draft London Plan (Paragraph 9.7.2)

30%<sup>7</sup>. Combining LACW with commercial/industrial waste data, the London Environment Strategy (2018) estimates that 41% recycling was achieved in 2017/18 across all municipal waste (i.e. that from homes, public buildings and businesses).

14.7.18 The finalised London Environment Strategy (2018) makes clear that the capacity of landfills accepting London's waste is expected to run out by 2026, whilst an investigation by the London Assembly's Environment Committee (2018) concluded that the capital exports in excess of one million tonnes of waste for incineration to Europe each year and that exported waste has seen a dramatic rise over the past five years<sup>8</sup>. However, the Committee noted that waste exportation is neither environmentally nor financially sustainable, whilst Policy SI8 within the New Draft London Plan requires London to be self-sufficient in waste management by 2026.

14.7.19 The latest available data from ONS indicates that in 2016, the waste management sector (excluding waste collection) in London<sup>9</sup> had 4,550 employees and contributed £808 million GVA to the economy (£177,582 GVA per employee). Forecasts supplied by Experian (2017) indicate that GVA per employee in the waste management sector (again excluding waste collection) across the 60-minute drive time (Wider region) Study Area used in this assessment is forecasted to be similar at £184,104 during the operational period of the Proposed Development.

14.7.20 The key stakeholders within the waste management sector are:

- **London Boroughs:** London's Boroughs have responsibilities as waste authorities and are required by the Greater London Act 2007 to act in general conformity with Mayoral strategies, including the waste management provisions set out in Chapter 7 – Waste, of the finalised London Environment Strategy (2018). The requirement within Policy SI8 of the New Draft London Plan for London to become self-sufficient in waste management by 2026 is also relevant;
- **Statutory Waste Partnerships:** Four statutory sub-regional partnerships are responsible for jointly disposing of the waste collected by member authorities (London Boroughs). These joint waste disposal authorities are East London Waste Authority (ELWA), North London Waste Authority (NLWA), Western Riverside Waste Authority (WRWA) and the West London Waste Authority (WLWA). Four boroughs have formed a voluntary waste partnership, known as the South London Waste Partnership (SLWP);
- **Private Sector Operators:** The above statutory sub-regional partnerships procure waste treatment and disposal contracts to dispose of municipal waste, largely from private sector operators rather than 'in-house' public sector run facilities. London currently has four waste Energy Recovery

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<sup>7</sup> London Environment Strategy (2018) - Evidence Base, Waste

<sup>9</sup> The London region as defined for statistical purposes by the ONS.

Facilities (ERF), including RRRF at Belvedere. As noted above, no landfill capacity is expected after 2026 and a substantial volume of London's residual waste (taking account of processing and recycling) is currently exported for thermal treatment outside the UK.

14.7.21 Taking account of the complexity of the waste management sector in Greater London, existing employment in the sector, the current reliance on the exportation of residual non-recyclable waste and the projected future shortfall in landfill capacity, the waste management sector is considered to have Medium sensitivity to potential socio-economic changes.

### **Energy Generation**

14.7.22 The latest available data from ONS indicates that in 2016, utilities industries (including energy generation) in London accounted for 26,454 employees and contributed £4.6 million GVA to the economy (£173,616 GVA per employee). The 2011 Census results indicate that approximately 10,358 residents within Greater London work within the electricity, gas, steam and air conditioning supply subsector of the energy generation sector.

14.7.23 The finalised London Environment Strategy (2018) similarly identifies a need for substantial investment in energy infrastructure and new low-carbon energy generation capacity within Greater London. Similarly, a need for substantial investment in energy infrastructure across the UK has been identified by successive governments, indeed this is recognised within NPS EN-1.

14.7.24 Owing to the size of the energy generation sector across Greater London, this sector is considered to have Low sensitivity to potential socio-economic changes which could result from any individual major development proposal.

### **Accommodation and Community Infrastructure Provision**

14.7.25 Any change in resident population levels or the demographic structure of the Study Area resulting from new employment opportunities and associated in-migration could alter demands for accommodation, community infrastructure and public services. An overview of existing short term accommodation provision within the host London Borough (Bexley) and community infrastructure assets within the applicable 3km Study Area is provided below.

### **Accommodation**

14.7.26 The latest available data regarding visitor and short-term accommodation provision indicates that in 2016, the London Borough of Bexley had 15 operational hotels, with many more in neighbouring Boroughs and across Greater London. The location of the REP site in Bexley, outside the main tourist area of Central London and not in close proximity to major visitor attractions, means that local hotels are likely to serve a combination of business and leisure markets. On this basis, the accommodation sector within the Local area Study Area is considered to have Low sensitivity to potential socio-economic changes resulting from the Proposed Development.

## Education

14.7.27 According to data published by the UK Government Department for Education (2018), there are 33 schools located within 3 km of the REP site. These are a combination of primary and secondary schools including some independent and free schools. Most of the schools provide capacity information and this shows that there is capacity to accommodate approximately 1,789 pupils. Therefore the sensitivity is assessed as Low.

