

# Rampion 2 Wind Farm

## Category 6:

## Environmental Statement

### Volume 4, Appendix 17.1: Socio- economics method statement

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# 1. Introduction

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- 1.1.1 This Method Statement outlines the methodology used to assess the Socio-economic impacts of the proposed Rampion 2 project. The primary purpose of the document was to share the proposed approach with the Rampion 2 Expert Topic Group (ETG), as part of the Evidence Plan Process (EPP). The purpose of this was to discuss and agree on the final methodology used for the impact assessment in the frame of development of the Environmental Statement (ES) assessment for Rampion 2. The document has been subsequently updated as part of the preparation of the ES.
- 1.1.2 This Method Statement presents the methodology for the assessment of the socio-economic impacts generated by the proposed Rampion 2. The assessment method fed into the socio-economic chapter which is included in the final ES submitted as part of the Development Consent Order (DCO) Application.
- 1.1.3 The assessment of the potential effects of the construction, operation and decommissioning of Rampion 2 upon the Sussex economy (including the impact on tourism) considers the following aspects:
- the impacts and potential socio-economic benefits associated supply chain capture and local expenditure by local businesses;
  - the impacts of the proposed wind farm that would be constructed off, and visible from the shoreline of popular day and overnight visitor destinations; and
  - the impacts of the construction of the wind turbine generators (WTGs) and associated infrastructure, laying of the export cables (for instance, both onshore and offshore cables), and construction of the onshore substation. Construction and installation has the potential to temporarily reduce access to and enjoyment of local recreational and tourism assets.



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## 2. Proposed approach to assessment

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### 2.1 Scope of assessment

#### Receptors

- 2.1.1 The Scoping Report (Rampion Extension Development Limited (RED), 2020) identified a number of socio-economic, tourism and recreation receptors for the assessment to consider. These are outlined in **Table 2-1** below, along with the phases of the Proposed Development against which these will be assessed, and the level of detail and rationale to be adopted in the assessment.

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**Table 2-1 Summary of socio-economic receptors identified in Scoping Report**

Receptor	Construction	Operation and maintenance	Decommissioning	Level of detail and rationale
<b>Socio-Economic Receptors</b>				
<b>Economy – Employment</b>	✓	✓	✓	<p><b>Detailed assessment at construction and operation and maintenance phases.</b></p> <p>1) Impacts can be quantified and relatively accurately estimated.</p> <p>2) Will cover both direct and indirect economic effects but excludes induced effects.</p> <p><b>Simple assessment at decommissioning phase</b> as less information is available.</p>
<b>Economy – Gross Value Added (GVA)</b>	✓	✓	✓	<p><b>Detailed assessment at construction and operation and maintenance phases.</b></p> <p>1) Impacts can be quantified and relatively accurately estimated.</p> <p>2) Will cover both direct and indirect economic effects but excludes induced effects.</p> <p><b>Simple assessment at decommissioning phase</b> as less information is available.</p>
<b>Change in demographics</b>	x	x	x	<b>Scoped out - see paragraph 2.1.2</b>
<b>Demand for housing,</b>	x	x	x	<b>Scoped out - see paragraph 2.1.2</b>

Receptor	Construction	Operation and maintenance	Decommissioning	Level of detail and rationale
<b>accommodation and local services</b>				
<b>Recreation and Tourism Receptors</b>				
<b>Onshore recreation activity</b>	✓	✓	✓	<p><b>Detailed assessment at construction and operation and maintenance phases.</b></p> <ol style="list-style-type: none"> <li>1) Analysis will draw on published research.</li> <li>2) The research tends to focus on offshore infrastructure, rather than onshore transmission and grid connection.</li> <li>3) Analysis will draw on available, relevant data-sources. Where user data is not available, an indirect (for instance, inferred) approach will be adopted.</li> </ol> <p><b>Simple assessment at decommissioning phase</b> as less information is available.</p>
<b>Tourism economy</b>	✓	✓	✓	<p><b>Detailed assessment at construction phase. Simple assessment at operation and maintenance, and decommissioning phases.</b></p> <ol style="list-style-type: none"> <li>1) Whilst the scale of the tourism economy can be easily quantified (in terms of employment and economic output), the impact of construction, operation and maintenance and decommissioning is difficult to quantify.</li> </ol>

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Receptor	Construction	Operation and maintenance	Decommissioning	Level of detail and rationale
				<p>2) In particular disruption to marine and coastal tourism activities, restricted access to local beaches and other tourism attractions, and changes in perceptions of the attractiveness of the area to visitors will be considered.</p> <p>3) Analysis will draw on research assessing the impact of offshore and onshore windfarms on the tourism economy, and information collection from local public sector bodies and relevant agencies. A qualitative approach to the assessment will be used.</p>

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- 2.1.2 In the Scoping Opinion, the Planning Inspectorate (PINS) considered potential impacts of construction, operation and maintenance, and decommissioning activity on changes to population structure as a result of increased demand for labour and the subsequent demand for housing accommodation and local infrastructure. The Scoping Report stated that the impacts were likely to be negligible and any effects would be spread wider than the immediate study area. As such, the PINS agreed that both these matters could be **scoped out** from the EIA as significant effects are unlikely to occur.
- 2.1.3 With regards to inshore recreation during the operation and maintenance phase, the PINS agreed that significant effects are unlikely, and that the ES will assess operational effects in terms of offshore recreation. However, the PINS argues that without fully understanding the extent of the inshore area as defined in the context of the socio-economic assessment, inshore recreation during the operation and maintenance phase should be included within the assessment. Effects on offshore recreation marine users are assessed within **Chapter 7: Other marine users, Volume 2** of the ES (Document Reference: 6.2.7).

## Study impact area

- 2.1.4 The selection of study impact area(s) for the socio-economic, tourism and recreation impact analysis needs to take account of the spatial scale at which impacts upon different receptors are likely to materialise. An overview of the receptors and impact areas is presented below.
- 2.1.5 The assessment captures the socio-economic impact of Rampion 2 at two key (geographical) areas as follows:
- United Kingdom (UK) – defined the countries of England, Scotland, Wales and Northern Ireland; and
  - Sussex – defined as the combined and contiguous geography consisting of East Sussex, West Sussex and the Brighton and Hove Unitary Authority area.

**Table 2-2 Summary of receptors and study areas used**

<b>Receptor</b>	<b>Study area</b>	<b>Justification</b>
<b>Economy – Employment</b>	Sussex and UK	Given the relatively specialist nature of the project supply chain, local expenditure is likely to be limited. However, total expenditure is likely to be spread widely and therefore is best captured at the county-level and/ or above.
<b>Economy – GVA</b>	Sussex and UK	<p>Given the relatively specialist nature of the project supply chain expenditure is likely to be spread widely and is best captured at the county (or in this case, multiple county) level.</p> <p>Local Labour market catchments for both construction, operation and maintenance and decommissioning activity generally extend over a 90-minute drive time and align with functional geographies, roughly defined as Sussex.</p>
<b>Tourism economy</b>	Sussex	Impact of development on tourism is likely to be concentrated in close proximity of locations of construction/ operation and maintenance port and along onshore cable corridor (divided into sections) with a zone of influence generally set at 500 metres (m) from the onshore cable corridor. However, for the purposes of this assessment, the impact on the tourism economy takes into consideration the wider Sussex area, which in addition to the onshore cable corridor also includes coastal communities and the South Downs National Park (SDNP).
<b>Onshore recreation</b>	Cable corridor (divided into relevant sections)	The impact of onshore cable and substation construction activity on tourism and recreation activity will be focussed along the proposed onshore cable corridor, with a zone of influence generally set at 500m from the onshore temporary cable corridor. Sensitivity of the receptor will vary depending on location and level of activity required during the construction, operation and maintenance and decommissioning phases.

## 3. Baseline

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3.1.1 The assessment of economic impacts for Rampion 2 is an assessment of ‘base-case scenario’ economic impacts – in line with the approach for all parameters set in the Environmental Impact Assessment (EIA) Methodology. The assessment provides an indication of base-case expectations with regards to economic benefits and worse case assumptions on dis-benefits. The baseline analysis explores a range of socio-economic indicators to paint a full picture of the socio-economic characteristics of the impact area(s) identified, and the factors which drive and explain them. The baseline data review covers the full range of demographic, economic, employment and sector datasets, and sets out the following:

- size and structure of the population and key demographic trends;
- nature of the labour market (including the size of the working age population, levels of economic activity and employment, and the nature of capacity that exists within the labour market);
- current level of, and recent trends in employment and GVA creation (in terms of total GVA, GVA per head and GVA per worker, and the factors which explain this);
- size and sectoral structure of the employment and business base;
- earnings associated with the current employment base, focussing on sectors relevant to construction and operation and maintenance activity, as well as the tourism economy;
- skills and occupations background of the study area’s workforce; and
- onshore informal recreation facilities.