## Health

14.7.28 According to data published by the NHS Choices (2018), there are nine GP surgeries within 3 km of the REP site, all of which are accepting new patients. There are five dentists within 3 km of the REP site, one of which is accepting new patients, although it is not clear whether the other four are also accepting new patients<sup>10</sup>.

14.7.29 Erith and District Hospital is approximately 4 km from the REP site and offers urgent care and outpatient care. The nearest Accident and Emergency is at Darent Valley Hospital which is c. 14 km from the REP site.

14.7.30 The overall sensitivity of the community infrastructure within the Study Area (3km radius from the REP site) is assessed as Low as most of the facilities identified above are of local importance and there is existing capacity available to accommodate increased local residents if this were to occur.

## Baseline Evolution

14.7.31 In the absence of REP being constructed, operational uses and economic activities at the Application Site are expected to remain unchanged.

14.7.32 Population projections supplied by Experian (2017) indicate that the Local and Wider area Study Areas are expected to experience population growth of approximately 11% between 2017 and 2027, which is higher than the national average (7%). Across the 60-minute drive time Wider region Study Area, population growth is expected to be lower at approximately 6.4%.

14.7.33 **Appendix A.4** provides a full list of schemes which have been identified as being likely to be constructed prior to the construction of the Proposed Development. Where relevant, these schemes therefore form part of the 'future baseline' scenario and have been taken account of in the assessment of likely significant impacts from the Proposed Development (construction and operation) presented in Section 14.9.

14.7.34 A review of developments outside the Application Site but within the study areas assessed in this Chapter indicates that the following schemes are expected to be constructed prior to the construction phase of the Proposed Development:

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<sup>10</sup> Updated information has not been provided to NHS Choices in the last 90 days

- General construction schemes within 3 km of the REP site (i.e. within the community infrastructure Study Area and all assessed labour market Study Areas): 60 developments identified, encompassing a wide range of development sectors. This includes one consented medium scale ERF (19MW Plot 2 London Sustainable Energy Park), the erection of industrial and commercial units, residential development, new transport infrastructure (including Crossrail) and public realm improvements.

14.7.35 There are no specialist major thermal energy generation schemes (50MW+) within 60-minute drive time of the REP site (i.e. within the Wider region labour market Study Area) identified as likely to be developed prior to the start of construction of the Proposed Development (2021).

## 14.8 Embedded Mitigation

14.8.1 Multiple design features and embedded mitigation measures have been incorporated into the design and construction of the Proposed Development to avoid, prevent or minimise significant adverse environmental effects and to enhance beneficial effects. Embedded mitigation measures of relevance to this assessment are set out below.

### Construction Phase

14.8.2 The only relevant construction phase embedded mitigation is the proposed implementation of a Code of Construction Practice (CoCP) including a constituent Construction Traffic Management Plan (CTMP) (see **Chapter 6**). Of relevance to this assessment, the CoCP and CTMP will include measures and procedures to minimise traffic disruption and amenity effects during construction. This would assist to minimise disruption to businesses surrounding construction works associated with the Proposed Development, both at the REP site and along the proposed route of the Electrical Connection.

### Operational Phase

14.8.3 No relevant operational phase embedded mitigation measures.

## 14.9 Assessment of Likely Effects

14.9.1 The assessment of likely effects is split into two sections as follows:

- The REP site and the Main Temporary Construction Compounds; and
- The Electrical Connection and the Cable Route Temporary Construction Compounds.

## The REP Site and the Main Temporary Construction Compounds

### Construction/Decommissioning

#### Overview

14.9.2 An anticipated schedule of construction for REP and the Main Temporary Construction Compounds is provided within **Chapter 3**. The indicative construction requirements for the Proposed Development, outlined in **Table 14.14** (N.B. this is not an exhaustive list of required construction services), would give rise to direct capital expenditure and employment requirements, whilst also resulting in indirect or induced expenditure and employment.

Table 14.14: Indicative Construction Requirements.

Required Services	Details
Abnormal Load and Crane Haulage	Specialist haulage contractors would be required to deliver specialist components and cranes to the REP site during the construction period.
Civil Engineering and Earthworks	Civil engineering and earthwork contractors would be required to undertake ground preparation tasks including the construction of building foundations, the creation of a suitable development platform, the establishment of temporary construction compounds and road surfacing works.
Construction materials supply and delivery	Materials required for the construction phase would include bricks, mortar, cement, concrete, stone, wood, steel, cabling, electricity poles etc.
Electrical switchgear installation	The construction of the Proposed Development would include on-site installation of complex electrical systems and cabling.
Landscaping	Post construction landscaping works are likely to be undertaken by a local contractor.
Site Security	Throughout the construction phase, security workers from the local area will be required to protect assets and ensure compliance with Construction Design and Management (CDM) Regulations 2015.