**Table 3-1 Baseline indicators**

<b>Indicator</b>	<b>Source</b>	<b>Timeframe coverage of data</b>	<b>Summary</b>	<b>Coverage of Study Area</b>
<b>GVA</b>	Sub-national GVA	1998 to 2020	Current position and trends in the following for relevant study areas:  1) total GVA; 2) GVA in sectors of interest; 3) GVA per head; and GVA per worker.	Local authority boundaries (including full coverage of Sussex).
<b>Employment &amp; Industry breakdown</b>	Business Register and Employment Survey (BRES)	2009 to 2015 and 2015 to 2021	Current position and long-term trends in:  1) total employment (including full-time equivalent (FTE) employees); 2) sectoral mix; and 3) employment in relevant sectors: (i) energy sector, (ii) construction and manufacturing sectors relevant to offshore wind, (iii) tourism, (iv) ports and maritime activity, and (v) recreation activity.	Local authority boundaries (including full coverage of Sussex).
<b>Population</b>	Population Estimates	2001 to 2020	Tracks population position at a national to local authority level and compares population growth to ten years ago.	Local authority boundaries (including full coverage of Sussex).
<b>Population</b>	Sub-National Population Projections	2018 to 2041	Projected total and working age population.	Local authority boundaries (including full coverage of Sussex).



<b>Indicator</b>	<b>Source</b>	<b>Timeframe coverage of data</b>	<b>Summary</b>	<b>Coverage of Study Area</b>
<b>Economic activity, Employment rate &amp; unemployment</b>	Annual Population Survey	2004 to 2022	Current position and long-term trends in: 1) the local labour market including (i) economic activity, (ii) employment, and (iii) unemployment; 2) qualifications; and 3) occupations.	Local authority boundaries (including full coverage of Sussex).
<b>Tourist visitor numbers</b>	Local / regional tourism surveys	Latest available (referenced in ES)	Annual estimates of volume and value of tourism activity (day visitors and staying visitors); accommodation occupancy surveys.	Brighton & Hove and Sussex
<b>Economic activity – Tourism</b>	Economic Impact of Tourism	Latest available (referenced in ES)	Volume and value of tourism economy and the impact of visitor expenditure on the local economy	Brighton & Hove and Sussex
<b>Onshore Recreational Assets</b>	Ordnance Survey (OS) Explorer maps OL10 and OL11	May 2020	Identifies recreational assets onshore	Onshore DCO boundary study area
<b>Onshore Recreational Assets</b>	MAGIC – Multi-agency Geographic Information for the Countryside	May 2020	Used to identify the full suite of formally defined access and recreation assets, ranging from Access Land to Millennium Greens	Onshore DCO boundary study area
<b>Onshore Recreational Assets</b>	Google Earth	May 2020	A basic understanding of the recreation geography and identify any assets not recorded on the OS sheets or MAGIC.	Onshore DCO boundary study area

<b>Indicator</b>	<b>Source</b>	<b>Timeframe coverage of data</b>	<b>Summary</b>	<b>Coverage of Study Area</b>
<b>Onshore Recreational Assets involving rivers</b>	On-line searches onshore	May 2020	Used to identify recreational pursuits involving the Rivers Arun and Adur. Both rivers are used for swimming events and angling. Both are tidal into the study area and small boats, especially canoes, kayaks and SUP use both rivers.	River Arun from Littlehampton to Arundel.  River Adur from Steyning to Henfield.
<b>Inshore Recreational Assets</b>	On-line searches inshore	May 2020	Used to identify recreational pursuits in the vicinity of Climping Beach. While the beach is recognised to be quieter than most on this stretch of coast, it is used regularly by windsurfers and kite surfers. At least one kite surfing school uses the beach for lessons.	Inshore at Climping Beach.
<b>Economic Impact – Tourism</b>	Economic studies	Latest available	Volume and value of tourism economy and the impact of visitor expenditure on the local economy	Brighton & Hove & Sussex
<b>Onshore recreation</b>	WSCC	May 2020	Indication of the significant recreational assets that may be affected	Onshore DCO boundary study area.
<b>Onshore recreation</b>	SDNPA	May 2020	Indication of the significant recreational assets that may be affected, plus list of third-party events known to take place on countryside assets.	Onshore part of the DCO boundary study area through the SDNP – approximately

Indicator	Source	Timeframe coverage of data	Summary	Coverage of Study Area
				33% of total route.
<b>Onshore recreation</b>	WSCC	November 2020	User data for Downs Link	Onshore DCO boundary study area.
<b>Onshore recreation</b>	SDNPA	November 2020	User data for South Downs Way	Onshore DCO boundary study area.
<b>Onshore recreation</b>	Natural England	November 2020	No data available for Climping but data supplied for other coast path sections.	Landfall area only.
<b>Onshore recreation</b>	BEKS Kitesurfing School	November 2020	Data about numbers and frequency of use of Climping beach.	Landfall DCO boundary area only.
<b>Onshore recreation</b>	Aspire	November 2020	Route of annual River Arun swim	River Arun crossing point only.
<b>Onshore recreation</b>	West Sussex Interactive Map	November 2020	Online digital version of the definitive map of public rights of way used to identify PRow in the study area.	Onshore DCO boundary study area.
<b>Onshore recreation</b>	MAGIC	November 2020	Used to identify the full suite of formally defined access and recreation assets, ranging from Access Land to Millennium Greens	Onshore DCO boundary study area.
<b>Onshore recreation</b>	Google Earth	May 2020	A basic understanding of the recreation geography and identify any assets not	Onshore DCO boundary study area.

Indicator	Source	Timeframe coverage of data	Summary	Coverage of Study Area
			recorded on the OS sheets or MAGIC.	
<b>Onshore recreation</b>	On-line searches onshore	November 2020	Used to identify recreational pursuits involving the Rivers Arun and Adur. Both rivers are used for swimming events and angling. Both are tidal into the study area and small boats, especially canoes, kayaks and SUP use both rivers.	River Arun from Littlehampton to Arundel.  River Adur from Steyning to Henfield.
<b>Onshore recreation</b>	On-line searches onshore	November 2020	Used to identify public events taking place on assets within the cable corridor and its zone of influence.	Onshore DCO boundary study area.
<b>Onshore recreation</b>	On-line searches inshore	November 2020	Used to identify recreational pursuits in the vicinity of Climping Beach. While the beach is recognised to be quieter than most on this stretch of coast, it is used regularly by windsurfers and kite surfers. At least one kite surfing school uses the beach for lessons.	Inshore at Climping Beach.

3.1.2 In addition to the data-driven aspect, the baseline analysis also considers the following in order to inform the sensitivity assessment of the receptors:

- relevant local economic and planning policies to identify implications for the socio-economic assessment (in particular the relevant sensitivity of receptors considered);
- published data and research relevant to the offshore wind sector, and its supply chain;

- published data and research about tourism and the visitor economy in Sussex,
- local policies, strategies and/ or other interventions which could enhance socio-economic impacts; and
- an overview of suitable port facilities in the nearby area, drawing on available ports and harbours infrastructure literature and any assessment undertaken by RED.



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## 4. Assessment of impacts

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### 4.1 Modelling economic activity and employment impacts

#### Overview

- 4.1.1 The assessment of economic impacts for Rampion 2 is an assessment of ‘base-case scenario’ economic impacts – in line with the approach for all parameters set in the EIA Methodology. The assessment provides an indication of base-case expectations with regards to economic benefits and worse case assumptions on dis-benefits.
- 4.1.2 The assessment of socio-economic impacts focuses primarily on the GVA and employment impacts of Rampion 2. The following section sets out the key assumptions and the approach to assessing impacts on the receptors.
- 4.1.3 For the key quantitative measures of economic impact (for instance, employment and GVA output) Hatch (the socio-economic consultants) developed an economic impact model to estimate the direct (as well as supply chain/indirect) employment and GVA impacts supported during both construction and operation phases. At this stage, there is very little information about the proposed approach, costs and therefore impacts supported during the decommissioning phase, and as such, this is assessed qualitatively.
- 4.1.4 The assessment excludes the induced impacts generated by all phases, as these are typically affected by greater uncertainty and are more difficult to measure and defend robustly in terms of their scale and additionality.
- 4.1.5 The assessment is based on the assumption that a minimum 50 percent of total lifetime expenditure is retained within the UK, representing a ‘base case’ scenario (for instance, a conservative assessment of the beneficial economic impacts of Rampion 2). The latest offshore wind industry assessment on UK content, published in 2017 reported UK offshore wind farms achieving 48 percent UK content (RenewableUK, 2017), which represents the starting for The Guide to an Offshore Wind Farm (The Crown Estate (TCE), 2019). The offshore wind sector committed to increasing this to 50 percent UK content by 2020. Under the least beneficial approach to socio-economics, it is assumed that UK content achieved for the Rampion 2 remains at 50 percent over the lifetime of the project.
- 4.1.6 It is worth noting that Rampion 2 will be working to achieve higher UK content than the base case used here for the purposes of the EIA. This is in line with target set out in the Offshore Wind Sector Deal struck with Government, which commits the offshore wind sector as a whole to reach 60 percent UK content by 2030.
- 4.1.7 The absolute scale of the economic impacts supported during the construction phase is measured using the following approaches:
- Direct construction employment and GVA – This relates to the economic impacts related to capital spend on design and construction of Rampion 2. In other terms, this relates to the employment and GVA which is associated with

the first round of capital expenditure (i.e., Rampion 2's direct expenditure with prime (i.e., Tier-1) contractors within each impact area identified). The assessment is driven by the level of expenditure on goods and services retained in each area. The additional output in each sector is converted to jobs and GVA using sector-based benchmarks (e.g., from the ONS's Annual Business Survey) appropriate to each impact area.