#### Labour Market Effects

14.9.3 The construction and commissioning period (excluding reliability testing) is estimated to last approximately 43 months (3.6 years). The average daily number of construction workers onsite per month (local and non-local workforce) ranges from 49 to 1,097. Construction activity at the REP site is therefore expected to support approximately 837 temporary construction jobs

(on an average monthly basis) during the expected construction period. Based on GVA and employment forecasts supplied by Experian (2017), this level of direct employment is expected to contribute £93.3 million GVA<sup>11</sup> to the economy. However, owing to the range of trades required to construct a project of this complexity and the sequencing of construction activities, employment will fluctuate over the 3.6-year construction and commissioning period. It must also be recognised that as the contract(s) necessary to construct the Proposed Development would be competitively tendered after any DCO is granted, actual construction employment requirements may be subject to change or refinement.

14.9.4 Only a proportion of the total construction employment would occur within the Local, Wider area and Wider region labour market Study Areas, as some specialist contractors from outside each of these areas (and indeed outside the UK) may be relied upon to undertake specific construction activities. This means there is likely to be a degree of employment leakage outside each Study Area, albeit at decreasing levels between the Local area (30-minute drive time from the REP site) and the Wider region (60-minute drive time from the REP site) as more potential employees are likely to reside within this larger area. Additionally, whilst the construction of the Proposed Development would generate supply chain effects it could also displace other construction activity and associated employment within each assessed Study Area (i.e. result in displacement effects). The strength, scale and size of the construction industry in Greater London also means it is likely that a proportion of construction sector employment supported by the Proposed Development would, in its absence, be supported by other projects in any case. A degree of deadweight therefore also needs to be built into the calculation of net additional construction phase employment.

14.9.5 To take account of these factors, the additionality assumptions detailed in **Table 14.15** Construction Employment Additionality Assumptions below have been used to convert estimated gross direct construction employment to net construction phase employment across the Local area, Wider area and Wider region Study Areas. These additionality assumptions have been reviewed and revised since the publication of the REP PEIR to take account of further analysis undertaken to inform the consideration of the likely evolution of baseline conditions (refer to the end of Section 14.7) and likely cumulative effects (Section 14.10).

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<sup>11</sup> £111,44 \* 837 job years= £93.3m (rounded to 1 decimal place)

Riverside Energy Park: Environmental Statement (ES)  
Chapter 14 – Socio-economics

Table 14.15: Construction Employment Additionality Assumptions

Additionality Factor	Local Area	Wider Area	Wider Region	Rationale
Leakage	80%	75%	67%	<p>As detailed in <b>Chapter 6</b>, based on the previous construction of the RRRF it is assumed that 33% of construction labour would be sourced within Greater London, which covers a large part of the Wider region Study Area, with other labour sourced from further afield. This suggests that a relatively high degree of employment leakage would occur with the assessed labour market Study Areas. The use of this assumption is supported by the high reliance upon short term accommodation for workers during the construction phase of RRRF: 6,000 nightly hotel bookings were made and approximately 230,000 nights of accommodation for other construction workers were required.</p> <p>Whilst 33% of construction labour is expected to be sourced from within the Wider region Study Area, the presence of good transport links (as detailed in <b>Chapter 6</b>) means that firms appointed by the Applicant to undertake construction work may not necessarily be based within the Local area or wider area (30 and 45-minute drive times from the REP site respectively). This means that employment leakage within the Local and Wider area is expected to be higher than across the Wider region.</p>
Deadweight	40%	40%	40%	<p>It is likely that a substantial amount of the total construction employment supported by the Proposed Development would, in its absence, be supported by other projects in any case. This would be due to the expected high degree of employment leakage and the strength, scale and size of the construction sector in London, the buoyancy of London’s construction pipeline and the need for substantial infrastructure investment across the capital (including energy and waste infrastructure to meet UK Government and London targets). The likely deadweight effect would apply across all Study Areas. Section 14.10 (cumulative assessment) provides further details regarding other construction projects which are expected to take place within the 3km of the REP site and other 50MW+</p>

Riverside Energy Park: Environmental Statement (ES)  
Chapter 14 – Socio-economics

Additionality Factor	Local Area	Wider Area	Wider Region	Rationale
				thermal energy generation construction projects also expected within the Wider region Study Area (60-minute drive time from the REP site) over the same construction programme as the Proposed Development.
Displacement	2%	2%	3%	The high level of expected employment leakage from the assessed Study Areas means that the displacement of economic activity and thus employment within these is expected to be low, even taking account of relevant cumulative developments (see Section 14.10) where their construction period is likely to overlap with the construction of REP.
Multiplier <sup>12</sup>	1.17	1.21	1.28	The Construction Type II Multiplier from the latest available English Input-Output Tables (2014) has been applied, adjusted in line with the above leakage assumptions.

<sup>12</sup> All multipliers have been rounded to 2 decimal places for reporting purposes.