- ▶ Indirect construction employment and GVA – These impacts take place in supply chains of companies that supply goods and services as part of the supply chains during the construction phase. The assessment uses UK and regional Input-Output tables supplemented by National Accounts data to estimate the amount of output generated across various sectors as a result of input into (or spend in) a particular sector of the economy. The model generates estimates of how direct spend with Tier-1 suppliers leads to indirect outputs further down the supply chain. The output from the model is then converted to full-time equivalent (FTE) jobs and GVA using sector benchmarks.

4.1.1 The absolute scale of the economic impact during the operation and maintenance phase is measured using the same indicators as set out above (i.e., employment and GVA) although the methodology differs slightly:

- Direct operation and maintenance employment and GVA – Jobs and wealth creation directly associated with operation and maintenance activity is defined as the FTE employees directly engaged in activities relating to the management, operation, monitoring and maintenance of Rampion 2. The assessment will be driven by the anticipated number of FTEs and their salaries analysed by type of employment. It is estimated that an offshore wind farm the size of Rampion 2 will require between 40-50 direct FTE posts, allowing for some degree of efficiency across the operation of Rampion 1 and 2.
- ▶ Indirect operation and maintenance employment and GVA – Jobs and GVA associated with supply chain spend during the operation and maintenance phase include second round supply chain impacts. These are measured using UK and regional Input-Output tables, supplemented by National Accounts data to estimate the amount of output generated across various sectors as a result of input into (or spend in) a particular sector of the economy. The model estimates how direct spend with Tier-1 suppliers leads to indirect output further down the supply chain. The output from the model will be converted to jobs and GVA using sector benchmarks.

4.1.8 The output from this quantitative assessment underpins the assessment of the magnitude of impacts on each receptor, which will be determined by the scale and nature of the impact in the context of the baseline position. More detail on the proposed approach to defining magnitude of impact is set out below.

## Estimated construction and operation and maintenance costs

4.1.9 Construction and operations phase expenditure incurred by Rampion 2 is the key driver of economic impacts generated by the Proposed Development. At this stage, detailed cost estimates are not available. Given this, the approach taken is to estimate the development (DEVEX) construction (CAPEX) and operating



(OPEX) costs on the basis of the most robust and up to date industry data which is publicly available. Furthermore, the assessment generates assumptions on the amount of supply chain expenditure that is captured nationally (for instance, within the UK) as defined by BVG Associates (2015) in a study for the Department for Energy and Climate Change (DECC), RenewableUK and TCE.

The costings are estimated assuming a maximum generation capacity of up to 1,200 megawatts (MW). Furthermore, the project's assumed 30-year operational lifespan is used to estimate the operational costs. **Appendix 17.2: Socio-economics cost and sourcing report, Volume 4** of the ES (Document Reference: 6.4.17.2) presents more detail on the assumptions used to derive the estimates estimated construction and operation and maintenance costs.

## Modelling economic impacts

4.1.10 The method used to quantify the impacts of Rampion 2 is set out below. Firstly, the process of development to operation and maintenance the wind farm is broken down into individual inputs.

- The DEVEX and CAPEX spending phases can be broken down into the following stages:
  - ▶ **development and consent** – this captures all survey work and studies required to obtain consent, from environmental surveys and seabed surveys to human impact studies and design studies;
  - ▶ **manufacture of components** – this includes all infrastructure, namely the WTG (broken down into individual components - including the nacelle, rotor and tower), and balance of plant (which includes the remaining segments of the wind farm excluding WTGs, such as foundations, cables and substations); and
  - ▶ **construction, installation and commissioning.**
- **OPEX supply chain spend** – this includes costs associated with the maintenance of equipment and spare parts, other operational services (including offices, admin and transportation) and other costs (business rates, etc.) related to operating and maintaining the wind farm once it becomes operational; and
- **OPEX direct employment** – the type of jobs which would be expected to be required to operate a wind farm.

4.1.11 Using the sourcing assumptions set out above, the GVA and employment impacts are quantified using our in-house economic impact model which captures the multiplier effects of local expenditure, and identifies the direct, indirect and induced benefits created at the local Sussex and national levels.

## Tourism economy

4.1.12 The assessment against the receptors is conducted through:

- consideration of the findings of published research assessing the impact of both onshore and offshore wind farms on visitors and visitor economies in the

UK. This includes both the WTGs and towers, as well as the transmission and grid infrastructure. We are not aware of any empirical ex-post evidence for existing wind farms off the coast of Sussex;

- examination of the characteristics of the tourism sector in the defined study areas, including the main visitor centres, types of visiting activity, and types of visitors (subject to the availability of information); and
- assessment of the scale, location and nature of the proposed offshore and onshore infrastructure and proposed construction methods in relation to the visitor centres and facilities.