14.9.6 On the basis of these additionality assumptions, over the c. 3.6-year construction programme the 837 temporary construction jobs created by the Proposed Development (gross) are expected to support approximately<sup>13</sup>:

- 115 net additional jobs in the Local Area, 98 of which would be directly associated with the construction of the Proposed Development (as opposed to Wider supply chain effects);
- 149 net additional jobs in the Wider Area, 123 of which would be directly associated with the construction of the Proposed Development; and,
- 206 net additional jobs in the Wider Region (the principal labour market Study Area, 60-minute drive time from the REP site), 161 of which would be directly associated with the construction of the Proposed Development.

14.9.7 In accordance with the criteria detailed in **Table 14.4**, construction employment associated with the Proposed Development would represent a Medium Beneficial magnitude of change on the labour market (a Low sensitivity receptor) across each assessed Study Area. In accordance with **Table 14.5** this would result in **Slight/Moderate** Beneficial short term employment effects within the assessed Study Areas.

#### Effects on Key Business Sectors - Construction

14.9.8 Taking account of the expected high degree of employment leakage and the size and scale of the construction sector within the Wider region Study Area (60-minute drive time from the REP), the scale of construction requirements for the Proposed Development and the relatively long construction programme (3.6 years), only a low magnitude of temporary construction displacement<sup>14</sup> is expected. From an analytical perspective this would be countered by deadweight from other construction projects which would still take place and thus support the construction sector regardless of the Proposed Development.

14.9.9 On balance, the Proposed Development is considered to represent a Low Beneficial magnitude of change on the construction sector (a Low sensitivity receptor), resulting in a **Slight Beneficial** short term effect over the expected 3.6-year construction programme.

#### Effects on Community Infrastructure and Accommodation

14.9.10 The temporary nature of the construction phase and the varying requirement for specific skills at different times throughout the construction period means it is unlikely any construction workers would permanently re-locate within the Local area as a result of the construction of the Proposed Development. This means that only a Negligible Adverse magnitude of change is expected in terms of

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<sup>13</sup> All employment figures rounded to the nearest integer.

<sup>14</sup> Construction displacement would mean that firms engaged on the construction of the Proposed Development forgo or reduce their ability to undertake other construction work during the construction period due to having limited resources (labour, equipment, etc.).

increased demand for school places and increased pressure on other community infrastructure during the construction phase of the Proposed Development. In accordance with the criteria detailed in **Table 14.5**, worst case impacts on existing community infrastructure (a Low sensitivity receptor) are therefore predicted to represent a **Negligible** Adverse short term effect.

- 14.9.11 Experience from RRRF suggests that construction workers and specialist contractors located outside the principal Wider region Study Area (60-minute drive time from the REP site) would be very likely to stay in local hotels and B&Bs during the working week. Whilst it is acknowledged that the construction requirements of the Proposed Development and the previous construction of the RRRF are not identical, it is relevant to note that over the construction period of RRRF (July 2008 – October 2011), 6,000 nights of hotel bookings were made for management and engineering contractors and approximately 230,000 nights of local accommodation (hotels, B&Bs or other lodgings) were required for temporary construction workers. The construction of the Proposed Development would give rise to similar accommodation requirements, resulting in a **Slight/Moderate Beneficial** short term effect in terms of increased bookings with accommodation providers within the Local area Study Area.

### Operation

- 14.9.12 Based on the Applicant's current operational staff requirements at the adjacent RRRF and taking account of the design characteristics of the Proposed Development, approximately 75 full time equivalent (FTE) workers are likely to be required on-site to operate the Proposed Development. This comprises:
- Operations (waste processing and energy generation): 15 FTE;
  - Jetty and site operations: 49 FTE;
  - Engineers: 1 FTE;
  - Technicians / Fitters: 8 FTE;
  - Stores: 1 FTE; and
  - Finance and administration: 1 FTE.
- 14.9.13 For the avoidance of doubt, the operational employment of 75 FTE workers is considered to be the minimum required for safe and efficient operation of the Proposed Development and is used in this assessment on a reasonable worst case basis. This does not include any existing employees within the adjacent RRRF who may undertake 'shared-service' duties for both facilities (e.g. cleaning, IT, contracts management, human resources, etc.), meaning that operational employment associated with the Proposed Development may actually exceed 75 FTE workers. It should also be noted that periodic inspections by visiting staff and periodic maintenance by specialist contractors would be necessary.

14.9.14 As with construction phase employment, only a proportion of gross operational phase employment can be attributed to the Proposed Development owing to displacement, leakage and deadweight factors, whilst indirect and induced employment would also be generated through supply chain effects. To take account of these factors, the additionality assumptions detailed in **Table 14.16: Operational Employment Additionality Assumptions** below have been used to convert the predicted gross direct operational employment from the Proposed Development into overall net operational phase employment across the Local area, Wider area and Wider region Study Areas. These additionality assumptions have been reviewed and revised since the publication of the REP PEIR to take account of further analysis which has been undertaken to inform the consideration of baseline evolution (refer to the end of Section 14.7) and likely cumulative effects (Section 14.10).

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Table 14.16: Operational Employment Additionality Assumptions

Additionality Factor	Local Area	Wider Area	Wider Region	Rationale
Leakage	40%	30%	10%	The majority of staff would be sourced from and are expected to reside within the Wider region, and would be specifically trained for REP. Additionally, the Applicant has a strong preference to recruit locally where possible and a similar approach will be followed for the Proposed Development. This means that employment leakage decreases with distance but would not be zero at the Wider region level.
Deadweight	40%	40%	40%	Reflective of the need for substantial infrastructure investment across the capital (including similar energy and waste infrastructure to meet UK Government and London targets and to reduce the exportation of residual waste), it is likely that a substantial amount of the operational employment supported by the Proposed Development would, in its absence, be supported by other similar projects in any case. This would be the case for employment generated across all of the assessed Study Areas. Section 14.10 provides further details regarding other 50MW+ thermal energy generation construction projects also expected to be operational within the Wider region Study Area (60-minute drive time from the REP site).
Displacement	2%	2%	3%	Owing to the need for increased residual waste management infrastructure capacity within London (to reduce current dependencies upon the exportation of waste for landfilling and thermal treatment elsewhere), the introduction of the Proposed Development is not expected to result in substantial displacement of economic activity within the waste management sector, meaning that employment displacement is also expected to remain low. With regards to the energy generation sector, a small proportion of highly skilled senior staff (e.g. process engineers) may be displaced from similar employment elsewhere.  The majority of staff will be sourced from within the Wider region and be specifically trained for REP, although the Applicant has a strong preference to

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				recruit locally where possible and a similar approach will be followed for the Proposed Development. This means that potential displacement may be higher in percentage terms in the Local area than across the Wider region.
Multiplier <sup>15</sup>	1.83	1.97	2.25	The Energy Type II Multiplier from latest available English Input-Output Tables (2014) has been applied, adjusted in line with the above leakage assumptions.

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<sup>15</sup> All multipliers have been rounded to 2 decimal places for reporting purposes.

14.9.15 On the basis of these additionality assumptions, the 75 FTE permanent operational phase jobs created by the Proposed Development (gross) are expected to support approximately:

- 49 net additional jobs in the Local Area, 26 of which would be directly associated with the operation of the Proposed Development (as opposed to wider supply chain effects);
- 61 net additional jobs in the Wider Area, 31 of which would be directly associated with the operation of the Proposed Development; and,
- 88 net additional jobs in the Wider Region (the principal labour market Study Area, 60-minute drive time from the REP site), 39 of which would be directly associated with the operation of the Proposed Development.

14.9.16 In accordance with the criteria detailed in **Table 14.4**, operational employment associated with the Proposed Development would represent a Low Beneficial magnitude of change on the labour market (a Low sensitivity receptor) within the Local area Study Area and a Medium Beneficial magnitude of change within the Wider area and Wider region Study Areas. In accordance with **Table 14.5** this would result in:

- A **Slight Beneficial** long term employment effect within the Local area Study Area; and,
- A **Slight/Moderate Beneficial** short term employment effect within the Wider area and Wider region Study Areas.

#### Effects on Key Business Sectors – Waste Management and Energy Generation

14.9.17 As detailed within Annex A of **The Project and its Benefits Report (Document Reference 7.2)** and the **Planning Statement (Document Reference 7.1)**, there is a demonstrated need for new residual waste management infrastructure capacity within London. Increased capacity is needed to allow London to become self-sufficient in waste management by 2026 (in accordance with the adopted and draft London Plans) and therefore to reduce the current reliance on the exportation of residual waste for landfilling and thermal treatment elsewhere.

14.9.18 The Proposed Development would represent a new entrant and thus provide increased capacity and employment within the residual waste treatment subsector of the wider waste management sector (a Medium Sensitivity Receptor). Taking account of potential displacement and deadweight effects, the operational phase of the Proposed Development is predicted to generate 49 FTE net additional direct jobs<sup>16</sup>, which is expected to contribute approximately £7.2 million GVA<sup>17</sup> to the wider economy. However, as the Proposed

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<sup>16</sup> 75 FTE gross direct operational jobs

<sup>17</sup> 39 FTE net additional direct employees x £184,104 GVA per waste management sector (excluding waste collection) employees

Development focusses on the treatment of residual waste it would not result in any direct effects (beneficial or adverse) on the recycling or materials re-use subsectors within the overall waste management sector.

- 14.9.19 As the Proposed Development would help London to become self-sufficient in its waste management and contribute net additional GVA across the Wider region Study Area, its introduction is considered to represent a Medium Beneficial magnitude of change on the waste management sector, resulting in a **Moderate Beneficial** sectoral effect. Further consideration of the need for the Proposed Development and its contribution to the waste management sector is provided within **The Projects and its Benefits Report (Document Reference 7.2)** submitted in support of the DCO Application.
- 14.9.20 The introduction of the Proposed Development would also contribute to the growth of the low carbon energy generation sector across the Wider region through increasing capacity in anaerobic digestion and solar photovoltaic technologies. This aligns with the priority afforded to low carbon energy generation within the London Environment Strategy (2018) and the draft London Economic Strategy (2017), although as an individual renewable energy generating development, only a **Slight Beneficial** sectoral effect would occur.