## Recreation activity

4.1.13 The assessment of potential impact on receptors is conducted through:

- consideration of the strategic importance of individual recreation resources, with reference to published plans, policies and strategies;
- examination of the characteristics of the resources and their users, and analysis of the dependency of users on a particular resource; and
- review of the expected scale, construction methods and timetable for onshore and offshore infrastructure in relation to particular resources.

## 4.2 Assigning significance

4.2.1 The socio-economics, tourism and recreation assessment assigns significance as per the approach outlined within the Scoping Report (RED, 2020) drawing upon both the sensitivity of the receptor and the magnitude of impact.

**Table 4-1 Matrix used to determine scale of effect**

		Magnitude of Impact			
		Major	Moderate	Minor	Negligible
Sensitivity of Receptor	Very High	Major	Major	Moderate//Major	Negligible
	High	Major	Moderate/Major	Minor/Moderate	Negligible
	Medium	Moderate/Major	Moderate	Minor	Negligible
	Low	Minor/Moderate	Minor	Negligible	Negligible

4.2.2 The sensitivity of each receptor will be evaluated as either very high, high, medium or low based on the baseline position and its performance against benchmark areas, together with consideration of the importance of the receptor in policy terms. **Table 4-2** and **Table 4-3** below provide more detail on the approach that will be adopted in defining receptor sensitivity. For recreation, the benchmarks set draw upon guidance set out by the Institute of Public Rights of Way and Access Management (IPROW, 2020).

**Table 4-2 Sensitivity of receptor (socio-economics)**

Sensitivity	Definition
<b>Very High</b>	Receptor is of very high sensitivity where it is identified as a policy priority and there is evidence of major socio-economic challenges or opportunities for the receptor within the study area.
<b>High</b>	Receptor is of high sensitivity where it is identified as a policy priority (as a result of economic potential and/ or need). There is evidence of socio-economic challenges and/ or opportunities for the receptor within the study area.
<b>Medium</b>	Receptor is of medium sensitivity where it is not identified as a policy priority (as a result of economic potential and/ or need). There is however evidence of considerable socio-economic challenges and/ or opportunities for the receptor within the study area.
<b>Low</b>	Receptor is of low sensitivity where it is not identified as a policy priority (as a result of economic potential and/ or need). There is evidence that the receptor is resilient within the study area.

**Table 4-3 Sensitivity of receptor (recreation)**

<b>Sensitivity</b>	<b>Definition</b>
<b>Very High</b>	Effects could be felt by users of a type that are very high sensitivity either because they are identified as having a high priority in policy (for example, mobility-impaired users) and/ or are especially dependent on the recreation resources which the area has to offer (especially if there are no alternative resources available regionally). An example would be walkers or cyclists that have set out to use a particular route (for example, a National Trail or National Cycle Network route).
<b>High</b>	Effects could be felt by users of a type that are of high sensitivity either because they are identified as having a medium priority in policy and/ or are largely dependent on the recreation or access resources which the area has to offer and have few alternative resources available locally. An example would be horse-riders or off-road cyclists in an area with a limited bridleway network.
<b>Medium</b>	Effects could be felt by users of a type that are of medium sensitivity either because they are identified as low priority in policy and/ or are not particularly dependent on the specific recreational resources which the area has to offer and have some alternative resources available locally. An example would include casual walkers or cyclists not intent upon using a specific promoted route, and who have access to a number of alternative routes available to them.
<b>Low</b>	Low effects could be felt by those given no specific mention in policy, or by casual and/or local users with many alternative recreational resources available to them. An example would include dog-walkers in a locality that is well-supplied with public rights of way or accessible open space.

- 4.2.3 The magnitude of impact to the receptor will be determined by considering the estimated deviation from baseline conditions once measures aimed at mitigating any adverse impacts are taken into consideration. The criteria used for the assessment of magnitude are evaluated as either high, medium, low or negligible, and are set out in more detail below.

**Table 4-4 Criteria for assessing magnitude of impact**

Phase	Baseline Measure	Negligible	Minor	Moderate	Major
<b>GVA impacts</b>					
<b>Construction</b>	Direct = relevant sectors Indirect = wider economy	<0.1 percent	0.1 to 0.5 percent	0.5 to 1 percent	>1 percent
<b>Operation and maintenance</b>	Direct = electricity generating sector Indirect = wider economy	<0.1 percent	0.1 to 0.5 percent	0.5 to 1 percent	>1 percent
<b>Decommissioning</b>	Relevant sectors and wider economy	Qualitative approach. In general, decommissioning activities are of a similar nature to, but no worse than the impacts identified during the construction phase.			
<b>Employment impacts</b>					
<b>Construction</b>	Direct = relevant sectors Indirect = wider economy	<0.5 percent	0.5 to 1 percent	1 to 2 percent	>2 percent
<b>Operation and maintenance</b>	Direct = electricity generating sector Indirect = wider economy	<0.5 percent	0.5 to 1 percent	1 to 2 percent	>2 percent
<b>Decommissioning</b>	Relevant sectors and wider economy	Qualitative approach. In general, decommissioning activities are of a similar nature to, but no worse than the impacts identified during the construction phase.			
<b>Tourism Economy</b>					
<b>Construction, operation and maintenance, and decommissioning</b>	Tourism economy	Qualitative approach based on review of research evidence.			

4.2.4 For the assessment of the magnitude of impact on outdoor recreation, the assessment follows the guidance set out by the IPROW (2020).

**Table 4-5 Criteria for assessing magnitude of impact (recreation)**

<b>Magnitude of Impact</b>	<b>Definition</b>
<b>Major</b>	Proposals would cause a substantial change (for instance, greater than 30 percent) to existing patterns and levels of use of recreational resources, either permanently or for a significant period of time (for instance, several months to permanent) and only poor-quality alternatives are available. An example would include a strategically important route closed for several months during peak season, and the only alternative provision is alongside a busy road with restricted accessibility.
<b>Moderate</b>	Proposals would cause a modest change (for instance, between 10 percent and 30 percent) to existing patterns and levels of use, of recreation resources, or a more substantial change for a limited period (of a few weeks). An example would include a temporary reduction in levels of use and displacement to alternative resources, particularly amongst users for whom the resource is only marginally preferable to others available to them.
<b>Minor</b>	Proposals would cause a slight (for instance, of under 10 percent) or short-term (for instance, less than one month) change to existing patterns and levels of use of recreation resources, with a slight reduction in overall numbers and a low level of displacement.
<b>Negligible</b>	No discernible changes in levels and/ or patterns of use.

4.2.5 As identified in **Table 4-1** above, any receptors with a significance level of moderate and/or major will be defined as being significant in EIA terms.

## 5. Glossary of terms and abbreviations

**Table 5-1 Glossary of terms and abbreviations**

<b>Term (acronym)</b>	<b>Definition</b>
<b>ABS</b>	Annual Business Survey
<b>Baseline</b>	Refers to existing conditions as represented by latest available survey and other data which is used as a benchmark for making comparisons to assess the impact of development.
<b>Baseline conditions</b>	The environment as it appears (or would appear) immediately prior to the implementation of the Proposed Development together with any known or foreseeable future changes that will take place before completion of the Proposed Development.
<b>CAPEX</b>	Construction Expense / Expenditure
<b>Construction effects</b>	Used to describe both temporary effects that arise during the construction phases as well as permanent existence effects that arise from the physical existence of development (for example new buildings).
<b>DCO Application</b>	An application for consent to undertake a Nationally Significant Infrastructure Project made to the Planning Inspectorate who will consider the application and make a recommendation to the Secretary of State, who will decide on whether development consent should be granted for the Proposed Development.
<b>DCO Assessment Boundary</b>	The DCO Assessment Boundary combines the search areas for the offshore and onshore infrastructure associated with the Proposed Development. It is defined as the area within which the Proposed Development and associated infrastructure will be located, including the temporary and permanent construction and operational work areas.
<b>Decommissioning</b>	The period during which a development and its associated processes are removed from active operation.
<b>DECC</b>	Department for Energy and Climate Change
<b>Development Consent Order (DCO)</b>	This is the means of obtaining permission for developments categorised as Nationally Significant Infrastructure Projects, under the Planning Act 2008.