#### Community Infrastructure

- 14.9.21 As noted in **Table 14.16** above, the majority of operational workers are likely to reside within the Wider region Study Area and the Applicant has a preference to recruit locally wherever possible. Existing public transport networks in the area, outlined in **Chapter 6**, would allow workers to travel from within all of the assessed Study Areas to the REP site without the need to relocate.
- 14.9.22 In the event that operational workers decide to relocate from the Wider region to the Local area for reasons of convenience, the overview of community infrastructure assets within 3km of the REP site provided in Section 14.7 demonstrates that there is existing capacity available to meet the needs of such workers, including in respect of school places for dependent children. Owing to the relatively small number of operational jobs created by the Proposed Development and the presence of existing transport links across the Wider region, any in-migration to the Local area is expected to be minimal, resulting in a Negligible Adverse magnitude of change on Local community infrastructure assets (considered to have Low sensitivity). A **Negligible** Adverse effect on community infrastructure provision within 3km of the REP site is therefore predicted.

### **The Electrical Connection and the Cable Route Temporary Construction Compounds**

#### **Construction/Decommissioning**

- 14.9.23 The construction period for the Electrical Connection is expected to last approximately 24 months and support 13 temporary jobs. In practice, this low

level of temporary employment would support existing workers within electricity distribution contractors rather than lead to the creation of new jobs, and on this basis it is not considered appropriate to define additionality assumptions and calculate net additional jobs. Taking account of the Low sensitivity of the labour market, the 13 temporary jobs required to construct the electrical connection and associated temporary construction compounds would result in, at most, a **Slight** Beneficial temporary employment effect across the assessed Study Areas.

14.9.24 At the end of its operational life, it is currently anticipated that whilst cables may be disconnected and removed, the ducting for the Electrical Connection will be left in situ, such that there will be minimal decommissioning works for this component of the Proposed Development and therefore no associated employment effects.

### Operation

14.9.25 The maintenance requirements for the Electrical Connection would be minimal and would be undertaken by existing UKPN staff and contractors as part of existing duties. In consequence, no operational employment effects are predicted in relation to the Electrical Connection component of the Proposed Development.

## 14.10 Cumulative Assessment

### Construction

14.10.1 A review of relevant cumulative developments outside the Application Site (see **Appendix A.4** and **Chapter 4**) indicates that the construction of the following schemes is expected to overlap with the construction phase of the Proposed Development (anticipated 3.6-year construction period):

- General construction schemes within 3km of the REP site (i.e. within the community infrastructure Study Area and all assessed labour market Study Areas): 84 developments identified, encompassing a wide range of development sectors. This includes industrial (predominantly light) and commercial development, residential development, new community infrastructure facilities, demolition of existing buildings and transport infrastructure upgrades; and,
- Specialist major thermal energy generation schemes (50MW+) within 60-minute drive time of the REP site (i.e. within the Wider region labour market Study Area): 4 developments identified, namely:
  - Kemsley Paper Mill (K4) CHP Plant (ID366): 68 – 73MW gas fired CHP proposal. Presently subject to DCO Examination;
  - Tilbury Energy Centre (ID367): 2.5GW gas Combined Cycle Gas Turbine (CCGT). Subject of an EIA Scoping Opinion only;

- North London Heat and Power Project (ID368): 70 – 78MW ERF. DCO granted February 2018; and,
- Wheelabrator Kemsley Generating Station (Upgrade) (ID369): proposed upgrade of consented (2012) 49MWe ERF to allow generation up to 75MWe. Subject of an EIA Scoping Opinion only.

14.10.2 The construction of these cumulative developments in combination with the Proposed Development has the potential to give rise to cumulative labour market effects, and associated effects on accommodation and community infrastructure. However, potential deadweight effects and the displacement of construction activity has already been accounted for in the assessment of both construction phase employment (refer to **Table 14.17**) and sectoral effects provided in Section 14.9.

14.10.3 The likely absence of substantial displacement effects and associated labour market distortions is also evidenced by **Table 14.17** below, which indicates that the labour force required for the construction of the Proposed Development (1,397 temporary workers) would account for just 2.13% of the existing employed construction workforce within the Local area (30-minute drive time from the REP site) and even less across the Wider area and Wider region Study Areas. Taking account of the expected high employment leakage outwith the Wider region Study Area (see **Table 14.15**), such that only 164 direct construction jobs are expected to be sourced from within the Local area out of the 837 required, no additional or different construction phase effects are therefore predicted beyond those already identified in Section 14.9.

Table 14.17: Construction Phase Labour Market Absorption Capacity

	Local Area	Wider Area	Wider Region
<b>No. of workers</b>			
Economically Active	825,909	2,714,815	4,842,498
Economically active: Unemployed	66,513	205,301	335,428
Construction	65,624	200,924	333,940
Electricity & gas	2,899	8,100	14,184
<b>Peak Construction Workers (1,397) as % of:</b>			
Economically Active	0.17%	0.05%	0.03%
Economically active: Unemployed	2.10%	0.68%	0.42%
Construction	2.13%	0.70%	0.42%

## Operation

14.10.4 A review of relevant cumulative developments outside the Application Site indicates that the operation of the following schemes is expected to overlap with the operational phase of the Proposed Development:

- General construction schemes within 3km of the REP site (i.e. within the community infrastructure Study Area and all assessed labour market Study Areas): 77 developments identified, encompassing a wide range of development sectors. Employment generating developments include industrial (predominantly light) and commercial developments; and,
- Specialist major thermal energy generation schemes (50MW+) within 60-minute drive time of the REP site (i.e. within the Wider region labour market Study Area): 4 developments identified, namely:
  - Kemsley Paper Mill (K4) CHP Plant;
  - Tilbury Energy Centre;
  - North London Heat and Power Project; and,
  - Wheelabrator Kemsley Generating Station (Upgrade).

14.10.5 The operation of these cumulative developments in combination with the Proposed Development has the potential to give rise to cumulative labour market effects. However, potential deadweight effects and the displacement of economic activity and employment has already been accounted for in the assessment of both operational phase employment (refer to **Table 14.16**) and sectoral effects provided in Section 14.9.

14.10.6 The likely absence of substantial displacement effects and associated labour market distortions is also evidenced by **Table 14.18** below. This indicates that the labour force required for the operation of the Proposed Development (75 FTE workers) would account for less than 3% of existing electricity and gas workers and less than 1% of the working age, economically active labour force within the Local area, even less across the Wider area and Wider region Study Areas. No additional or different operational phase effects are therefore predicted beyond those already identified in Section 14.9.

Table 14.18: Operational Phase Labour Market Absorption Capacity

	Local Area	Wider Area	Wider Region
<b>No. of workers</b>			
Economically Active	825,909	2,714,815	4,842,498
Economically active: Unemployed	66,513	205,301	335,428

	Local Area	Wider Area	Wider Region
Electricity & Gas	2,899	8,100	14,184
<b>Operational Workers (75 FTE) as % of:</b>			
Economically Active	0.01%	0.00%	0.00%
Economically active: Unemployed	0.11%	0.04%	0.02%
Electricity & Gas	2.59%	0.00%	0.00%

14.10.7 REP has been designed to be CHP enabled, meaning that there is the ability to supply heat generated from the thermal treatment process to a local heat network. It is acknowledged that any future supply of heat (e.g. to district heat network scheme for a local residential area) could result in impacts to the local environment (e.g. excavation for a network of pipelines). However, given the nature of any such scheme (likely to consist mainly of a network of buried pipes) any impacts would be limited to their temporary construction phase which is unlikely to overlap with construction of REP. Given that the network would most likely serve the local Thamesmead/Peabody area, impacts would likely be restricted to existing brownfield urbanised land (e.g. burying pipes in roads). Such temporary impacts from works outside the REP site would be subject to a separate consenting process, which is anticipated to be bound by a Code of Construction Practice or similar best practice working methods. It is therefore considered highly unlikely that there would be any likelihood of significant cumulative effects.

### 14.11 Further Mitigation and Enhancement

14.11.1 The pre-mitigation assessment provided in Sections 14.9 – 14.10 above indicates that, taking account of embedded mitigation, no significant adverse socio-economic effects are considered likely from the construction or operation of the Proposed Development. No further mitigation measures are therefore considered to be required. Nevertheless, to maximise the Local socio-economic benefits of the Proposed Development, the Applicant is committed to the following enhancement measures:

- Construction phase - exploring the possibility of making a number of bookings with specific local accommodation providers who have capacity to accommodate construction workers; and,
- Construction and operational phases - the Applicant has a strong preference to recruit locally wherever possible and a similar approach will be followed for the Proposed Development.

14.11.2 These enhancement measures are considered to solidify the likely beneficial socio-economic effects already identified in Section 14.9 rather than to result in new or different effects.

## **14.12 Residual Effects and Monitoring**

### **Summary of Residual Effects**

14.12.1 Taking account of all proposed mitigation and enhancement measures, the likely residual effects from the construction and operation of the Proposed Development are identified in **Table 14.19** below. For the avoidance of doubt, the level of all likely effects remains unchanged from that detailed in Section 14.9.