<b>Term (acronym)</b>	<b>Definition</b>
<b>DEVEX</b>	Development Expense / Expenditure
<b>Direct employment and gross value added</b>	Employment and gross value added which is associated with the first round of capital expenditure, for instance, Rampion 2's spend with prime contractors within each impact area of the study.
<b>Embedded environmental measures</b>	Equate to 'primary environmental measures' as defined by Institute of Environmental Management and Assessment (2016). They are measures to avoid or reduce environmental effects that are directly incorporated into the preferred masterplan for the Proposed Development.
<b>Environmental Impact Assessment (EIA)</b>	The process of evaluating the likely significant environmental effects of a proposed project or development over and above the existing circumstances (or 'baseline').
<b>Environmental measures</b>	Measures which are proposed to prevent, reduce and where possible offset any significant adverse effects (or to avoid, reduce and if possible, remedy identified effects).
<b>Environmental Statement (ES)</b>	The written output presenting the full findings of the Environmental Impact Assessment.
<b>Evidence Plan Process (EPP)</b>	A voluntary consultation process with specialist stakeholders to agree the approach and the information required to support the EIA and HRA for certain aspects.
<b>Full-time equivalent (FTE)</b>	A unit for measuring employment which indicates the workload which indicates the workload associated with each post. One FTE is the equivalent of a full-time post, whilst an FTE of 0.5 suggests half-time.
<b>Future baseline</b>	Refers to the situation in future years without the Proposed Development.
<b>Gross value added (GVA)</b>	The measure of the value of goods and services produced in an area, industry or sector of an economy. At the level of a firm, it is broadly equivalent to employment costs plus a measure of profit.
<b>Impact</b>	The changes resulting from an action.
<b>Indirect effects</b>	Effects that result indirectly from the Proposed Development as a consequence of the direct effects, often occurring away from the site, or as a result of a sequence of interrelationships or a complex pathway.



Term (acronym)	Definition
	<p>They may be separated by distance or in time from the source of the effects.</p> <p>Often used to describe effects on landscape character that are not directly impacted by the Proposed Development such as effects on perceptual characteristics and qualities of the landscape.</p>
<b>Indirect employment and gross value added</b>	Employment and gross value added which is associated with the suppliers of companies that supply goods and services as part of the supply chain of the proposed Rampion 2.
<b>IPROW</b>	Institute of Public Rights of Way and Access Management
<b>Likely Significant Effects</b>	It is a requirement of Environmental Impact Assessment Regulations to determine the likely significant effects of the Proposed Development on the environment which should relate to the level of an effect and the type of effect.
<b>Local Enterprise Partnership (LEP)</b>	Voluntary partnerships between local authorities and businesses set up in 2011, by the Department for Business, Innovation and skills to help determine local economic priorities and lead economic growth and job creation within the local area.
<b>m</b>	Metre
<b>MAGIC</b>	Multi-agency Geographic Information for the Countryside
<b>Magnitude (of change)</b>	A term that combines judgements about the size and scale of the effect, the extent of the area over which it occurs, whether it is reversible or irreversible and whether it is short term or long term in duration'. Also known as the 'degree' or 'nature' of change.
<b>MW</b>	Megawatt
<b>Nationally Significant Infrastructure Project (NSIP)</b>	Nationally Significant Infrastructure Projects are major infrastructure developments in England and Wales which are consented by DCO. These include proposals for renewable energy projects with an installed capacity greater than 100MW.
<b>ONS</b>	Office for National Statistics
<b>OPEX</b>	Operating Expense / Expenditure

Term (acronym)	Definition
<b>OS</b>	Ordnance Survey
<b>Planning Inspectorate (PINS)</b>	The Planning Inspectorate deals with planning appeals, national infrastructure planning applications, examinations of local plans and other planning-related and specialist casework in England and Wales.
<b>Proposed Development</b>	The development that is subject to the application for development consent, as described in <a href="#">Chapter 4: The Proposed Development, Volume 2</a> of the ES (Document Reference: 6.2.4).
<b>PRoW</b>	Public Rights of Way
<b>Receptor</b>	These are as defined in Regulation 5(2) of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 and include population and human health, biodiversity, land, soil, water, air, climate, material assets, cultural heritage and landscape that may be at risk from exposure to pollutants which could potentially arise as a result of the Proposed Development.
<b>RED</b>	Rampion Extension Development Limited
<b>Scoping Opinion</b>	A Scoping Opinion is adopted by the Secretary of State for a Proposed Development.
<b>Scoping Report</b>	A report that presents the findings of an initial stage in the Environmental Impact Assessment process.
<b>SDNP</b>	South Downs National Park
<b>Secretary of State (SoS)</b>	The SoS of Department for Energy Security and Net Zero (DESNZ) oversees the planning system and decision making with regards to development consent for offshore wind farms. This agent works within the relevant government department relating to the application.
<b>Sensitivity</b>	A term applied to specific receptors, combining judgements of the susceptibility of the receptor to the specific type of change or development proposed and the value associated to that receptor.
<b>Significance</b>	A measure of the importance of the environmental effect, defined by criteria specific to the environmental aspect.
<b>Significant effects</b>	It is a requirement of the EIA Regulations to determine the likely significant effects of the development on the environment which should relate to the level of an effect

Term (acronym)	Definition
<b>Temporary or permanent effects</b>	and the type of effect. Where possible significant effects should be mitigated.
<b>TCE</b>	The Crown Estate
<b>UK</b>	United Kingdom
<b>WTG</b>	Wind Turbine Generators

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## 6. References

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