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Table 14.19 Summary of Likely Residual Effects

	Receptor name and description	Mitigation	Assessment of Residual Effect
<b>REP</b>			
Construction	Labour Market Net Additional Employment (all Study Areas) – Construction at the REP Site and Main Compounds	None identified	<b>Slight/Moderate Beneficial</b>
	Key Business Sector: Construction - New Economic Activity	None identified	<b>Slight Beneficial</b>
	Community Infrastructure - Increased Demand for Community Infrastructure	None identified	<b>Negligible Adverse</b>
	Local Accommodation Providers	None identified	<b>Slight/Moderate Beneficial</b>
Operation	Labour Market Net Additional Operational Employment within Local area Study Area	None identified	<b>Slight Beneficial</b>
	Labour Market Net Additional Operational Employment within Wider area and Wider region Study Areas	None identified	<b>Slight/Moderate Beneficial</b>

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	<b>Receptor name and description</b>	<b>Mitigation</b>	<b>Assessment of Residual Effect</b>
	Community Infrastructure - Increased Demand for Community Infrastructure	None identified	<b>Negligible Adverse</b>
	Key Business Sector – Waste Management	None identified	<b>Moderate Beneficial</b>
	Key Business Sector – Energy Generation	None identified	<b>Slight Beneficial</b>

## Monitoring

14.12.2 In the absence of any likely significant adverse socio-economic effects from the construction and operation of the Proposed Development, no monitoring of likely socio-economic effects is considered to be proportionate or to be required.

### 14.13 Summary and Conclusion

14.13.1 This Chapter identifies and assesses the likely significant socio-economic effects resulting from the construction and operation of REP.

14.13.2 Taking account of relevant additionality factors, the assessment examines likely effects from the Proposed Development on employment, key business sectors, accommodation and community infrastructure provision. The assessment examines likely socio-economic effects within labour market Study Areas covering 30, 45 and 60-minute drive times from the REP site, likely effects on accommodation providers within 30-minutes of the REP site (the Local area Study Area), and likely effects on community infrastructure provision within 3km of the REP site.

14.13.3 In terms of employment effects, the assessment concludes that the Proposed Development is likely to:

- Require 837 temporary construction workers, resulting in increased bookings of short term accommodation throughout the 3.6-year anticipated construction programme.
- Support 206 net additional temporary jobs in the Wider region, 149 net additional temporary jobs in the Wider area and 115 net additional temporary jobs in the Local area Study Areas over the anticipated 3.6-year construction programme.
- Generate at least 75 FTE permanent jobs directly through the safe and efficient operation of the Proposed Development;
- Support 88 net additional FTE permanent jobs in the Wider region, 61 net additional FTE permanent jobs in the Wider area and 49 permanent net additional FTE jobs in the Local area Study Areas;
- Support the continued growth of investment, economic activity and employment within each of the identified key business sectors, namely construction, waste management and energy generation. Direct temporary construction employment would contribute approximately £93.3 million GVA to the economy and net additional direct operational employment would contribute approximately £7.2m GVA to the economy; and,
- Result in only minimal adverse effects on community infrastructure provision within the assessed Study Area (3km of the REP site).

14.13.4 Taking account of the sensitivity of identified receptors and the magnitude of predicted socio-economic changes, the assessment concludes that the construction and operation of the Proposed Development is likely to result in multiple beneficial socio-economic effects. The adverse effects predicted are **Negligible**. The only likely socio-economic effect which would be significant in the context of the EIA Regulations is the predicted **Moderate** Beneficial long term effect on the waste management sector.

#### 14.14 References

- Dartford Borough Council. (2011) Dartford Borough Council Core Strategy.
- Dartford Borough Council. (2017) Dartford Development Policies Plan Document.
- Dartford Borough Council. (2018) Draft Dartford Borough Council Local Plan: Strategic Issues Consultation.
- Department for Education, HM Government. (2018) Get Information about Schools, <https://www.get-information-schools.service.gov.uk/> [accessed 1<sup>st</sup> May 2018]
- Department for Environment, Food and Rural Affairs, HM Government. (2013) Waste Management Plan for England.
- Department of Communities and Local Government, HM Government. (2014) National Planning Policy for Waste.
- Department of Energy and Climate Change, HM Government. (2011) Overarching National Policy Statement for Energy (EN-1).
- Department of Energy and Climate Change, HM Government. (2011) National Policy Statement for Renewable Energy Infrastructure (EN-3).
- Greater London Authority. (2011) London's Wasted Resource – The Mayor's Municipal Waste Management Strategy.
- Greater London Authority. (2016) The Current London Plan.
- Greater London Authority. (2017) The Mayor's Economic Development Strategy for London – Draft for Consultation.
- Greater London Authority. (2018). The New Draft London Plan – Minor Suggested Changes.
- Greater London Authority. (2018) The London Environment Strategy.
- HM Treasury, HM Government. (2018) The Green Book: Appraisal and Evaluation in Central Government.

Homes and Communities Agency, HM Government. (2014) Additionality Guide – Fourth Edition.

Kent County Council. (2016) Kent Minerals and Waste Local Plan 2013-2030

London Borough of Bexley. (2012) Bexley Unitary Development Plan 2004 – Saved Policies.

London Borough of Bexley. (2012) Bexley Core Strategy.

London Borough of Bexley. (2017) Bexley Growth Strategy.

Ministry of Housing, Communities and Local Government, HM Government. (2018) National Planning Policy Framework (NPPF) 2018.

NHS Choices. Services near you (2018) <https://www.nhs.uk/service-search> [accessed 1st August 2018].